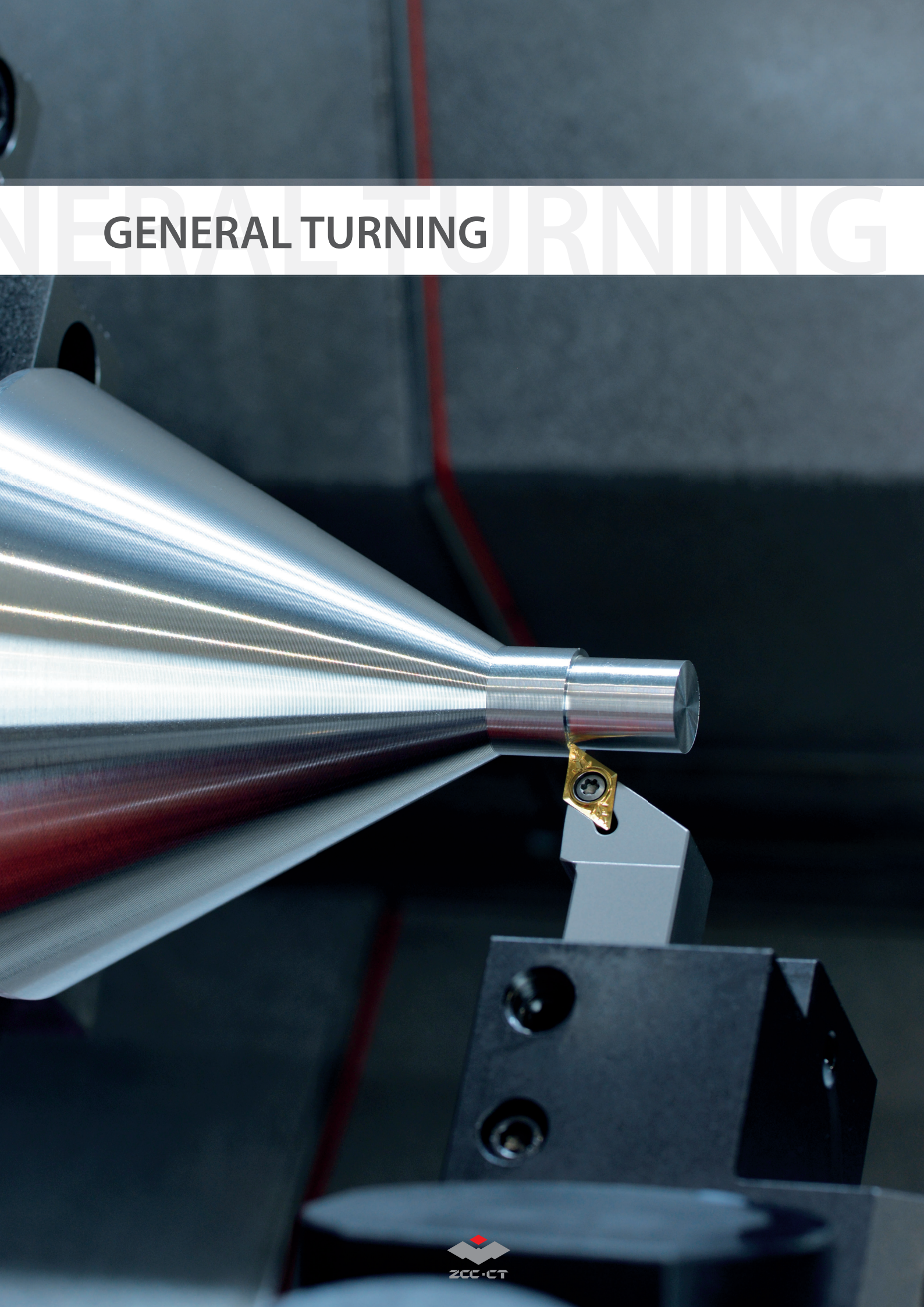
GENERAL TURNING



General turning

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Grade overview	**A38-A45**
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Carbide and cermet inserts

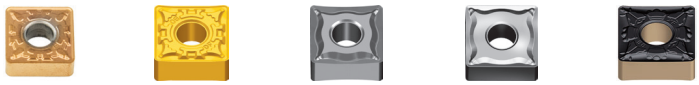
Double sided, negative – Finishing



CNEG-NF	CNMG-ADF	CNMG-DF	CNMG-EF	CNMG-SF	CNMG-XF	
12	12	09 12	09 12	09 12	12	Edge length
A57	A56	A56	A56	A57	A57	Page



DNEG-NF	DNEG-NGF	DNMG-ADF	DNMG-DF	DNMG-EF	DNMG-FM	DNMG-SF	DNMG-XF	
15	15	11 15	11 15	11 15	15	11 15	11 15	Edge length
A82	A82	A75	A76	A81	A81	A76	A77	Page



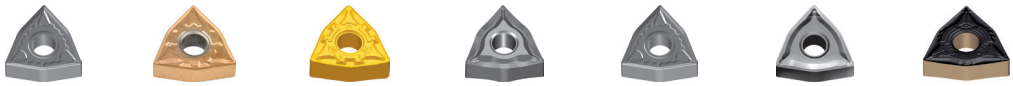
SNMG-ADF	SNMG-DF	SNMG-EF	SNMG-SF	SNMG-XF	
12	12	09 12 15	09 12	12	Edge length
A92	A92	A93	A92	A94	Page



TNMG-ADF	TNMG-DF	TNMG-EF	TNMG-FM	TNMG-SF	TNMG-XF	
16	16 22	11 16 22	16	16	16	Edge length
A110	A110	A112	A113	A111	A112	Page



VNEG-NF	VNEG-NGF	VNMG-ADF	VNMG-DF	VNMG-EF	VNMG-SF	VNMG-XF	
16	16	16	16	16	16	16	Edge length
A122	A123	A122	A122	A122	A123	A124	Page



WNEG-NF	WNMG-ADF	WNMG-DF	WNMG-EF	WNMG-NF	WNMG-SF	WNMG-XF	
08	06 08	06 08	06 08	06	06 08	06 08	Edge length
A128	A127	A127	A128	A128	A127	A129	Page

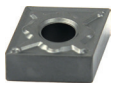
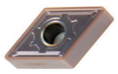
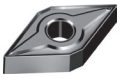
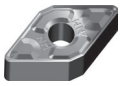
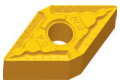
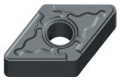
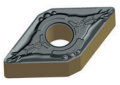
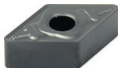
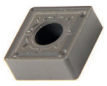
Double sided, negative, Wiper – Finishing



CNMG-WG	DNMX-WG	TNMX-WG	WNMG-WG	
12	11 15	16	08	Edge length
A55	A75	A110	A128	Page

Carbide and cermet inserts

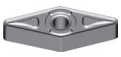
Double sided, negative – Medium machining

								
CNMG	**CNMG-DM**	**CNMG-EG**	**CNMG-EM**	**CNMG-NM**				
12	09 12 16 19	12	12 16	12				Edge length
A73	A60	A61	A61	A63				Page
								
CNMG-PM	**CNMG-TC**	**CNMG-TK**	**CNMG-XM**	**CNMG-XMH**	**CNMG-ZM**			
09 12 16 19	12 16	12	12 16 19	12 16	12 16			Edge length
A58	A63	A63	A59	A59	A62			Page
								
DNMG-DM	**DNMG-EG**	**DNMG-EM**	**DNMG-NM**					
11 15	15	11 15	15					Edge length
A78	A84	A83	A85					Page
								
DNMG-PM	**DNMG-TC**	**DNMG-TK**	**DNMG-XM**	**DNMG-XMH**	**DNMG-ZM**			
11 15	15	15	11 15	11 15	15			Edge length
A79	A85	A86	A77	A77	A80			Page
								
SNMG	**SNMG-DM**	**SNMG-EG**	**SNMG-EM**	**SNMG-NM**				
12	09 12 15 19	12	12 15	12				Edge length
A105	A96	A96	A97	A98				Page
								
SNMG-PM	**SNMG-TC**	**SNMG-TK**	**SNMG-XM**	**SNMG-ZM**				
09 12 15 19	12 15	12	12 15 19	12				Edge length
A95	A97	A97	A94	A95				Page
								
TNMG	**TNMG-DM**	**TNMG-EG**	**TNMG-EM**	**TNMG-PM**	**TNMG-TC**	**TNMG-XM**	**TNMG-ZM**	
16 22 27 33	11 16 22	16	16 22	11 16 22	16 22	16 22	16	Edge length
A120	A114	A116	A116	A114	A116	A113	A115	Page

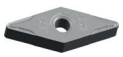
Carbide and cermet inserts

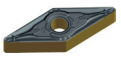
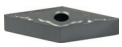
Double sided, negative – Medium machining





VNMG-DM	VNMG-EM	VNMG-NM	
16	16	16	Edge length
A125	A125	A125	Page

VNMG-PM	VNMG-SNR	VNMG-TC	VNMG-XM	VNMG-ZM	
16	16	16	16	16	Edge length
A126	A126	A126	A124	A126	Page






WNMG-DM	WNMG-EG	WNMG-EM	WNMG-NM	
06 08	08	06 08	08	Edge length
A130	A130	A130	A132	Page








WNMG-PM	WNMG-TC	WNMG-TK	WNMG-XM	WNMG-XMH	WNMG-ZM	
06 08	08	08	06 08	06 08	06 08	Edge length
A131	A132	A132	A129	A129	A131	Page



RNMG	
12	Edge length
A135	Page

Double sided, negative – Medium machining to roughing










CNMA	DNMA	SNMA	SNUN	TNMA	WNMA	PNMX-XH	ONMX-XH	
12 16 19	15	12 15 19	12 19	16 22	06 08	09	05	Edge length
A73	A88	A106	A108	A121	A133	A137	A136	Page

Double sided, negative – Roughing










CNMG-XLR	CNMG-DR	CNMG-ER	CNMG-SNR	DNMG-XLR	DNMG-DR	DNMG-ER	DNMG-SNR	
12 16 19	12 16 19 25	12 16 19	12 16 19	15	15	15	15	Edge length
A66	A64	A68	A65	A87	A86	A88	A87	Page

Carbide and cermet inserts

Double sided, negative – Roughing

					
SNMG-XLR	**SNMG-LR**	**SNMG-DR**	**SNMG-ER**	**SNMG-SNR**	
15	19	12 15 19 25	12 15 19	12 19	Edge length
A100	A100	A98	A99	A99	Page

				
TNMG-DR	**TNMG-ER**	**TNMG-XLR**	**TNMG-SNR**	
16 22 27	16 22	16	16	Edge length
A117	A118	A117	A115	Page

			
WNMG-XLR	**WNMG-DR**	**WNMG-SNR**	
08	06 08	08	Edge length
A133	A133	A131	Page

Single sided, negative – Roughing

						
CNMM	**CNMM-DR**	**CNMM-ER**	**CNMM-HDR**	**CNMM-HPR**	**CNMM-LR**	
19	12 16 19 25	25	12 16 19 25	19 25	12 16 19 25	Edge length
A70	A67	A68	A71	A72	A70	Page

					
DNMM-XLR	**DNMM-DR**	**DNMM-ER**	**DNMM-HDR**	**DNMM-LR**	
15	15	15	15	15	Edge length
A90	A89	A89	A89	A90	Page

						
SNMM	**SNMM-DR**	**SNMM-ER**	**SNMM-HDR**	**SNMM-HPR**	**SNMM-LR**	
19 25	15 19 25	15 25	12 15 19 25	19 25	12 15 19 25	Edge length
A107	A101	A101	A103	A104	A102	Page

				
TNMM	**TNMM-DR**	**TNMM-HDR**	**TNMM-LR**	
16 22	16 22 27	22 27	16	Edge length
A121	A118	A119	A118	Page

Carbide and cermet inserts

Special form – Finishing



CNMG-RF	CNMM-RF	CNMM-RH	KNUX	LNUX-RF	LNUX-RH	LNUX-RR	
19	19	19	16	19 30	19 30	19 30	Edge length
A138	A138	A138	A140	A139	A139	A139	Page

Positive – Fine-finishing



CCGT-SF	CCGT-QF	CCGT-USF	CPGT-SF	DCGT-QF	DCGT-SF	DCGT-USF	DPGT-SF	
06 09 12	06 09	06 09 12	06 09	07 11	07 11	07 11	07 11	Edge length
A141	A141	A142	A151	A152	A152	A153	A160	Page



TBGH	TCGT-SF	TPGH	TPGT-SF	
06	06 09 11	09 11	09 11	Edge length
A168	A169	A175	A176	Page



VCGT-QF	VBGT-QF	VCGT-SF	VBGT-SF	
11 16	11 16	11 16	11	Edge length
A182	A179	A182	A179	Page

Positive – Finishing



CCMT-AHF	CCMT-EF	CCMT-HF	CCMT-XF	CPMT-HF	
06 09 12	06 09 12	06 09 12	06 09	06	Edge length
A143	A144	A143	A144	A151	Page



DCMT-AHF	DCMT-EF	DCMT-HF	DCMT-XF	
07 11	07 11	07 11	07 11	Edge length
A154	A155	A155	A155	Page

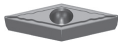
Carbide and cermet inserts

Positive – Finishing

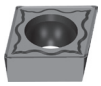
					
SCMT-AHF	**SCMT-EF**	**SCMT-HF**	**SCMT-XF**		
09	09	09	09		Edge length
A163	A163	A164	A163		Page

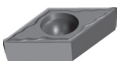
					
TCMT-AHF	**TCMT-EF**	**TCMT-HF**	**TCMT-XF**		
11 16	09 11 16	09 11 16	09 11 16		Edge length
A170	A171	A170	A170		Page

					
VBET-NF	**VBET-NGF**	**VBMT-AHF**	**VBMT-EF**	**VBMT-XF**	
16	16	16	11 16	11 16	Edge length
A178	A180	A177	A177	A177	Page

					
VCGT-HF	**VCGT-NF**	**VCMT-AHF**	**VCMT-EF**	**VCMT-XF**	
11	16	16	16	11 16	Edge length
A183	A183	A187	A187	A186	Page

Positive – Medium machining

						
CCMT-EM	**CCMT-HM**	**CCMT-XM**	**CCMW**	**CPMT-HM**	**CPGW**	
06 09 12	06 09 12	09 12	09 12	09	06	Edge length
A145	A147	A146	A148	A151	A151	Page

					
DCMT-EM	**DCMT-HM**	**DCMT-XM**	**DCMW**		
07 11 15	07 11	07 11	11		Edge length
A156	A157	A156	A158		Page

					
SCMT-EM	**SCMT-HM**	**SCMT-XM**	**SPMW**		
09 12	09 12	09 12	09 12		Edge length
A163	A164	A164	A167		Page

Carbide and cermet inserts

Positive – Medium machining



TCMT	TCMT-EM	TCMT-HM	TCMT-XM	TCMW	
22	09 11 16 22	09 11 16	16	16	Edge length
A173	A171	A172	A171	A172	Page



VBMT-EM	VBMT-HM	VBMT-XM	VCMT-EM	VCMT-XM	
11 16	16	16	16	16	Edge length
A180	A180	A180	A187	A187	Page

Positive – Roughing



CCMT-HR	CCMT-TC	DCMT-HR	RCMT · RCGT	RCMX	RCMX-PV	SCMT-HR	TCMT-HR	
06 09 12	06 09 12	11	08 10 12 16 20 25	08 10 12 16 20 25 32	32	09 12	09 11 16 22	Edge length
A148	A148	A158	A161	A162	A162	A165	A172	Page



VBMT-HR	VBMT-SNR	
16	16	Edge length
A181	A181	Page

Positive – Aluminium machining



CCGX-LC	CCGX-LH	DCGX-LC	DCGX-LH	
06 09 12	06 09 12	07 11	07 11	Edge length
A149	A150	A158	A159	Page



SCGX-LC	SCGX-LH	RCGX-LH	
09 12	09 12	08 12	Edge length
A165	A166	A161, B108, B112	Page

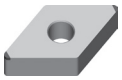
Carbide and cermet inserts

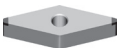
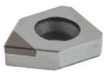
Positive – Aluminium machining

				
TCGX-LC	**TCGX-LH**	**VCGX-LC**	**VCGX-LH**	
09 11 16	09 11 16	11 16 22	11 16 22	Edge length
A174	A174	A184	A185	Page

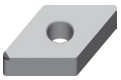
PCBN & PCD

Negative

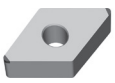
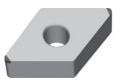
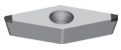
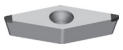
					
CNGA-2	**CNGA-2W**	**DNGA-2**	**SNGA-4**	**TNGA-3**	
12	12	15	12	16	Edge length
A190	A191	A192	A193	A194	Page

							
VNGA-2	**WNGA-3**	**ZNEX**					
16	08	04					Edge length
A195	A196	A197					Page

								
CNGN	**CNGN-M**	**RNGN**	**SNGN**	**SNGN-M**	**TNGN**	**WNGN**	**WNGN-M**	
09 12	12	09 12	12	12	11	08	08	Edge length
A205	A205	A206	A207	A207	A208	A209	A209	Page

				
CNGA	**DNGA**	**VNGA**		
12	15	16		Edge length
A210	A211	A212		Page

Positive

							
CCGW-2	**DCGW-2**	**DCGW**	**TCGW-3W**	**TCGW-3**	**VBGW-2**	**VCGW-2**	
06 09 12	07 11	11	11	11 16	11 16	11 16	Edge length
A198	A200	A201	A202	A202	A203	A204	Page

PCBN & PCD

Positive



CCGT	CCGT-1MED	CCGT-L	CCGW	CCGW-L	
06 09 12	06 09	09 12	06 12	06 12	Edge length
A213	A213	A214	A215	A216	Page



DCGT	DCGT-1MED	DCGW			
07 11	07 11	07 11			Edge length
A217	A218	A219			Page



TCGT	TCGT-1MED	TCGT-L	TCGW	TCGW-L	
11 16	11 16	09 11 16	11 16	11 16	Edge length
A220	A220	A221	A222	A223	Page



VBGT	VBGT-1MED	VBGW	VCGT	VCGT-1MED	VCGW	
11 16	16	11 16	11 16	11 16	11 16 22	Edge length
A224	A224	A225	A226	A227	A228	Page

Ceramic inserts

Negative



CNGA	CNGN	CNGX	DNGN	DNGA	DNGX	
12 16	12 16	12	15	15	15	Edge length
A232	A233	A234	A237	A235	A238	Page



RNGA	RNGN	SNGA	SNGN	SNGX	TNGA	TNGN	
12	06 09 12 15 19 25	12	09 12 15 19	12	16 22	16 22	Edge length
A239	A240	A242	A243	A245	A246	A247	Page



VNGA	WNGA						
16	08						Edge length
A248	A249						Page

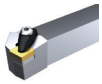
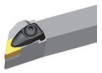
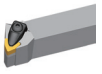
Ceramic inserts

Positive

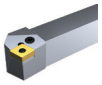
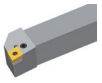
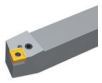
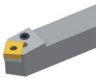
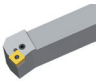
			
RCGX	**RPGN**	**TPGN**	
06 09 12 19	12	11 16	Edge length
A250	A251	A252	Page

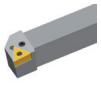
External tool holders

Holder with double clamping

								
DCKNR/L	**DCLNR/L**	**DDJNR/L**	**DSBNR/L**	**DTGNR/L**	**DVJNR/L**	**DVVNN**	**DWLNR/L**	
75°	95°	93°	75°	90°	93°	72.5°	95°	Angle
A263	A262	A264	A265	A266	A268	A267	A269	Page

Holder with knee lever clamping

								
PCBNR/L	**PCKNR/L**	**PCLNR/L**	**PDJNR/L**	**PDNNR/L**	**PSBNR/L**	**PSDNN**	**PSKNR/L**	
75°	75°	95°	93°	63°	75°	45°	75°	Angle
A270	A271	A272	A274	A275	A276	A278	A279	Page

								
PSSNR/L	**PTFNR/L**	**PTGNR/L**	**PTTNR/L**	**PWLNR/L**				
45°	91°	90°	60°	95°				Angle
A280	A281	A283	A282	A285				Page

Tool holder with knee lever clamping system (internal cooling)

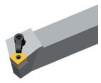
								
PCBNR/LC	**PCLNR/LC**	**PDJNR/LC**	**PSBNR/LC**	**PWLNR/LC**				
75°	95°	93°	75°	95°				Angle
A286	A287	A288	A289	A290				Page

Holder with multi clamping

								
MCBNR/L	**MCLNR/L**	**MDJNR/L**	**MDPNN**	**MRDNN**	**MRGNR/L**	**MSBNR/L**	**MSDNN**	
75°	95°	93°	62.5°	45°	90°	75°	45°	Angle
A291	A292	A294	A295	A307	A308	A296	A299	Page

External tool holders

Holder with multi clamping

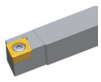


MSKNR/L	MSRNR/L	MTFNR/L	MTGNR/L	MTJNR/L	MTJNR/L-Z	MVJNR/L	MVVNN	
75°	75°	90°	90°	93°	93°	93°	72.5°	Angle
A298	A297	A303	A300	A301	A302	A305	A304	Page

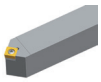


MWLNR/L								
95°								Angle
A306								Page

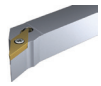
Holder with screw clamping



SCACR/L	SCLCR/L	SDACR/L	SDJCR/L	SDNCN	SRDCN	SRGCR/L	SSBCR/L	
90°	95°	90°	93°	63°	45°	90°	75°	Angle
A309	A310	A311	A312	A313	A329	A331	A320	Page



SSDCN	SSKCR/L	SSSCR/L	STACR/L	STFCR/L	STGCR/L	STTCR/L	SVABR/L	
45°	75°	45°	90°	90°	90°	60°	90°	Angle
A321	A322	A323	A324	A325	A326	A327	A315	Page

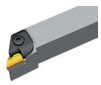


SVHBR/L	SVJBR/L	SVJCR/L	SVVBN	SVVCN	SWACR/L			
107.5°	93°	93°	90°	72.5°	90°			Angle
A317	A314	A319	A316	A318	A328			Page



SOXNR/L	SPXNR/L							
67°	67°							Angle
A332	A333							Page

Holder with top clamping



CKJNR/L	CKNNR/L							
93°	63°							Angle
A334	A335							Page

External tool holders

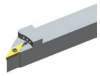
Tool holder for ceramic inserts and solid CBN inserts

								
CCLNR/L	**CDJNR/L**	**CRDNN**	**CSDNN**	**CSKNR/L**	**CSRNR/L**	**CTJNR/L**	**CTUNR/L**	
95°	93°	45°	45°	75°	75°	93°	93°	Angle
A336	A338	A342	A343	A340	A341	A337	A339	Page

								
JCLNR/L	**JDJNR/L**	**JSDNN**						
95°	93°	45°						Angle
A344	A345	A346						Page

Swiss turning

						
SCACR/L-SC	**SCLCR/L-SC**	**SDACR/L-SC**	**SDHCR/L-SC**	**SDJCR/L-SC**	**SDNCN-SC**	
90°	95°	90°	107.5°	93°	63°	Angle
A350	A351	A352	A353	A354	A355	Page

						
SVACR/L-SC	**SVJBR/L-SC**	**SVJCR/L-SC**				
90°	93°	93°				Angle
A356	A357	A358				Page

Rail applications

						
RW-PCLNR/L	**RW-PLANR/L**	**RW-PLFNR/L**				
90°	90°	90°				Angle
A364	A362	A363				Page

Boring bars

Steel boring bars with knee lever clamping –

						
A*-PCLNR/L**	**A***-PDSNR/L**	**A***-PDUNR/L**	**A***-PSKNR/L**	**A***-PTFNR/L**	**A***-PWLNR/L**	
95°	45°	93°	75°	90°	95°	Angle
A370	A372	A373	A375	A376	A378	Page

Boring bars

Steel boring bars with knee lever clamping –



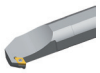





S***-PCLNR/L	S***-PDSNR/L	S***-PDUNR/L	S***-PSKNR/L	S***-PTFNR/L	S***-PWLNR/L	
95°	45°	93°	75°	90°	95°	Angle
A370	A372	A373	A375	A376	A378	Page

Steel boring bars with screw clamping –



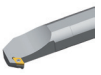



A***-SCLCR/L	A***-SDQCR/L	A***-SDUCR/L	A***-SDZCR/L	
95°	107.5°	93°	95°	Angle
A379	A381	A382	A383	Page







S***-SCFCR/L	S***-SCLCR/L	S***-SCLPR/L	S***-SDQCR/L	S***-SDQPR/L	S***-SDUCR/L	S***-SDUPR/L	S***-SDZCR/L	
90°	95°	95°	107.5°	107.5°	93°	93°	95°	Angle
A398	A379	A394	A381	A395	A382	A396	A383	Page






A***-SSKCR/L	A***-STFCR/L	A***-SVQBR/L	A***-SVUBR/L	
75°	90°	107.5°	93°	Angle
A384	A386	A391	A392	Page










S***-SSKCR/L	S***-STFCR/L	S***-STUPR/L	S***-SVJCR/L	S***-SVQBR/L	S***-SVQCR/L	S***-SVUBR/L	S***-SVUCR/L	
75°	90°	93°	93°	107.5°	107.5°	93°	93°	Angle
A384	A386	A397	A388	A391	A389	A392	A390	Page

Solid carbide boring bars with screw clamping –








C***-SCLCR/L	C***-SCLPR/L	C***-SDQPR/L	C***-SDUCR/L	C***-SDUPR/L	C***-STUPR/L	
95°	95°	107.5°	93°	93°	93°	Angle
A401	A400	A402	A405	A404	A406	Page





C***-SVQCR/L	C***-SVUCR/L	C***-SZLNR/L	
93°	93°	95°	Angle
A409	A410	A411	Page

Boring bars

Solid carbide boring bars with screw clamping –



E*-SCLCR/L

95°

A401



E*-SCLPR/L

95°

A400



E*-SDQCR/L

107.5°

A403



E*-SDUCR/L

93°

A405



E*-STFCR/L

90°

A407



E*-STFPR/L

90°

A408

Angle

Page



E*-SVUCR/L

93°

A410

Angle

Page

Negative inserts

Finishing

XF P





Double-sided chip breaker for finishing operations in the P application field. Superb chip control with low cutting forces.

RF P

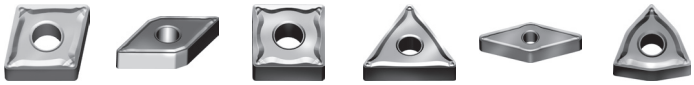




Double-sided chip breaker for applications from finishing to medium machining.

SF P M K





Double sided chip breaker in combination with cermet grades. Geometry with high sharpness for improved chip control and great surface quality. Ideal for machining with small cutting depths and feed rates.

DF P K





Double sided chip breaker with good chip control. Suitable for finishing and medium machining of steel and cast iron.

ADF P M





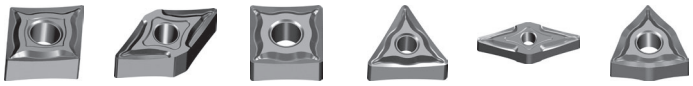
Ground, double sided chip breaker with good chip control. Wide range of application due to excellent balance of sharpness and cutting edge stability.

Negative inserts

Finishing

EF M S

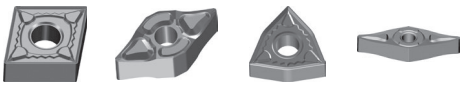




Double sided chip breaker with sharp cutting edge and large rake angle for finishing of stainless steel.

NF S M

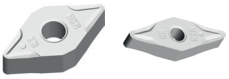




Double sided chip breaker with ground cutting edge and large rake angle for finishing. E-tolerance for high repeatability.

NGF S M





Double sided chip breaker with ground cutting edge and large rake angle for finishing. E-tolerance for high repeatability.

Wiper

WG P M K





Double sided chip breaker with wiper geometry. Allows to double the feed rate and improves the surface quality.

Medium machining

XM P





Double-sided chip breaker for medium machining operations in the P application field. Superb chip control at high and low feed rates.

Negative inserts

Medium machining

XMH P K





Double-sided chip breaker for medium machining operations in the P application field. Superb chip control with low cutting forces thanks to positive cutting edge design.

DM P K





Double sided chip breaker for medium machining. Wide range of application due to excellent balance of sharpness and cutting edge stability.

ZM P





Double-sided chip breaker for semi-finishing applications. Suitable for a wide range of applications thanks to stable cutting edge and large rake angle. Well suited for machining steel.

PM P K





Double sided chip breaker for medium machining. Wide range of application in steel and cast iron.

TC K P





Double sided chip breaker with surrounding cutting edge. Process reliable machining due to highest cutting edge stability.

Negative inserts

Medium machining

TK K





Double-sided chip breaker for medium machining operations in the K application field. Optimum combination of impact resistance and cutting edge sharpness.

NM S M





Double sided chip breaker with ground cutting edge and large rake angle for medium machining of heat-resistant materials.

EM M S

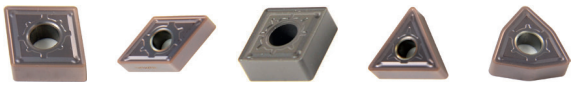




Double sided chip breaker with sharp cutting edge and large rake angle. Process reliable medium machining of stainless steel.

EG M S





Double sided chip breaker with ground cutting edge and large rake angle. Wide range of application for medium machining of stainless steel.

Basic P K





Double sided chip breaker with surrounding cutting edge for universal machining of steel and cast iron.

Negative inserts

Medium machining

XH P M





Double-sided chip breaker for applications ranging from finishing to semi-finishing in the P and M application field. Superb chip control at high feed rates.

Roughing

DR double sided P K





Double sided chip breaker with positive rake angle and stable cutting edge for light to medium roughing of steel and cast iron.

DR single sided P K





Single sided chipbreaker with positive rake angle and stable cutting edge for light to medium roughing of steel and cast iron.

XLR double sided P K M





Double-sided chip breaker for applications ranging from semi-finishing to roughing in the P application field. Superb chip control with low cutting forces thanks to positive cutting edge design.

XLR single sided P K M





Single-sided chip breaker for applications ranging from semi-finishing to roughing in the P application field. Superb chip control with low cutting forces thanks to positive cutting edge design.

Negative inserts

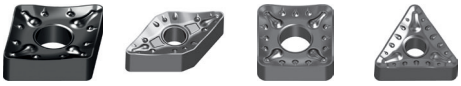
Roughing

RH P




Double-sided chip breaker for applications from medium machining to roughing.

LR P M

Single sided chip breaker with curved cutting edge and unique bumpy geometry. Low cutting pressure for process reliable machining. Light roughing of steel and stainless steel.

ER double sided M S




Double sided chip breaker with large rake angle for low cutting forces. Suitable for roughing of stainless steel.

ER single sided M S




Single sided chip breaker with large rake angle for low cutting forces. Suitable for roughing of stainless steel.

HDR P K




Single sided chip breaker with high cutting edge stability and deformation resistance. Excellent for roughing with high cutting depths in steel and stainless steel.

Negative inserts

Roughing

HPR P K





Single sided chip breaker with high cutting edge stability and large chip space. Excellent for heavy roughing in steel and cast iron.

Flat K

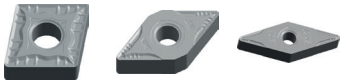




Double sided insert without chip breaker. Stable cutting edge design, due to missing microgeometry. Excellent for roughing in cast iron.

SNR M S N





Double sided chip breaker for roughing. Wide range of application due to excellent balance of sharpness and cutting edge stability.

Aluminium machining

LH N S





Single sided chipbreaker for machining of cast aluminium alloys. Sharp cutting edge with positive rake angle. G-tolerance for high repeatability.

PCBN & PCD inserts

Flat N H





With brazed CBN or PCD cutting edge. For machining of hardened steel (CBN) or non-ferrous metals (PCD).

Negative inserts

PCBN & PCD inserts

Flat H K



Solid CBN insert for machining of steel and cast iron.

Ceramic inserts

Flat K H



Ceramic inserts for machining of low hardened steel and cast iron.

Positive inserts

Fine-finishing

USF P M



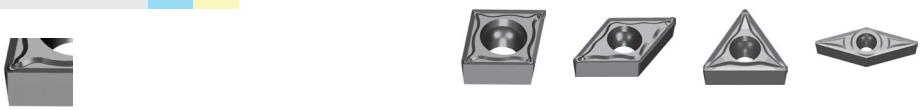
Single sided chip breaker for fine finishing. Sharp cutting edge with large hollow flute, excellently suitable for machining small work pieces. G-tolerance for high repeatability.

R/L P M



Single sided chip breaker for fine finishing. Excellent for high surface quality. G-tolerance for high repeatability.

SF P M



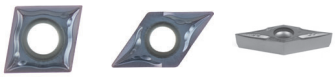
Single sided chip breaker in combination with cermet grades. Geometry with high sharpness for improved chip control and great surface quality. Ideal for machining with small cutting depths and feed rates.

Positive inserts

Finishing

QF P M S





Single-sided chip breaker to deliver optimum chip control. Suitable for applications ranging from finishing to semi-finishing of steel and stainless steel.

XF P





Single-sided chip breaker for finishing operations in the P application field. Superb chip control with low cutting forces.

HF P K





Single sided chip breaker with good chip control. Suitable for finishing to medium machining of steel and cast iron.

AHF M S P





Ground, single sided chip breaker with good chip control. Wide range of application due to excellent balance of sharpness and cutting edge stability.

EF M S





Single sided chip breaker with sharp cutting edge and large rake angle for finishing of stainless steel.

Positive inserts

Finishing

NF M S





Single sided chip breaker with ground cutting edge and large rake angle for finishing. E-tolerance for high repeatability.

NGF M S





Single sided chip breaker with ground cutting edge and large rake angle for finishing. E-tolerance for high repeatability.

Medium machining

XM P





Single-sided chip breaker for medium machining operations in the P application field. Superb chip control at high and low feed rates.

TC K P





Single sided chip breaker with encircling cutting edge. Process reliable machining due to highest cutting edge stability.

HM P K





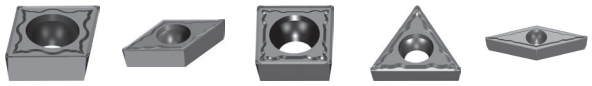
Single sided chip breaker for medium machining. Wide range of application due to excellent balance of sharpness and cutting edge stability.

Positive inserts

Medium machining

EM M S





Single sided chip breaker with sharp cutting edge and large rake angle. Process reliable medium machining of stainless steel.

Basic P K





Single sided chip breaker with encircling cutting edge for universal machining of steel and cast iron.

Roughing

Flat K





Single sided insert without chip breaker. Stable cutting edge design due to missing microgeometry. Excellent for roughing in cast iron.

HR P K





Single sided chip breaker with positive rake angle and stable cutting edge for light to medium roughing of steel and cast iron.

SNR S M





Single sided chip breaker for roughing. Wide range of application due to excellent balance of sharpness and cutting edge stability.

Positive inserts

Roughing

Basic P K





Single sided chip breaker with encircling cutting edge for universal machining of steel and cast iron.

Aluminium machining

LC N





Single sided chip breaker with excellent cutting edge design. Sharp cutting edge with positive rake angle. G-tolerance for high repeatability.

LH N





Single sided chipbreaker for machining of cast aluminium alloys. Sharp cutting edge with positive rake angle. G-tolerance for high repeatability.

PCBN & PCD inserts

Flat N H

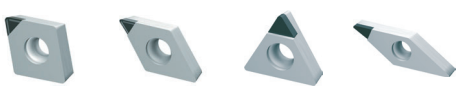




With brazed CBN or PCD cutting edge. For machining of hardened steel (CBN) or non-ferrous metals (PCD).

MED N





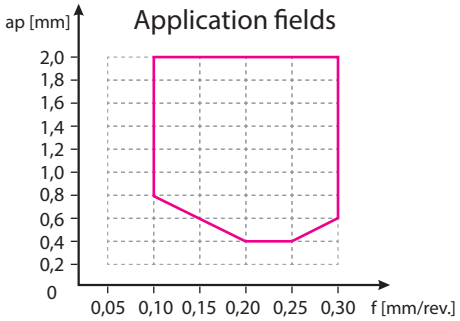
Laser-cut chip breaker for finishing and medium machining operations.

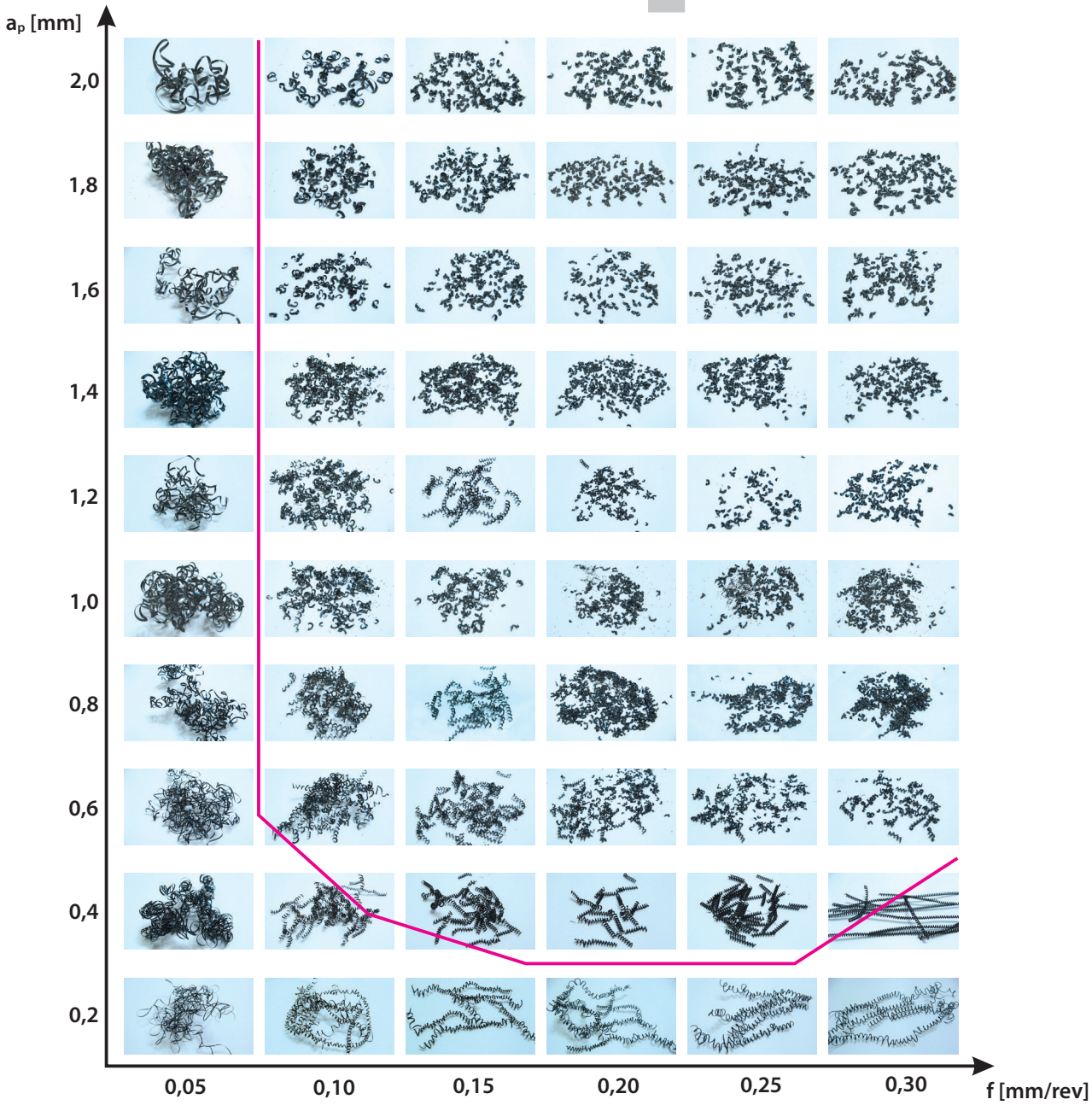
Notes

General turning

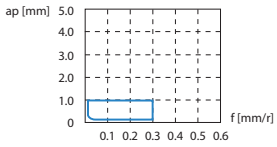
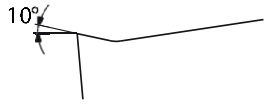
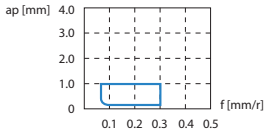
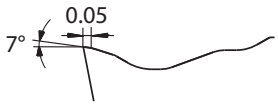
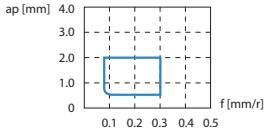
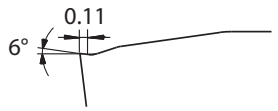
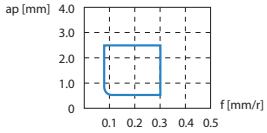
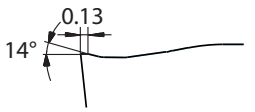
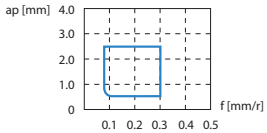
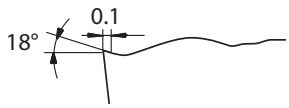
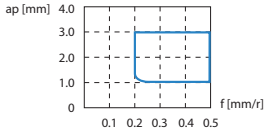
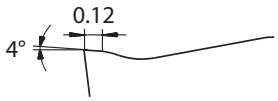
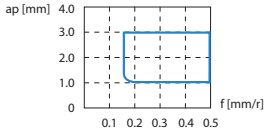
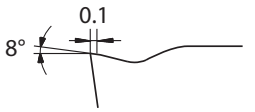
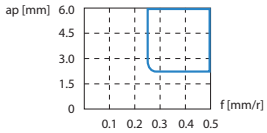
Application fields of chip breakers

Example
Insert: CNMG120408-DF
Holder: PCLNL2525M12
Material: C45 steel
V_C : 200 m/min

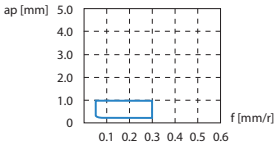
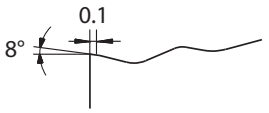
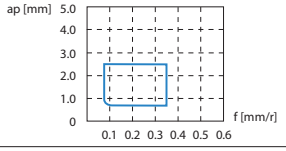
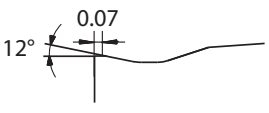
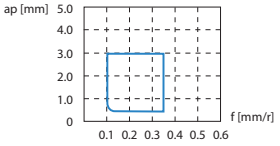
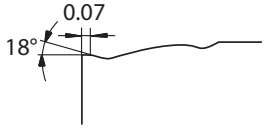
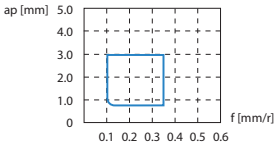
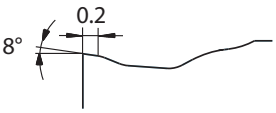
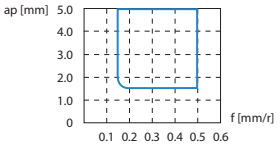
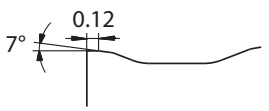
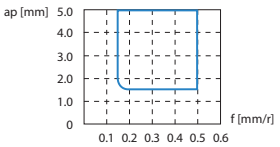
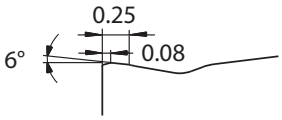
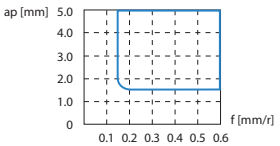
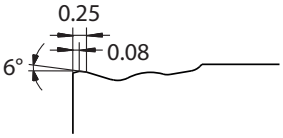
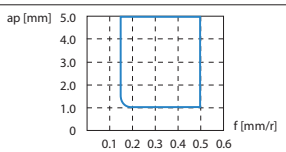
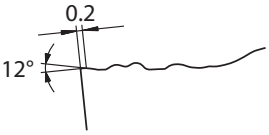
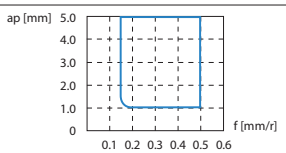
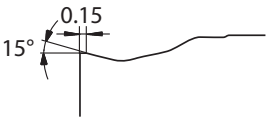
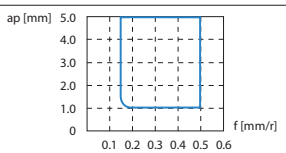
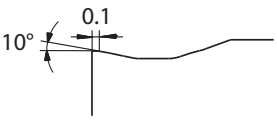
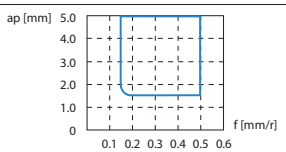
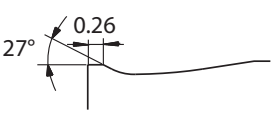




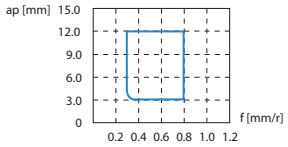
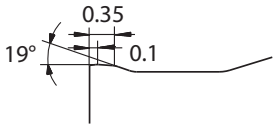
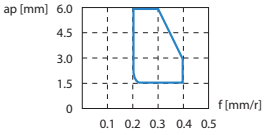
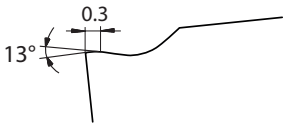
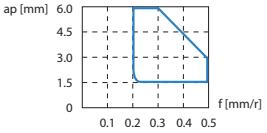
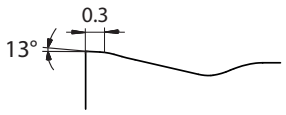
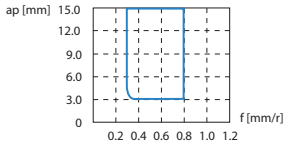
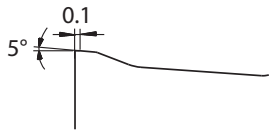
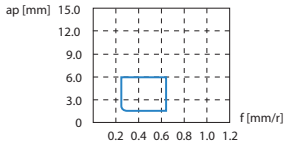
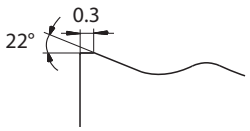
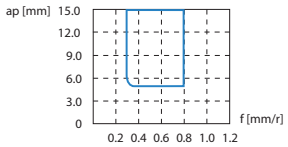
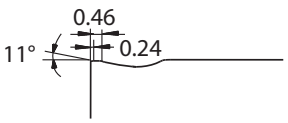
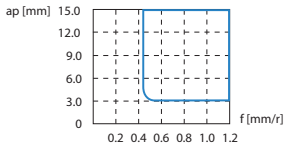
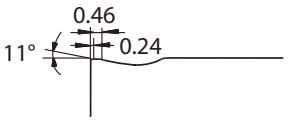
P Positive inserts

Chip breaker	Application		Application fields	Cutting edge design
QF	Fine-finishing			
SF	Fine-finishing			
HF	Finishing			
AHF	Finishing			
XF	Finishing			
HM	Medium machining			
XM	Medium machining			
HR	Roughing			

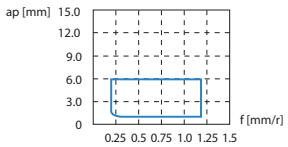
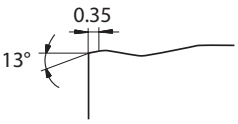
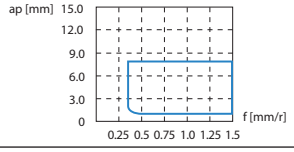
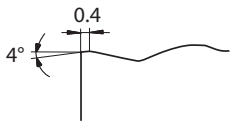
P Negative inserts

Chip breaker	Application		Application fields	Cutting edge design
SF	Fine-finishing			
DF	Finishing			
XF	Finishing			
ADF	Finishing			
DM	Medium machining			
PM	Medium machining			
ZM	Medium machining			
XMH	Medium machining			
XM	Medium machining			
WG	Medium machining			
Basic	Medium machining			

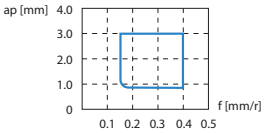
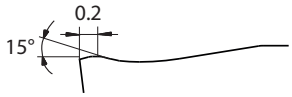
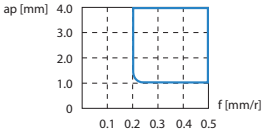
P Negative inserts

Chip breaker	Application		Application fields	Cutting edge design
DR	Roughing			
XLR	Roughing			
XLR (single sided)	Roughing			
DR (single sided)	Roughing			
LR (single sided)	Roughing			
HDR (single sided)	Roughing			
HPR (single sided)	Roughing			

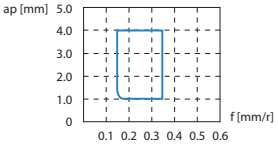
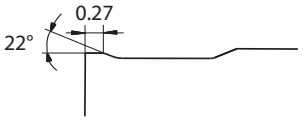
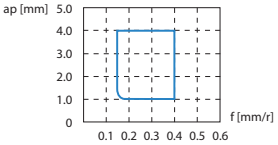
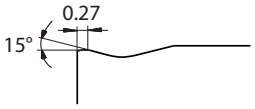
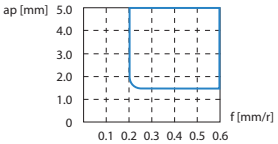
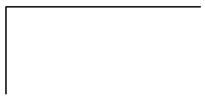
P Negative inserts (rail technology)

Chip breaker	Application		Application fields	Cutting edge design
RF	Finishing			
RH	Roughing			

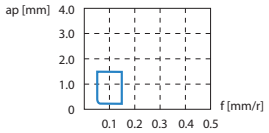
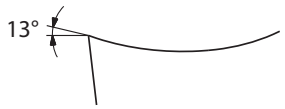
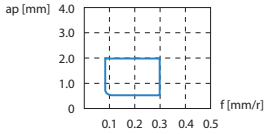
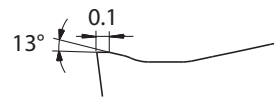
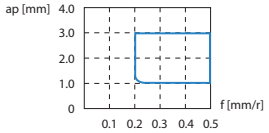
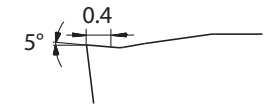
K Positive inserts

Chip breaker	Application		Application fields	Cutting edge design
TC	Medium machining			
Flat	Roughing			

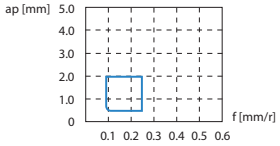
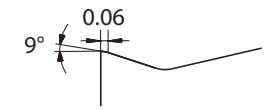
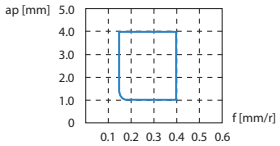
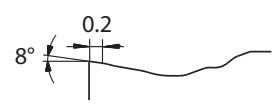
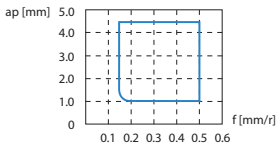
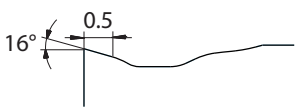
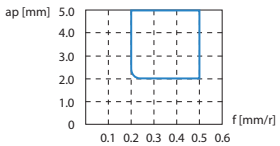
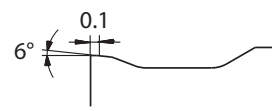
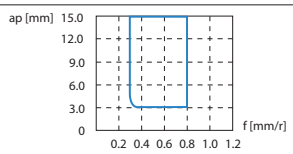
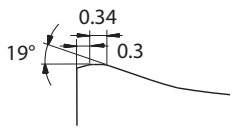
K Negative inserts

Chip breaker	Application		Application fields	Cutting edge design
TK	Medium machining			
TC	Medium machining			
Flat	Roughing			

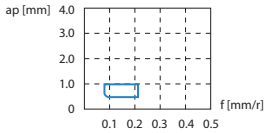
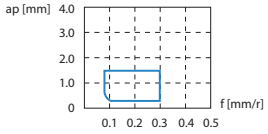
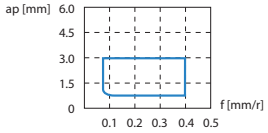
M Positive inserts

Chip breaker	Application		Application fields	Cutting edge design
USF	Fine-finishing	●		
EF	Finishing	● ✱		
EM	Medium machining	● ✱ ✱		

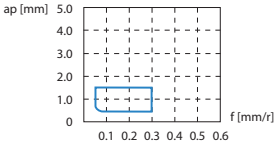
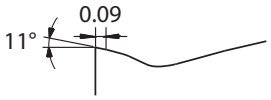
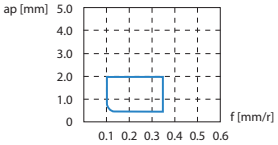
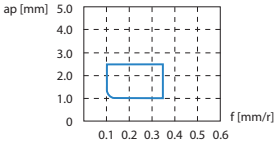
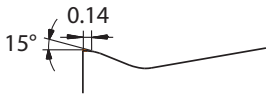
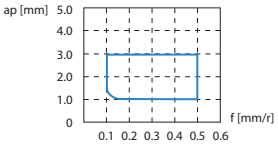
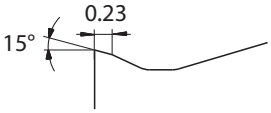
M Negative inserts

Chip breaker	Application		Application fields	Cutting edge design
EF	Finishing	●		
EM	Medium machining	● ✱		
EG	Medium machining	● ✱		
ER	Roughing	● ✱ ✱		
ER (single sided)	Roughing	● ✱ ✱		

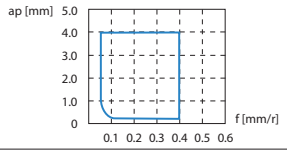
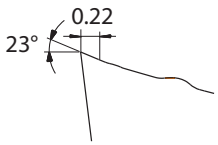
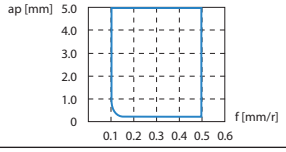
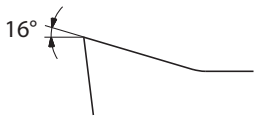
S Positive inserts

Chip breaker	Application		Application fields	Cutting edge design
NF	Finishing			
NGF	Finishing			
SNR	Roughing			

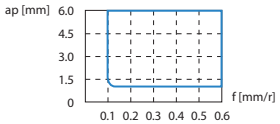
S Negative inserts

Chip breaker	Application		Application fields	Cutting edge design
NF	Finishing			
NGF	Medium machining			
NM	Medium machining			
SNR	Roughing			

N Positive inserts

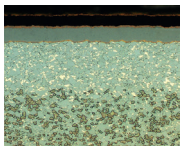
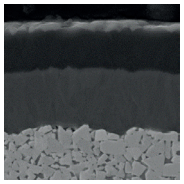
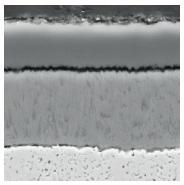
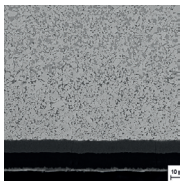
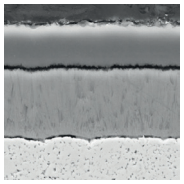
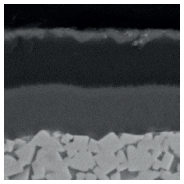
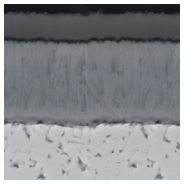
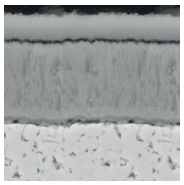
Chip breaker	Application		Application fields	Cutting edge design
LC	Finishing	●		
LH	Finishing	●		

N Positive inserts

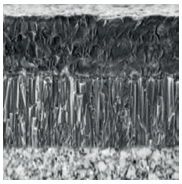
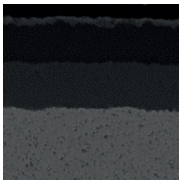
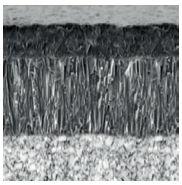
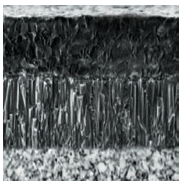
Chip breaker	Application		Application fields	Cutting edge design
LH	Medium machining	●		

Notes

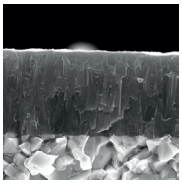
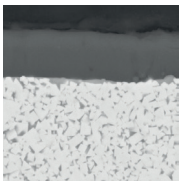
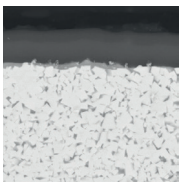
Coated cemented carbide CVD

Grade	ISO	Micro structure	Grade description
YBC103	P05 – P15		P10 grade with excellent wear resistance at higher cutting speeds. Latest sinter processes and CVD coating technologies enable a wide range of applications in the P material range.
YB6315	P05 – P20		CVD coated P10–P20 carbide grade for finishing to medium operation of steel, casting steel and high chrome material. Outstanding performance under high cutting speed and temperature with excellent wear resistance.
YBC152	P10 – P20		CVD coated P10–P20 carbide grade for finishing to medium operation of steel and casting steel. Outstanding performance under higher cutting speed and temperature with excellent wear resistance.
YBC203	P15 – P25		P20 grade with exceptional wear resistance and toughness for reliable machining operations. Ultra-modern sintering technique and CVD coating technologies allow for a wide range of applications in the P material range.
YBC252	P20 - P35		CVD coated P20–P35 carbide grade for medium operation to roughing of steel and casting steel. Optimal performance of wear resistance and toughness for a wide application field.
YBC352	P20 - P40		CVD coated P20–P40 carbide grade for roughing operation of steel and casting steel. Optimal performance of wear resistance and toughness for a wide application field.
YBM153	M10 - M25		CVD coated M10–M25 carbide grade for finishing to medium application in stainless steel. High wear resistance and capability against plastic deformation at higher cutting speed.
YBM253	M15 - M35		CVD coated M15–M35 carbide grade for medium to roughing operation in stainless steel with wide application field. High wear resistance and capability against plastic deformation at higher cutting speed.

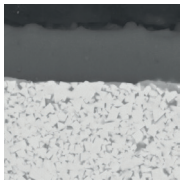
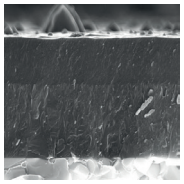
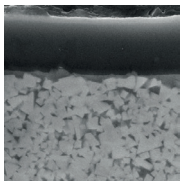
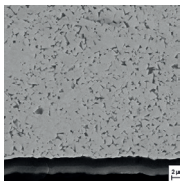
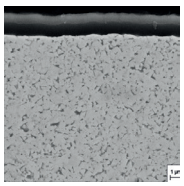
Coated cemented carbide CVD

Grade	ISO	Micro structure	Grade description
YBD102	K05 - K20		CVD coated K05–K20 carbide substrate. Optimized for medium operation of cast iron, special nodular cast iron and hard steel at high cutting speed.
YB7315	K10 - K25		CVD coated K10–K25 carbide substrate. Optimized for medium to roughing operation of cast iron. Improved wear resistance and toughness at high cutting speed.
YBD152	K10 - K25		CVD coated K10–K25 carbide substrate. Optimized for medium to roughing operation of cast iron. Good wear resistance and toughness at higher cutting speed.
YBD152C	K10 - K25		Thick Al2O3 CVD coated K05–K25 carbide substrate. Optimized for medium to roughing operation of cast iron. Higher wear resistance and toughness at higher cutting speed in combination with TC chip breaker.

Coated cemented carbide PVD

Grade	ISO	Micro structure	Grade description
YBG101	N05 - N20		PVD coated N05–N20 carbide substrate for finishing to semi-finishing in aluminium materials. Coating only on the top face, in combination with the aluminium chip breakers, prevents built-up edges and gives a smooth cut.
YBG102	S05 - S15		PVD coated S05–S15 carbide substrate for finishing to medium application of super alloy material, stainless steel and aluminum. Good wear resistance in a wide application field.
YBG105	S05 - S20		PVD multilayer coated S05–S20 carbide substrate for finishing to medium application of super alloy material but also stainless steel. Good wear resistance and thermal stability in a wide application field.

Coated cemented carbide PVD

Grade	ISO	Micro structure	Grade description
YBG205	P10 - P30 M20 - M40 S15-S25		PVD multilayer coated P10–P30/M20–M40/S15–S25 carbide substrate for finishing to medium machining of stainless steel, super alloys and steel (milling). Excellent wear resistance and thermal stability in a wide range of applications.
YBG205H	P10–P30 M20–M40 S15–S25		PVD-coated carbide grade with TiAlN composite coating for applications ranging from finishing to semi-finishing of steel, stainless steel and heat-resistant materials. The coating is extremely hard and resistant to thermal shocks and cracking in a wide range of applications.
YB9320	P10 - P30 M10 - M25		PVD multilayer coated P10–P30/M10–M25 carbide substrate for finishing to medium machining of stainless steel, super alloys and steel (grooving/milling). Optimised coating stability for higher wear resistance and thermal stability in a wide range of applications.
YPD201	S20 – S30		Carbide grade for semi-roughing to chip breaking of high-strength and high-alloy materials. High-performance grade with high wear resistance. Balanced hardness and internal stress ratio provide a wide range of applications.
YBS103	S10 – S20		Turning grade for processing nickel-base materials. A special carbide substrate and the latest PVD coating technology enable a very good wear behaviour and high thermal stability.

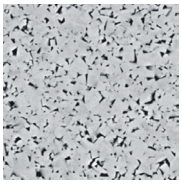
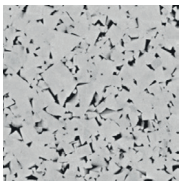
Ceramic

Grade	ISO	Micro structure	Grade description
CA1000	K10 - K25 H10 - H25		Uncoated H10–H25/K10–K25 mixed ceramic grade for finishing to medium operation in hardened steel and nodular cast iron. Good wear resistance and toughness.
CM1000	K10 - K25 H10 - H25		Coated H1–H25/K10–K25 mixed ceramic grade for finishing to medium operations in hardened steel, tool steel, HSS material and nodular cast iron. Good wear resistance and toughness.

Ceramic

Grade	ISO	Micro structure	Grade description
CN1000	K05 - K15		Uncoated K05-K15 Si3N4 ceramic grade for finishing to medium operation in grey cast iron. Good wear resistance and thermal stability.
CS1000	S05 - S20		Uncoated SiAlON ceramic grade for medium machining to roughing of nickel- and cobalt-based alloys at medium to low cutting speeds.
CW1400	S10 - S20 H10 - H20		Uncoated whisker ceramic grade for medium and low speed cutting in HSS steel, high chrome steel and cobalt-base alloy also with interrupted cut. Good wear resistance, notch wear resistance and thermal stability.
CW1800	S10 - S25		Uncoated whisker ceramic grade for finishing to rough operations in Ni-base alloy material like Inconel, Nimonic or Hastelloy. Good wear resistance, notch wear resistance and thermal stability.

Uncoated cemented carbide

Grade	ISO	Micro structure	Grade description
YD101	N05 - N20 K05 - K20		Uncoated N05–N20/K05–K20 carbide substrate for fine to medium application in aluminum and other material.
YD201	N10 - N30 K10 - K30		Uncoated N10–N30/K10–K30 carbide substrate for medium application in aluminum and other material.

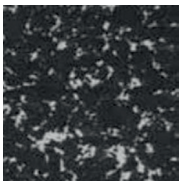
CBN

Grade	ISO	Micro structure	Grade description
YCB112	S10 – S20		Uncoated, brazed S10–S20 CBN grade for fine finishing operations on hardened steel and super alloys. Excellent wear resistance and thermal stability.
YCB113	H01 - H10		Uncoated, brazed H01–H10 CBN grade for fine finishing operation in hardened steel with continuous cut. High wear resistance and productivity at higher cutting speed.
YCB121	H10 - H25		Uncoated, brazed H10–H25 CBN grade for fine to medium application in hardened steel from continuous to light interrupted cut. Good wear resistance and toughness for universal use.
YCB131	H20 - H35		Uncoated, brazed H20–H35 CBN grade for fine to medium application in hardened steel with interrupted cut. Good wear resistance and optimized toughness for safe process.
YCB113C	H01 - H10		Coated, brazed H01–H10 CBN grade for fine finishing operations on hardened steel with a continuous cut. High wear resistance and productivity at higher cutting speeds
YCB121C	H10 - H25		Coated, brazed H10–H25 CBN grade for fine to medium machining operations on hardened steel with a continuous to partially interrupted cut. Good wear resistance and toughness for universal application.
YCB131C	H20 - H25		Coated, brazed H20–H35 CBN grade for fine to medium machining operations on hardened steel with an interrupted cut. Good wear resistance and optimum toughness for reliable operations.
YCB215	K10 - K20		Uncoated, brazed K10 –K20 CBN grade for fine to medium machining operations on cast iron. Excellent wear resistance and thermal conductivity.

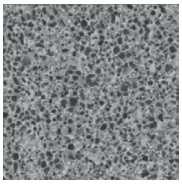
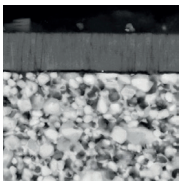
CBN

Grade	ISO	Micro structure	Grade description
YZB630	H20 - H30		Uncoated H20–H30 solid CBN grade for medium machining operations on hardened steel with a slight to medium interrupted cut. Excellent combination of wear resistance and thermal stability.
YZB630C	H20 - H30		Coated H20–H30 solid CBN grade for medium machining operations on hardened steel with a slight to medium interrupted cut. Excellent combination of wear resistance and thermal stability.
YZB223	K10 - K25		Uncoated H10–H25/K10–K25 mixed ceramic grade for finishing to medium operation in hardened steel and nodular cast iron. Good wear resistance and toughness.

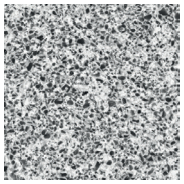
PCD

Grade	ISO	Micro structure	Grade description
YCD421	N01 - N10		Uncoated, brazed N01–N10 PCD grade for fine finishing operation of aluminum alloys less than 12 % Si, composites, copper/magnesium and other alloys. Medium grain size grade with good wear resistance for a wide application field.

Cermet

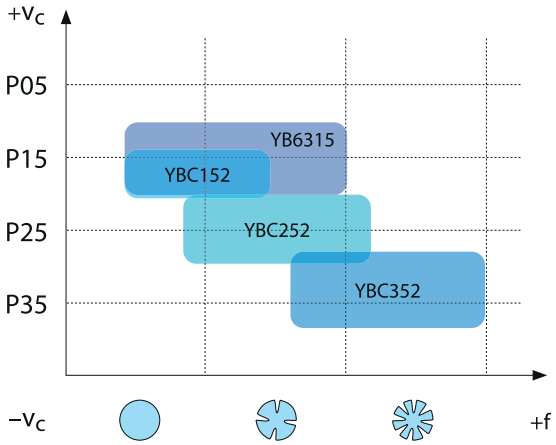
Grade	ISO	Micro structure	Grade description
YNG151	P10 – P20		Uncoated P10–P20 cermet grade for super finishing steel and stainless steel. Highly resistant to plastic deformation. Delivers high-quality surface finishes.
YNG151C	P10 – P20		Coated P10-P20 cermet grade for super finishing steel and stainless steel. Highly resistant to plastic deformation. Delivers high-quality surface finishes.

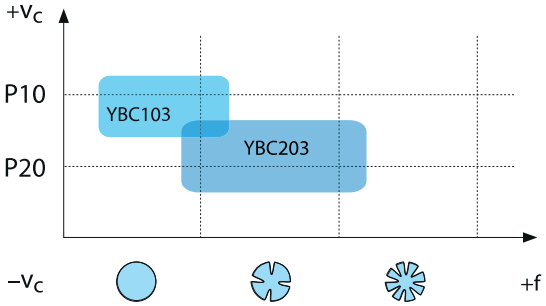
Cermet

Grade	ISO	Micro structure	Grade description
YNT251	P05 – P15		Uncoated P05–P15 cermet grade for super finishing steel and stainless steel. Excellent wear resistance and toughness, especially in turning operations.

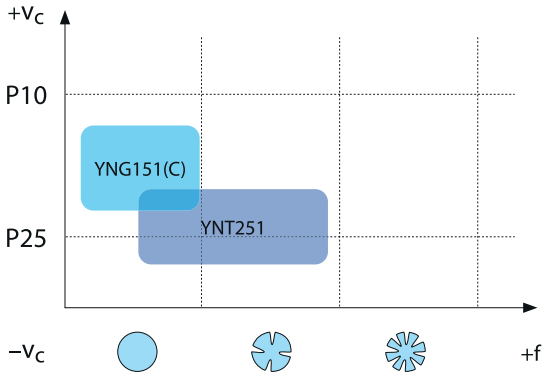
Notes

CVD coated carbide grades for steel

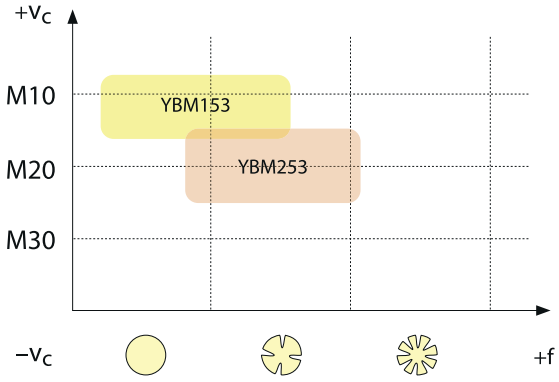




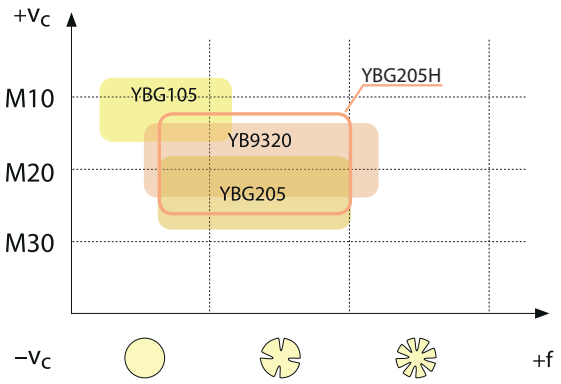
Cermet grades for steel



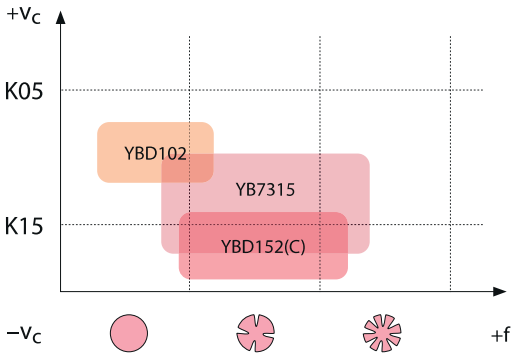
CVD coated carbide grades for stainless steel



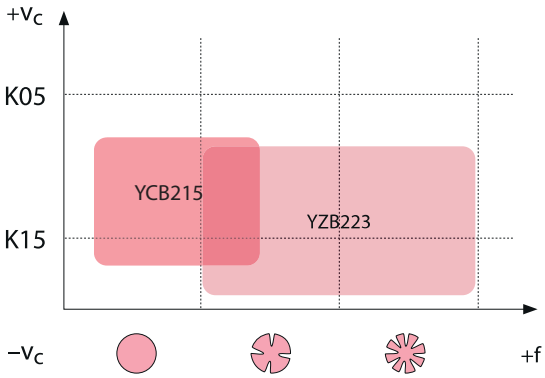
PVD coated carbide grades for stainless steel



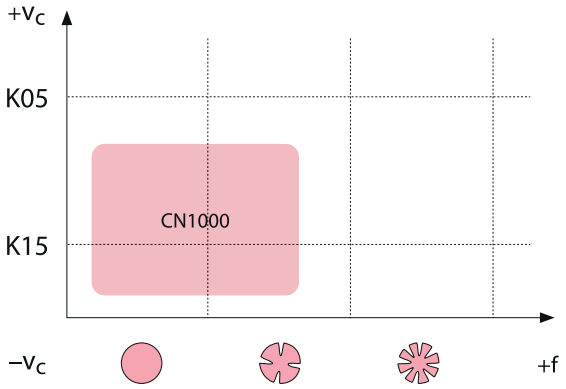
CVD coated carbide grades for cast iron



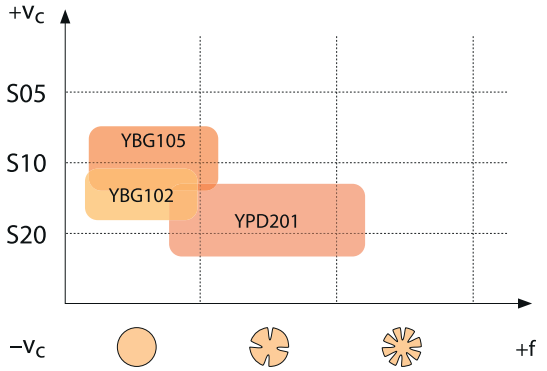
CBN grades for cast iron

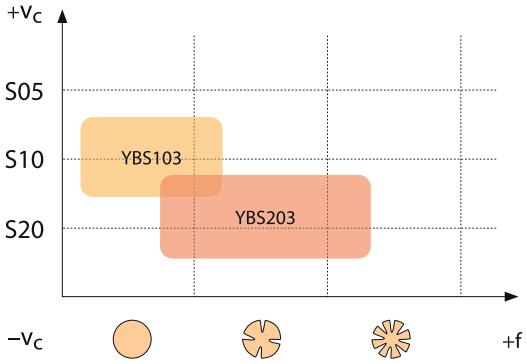


Ceramic grades for cast iron

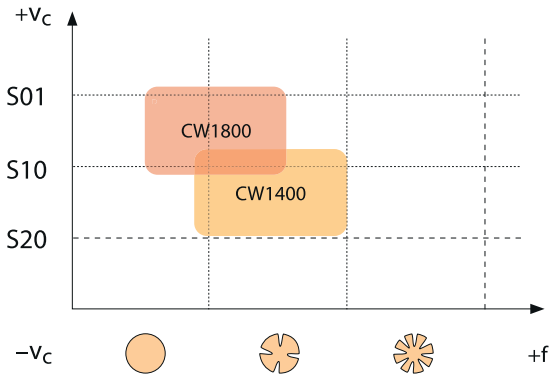


PVD coated carbide grades for superalloys

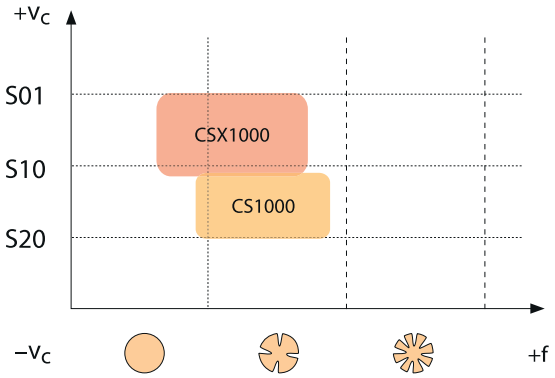




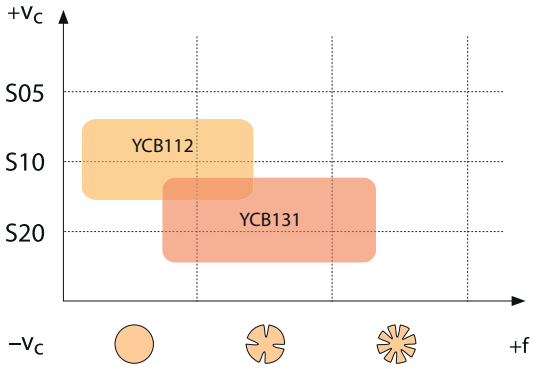
Ceramic grades for superalloys (Whisker)



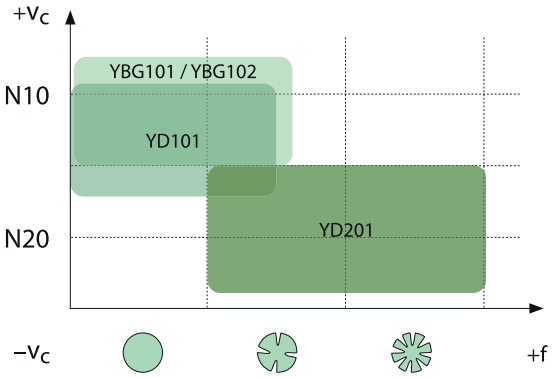
Ceramic grades for superalloys (SiAlON)



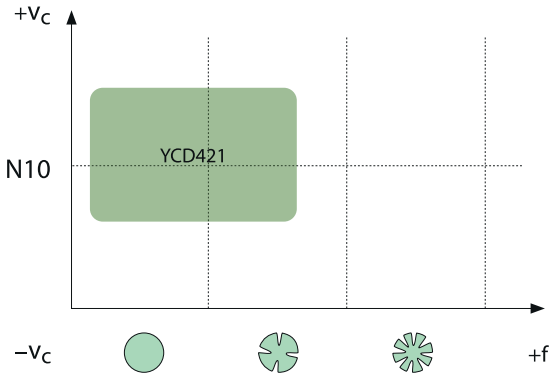
CBN grades for superalloys



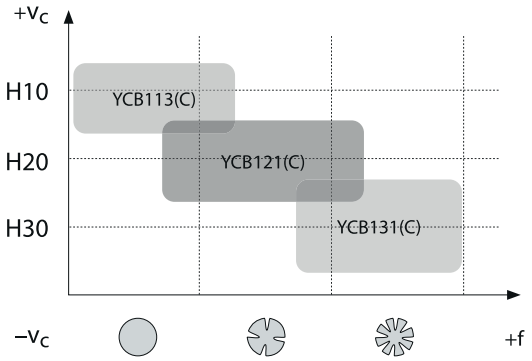
Carbide grades for non-ferrous metals



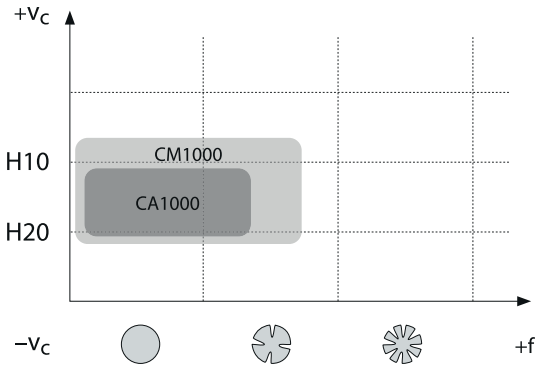
PCD grades for non-ferrous metals



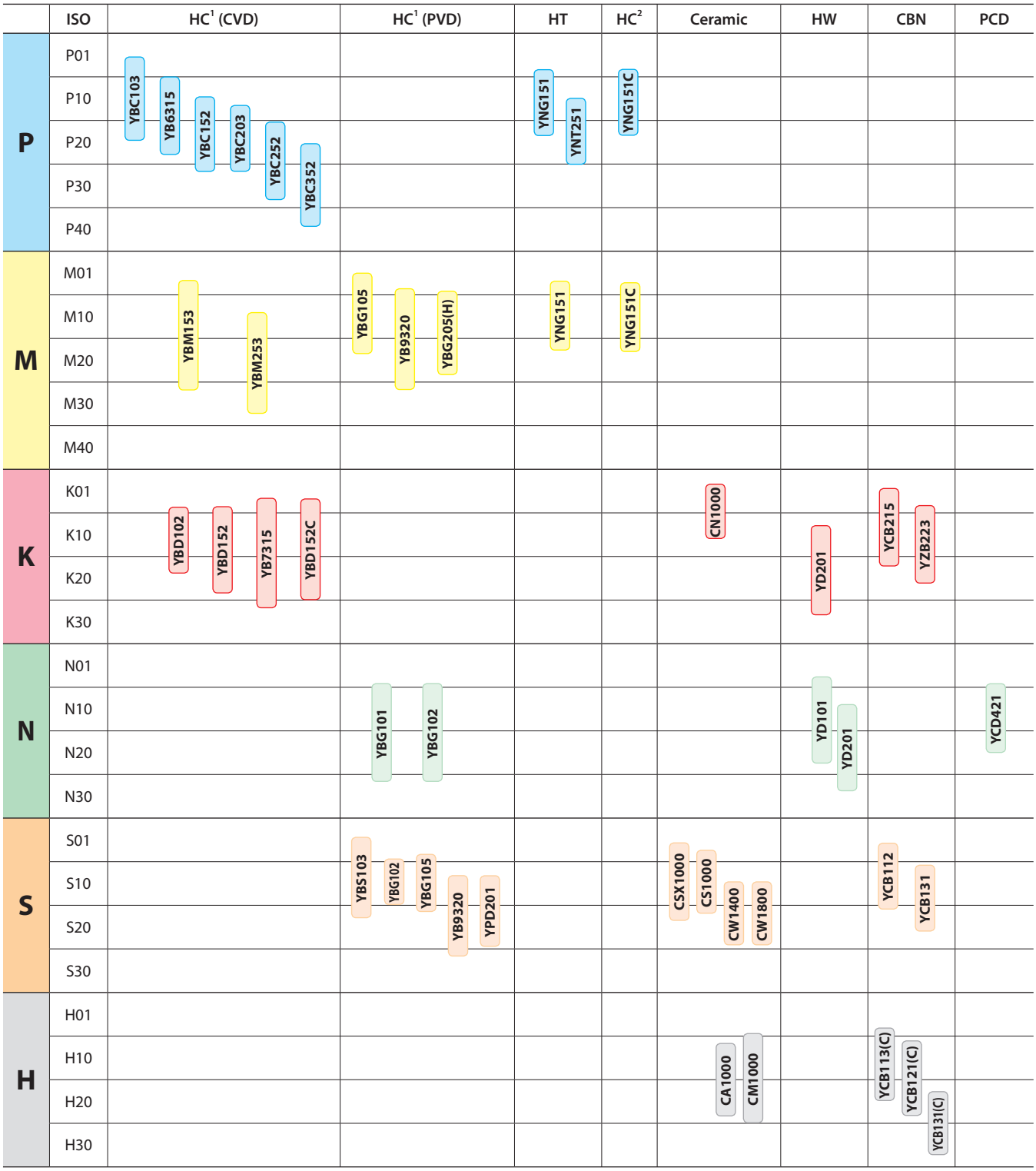
CBN grades for hardened steel



Ceramic grades for hardened steel



Application fields of grades – general turning

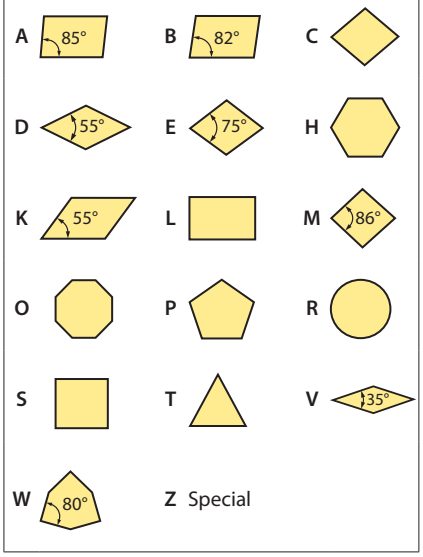


P Steel	**N** Non-ferrous metals	HC¹ Coated carbide
M Stainless steel	**S** Heat-resistant alloys	HT Uncoated cermet
K Cast iron	**H** Hardened materials	HC² Coated cermet
		HW Uncoated carbide

ISO standard

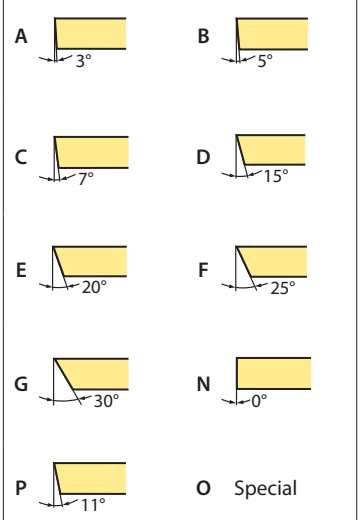
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Insert shape



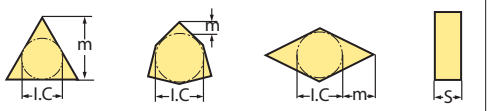
1

Clearance angle



2

Tolerance class

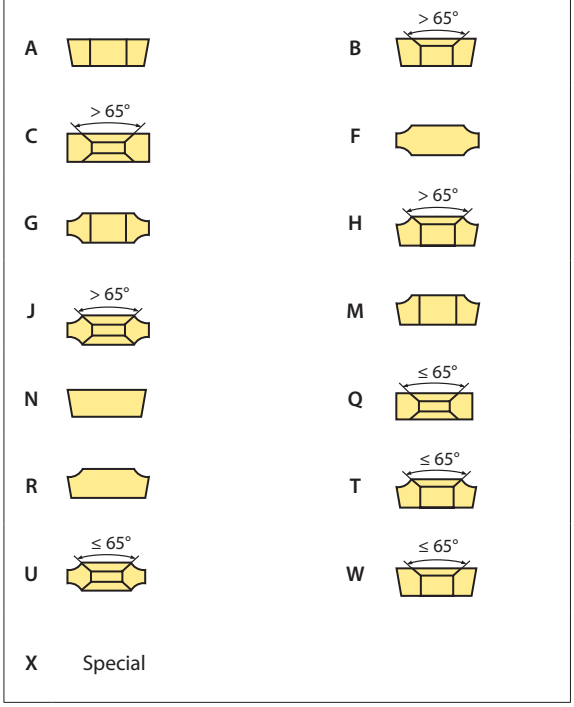


Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20	±0,025
U	±0,08–0,25	±0,13–0,38	±0,130

3

Fastening features (metric)

Insert shape

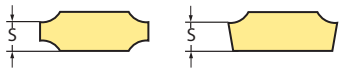


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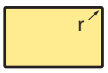
Cutting edge length l [mm]

I.C [mm]	Insert shape C	D	R	S	T	V	W	K
3,97					06			
5,0			05					
5,56					09			
6,0			06					
6,35	06	07			11	11		
8,0			08					
9,525	09	11	09	09	16	16	06	16
10,0			10					
12,0			12					
12,7	12	15	12	12	22	22	08	
15,875	16		15	15	27			
16,0		19	16					
19,05	19		19	19	33			
20,0			20					
25,0	25	25	25					
25,4			25	25				
31,75			31					
32			32					

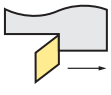
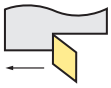
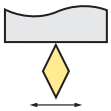
5

Insert thickness S [mm]			
			
Code	S	Code	S
00	0,79	**T5**	5,95
T0	0,99	**06**	6,35
01	1,59	**T6**	6,75
T1	1,98	**07**	7,94
02	2,38	**09**	9,52
T2	2,58	**T9**	9,72
03	3,18	**11**	11,11
T3	3,97	**12**	12,70
04	4,76		
T4	4,96		
05	5,56		

6

Nose radius r [mm]	
	
Code	r
00	–
02	0,2
04	0,4
08	0,8
12	1,2
16	1,6
20	2,0
24	2,4
32	3,2
X	Special
MO	Round inserts

7

Cutting direction
 L
 R
 N

8

Chip breaker overview (on page A16)

9

ANSI standard

T	N	M	G	4	3	2	(N)	–	DM
1	2	3	4	**5**	**6**	**7**	8		9

Inner circle		
Code	[mm]	Pouce
2	6.35	0.250
3	9.525	0.375
4	12.7	0.500
5	15.875	0.625
6	19.05	0.750
8	25.4	1.000

5

Insert thickness		
Code	[mm]	Pouce
2	3.18	0.125
3	4.76	0.187
4	6.35	0.250
5	7.94	0.313
6	9.52	0.375

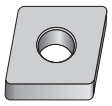
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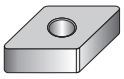
Nose radius		
Code	[mm]	Pouce
0	0.2	0.008
1	0.4	0.016
2	0.8	0.031
3	1.2	0.047
4	1.6	0.063
5	2.0	0.079
6	2.4	0.094

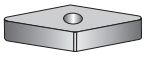
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Conversion table for general turning inserts (metric/imperial system)

Negative angle/insert

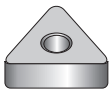
Insert shape C	ISO	Inch
	090304	321
	090308	322
	120404	431
	120408	432
	120412	433
	120416	434
	160608	542
	160612	543
	160616	544
	190608	642
	190612	643
	190616	644
	190624	646
	250724	856
	250732	858
	250924	866
	250932	868

Insert shape D	ISO	Inch
	110404	331
	110408	332
	110412	333
	150404	431
	150408	432
	150412	433
	150604	441
	150608	442
	150612	443
	150616	444
	190608	542
	190612	543

Insert shape V	ISO	Inch
	160404	331
	160408	332
	160412	333

Insert shape R	ISO	Inch
	0903MO	32
	1204MO	43

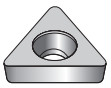
Insert shape W	ISO	Inch
	06T304	3(2.5)1
	06T308	3(2.5)2
	06T312	3(2.5)3
	060404	331
	060408	332
	060412	333
	080404	431
	080408	432
	080412	433

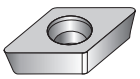
Insert shape T	ISO	Inch
	113304	221
	110308	222
	160404	331
	160408	332
	160412	333
	220404	431
	220408	432
	220412	433
	220416	434
	270608	542
	270612	543
	270616	544

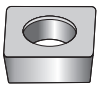
Insert shape S	ISO	Inch
	090304	321
	090308	322
	090312	323
	120404	431
	120408	432
	120412	433
	120416	434
	150608	542
	150612	543
	150616	544
	190412	633
	190424	636
	190612	643
	190616	644
	250724	856
	250732	858
	250924	866
	250932	868

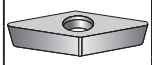
Positive angle/insert

Insert shape C	ISO	Inch
	060202	2(1.5)0
	060204	2(1.5)1
	060208	2(1.5)2
	09T302	3(2.5)0
	09T304	3(2.5)1
	09T308	3(2.5)2
	120404	431
	120408	432
	120412	433

Inserts shape T	ISO	Inch
	06T102	1.2(1.2)0
	06T104	1.2(1.2)1
	06T108	1.2(1.2)2
	090202	1.8(1.5)0
	090204	1.8(1.5)1
	090208	1.8(1.5)2
	110202	2(1.5)0
	110204	2(1.5)1
	110208	2(1.5)2
	110302	220
	110304	221
	110308	222
	16T302	30
	16T304	31
	16T308	32
	16T312	33
	160400	330
	220408	432
	220412	433
	220416	434
	270408	532
	27041 2	533
	330612	643
	330616	644

Insert shape D	ISO	Inch
	070202	2(1.5)0
	070204	2(1.5)1
	070208	2(1.5)2
	11T302	3(2.5)0
	11T304	3(2.5)1
	11T308	3(2.5)2
	11T312	3(2.5)3

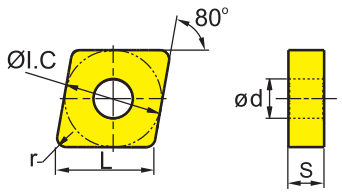
Insert shape S	ISO	Inch
	060204	2(1.5)1
	09T302	3(2.5)0
	09T304	3(2.5)1
	09T308	3(2.5) 2
	120404	431
	120408	432
	120412	433
	150404	531
	150408	532
	150412	533
	190408	632
	190412	633
	190416	634

Inserts shape V	ISO	Inch
	110202	2(1.5)0
	110204	2(1.5)1
	110208	2(1.5)2
	110302	220
	110304	221
	110308	222
	160402	330
	160404	331
	160408	332
	160412	333

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16



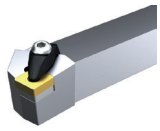
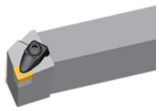
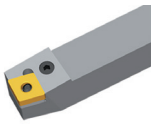
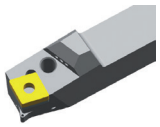
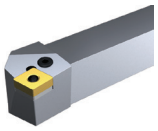
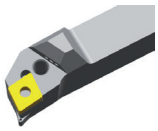
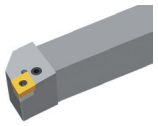
CN** negative insert					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					○	○	○	❁	❁	❁										❁	❁	❁		○	❁	○		
M											○	❁					○	○	❁	❁	❁	❁	○	○	❁	○		
K													○	❁	❁	❁												
N																	○	○									○	❁
S																	○	○	❁	❁	❁	○					○	❁
H																												
ISO			r	a_p	f																							
WG	**CNMG120404-WG**		0.4	0.25-3.00	0.05-0.25			○																				
	CNMG120408-WG		0.8	0.5-5.0	0.15-0.70			●		○																		
	CNMG120412-WG		1.2	0.8-6.0	0.20-0.75			●																				
Wiper																												

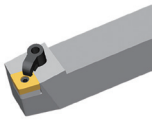
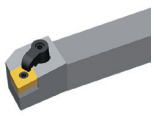
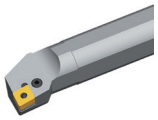
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

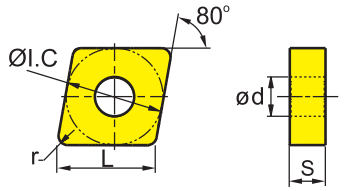
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMG	L	I.C	S	d
09 03	9.7	9.525	3.18	3.81
12 04	12.9	12.7	4.76	5.16

CN** negative insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	●	●	●	◉	◉	◉									◉	◉	◉	◉	◉	●		
M							●	◉							●	●	◉	◉	◉	◉	●	
K									●	◉	◉	◉										
N													●	●								●	◉
S													●	●	◉	◉	◉	●				●	◉
H																							

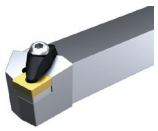
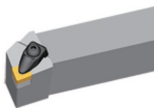
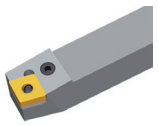
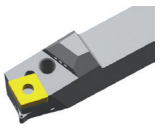
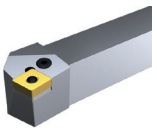
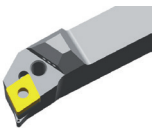
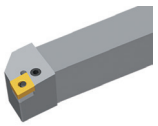
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ADF	**CNMG120404-ADF**	0.4	0.5-3.0	0.05-0.30		●														●		●						
	CNMG120408-ADF	0.8	0.5-3.0	0.1-0.4		●														○		●			●			
	CNMG120412-ADF	1.2	0.8-3.0	0.15-0.50		○																●			●			
Finishing																												
DF	**CNMG090304-DF**	0.4	0.25-1.50	0.07-0.30			○		○																			
	CNMG090308-DF	0.8	0.3-1.5	0.1-0.3			●																					
	CNMG120404-DF	0.4	0.25-1.50	0.07-0.30			●		○																			
	CNMG120408-DF	0.8	0.3-1.5	0.1-0.4			●		○																			
Finishing	**CNMG120412-DF**	1.2	0.35-1.50	0.10-0.35			○		○																			
EF	**CNMG090304-EF**	0.4	0.5-2.0	0.05-0.20							○									●	○							
	CNMG090308-EF	0.8	0.5-2.0	0.05-0.25							○									●	○							
	CNMG120404-EF	0.4	0.5-2.5	0.05-0.20							●									●	●							
	CNMG120408-EF	0.8	0.5-2.5	0.05-0.25							●									●	●							
Finishing	**CNMG120412-EF**	1.2	0.5-2.5	0.10-0.35							○									○	○							

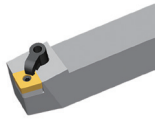
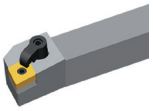
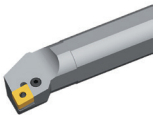
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

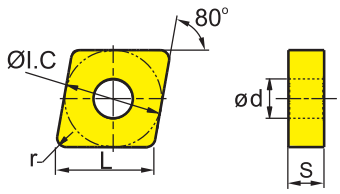
MCBNR/L	MCLNR/L	A***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CN**	L	I.C	S	d
09 03	9.7	9.525	3.18	3.81
12 04	12.9	12.7	4.76	5.16

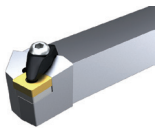
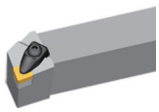
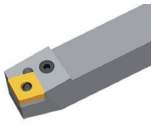
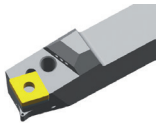
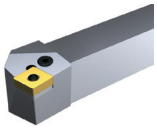
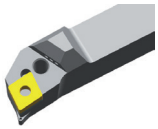
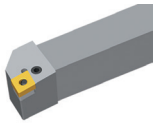


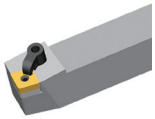
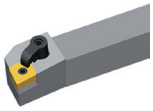
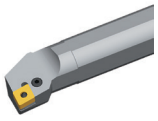
					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					○	○	○	◍	◍	◍									◍	◍	◍			○	◍	○		
M											○	◍					○	○	◍	◍	◍	○		○	◍	○		
K													○	◍	◍	◍												
N																	○	○									○	◍
S																	○	○	◍	◍	◍	○					○	◍
H																												
	ISO		r	a_p	f																							
NF	**CNEG120404-NF**		0.4	0.2-2.5	0.05-0.30														●									
	CNEG120408-NF		0.8	0.2-2.5	0.10-0.35														●								○	
	CNEG120412-NF		1.2	0.2-2.5	0.13-0.40														○									
Finishing																												
SF	**CNMG090304-SF**		0.4	0.05-0.50	0.05-0.30																					●		
	CNMG120404-SF		0.4	0.1-1.5	0.05-0.30																					●		
	CNMG120408-SF		0.8	0.1-1.5	0.10-0.35																					●		
Finishing																												
XF	**CNMG120404-XF**		0.4	0.5-2.5	0.1-0.25	●		●																				
	CNMG120408-XF		0.8	0.5-2.5	0.1-0.30	●		●																				
	CNMG120412-XF		1.2	0.5-2.5	0.1-0.35	●		●																				
Finishing																												

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	A***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

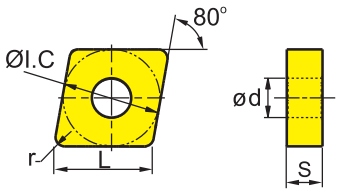
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMG	L	I.C	S	d
09 03	9.7	9.525	3.18	3.81
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

CN** negative insert



	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	●	●	●	◉	◉	◉									◉	◉	◉		●	◉	●		
M							○	◉				○	○	◉	◉	◉	○	○	◉		○		
K									●	◉	◉	◉											
N												●	●									●	◉
S												●	○	◉	◉	◉	◉	○				●	◉
H																							

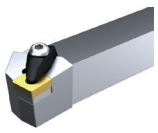
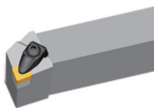
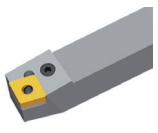
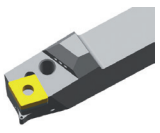
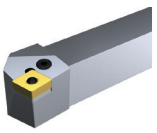
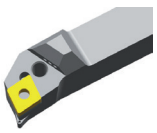
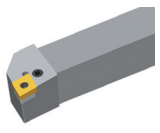
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
PM Medium Cut	**CNMG090304-PM**	0.4	0.4-4.0	0.1-0.3					○																			
	CNMG090308-PM	0.8	0.5-4.0	0.15-0.50					○																			
	CNMG120404-PM	0.4	0.4-5.5	0.1-0.3			○		●				○		●													
	CNMG120408-PM	0.8	0.5-5.5	0.15-0.50			●		●	○			●		●													
	CNMG120412-PM	1.2	0.8-5.5	0.18-0.60			●		●						●													
	CNMG120416-PM	1.6	1.0-5.5	0.23-0.65			○		○				○		○													
	CNMG160608-PM	0.8	0.5-7.2	0.15-0.50			○		●				○		○													
	CNMG160612-PM	1.2	0.8-7.2	0.18-0.60			○		●				○		●													
	CNMG160616-PM	1.6	1.0-7.2	0.23-0.65					●						○													
	CNMG190608-PM	0.8	0.5-8.6	0.15-0.50					●																			
	CNMG190612-PM	1.2	0.8-8.6	0.18-0.60					○						●													
	CNMG190616-PM	1.6	1.0-8.6	0.23-0.65					○						○													

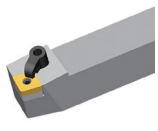
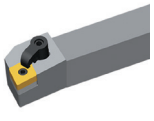
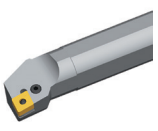
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	A***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

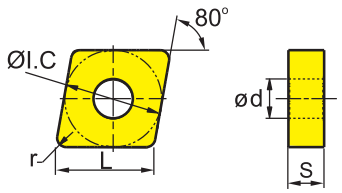
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

CN** negative insert

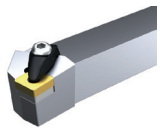
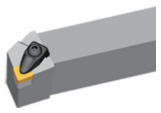
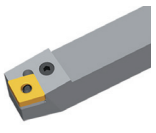
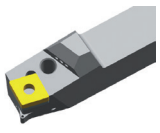
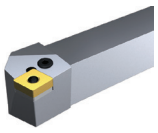
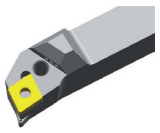
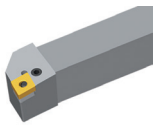


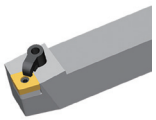
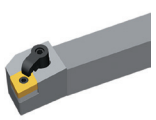
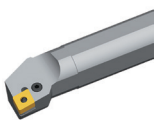
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					P																			HC¹ (CVD)			HC¹ (PVD)							HT		HC²	HW	
					M																							
					K																							
					N																							
					S																							
					H																							
XM	**CNMG120404-XM**	0.4	1-4.2	0.2-0.3	●			○																				
	CNMG120408-XM	0.8	1-4.2	0.2-0.4	●			●																				
	CNMG120412-XM	1.2	1-4.2	0.2-0.6	●			●																				
	CNMG120416-XM	1.6	1-4.2	0.2-0.65	●			●																				
	CNMG160608-XM	0.8	1-5.6	0.2-0.4	●			●																				
	CNMG160612-XM	1.2	1-5.6	0.2-0.6	●			●																				
Medium Cut	**CNMG160616-XM**	1.6	1-5.6	0.2-0.65	○			●																				
	CNMG190608-XM	0.8	1-6.65	0.2-0.4	●			●																				
	CNMG190612-XM	1.2	1-6.65	0.2-0.6	○			●																				
	CNMG190616-XM	1.6	1-6.65	0.2-0.65	○			●																				
XMH	**CNMG120408-XMH**	0.8	1.0-4.2	0.2-0.4	○			●																				
	CNMG120412-XMH	1.2	1.0-4.2	0.2-0.6	○			○																				
	CNMG160608-XMH	0.8	1.0-5.6	0.2-0.4	○			○																				
	CNMG160612-XMH	1.2	1.0-5.6	0.2-0.6	○			○																				
Medium Cut	**CNMG160616-XMH**	1.6	1.0-5.6	0.2-0.8	○			○																				

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

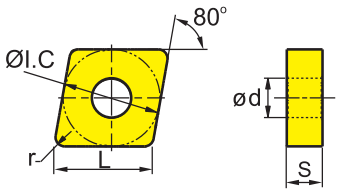
MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

CNMG	L	I.C	S	d
09 03	9.7	9.525	3.18	3.81
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

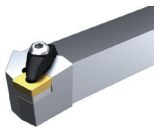
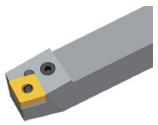
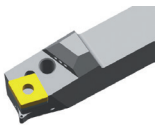
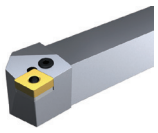
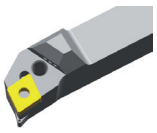
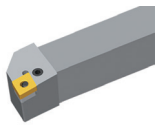


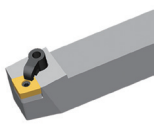
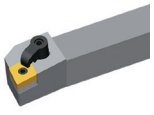
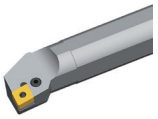
CN** negative insert		HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
		P																				
		M																				
		K																				
		N																				
		S																				
		H																				
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
DM Medium Cut	**CNMG090304-DM**	0.4	0.4-4.0	0.1-0.3			○		○																			
	CNMG090308-DM	0.8	0.5-4.0	0.15-0.50			○		●																			
	CNMG090312-DM	1.2	0.5-3.0	0.1-0.4					○																			
	CNMG120404-DM	0.4	0.4-5.5	0.1-0.3			●		●																			
	CNMG120408-DM	0.8	0.5-5.5	0.15-0.50		○	●		●	●	○	●																
	CNMG120412-DM	1.2	0.8-5.5	0.18-0.60		○	●		●		○	○																
	CNMG120416-DM	1.6	1.0-5.5	0.23-0.65			○		○																			
	CNMG160608-DM	0.8	0.5-7.2	0.15-0.50			○		●																			
	CNMG160612-DM	1.2	0.8-7.2	0.18-0.60			●		●																			
	CNMG160616-DM	1.6	1.0-7.2	0.23-0.65			○		●																			
	CNMG190608-DM	0.8	0.5-8.6	0.15-0.50			○		●																			
	CNMG190612-DM	1.2	0.8-8.6	0.18-0.60			●		●																			
	CNMG190616-DM	1.6	1.0-8.6	0.23-0.65					●																			

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

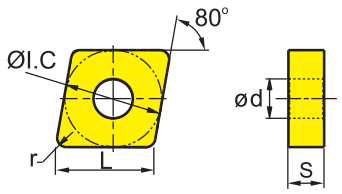
MCBNR/L	MCLNR/L	A***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35



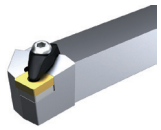
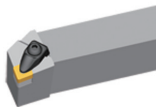
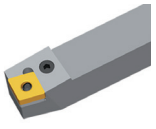
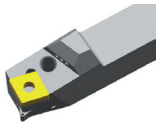
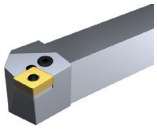
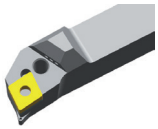
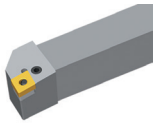
					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
		ISO	r	a_p	f																							
EG		**CNMG120404-EG**	0.4	0.5-4.0	0.05-0.30						●	●								○								
		CNMG120408-EG	0.8	0.5-4.0	0.1-0.4						●	●								●	●	○						
		CNMG120412-EG	1.2	0.5-4.0	0.2-0.5							●								●	●	●						
Medium Cut																												
EM		**CNMG120404-EM**	0.4	0.5-4.0	0.05-0.30						●	●								●	●							
		CNMG120408-EM	0.8	0.5-5.7	0.15-0.45						●	●								●	●							
		CNMG120412-EM	1.2	0.5-5.7	0.25-0.60						●	●								●	○							
		CNMG120416-EM	1.6	0.5-4.5	0.25-0.55						○										●							
		CNMG160608-EM	0.8	0.5-7.2	0.15-0.45						○	●								●	○							
Medium Cut		**CNMG160612-EM**	1.2	0.5-7.2	0.25-0.60						●	●								●	○							
		CNMG160616-EM	1.6	0.5-7.2	0.25-0.6																○							

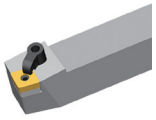
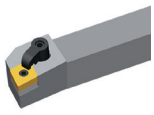
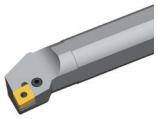
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

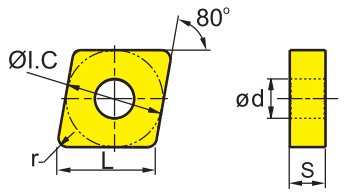
MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35

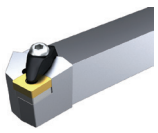
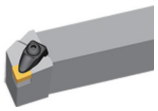
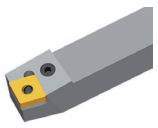
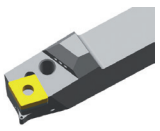
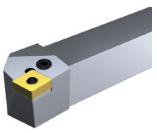
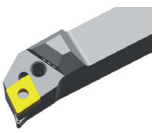
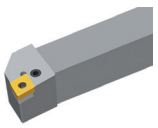


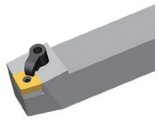
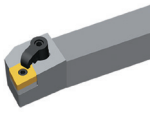
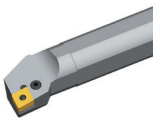
CN** negative insert					HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					○	○	○	◉	◉	◉										◉	◉	◉		○	◉	○		
M											○	◉					○	○	◉	◉	◉	◉	○	○	◉	○		
K													○	◉	◉	◉												
N																	○	○									○	◉
S																	○	○	◉	◉	◉	◉	○				○	◉
H																												
ISO			r	a_p	f																							
ZM	**CNMG120404-ZM**		0.4	0.5-3.0	0.05-0.30		●																					
	CNMG120408-ZM		0.8	0.5-4.0	0.1-0.5		○																					
	CNMG120412-ZM		1.2	0.5-4.5	0.15-0.6		●																					
	CNMG120416-ZM		1.6	1.0-5.0	0.2-0.7		○																					
Medium Cut	**CNMG160612-ZM**		1.2	1.0-6.0	0.2-0.8		○																					

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

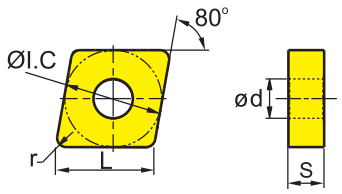
MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35

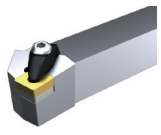
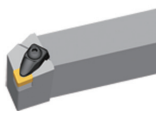
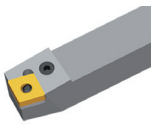
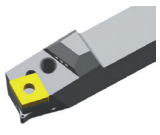
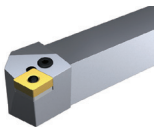
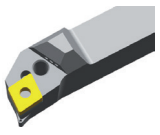
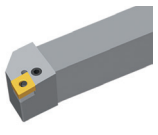


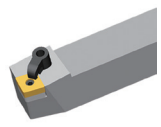
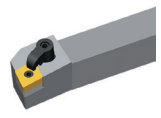
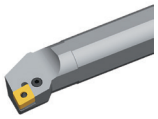
					HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
	ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
NM		**CNMG120404-NM**	0.4	0.2-3.0	0.05-0.30													○	●				●					
		CNMG120408-NM	0.8	0.2-4.0	0.1-0.5													○	●	●		●						○
		CNMG120412-NM	1.2	0.2-4.0	0.2-0.6													○	●									
Medium Cut																												
TC		**CNMG120404-TC**	0.4	0.5-5.0	0.08-0.40										○	●												
		CNMG120408-TC	0.8	0.5-5.0	0.15-0.50										●	●												
		CNMG120412-TC	1.2	0.5-5.0	0.2-0.6										●	●												
		CNMG120416-TC	1.6	0.5-5.0	0.20-0.65										●	○												
		CNMG160608-TC	0.8	1-7	0.15-0.50										●	●												
		CNMG160612-TC	1.2	1-7	0.2-0.6										●	●												
		CNMG160616-TC	1.6	1-7	0.20-0.65										●	○												
TK		**CNMG120408-TK**	0.8	0.5-5.0	0.15-0.50										○													
		CNMG120412-TK	1.2	0.5-5.0	0.2-0.6										○													
		CNMG120416-TK	1.6	0.5-5.0	0.20-0.65										○													
Medium Cut																												

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

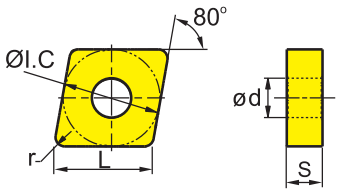
MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94
25 09	25.79	25.4	9.525	9.12

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

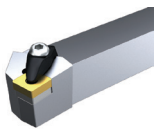
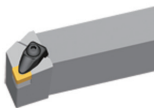
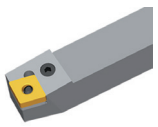
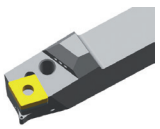
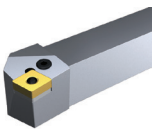
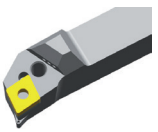
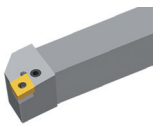


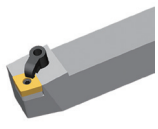
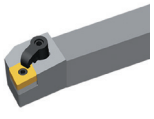
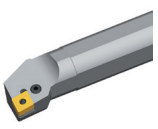
CN** negative insert					HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
				P																							
				M																							
				K																							
				N																							
				S																							
				H																							
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
DR Roughing	**CNMG120408-DR**	0.8	0.7-7.0	0.2-0.5		○	●		●	○			○		●													
	CNMG120412-DR	1.2	1-7	0.25-0.70		○	●		●	●			○		●													
	CNMG120416-DR	1.6	1.5-7.0	0.32-0.75			○		●						●													
	CNMG160608-DR	0.8	0.7-8.0	0.2-0.5					●				○		○													
	CNMG160612-DR	1.2	1-8	0.25-0.70		○	●	●	●	○			○		●													
	CNMG160616-DR	1.6	1.5-8.0	0.3-0.8	○	○	○		●	●					○													
	CNMG160624-DR	2.4	3.0-7.0	0.25-0.65			○																					
	CNMG190608-DR	0.8	0.7-10.0	0.2-0.5			○		●				○		○													
	CNMG190612-DR	1.2	1-10	0.25-0.70			●		●	○			○		●													
	CNMG190616-DR	1.6	1.5-10.0	0.3-0.8	●		●	●	●	●			○		●													
	CNMG190624-DR	2.4	2-10	0.32-0.90		○		●	●						○													
	CNMG250924-DR	2.4	2-15	0.4-1.0	○			○	●																			

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

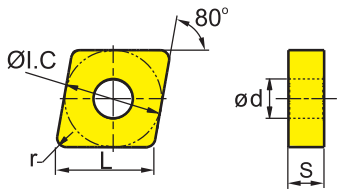
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

CN** negative insert

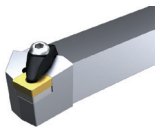
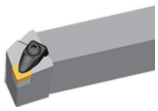
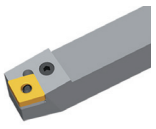
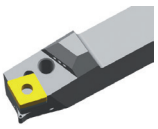
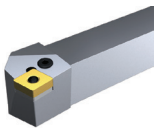
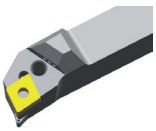
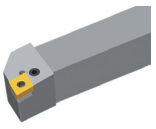


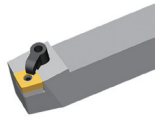
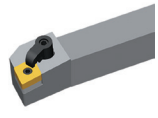
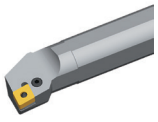
	ISO	r	a_p	f	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					○	○	○	◍	◍	◍										◍	◍	◍		○	◍	○		
M											○	◍					○	○	◍	◍	◍	◍	○	○	◍	○		
K													◍	◍	◍	◍												
N																	◍	○									◍	◍
S																	○	○	◍	◍	◍	◍	○				○	◍
H																												
SNR	**CNMG120408-SNR**	0.8	1-3	0.1-0.4															●		●	●	●					
	CNMG120412-SNR	1.2	1-3	0.2-0.6															●		●	●	●					
	CNMG120416-SNR	1.6	1.0-3.0	0.15-0.35																			○					
	CNMG160608-SNR	0.8	2-6	0.1-0.4															●				●					○
	CNMG160612-SNR	1.2	2.0-6.0	0.1-0.45															○				○					
Roughing	**CNMG160616-SNR**	1.6	2.0-6.0	0.1-0.5																			○					
	CNMG190616-SNR	1.6	2-7	0.2-0.6															○				●					○

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

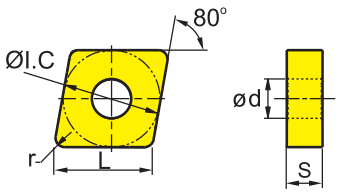
MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

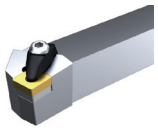
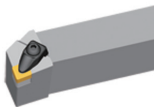
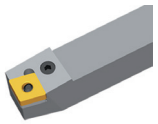
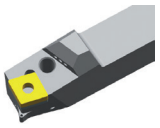
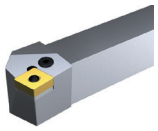
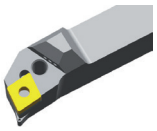
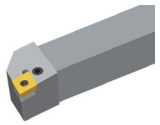


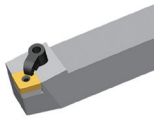
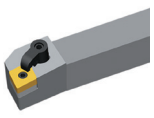
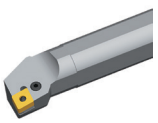
CN** negative insert					HC¹ (CVD)										HC¹ (PVD)						HT		HC²		HW	
					P																					
					M																					
					K																					
					N																					
					S																					
					H																					
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XLR Roughing	**CNMG120408-XLR**	0.8	1.5-6.0	0.2-0.40	●			●																				
	CNMG120412-XLR	1.2	1.5-6.0	0.2-0.50	●			●																				
	CNMG120416-XLR	1.6	1.5-6.0	0.2-0.55	●			●																				
	CNMG160608-XLR	0.8	1.5-7.0	0.2-0.40	●			●																				
	CNMG160612-XLR	1.2	1.5-7.0	0.2-0.50	●			●																				
	CNMG160616-XLR	1.6	1.5-7.0	0.2-0.55	●			●																				
	CNMG190612-XLR	1.2	2.5-7.8	0.2-0.55	○			●																				
	CNMG190616-XLR	1.6	2.5-7.8	0.2-0.60	○			●				○																
	CNMG190624-XLR	2.4	2.5-7.8	0.20-0.65	○			○																				

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

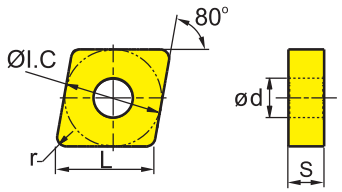
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMM	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94
25 09	25.79	25.4	9.525	9.12

CN** negative insert



	HC[1] (CVD)											HC[1] (PVD)							HT		HC[2]	HW		
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○			
M							○	◉					○	○	◉	◉	◉	○	○	◉	○			
K									●	◉	◉	◉												
N													●	●									●	◉
S													●	●	◉	◉	◉	●					●	◉
H																								

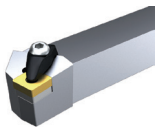
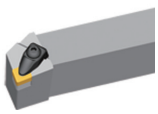
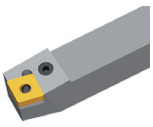
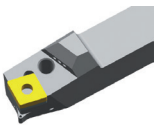
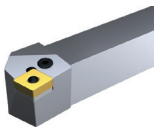
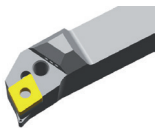
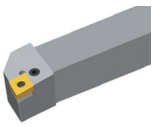
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DR	**CNMM120412-DR**	1.2	1.0-7.5	0.25-0.70		○	○		○	○	○	○																
	CNMM160612-DR	1.2	1.0-9.5	0.25-0.70			○		○																			
	CNMM160616-DR	1.6	1.5-9.5	0.32-0.90			○		○	○																		
	CNMM190608-DR	0.8	0.7-10.0	0.2-0.5			○																					
	CNMM190612-DR	1.2	1-12	0.25-0.70		○	●		○	○		○																
Roughing	**CNMM190616-DR**	1.6	1.5-12.0	0.32-0.90			○		●	●																		
	CNMM190624-DR	2.4	2-12	0.35-1.20		○	●		●																			
	CNMM250924-DR	2.4	2.0-12.5	0.2-1.2			●		●	○																		

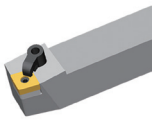
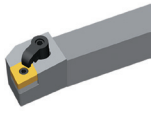
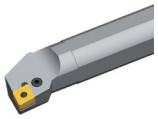
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

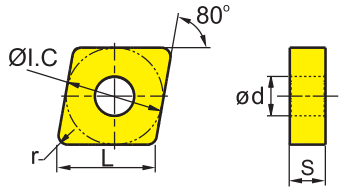
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

CN**	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94
25 07	25.79	25.4	7.94	9.12
25 09	25.79	25.4	9.525	9.12

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CN** negative insert

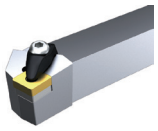
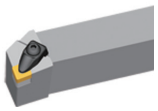
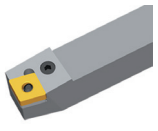
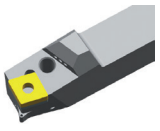
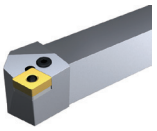
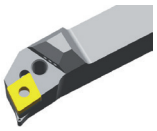
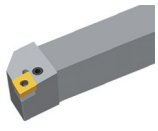


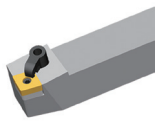
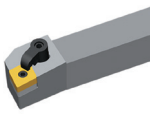
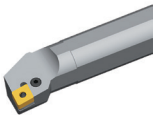
		HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
		YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P		●	●	●	◍	◍	◍										◍	◍	◍		●	◍	●		
M								○	◍						○	○	◍	◍	◍	○	○	◍	○		
K										●	◍	◍	◍												
N														●	●									●	◍
S														●	○	○	◍	◍	◍	○				●	◍
H																									
ISO	r	a_p	f																						
ER Roughing	**CNMG120408-ER**	0.8	2.0-7.6	0.15-0.55						○							○								
	CNMG120412-ER	1.2	2.0-7.6	0.25-0.80						○															
	CNMG160612-ER	1.2	2-10	0.35-0.80						○															
	CNMG160616-ER	1.6	2-10	0.45-1.00						○															
	CNMG190612-ER	1.2	2.0-11.4	0.35-1.00			○			○							○								
	CNMG190616-ER	1.6	2.0-11.4	0.45-1.10						○															
ER Roughing	**CNMM250724-ER**	2.4	2.0-12.5	0.3-1.4			○																		
	CNMM250732-ER	3.2	2.0-12.5	0.45-1.80			○																		
	CNMM250924-ER	2.4	2.0-12.5	0.3-1.4	○		●	●		○															
	CNMM250932-ER	3.2	2.0-12.5	0.45-1.80			●																		

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

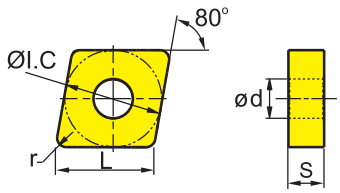
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CN**	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

CN** negative insert

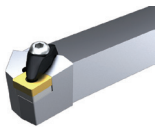
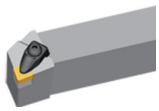
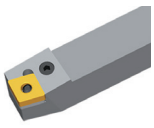
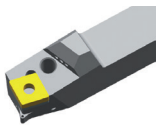
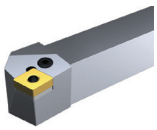
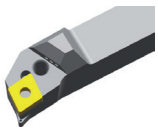
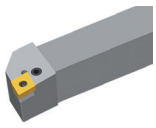


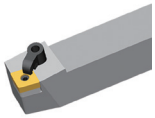
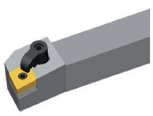
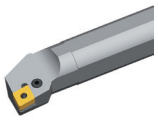
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
					HC¹ (CVD)												HC¹ (PVD)							HT		HC²	HW	
LR	**CNMG120408-LR**	0.8	1.0-5.0	0.15-0.5	○																							
	CNMG120416-LR	1.6	1.0-5.0	0.23-0.5	○																							
	CNMG190616-LR	1.6	1.0-7.0	0.20-0.65				○				○																
Roughing																												
XLR	**CNMM120408-XLR**	0.8	1.5-6.0	0.2-0.4	○			○																				
	CNMM120412-XLR	1.2	1.5-6.0	0.2-0.5	○			○				○																
	CNMM120416-XLR	1.6	1.5-6.0	0.2-0.55	○			○																				
	CNMM160612-XLR	1.2	1.5-7.0	0.2-0.55	○			○																				
	CNMM160616-XLR	1.6	1.5-7.0	0.2-0.60	○			○																				
	CNMM160624-XLR	2.4	1.5-7.0	0.2-0.65	○																							
Roughing	**CNMM190612-XLR**	1.2	2.0-7.8	0.2-0.55	○			○																				
	CNMM190616-XLR	1.6	2.0-7.8	0.2-0.6	○			○																				
	CNMM190624-XLR	2.4	2.0-7.8	0.2-0.65	○			○		○																		

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

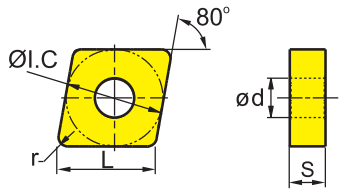
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CNMM	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94
25 09	25.79	25.4	9.525	9.12

CN** negative insert

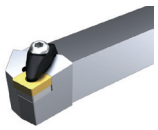
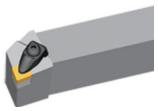
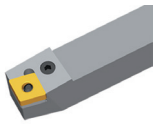
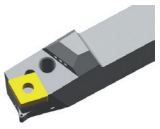
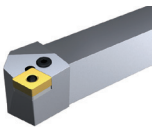
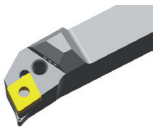
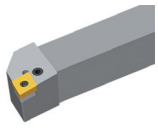


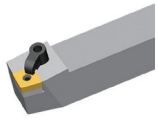
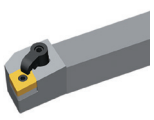
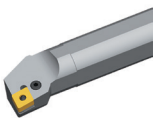
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
					P																							
					M																							
					K																							
					N																							
					S																							
					H																							
Basic	**CNMM190624**	2.4	1.0-12	0.2-1.2					○																			
Medium Cut																												
LR	**CNMM120408-LR**	0.8	1-5	0.1-0.5			○		○																			
	CNMM120412-LR	1.2	2-6	0.2-0.7			○		○			○																
	CNMM120416-LR	1.6	2.0-6.5	0.25-0.80					○																			
	CNMM160608-LR	0.8	1-7	0.2-0.6			○		○																			
	CNMM160612-LR	1.2	1.0-7.5	0.2-0.7			○		○			○																
	CNMM160616-LR	1.6	1.0-8.5	0.25-0.80	○		○	○	○																			
	CNMM190612-LR	1.2	2.0-10.5	0.2-0.7			○		○																			
	CNMM190616-LR	1.6	2.0-10.5	0.3-1.0			○		○			○																
	CNMM190624-LR	2.4	2.0-10.5	0.3-1.1					○																			
	CNMM250924-LR	2.4	2.0-12.5	0.3-1.2			○		●																			

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

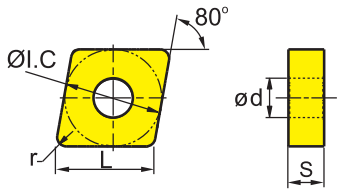
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMM	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94
25 09	25.79	25.4	9.525	9.12

CN** negative insert



	HC[1] (CVD)											HC[1] (PVD)							HT		HC[2]	HW		
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○			
M							○	◉					○	○	◉	◉	◉	○	○	◉	○			
K									●	◉	◉	◉												
N													●	●									●	◉
S													●	●	◉	◉	◉	●					●	◉
H																								

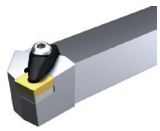
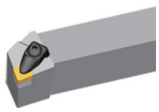
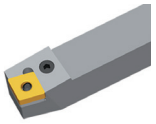
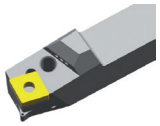
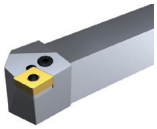
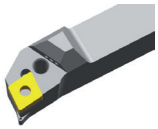
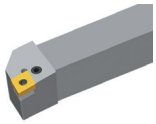
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
HDR Roughing	**CNMM120408-HDR**	0.8	1-7	0.2-0.6			●		●																			
	CNMM120412-HDR	1.2	1-7	0.3-0.8			○		○																			
	CNMM120416-HDR	1.6	1-7	0.4-1.0			○		●																			
	CNMM160612-HDR	1.2	1.5-7.5	0.3-0.8			○		○																			
	CNMM160616-HDR	1.6	1.5-8.5	0.4-1.0			○		○																			
	CNMM160624-HDR	2.4	1.5-10.5	0.8-1.2			○		○																			
	CNMM190608-HDR	0.8	2.0-12.5	0.3-0.7			○																					
	CNMM190612-HDR	1.2	2.0-12.5	0.35-0.80			○		○																			
	CNMM190616-HDR	1.6	2.0-12.5	0.5-1.1			○	●	●							○												
	CNMM190624-HDR	2.4	2.0-12.5	0.8-1.2					○																			
	CNMM250924-HDR	2.4	2.0-12.5	0.8-1.4	○		○	●	○																			

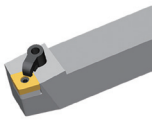
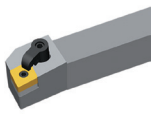
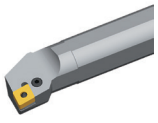
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

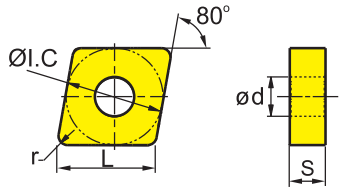
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMM	L	I.C	S	d
19 06	19.3	19.05	6.35	7.94
25 09	25.79	25.4	9.525	9.12

CN** negative insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	●	●	●	◉	◉	◉									◉	◉	◉	●	◉	●		
M							●	◉				●	●	◉	◉	◉	●	●	◉	●		
K									●	◉	◉	◉										
N													●	●							●	◉
S													●	●	◉	◉	◉	●			●	◉
H																						

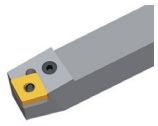
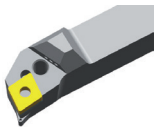
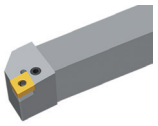
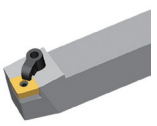
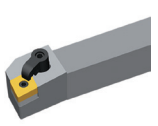
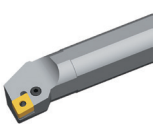
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
HPR	**CNMM190616-HPR**	1.6	2.0-10.5	0.5-1.0					○																			
	CNMM190624-HPR	2.4	2.0-10.5	0.7-1.4					○																			
	CNMM250924-HPR	2.4	2.0-12.5	0.7-1.4					●	●																		
Roughing																												

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

PCBNR/L	PCLNR/LC	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
					
A270	A287	A272	A291	A292	A370

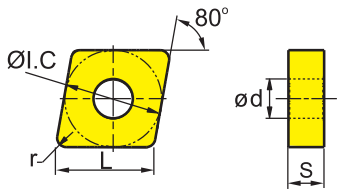
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CN**	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

CN** negative insert



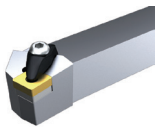
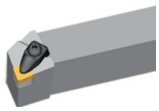
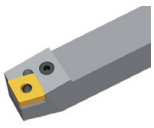
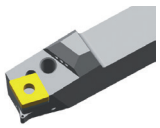
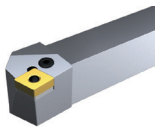
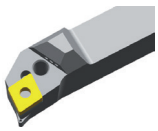
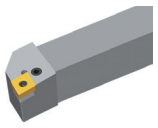
	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○		
M							○	◉					○	○	◉	◉	◉	○	○	◉	○		
K									●	◉	◉	◉											
N													●	●								●	◉
S													●	●	◉	◉	◉	●				●	◉
H																							

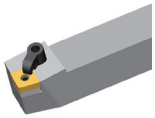
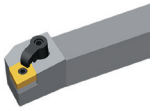
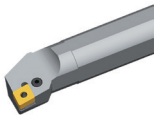
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Flat	**CNMA120404**	0.4	0.2-5.0	0.05-0.40									○															
	CNMA120408	0.8	0.2-5.0	0.05-0.50									●	●	●	●												
	CNMA120412	1.2	0.2-5.0	0.1-0.6									○	●	●	●												
	CNMA120416	1.6	0.2-5.0	0.10-0.65									●		●	○												
	CNMA160608	0.8	0.2-7.0	0.1-0.5									○															
	CNMA160612	1.2	0.2-7.0	0.1-0.6									○		○													
	CNMA160616	1.6	0.2-7.0	0.15-0.65									○		●													
	CNMA190612	1.2	0.2-8.0	0.15-0.70									○		○													
	CNMA190616	1.6	0.2-8.0	0.15-0.70									○		●													
Basic	**CNMG120404**	0.4	0.1-5.0	0.05-0.50					○																			
	CNMG120408	0.8	0.1-5.0	0.1-0.6					○																			
	CNMG120412	1.2	0.1-5.0	0.1-0.7			○		○																			

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

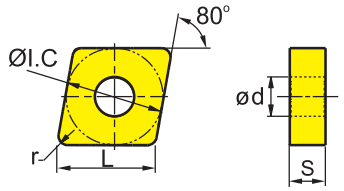
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNEG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35

CN** negative insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	●	●	●	◉	◉	◉									◉	◉	◉	●	◉	●		
M							●	◉				●	●	◉	◉	◉	●	●	◉	●		
K									●	◉	◉	◉										
N													●	●							●	◉
S													●	●	◉	◉	◉	●			●	◉
H																						

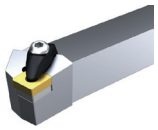
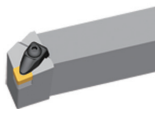
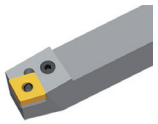
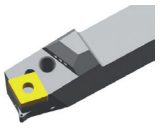
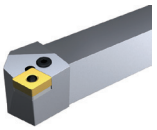
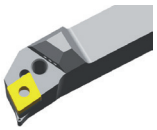
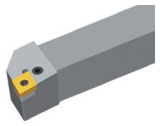
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LH	**CNEG120404-LH**	0.4	1.5-7.0	0.15-0.30																	●						●	
	CNEG120408-LH	0.8	1.5-7.0	0.20-0.50																	○						●	
	CNEG120412-LH	1.2	1.5-7.0	0.25-0.60																	●						●	
	CNEG120416-LH	1.6	1.5-7.0	0.25-0.70																	●						●	
	CNEG160608-LH	0.8	1.5-10.0	0.20-0.50																	●						●	
	CNEG160612-LH	1.2	1.5-10.0	0.25-0.60																	●						●	
	CNEG160616-LH	1.6	1.5-10.0	0.25-0.70																	●						●	

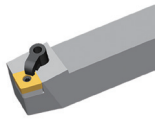
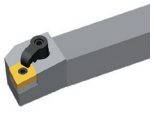
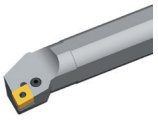

Alum Machining

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						
A263	A262	A270	A286	A271	A287	A272

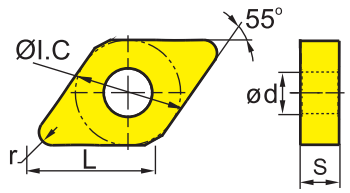
MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DN**	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16



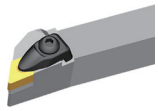
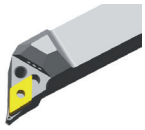
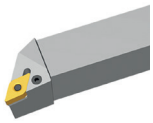
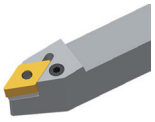
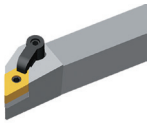
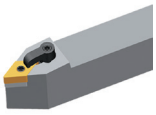
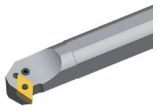
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					P																							
					M																							
					K																							
					N																							
					S																							
					H																							
WG	**DNMX110404-WG**	0.4	0.2-1.5	0.08-0.30			○																					
	DNMX110408-WG	0.8	0.5-3.5	0.15-0.50			●		○																			
	DNMX150408-WG	0.8	0.5-5.0	0.15-0.70			○																					
	DNMX150608-WG	0.8	0.5-5.0	0.15-0.70			○		○																			
Wiper	**DNMX150612-WG**	1.2	0.8-6.0	0.20-0.75			○																					
ADF	**DNMG110408-ADF**	0.8	0.5-2.5	0.1-0.3		●																						
	DNMG150404-ADF	0.4	0.5-3.0	0.1-0.25																			○					
	DNMG150604-ADF	0.4	0.5-3.0	0.1-0.25		○																●			○			
	DNMG150608-ADF	0.8	0.5-3.0	0.1-0.3		○														●		●			○			
Finishing	**DNMG150612-ADF**	1.2	0.5-3.0	0.1-0.35		○																●						

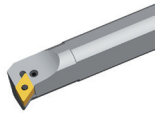
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

A***-PDUNR/L
Kr: 93°

A373

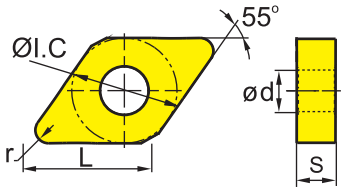
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

DNMG	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

DN** negative insert

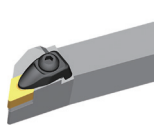
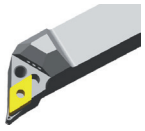
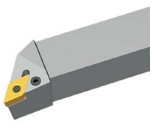
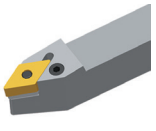
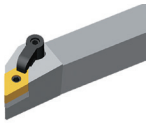
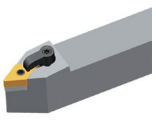


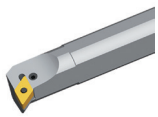
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DF Finishing	**DNMG110404-DF**	0.4	0.15-2.00	0.08-0.25			●		○																			
	DNMG110408-DF	0.8	0.15-2.00	0.1-0.3			●		○																			
	DNMG110412-DF	1.2	0.35-1.50	0.15-0.50			○																					
	DNMG150404-DF	0.4	0.15-2.00	0.08-0.25			○		○																			
	DNMG150408-DF	0.8	0.15-2.00	0.1-0.3			○																					
	DNMG150412-DF	1.2	0.35-1.50	0.15-0.50					○																			
	DNMG150604-DF	0.4	0.15-2.00	0.18-0.60			●		●																			
	DNMG150608-DF	0.8	0.15-2.00	0.1-0.3			●		○																			
	DNMG150612-DF	1.2	0.2-2.5	0.10-0.35			●																					
SF Finishing	**DNMG110404-SF**	0.4	0.05-0.50	0.05-0.25																						●		
	DNMG150404-SF	0.4	0.05-0.50	0.05-0.25																						●		
	DNMG150408-SF	0.8	0.05-0.50	0.10-0.35																						●		
	DNMG150604-SF	0.4	0.05-0.50	0.05-0.25																						●		
	DNMG150608-SF	0.8	0.05-0.50	0.10-0.35																						●		

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

A***-PDUNR/L
Kr: 93°

A373

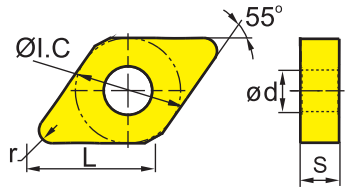
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMG	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 06	15.5	12.7	6.35	5.16

DN** negative insert



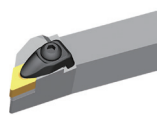
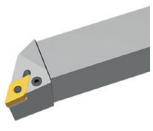
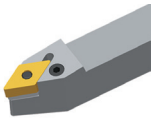
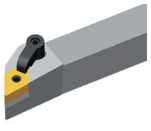
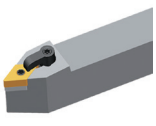
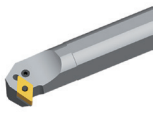
	HC[1] (CVD)											HC[1] (PVD)							HT		HC[2]	HW	
P	○	○	○	⊛	⊛	⊛									⊛	⊛	⊛		○	⊛	○		
M								○	⊛				○	○	⊛	⊛	⊛	○	○	⊛	○		
K										●	⊛	⊛	⊛										
N												●	●									●	⊛
S													○	○	⊛	⊛	⊛	○				○	⊛
H																							

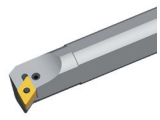
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XF	**DNMG110404-XF**	0.4	0.5-2.0	0.1-0.25	●																							
	DNMG110408-XF	0.8	0.5-2.0	0.1-0.30	●																							
	DNMG150604-XF	0.4	0.5-2.5	0.1-0.25	●			●																				
	DNMG150608-XF	0.8	0.5-2.5	0.1-0.30	●			●																				
Finishing	**DNMG150612-XF**	1.2	0.5-2.5	0.1-0.35	●			●																				
XM	**DNMG110404-XM**	0.4	1-3.85	0.2-0.4	●			○																				
	DNMG110408-XM	0.8	1-3.85	0.2-0.4	●			○																				
	DNMG110412-XM	1.2	1-3.85	0.2-0.6	●			○																				
	DNMG150604-XM	0.4	1-5.25	0.2-0.4	●			●																				
	DNMG150608-XM	0.8	1-5.25	0.2-0.4	●			●																				
Medium Cut	**DNMG150612-XM**	1.2	1-5.25	0.2-0.6	●			●																				
	DNMG150616-XM	1.6	1-5.25	0.2-0.65	●			●																				
XMH	**DNMG110412-XMH**	1.2	1.0-3.0	0.2-0.4	●																							
	DNMG150608-XMH	0.8	1.5-3.0	0.15-0.35	●			●																				
	DNMG150612-XMH	1.2	1.0-4.5	0.2-0.5	○			○																				
Medium Cut																												

● Ex stock ○ On demand

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

A***-PDUNR/L
Kr: 93°

A373

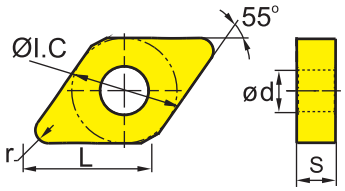
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

DNMG	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

DN** negative insert

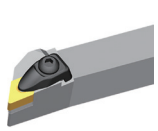
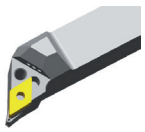
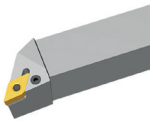
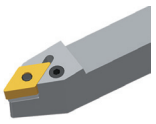
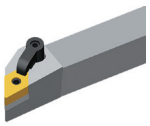
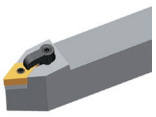
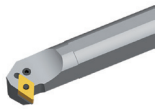


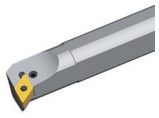
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					P																							
					M																							
					K																							
					N																							
					S																							
					H																							
DM	**DNMG110404-DM**	0.4	0.4-5.0	0.1-0.3			●		●																			
	DNMG110408-DM	0.8	0.5-5.0	0.15-0.50			●		●																			
	DNMG110412-DM	1.2	0.8-5.0	0.18-0.50			○		○																			
	DNMG150404-DM	0.4	0.4-6.0	0.1-0.3			●		○																			
	DNMG150408-DM	0.8	0.5-6.0	0.15-0.50			●		○																			
	DNMG150412-DM	1.2	0.8-6.0	0.18-0.60			○		○																			
Medium Cut	**DNMG150604-DM**	0.4	1-6	0.23-0.65			●		●																			
	DNMG150608-DM	0.8	0.4-6.0	0.1-0.3		○	●		●			○																
	DNMG150612-DM	1.2	0.8-6.0	0.18-0.60		○	●		●																			
	DNMG150616-DM	1.6	1-6	0.23-0.65			●		●																			

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

A***-PDUNR/L
Kr: 93°

A373

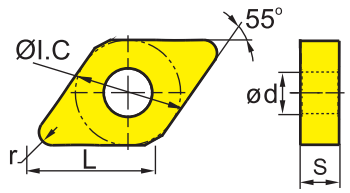
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMG	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

DN** negative insert



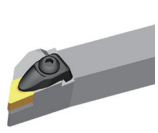
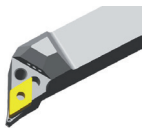
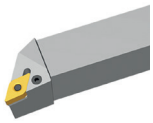
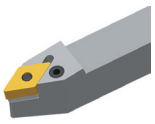
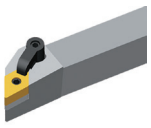
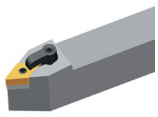
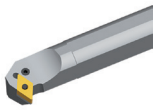
	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					●	●	●	●	●	●										●	●	●		●	●	●		
M											○	●					○	○	●	●	●	●		○	●	○		
K													●	●	●	●												
N																	●	●									●	●
S																	○	○	●	●	●	●	○				○	●
H																												
PM	**DNMG110404-PM**	0.4	0.4-5.0	0.1-0.3					○				○															
	DNMG110408-PM	0.8	0.5-5.0	0.15-0.50			○		○				●															
	DNMG110412-PM	1.2	0.8-5.0	0.18-0.50					○				○															
	DNMG150408-PM	0.8	0.5-6.0	0.15-0.50			○		○				○		○													
	DNMG150412-PM	1.2	0.8-6.0	0.18-0.60					○						○													
	DNMG150416-PM	1.6	1-6	0.23-0.65					○																			
Medium Cut	**DNMG150604-PM**	0.4	0.4-6.0	0.1-0.3			○		●				●		○													
	DNMG150608-PM	0.8	0.5-6.0	0.15-0.50			●		●	●			●		●													
	DNMG150612-PM	1.2	0.8-6.0	0.18-0.60			●		●				●		●													
	DNMG150616-PM	1.6	1-6	0.23-0.65					●																			

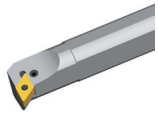
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

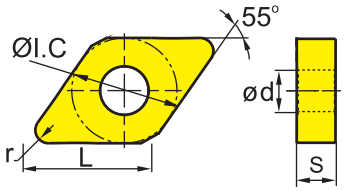
A***-PDUNR/L
Kr: 93°

A373

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

DNMG	L	I.C	S	d
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16



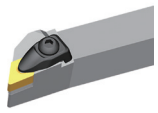
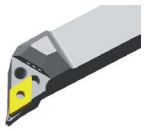
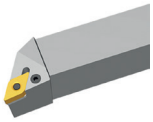
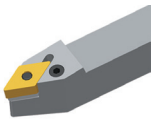
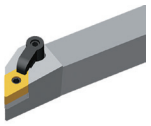
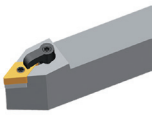
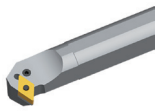
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◎	◎	◎									◎	◎	◎			○	◎	○		
M							○	◎					○	○	◎	◎	◎	○	◎	○				
K									◎	◎	◎	◎												
N													○	○								○	◎	
S													○	○	◎	◎	◎	○				○	◎	
H																								

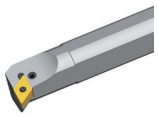
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ZM	**DNMG150404-ZM**	0.4	0.5-3.0	0.05-0.3		○																						
	DNMG150408-ZM	0.8	0.5-4.0	0.1-0.5		○																						
	DNMG150604-ZM	0.4	0.5-3.0	0.05-0.3		○																						
	DNMG150608-ZM	0.8	0.5-4.0	0.1-0.5		○																						
Medium Cut	**DNMG150612-ZM**	1.2	1.0-5.5	0.15-0.60		○			●																			

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

S***-PDUNR/L
Kr: 93°

A373

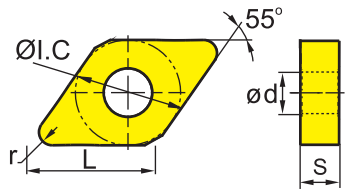
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMG	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

DN** negative insert



	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	○	○	○	◉	◉	◉										◉	◉	◉		○	◉	○		
M							○	◉					○	○	◉	◉	◉	◉	○	○	◉	○		
K									◉	◉	◉	◉												
N													○	○									○	◉
S													○	○	◉	◉	◉	◉	○				○	◉
H																								

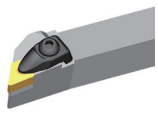
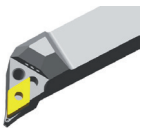
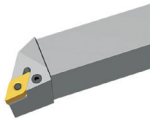
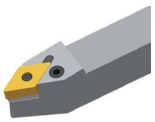
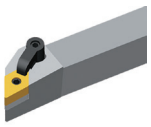
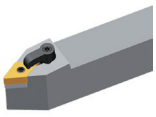
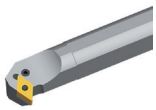
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EF Finishing	**DNMG110404-EF**	0.4	0.1-1.5	0.05-0.20							○									●	○							
	DNMG110408-EF	0.8	0.1-1.5	0.1-0.4							○									●	○							
	DNMG150404-EF	0.4	0.1-1.5	0.05-0.30																●	○							
	DNMG150408-EF	0.8	0.1-1.5	0.1-0.4																●	○							
	DNMG150604-EF	0.4	0.1-1.5	0.05-0.30							●									●								
	DNMG150608-EF	0.8	0.1-1.5	0.1-0.4							●									●	○							
	DNMG150612-EF	1.2	0.1-1.5	0.15-0.50																●	○							
FM Finishing	**DNMG150604L-FM**	0.4	0.5-3.0	0.05-0.30					●											●								
	DNMG150604R-FM	0.4	0.5-3.0	0.05-0.30			○		●											●								
	DNMG150608L-FM	0.8	0.5-3.0	0.1-0.5			○		●											●								
	DNMG150608R-FM	0.8	0.5-3.0	0.1-0.5			○		●											●								

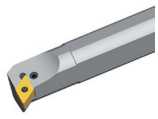
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

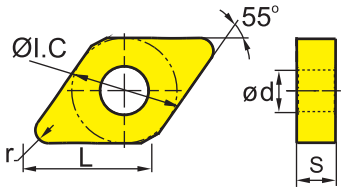
A***-PDUNR/L
Kr: 93°

A373

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNEG	L	I.C	S	d
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

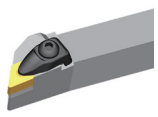
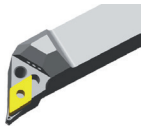
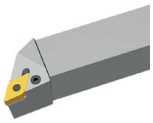
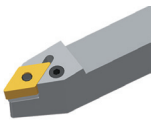
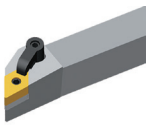
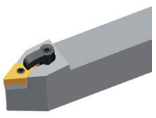
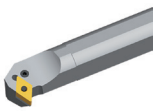


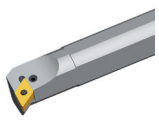
DN** negative insert					HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
					P																					
					M																					
					K																					
					N																					
					S																					
					H																					
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
NF	**DNEG150404-NF**	0.4	0.2-3.0	0.05-0.30														○									
	DNEG150408-NF	0.8	0.2-3.0	0.1-0.4														○									
	DNEG150604-NF	0.4	0.2-3.0	0.05-0.30													○	●									
Finishing	**DNEG150608-NF**	0.8	0.2-3.0	0.1-0.4													○	●									
NGF	**DNEG150412-NGF**	1.2	0.2-3.0	0.1-0.5																							
	DNEG150608-NGF	0.8	0.2-3.0	0.05-0.40															●								
	DNEG150612-NGF	1.2	0.2-3.0	0.1-0.5															●								
Finishing																											

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

S***-PDUNR/L
Kr: 93°

A373

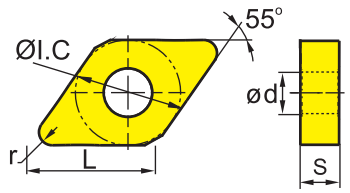
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMG	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

DN** negative insert



	HC[1] (CVD)											HC[1] (PVD)							HT		HC[2]	HW		
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○			
M							○	◉				○	○	◉	◉	◉	○		○	◉	○			
K									○	◉	◉	◉												
N												○	○										○	◉
S												○	○	◉	◉	◉	○						○	◉
H																								

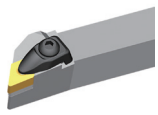
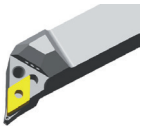
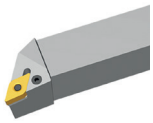
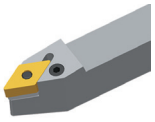
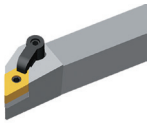
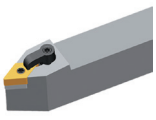
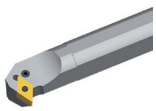
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
EM	**DNMG110404-EM**	0.4	0.5-4.4	0.05-0.30							●									●	○							
	DNMG110408-EM	0.8	0.5-4.4	0.10-0.45							●									●	○							
	DNMG150404-EM	0.4	0.5-6.4	0.05-0.30																○	○							
	DNMG150408-EM	0.8	0.5-6.4	0.10-0.45							○									●	○							
	DNMG150412-EM	1.2	0.5-6.4	0.1-0.6							○										○							
Medium Cut	**DNMG150604-EM**	0.4	0.2-6.4	0.05-0.30							●	●								●	○							
	DNMG150608-EM	0.8	0.5-6.4	0.10-0.45							●	●								●	○							
	DNMG150612-EM	1.2	0.5-6.4	0.1-0.6							○	○								●	○							

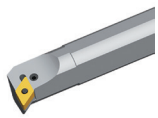
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

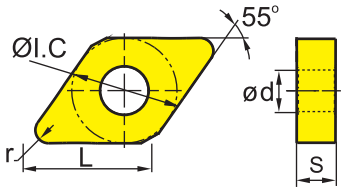
A***-PDUNR/L
Kr: 93°

A373

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMG	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16



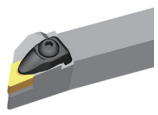
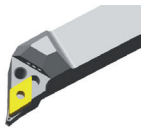
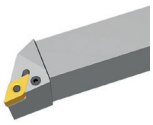
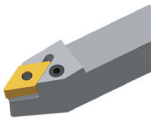
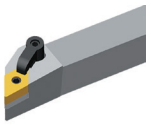
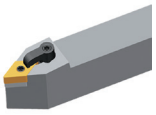
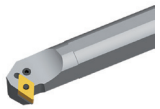
DN** negative insert					HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
				P																						
				M																						
				K																						
				N																						
				S																						
				H																						
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
EG	**DNMG150604-EG**	0.4	1-3	0.05-0.30							○											●						
	DNMG150608-EG	0.8	1-3	0.1-0.4							●									●	●	●						
	DNMG150612-EG	1.2	1-3	0.2-0.6								○								●		●						
Medium Cut																												

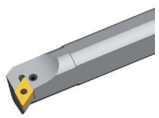
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

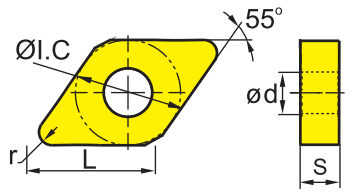
DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

S***-PDUNR/L
Kr: 93°

A373

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMG	L	I.C	S	d
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

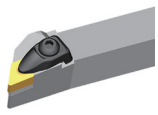
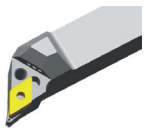
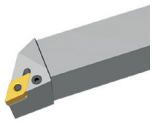
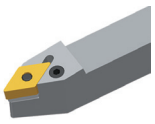
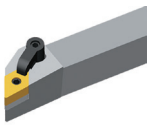
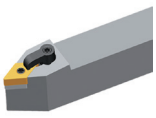
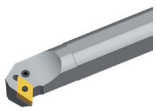


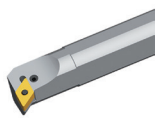
					HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					P																					
					M																					
					K																					
					N																					
					S																					
					H																					
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
NM	**DNMG150412-NM**	1.2	0.2-4.0	0.2-0.6														○										
	DNMG150608-NM	0.8	0.2-4.0	0.1-0.4														●										
	DNMG150612-NM	1.2	0.2-4.0	0.2-0.6													○	●										
Medium Cut																												
TC	**DNMG150404-TC**	0.4	0.5-5.0	0.08-0.4										○														
	DNMG150408-TC	0.8	0.5-5.0	0.15-0.4										○														
	DNMG150608-TC	0.8	0.5-5.0	0.15-0.40										●		●												
	DNMG150612-TC	1.2	0.5-5.0	0.2-0.6										●		○												
Medium Cut																												

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

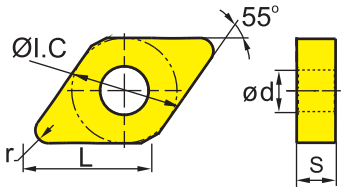
S***-PDUNR/L
Kr: 93°

A373

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMG	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

Turning inserts



DN** negative insert	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	●	●	●	◉	◉	◉									◉	◉	◉			●	◉	●		
M							○	◉							○	○	◉	◉	◉	○	◉	○		
K									●	◉	◉	◉												
N															●	●							●	◉
S															○	○	◉	◉	◉	○			○	◉
H																								

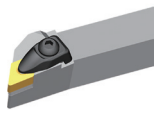
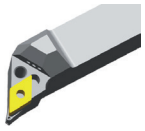
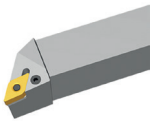
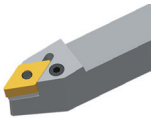
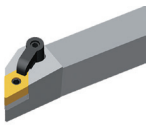
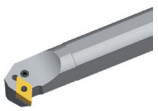
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
TK	**DNMG150608-TK**	0.8	0.5-5.0	0.15-0.40										○														
	DNMG150612-TK	1.2	0.5-5.0	0.2-0.6										○														
Medium Cut																												
DR	**DNMG150608-DR**	0.8	1-6	0.2-0.5			●		●				●		●													
	DNMG150612-DR	1.2	1-6	0.25-0.70			●		●				○		○													
	DNMG150616-DR	1.6	1-6	0.32-0.75			●						○		○													
Roughing																												

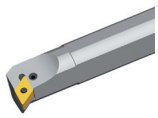
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

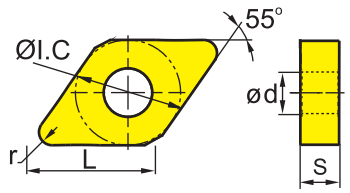
S***-PDUNR/L
Kr: 93°

A373

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMG	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

Turning inserts

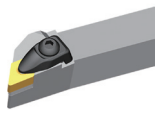
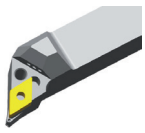
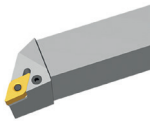
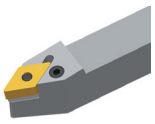
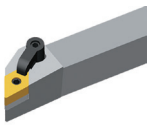
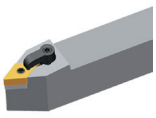
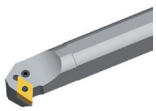


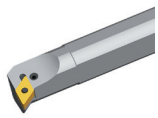
DN** negative insert					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YB5103	YNG151	YNT251	YNG151C	YD101	YD201
P					○	○	○	◍	◍	◍										◍	◍	◍		○	◍	○		
M											○	◍					○	○	◍	◍	◍	◍	○	○	◍	○		
K													◍	◍	◍	◍												
N																	○	○									◍	◍
S																	○	○	◍	◍	◍	◍	○				○	◍
H																												
ISO		r	a_p	f																								
SNR	**DNMG150608-SNR**	0.8	1.0-6.0	0.1-0.5															●				●					○
	DNMG150612-SNR	1.2	1.0-6.0	0.2-0.6															○				●					
Roughing																												
XLR	**DNMG150608-XLR**	0.8	1.5-4.8	0.2-0.45	●			●																				
	DNMG150612-XLR	1.2	1.5-4.8	0.2-0.48	●			●																				
	DNMG150616-XLR	1.6	1.5-4.8	0.2-0.50	○			○																				
Roughing																												

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

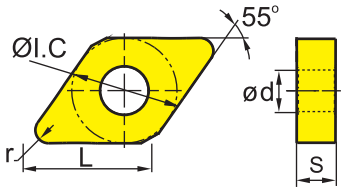
S***-PDUNR/L
Kr: 93°

A373

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DN**	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

Turning inserts



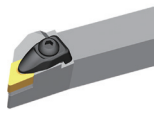
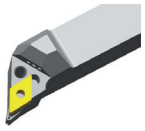
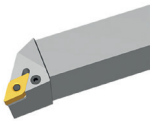
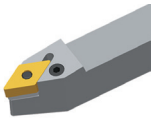
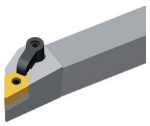
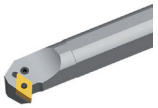
DN** negative insert					HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
					P																				
					M																				
					K																				
					N																				
					S																				
					H																				
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Flat	**DNMA150604**	0.4	1.0-6.0	0.1-0.3									●															
	DNMA150608	0.8	1.0-6.0	0.1-0.6									●		●													
	DNMA150612	1.2	1.0-6.0	0.15-0.70									○		○													
Medium Cut																												
ER	**DNMG150608-ER**	0.8	2-6	0.15-0.55								○																
	DNMG150612-ER	1.2	2-6	0.25-0.80								○																
Roughing																												

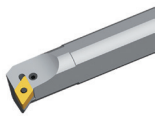
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

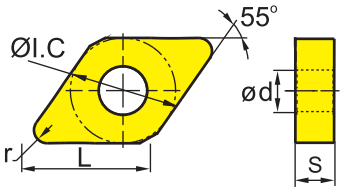
S***-PDUNR/L
Kr: 93°

A373

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMM	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16



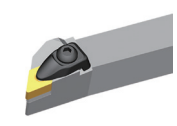
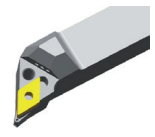
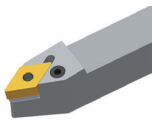
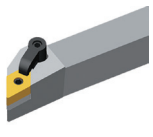
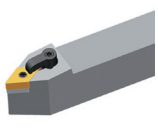
DN** negative insert					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	P				○	○	○	◐	◐	◐										◐	◐	◐		○	◐	○		
	M										○	◐					○	○	◐	◐	◐	◐	○	○	◐	○		
	K												○	◐	◐	◐												
	N																○	○									○	◐
	S																○	○	◐	◐	◐	◐	○				○	◐
	H																											
ISO		r	a_p	f																								
DR	**DNMM150608-DR**	0.8	0.7-6.0	0.20-0.55					○																			
	DNMM150612-DR	1.2	1-6	0.25-0.70			○		○	○																		
	DNMM150616-DR	1.6	1.5-6.0	0.32-0.90			○		○																			
Roughing																												
ER	**DNMM150612-ER**	1.2	1-6	0.25-0.70								○																
Roughing																												
HDR	**DNMM150608-HDR**	0.8	1-7	0.25-0.60			●		○																			
	DNMM150612-HDR	1.2	1-7	0.3-0.8			○																					
	DNMM150616-HDR	1.6	1.5-7.0	0.4-1.0			○																					
Roughing																												

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

S***-PDUNR/L
Kr: 93°

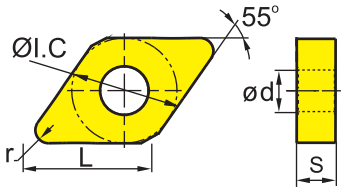
A373

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNMM	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

Turning inserts



DN** negative insert	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	●	●	●	❁	❁	❁									❁	❁	❁		❁	●			
M							●	❁				●	●	❁	❁	❁	●	●	❁	●			
K									●	❁	❁	❁											
N												●	●									●	❁
S												●	●	❁	❁	❁	●					●	❁
H																							

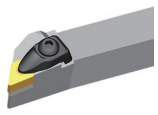
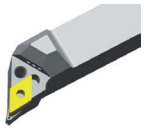
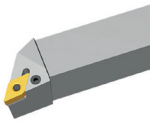
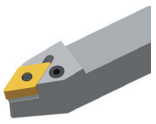
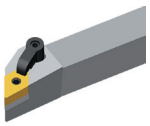
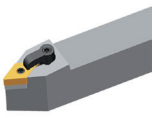
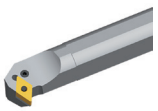
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LR	**DNMM150608-LR**	0.8	2-6	0.1-0.6			○		○			○																
	DNMM150612-LR	1.2	2-6	0.2-0.8					○			○																
	DNMM150616-LR	1.6	2-6	0.25-1.00					○																			
Roughing																												
XLR	**DNMM150616-XLR**	1.6	1.5-6.0	0.25-0.60	●			●																				
Roughing																												

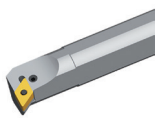
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

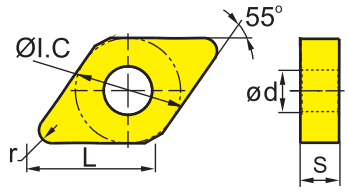
DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

S***-PDUNR/L
Kr: 93°

A373

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNEG	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

DN** negative insert



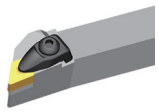
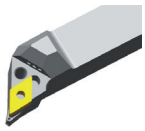
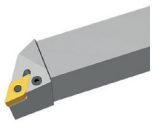
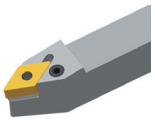
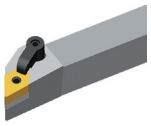
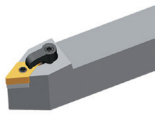
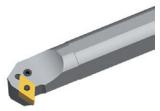
	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	○	○	○	◎	◎	◎									◎	◎	◎		○	◎	○		
M							○	◎				○	○	◎	◎	◎	○		○	◎	○		
K									◎	◎	◎	◎											
N												○	○									○	◎
S												○	○	◎	◎	◎	○					○	◎
H																							

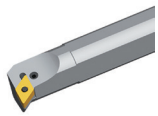
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	**DNEG150604-LH**	0.4	1.5-8.0	0.15-0.30																	●						●	
	DNEG150608-LH	0.8	1.5-8.0	0.20-0.50																	●						●	
	DNEG150612-LH	1.2	1.5-8.0	0.25-0.60																	●						●	
	DNEG150616-LH	1.6	1.5-8.0	0.25-0.70																	●						●	

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A288	A274	A275	A294	A295	A372

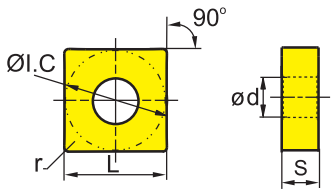
S***-PDUNR/L
Kr: 93°

A373

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SNMG	L	I.C	S	d
09 03	9.525	9.525	3.18	3.81
12 04	12.7	12.7	4.76	5.16



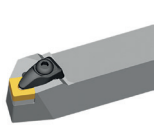
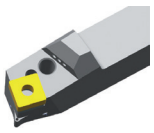
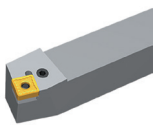
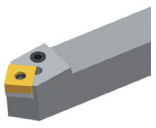
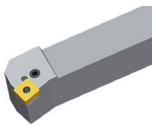
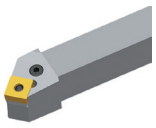
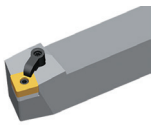
SN** negative insert		HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P		●	●	●	❁	❁	❁									❁	❁	❁	❁	❁	●		
M								●	❁				●	●	❁	❁	❁	●	❁	❁	●		
K										●	❁	❁	❁										
N														●	●							●	❁
S														●	●	❁	❁	❁	●			●	❁
H																							
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
ADF	**SNMG120404-ADF**	0.4	0.5-5.0	0.1-0.3		●															●						
	SNMG120408-ADF	0.8	0.5-5.0	0.12-0.50		●															●						
	SNMG120412-ADF	1.2	1-5	0.2-0.6		●															●						
Finishing																											
DF	**SNMG120408-DF**	0.8	0.3-1.5	0.1-0.4					○																		
	SNMG120412-DF	1.2	0.35-1.50	0.15-0.50			○		○																		
Finishing																											
SF	**SNMG090304-SF**	0.4	0.05-0.50	0.05-0.20																					●		
	SNMG120404-SF	0.4	0.05-0.50	0.05-0.20																					○		
	SNMG120408-SF	0.8	0.05-0.50	0.10-0.35																					○		
Finishing																											

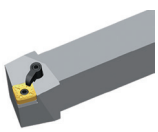
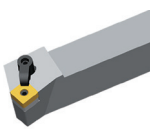
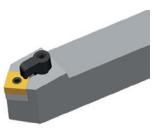
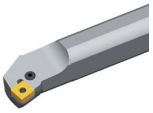
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

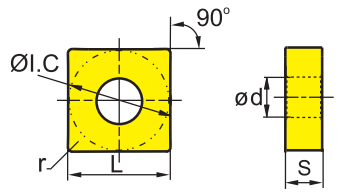
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SNMG	L	I.C	S	d
09 03	9.525	9.525	3.18	3.81
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35

SN** negative insert



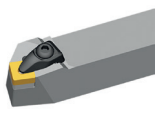
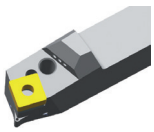
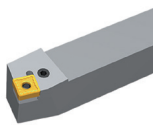
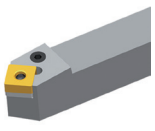
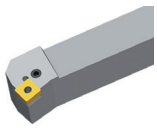
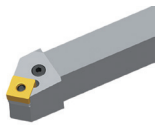
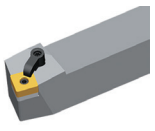
					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
		ISO	r	a_p	f																							
EF		**SNMG090304-EF**	0.4	0.5-2.0	0.05-0.30						○									○	○							
		SNMG090308-EF	0.8	0.5-2.0	0.05-0.40						○									●	○							
		SNMG120404-EF	0.4	0.8-3.0	0.05-0.30															●	○							
		SNMG120408-EF	0.8	0.8-3.0	0.1-0.4															●	○							
		SNMG120412-EF	1.2	0.8-3.0	0.15-0.45															●	○							
	Finishing	**SNMG150608-EF**	0.8	1-4	0.1-0.4						○																	
		SNMG150612-EF	1.2	1-4	0.15-0.45						○																	

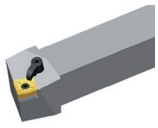
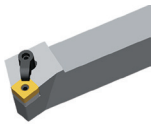
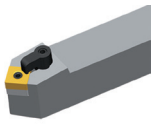
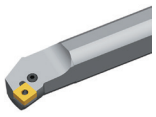
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

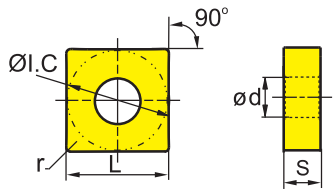
MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94

SN** negative insert



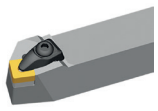
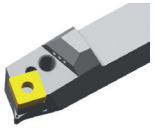
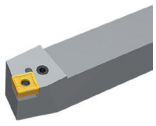
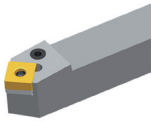
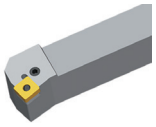
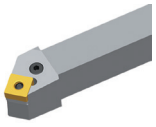
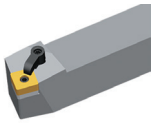
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					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XF	**SNMG120404-XF**	0.4	0.5-2.5	0.1-0.25	●			●																			
	SNMG120408-XF	0.8	0.5-2.5	0.1-0.30	●			●																			
	SNMG120412-XF	1.2	0.5-2.5	0.1-0.35	●																						
Finishing																											
XM	**SNMG120404-XM**	0.4	1-4.2	0.2-0.4	○			○																			
	SNMG120408-XM	0.8	1-4.2	0.2-0.4	●			●																			
	SNMG120412-XM	1.2	1-4.2	0.2-0.6	●			●																			
	SNMG120416-XM	1.6	1-4.2	0.2-0.65	○			○																			
	SNMG150608-XM	0.8	1-5.25	0.2-0.4	●			●																			
	SNMG150612-XM	1.2	1-5.25	0.2-0.6	●			●																			
	SNMG150616-XM	1.6	1-5.25	0.2-0.65	○			●																			
	SNMG190608-XM	0.8	1-6.65	0.2-0.4	○			○																			
	SNMG190612-XM	1.2	1-6.65	0.2-0.6	○			○																			
	SNMG190616-XM	1.6	1-6.65	0.2-0.65	○			○																			
	SNMG190624-XM	2.4	1-6.65	0.2-1.2	○			○																			

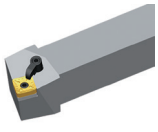
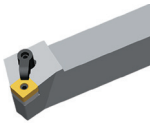
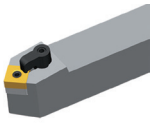
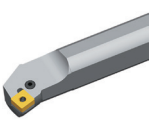
Medium Cut

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

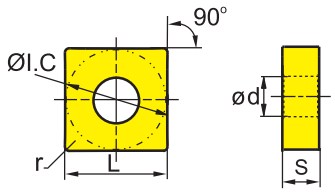
MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

SNMG	L	I.C	S	d
09 03	9.525	9.525	3.18	3.81
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions



	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	P				○	○	○	◉	◉	◉							○	○		◉	◉	◉		○	◉	○		◉
	M										○	◉					○	○	◉	◉	◉	○	○	◉	○			
	K												●	◉	◉	◉												
	N																○	○									○	◉
	S																○	○	◉	◉	◉	○					○	◉
	H																											
PM	**SNMG090304-PM**	0.4	0.4-4.5	0.1-0.3					○																			
	SNMG090308-PM	0.8	0.5-4.5	0.15-0.50					○				○		○													
	SNMG120404-PM	0.4	0.4-6.0	0.1-0.3			○		○						○													
	SNMG120408-PM	0.8	0.5-6.0	0.15-0.50			○		●				○		○													
	SNMG120412-PM	1.2	0.8-6.0	0.18-0.60			○		○				○		●													
	SNMG120416-PM	1.6	1-6	0.23-0.65					○				○		○													
	SNMG150608-PM	0.8	0.7-7.5	0.14-0.50			○		○																			
	SNMG150612-PM	1.2	0.8-7.5	0.18-0.60			○		○				○		●													
	SNMG190612-PM	1.2	1.0-7.5	0.20-0.65			○		○				○		○													
ZM	**SNMG120412-ZM**	1.2	0.5-4.0	0.1-0.5		○																						

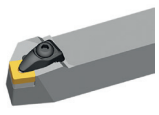
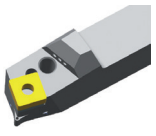
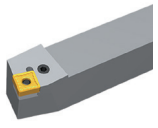
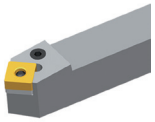
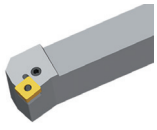
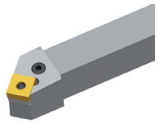
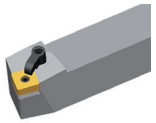
Medium Cut

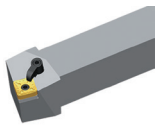
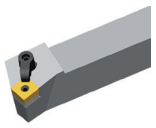
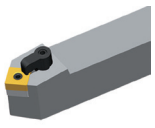
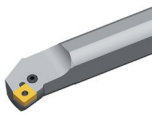
Medium Cut

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

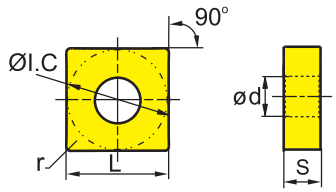
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

SNMG	L	I.C	S	d
09 03	9.525	9.525	3.18	3.81
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

Turning inserts

SN** negative insert

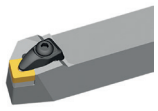
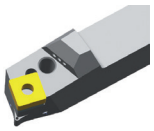
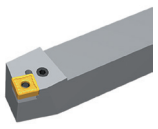
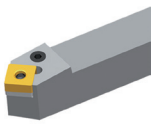
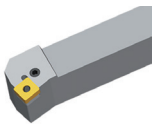
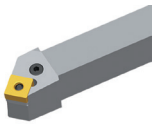
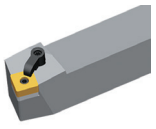


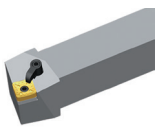
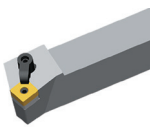
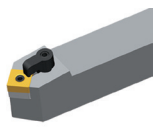
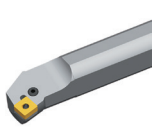
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					HC¹ (CVD)												HC¹ (PVD)							HT		HC²	HW	
	P				●	●	●	◉	◉	◉										◉	◉	◉		●	◉	●		
	M										○	◉					○	○	◉	◉	◉	○	○	◉	◉	○		
	K												◉	◉	◉	◉												
	N																●	●									◉	◉
	S																○	○	◉	◉	◉	○					○	◉
	H																											
DM	**SNMG090304-DM**	0.4	0.4-4.5	0.1-0.3					○																			
	SNMG090308-DM	0.8	0.5-4.5	0.15-0.50			●		●																			
	SNMG120404-DM	0.4	0.4-6.0	0.1-0.3			○		○																			
	SNMG120408-DM	0.8	0.5-6.0	0.15-0.50			●		●	○																		
	SNMG120412-DM	1.2	0.8-6.0	0.18-0.60			●		○																			
	SNMG120416-DM	1.6	1-6	0.23-0.65			○		○																			
	SNMG150608-DM	0.8	0.8-7.5	0.1-0.5			○		○																			
	SNMG150612-DM	1.2	0.8-7.5	0.18-0.60			○		●																			
	SNMG190612-DM	1.2	1-9	0.18-0.60			●		●																			
	SNMG190616-DM	1.6	1-9	0.23-0.65					●																			
EG	**SNMG120408-EG**	0.8	0.5-4.0	0.1-0.5								○								●		●						
	SNMG120412-EG	1.2	0.5-4.0	0.2-0.6								○										●						

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

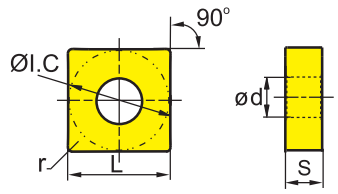
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

SNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35

SN** negative insert



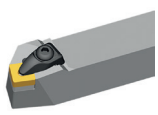
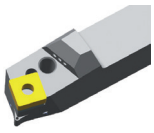
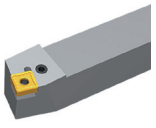
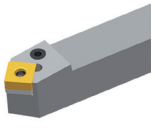
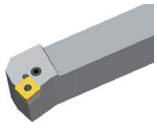
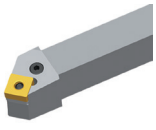
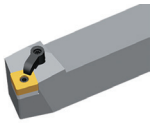
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P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○		
M							○	◉				○	○	◉	◉	◉	○		○	◉	○		
K									●	◉	◉	◉											
N												○	○									○	◉
S												○	○	◉	◉	◉	○					○	◉
H																							

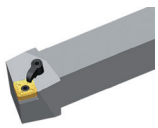
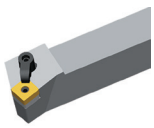
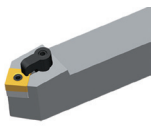
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EM	**SNMG120404-EM**	0.4	0.50-6.35	0.05-0.30								○								●	○							
	SNMG120408-EM	0.8	0.50-6.35	0.20-0.45							●	●								●	○							
	SNMG120412-EM	1.2	0.50-6.35	0.25-0.60							●	○								●	○							
	SNMG120416-EM	1.6	0.50-6.35	0.30-0.75								○								○	○							
	SNMG150612-EM	1.2	0.5-8.0	0.25-0.60							○	●								●	○							
Medium Cut	**SNMG150616-EM**	1.6	0.5-8.0	0.30-0.75																●	○							
TC	**SNMG120404-TC**	0.4	0.5-5.0	0.08-0.25										●														
	SNMG120408-TC	0.8	0.5-5.0	0.15-0.40										●		●												
	SNMG120412-TC	1.2	0.5-5.0	0.2-0.5										●		○												
Medium Cut	**SNMG150616-TC**	1.6	1-7	0.2-0.7										●														
TK	**SNMG120412-TK**	1.2	0.5-5.0	0.2-0.5										○														
Medium Cut																												

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

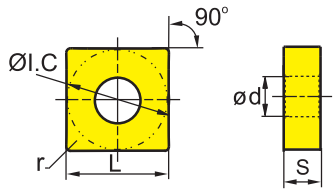
MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

SNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 09	25.4	25.4	9.525	9.12

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

Turning inserts

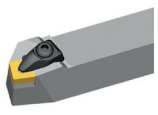
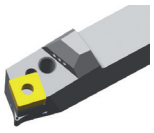
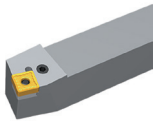
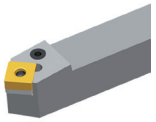
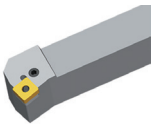
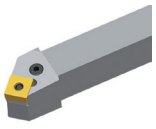
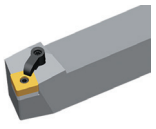


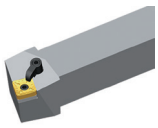
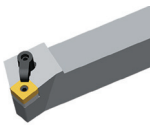
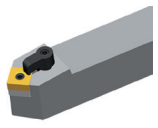
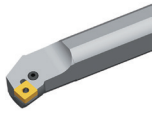
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	SN** negative insert				HC¹ (CVD)												HC¹ (PVD)							HT		HC²	HW	
	P				●	●	●	❁	❁	❁										❁	❁	❁		●	❁	●		
	M										○	❁						○	○	❁	❁	❁	○	○	❁	○		
	K												●	❁	❁	❁												
	N																●	●									●	❁
	S																	○	○	❁	❁	❁	○				○	❁
	H																											
NM	**SNMG120408-NM**	0.8	0.5-5.0	0.1-0.4															●								○	
	SNMG120412-NM	1.2	0.5-5.0	0.15-0.50															○									
Medium Cut																												
DR	**SNMG120408-DR**	0.8	0.7-7.0	0.2-0.5			○		●				○		○													
	SNMG120412-DR	1.2	1-7	0.25-0.70			○		●	○			○		●													
	SNMG120416-DR	1.6	1.5-7.0	0.32-0.75					●				○		○													
	SNMG150612-DR	1.2	1-8	0.25-0.70					●				○		●													
	SNMG150616-DR	1.6	1.5-8.0	0.3-0.8			○		●						○													
	SNMG190612-DR	1.2	1-10	0.25-0.70			○		●	●					○													
Roughing	**SNMG190616-DR**	1.6	1.5-10.0	0.3-0.8	○		○	●	●	●			○		●													
	SNMG190624-DR	2.4	2-10	0.32-0.90					○	○																		
	SNMG250924-DR	2.4	2-15	0.4-1.2					●	○																		

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

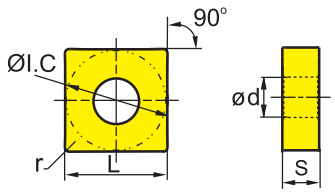
MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94



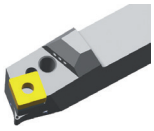
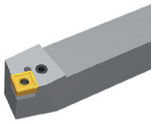
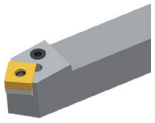
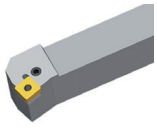
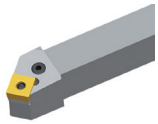
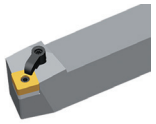
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	P				●	●	●	◐	◐	◉										◐	◐	◐		●	◐	●		
	M										○	◐					○	○	◐	◐	◐	◐	○	○	◐	○		
	K												◉	◉	◉	◉												
	N																◉	◉									◉	◉
	S																◉	◉	◐	◐	◐	◐	◉				◉	◉
	H																											
ER Roughing	**SNMG120408-ER**	0.8	2.0-7.6	0.20-0.55							○	○																
	SNMG120412-ER	1.2	2.0-7.6	0.3-0.6							○	○																
	SNMG150612-ER	1.2	2.0-9.6	0.3-0.6							○	○																
	SNMG190612-ER	1.2	2.0-11.4	0.3-0.6								○																
	SNMG190616-ER	1.6	2.0-11.4	0.35-0.80								○																
SNR Roughing	**SNMG120408-SNR**	0.8	1-4	0.2-0.6														○				●						
	SNMG190612-SNR	1.2	2.0-7.0	0.2-0.6														○										
	SNMG190616-SNR	1.6	2.0-7.0	0.25-0.7																								

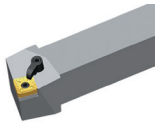
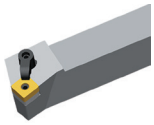
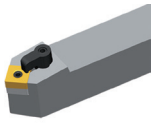
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

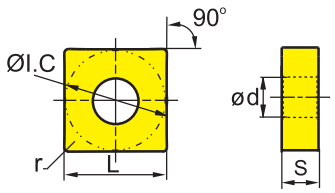
MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SNMG	L	I.C	S	d
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94

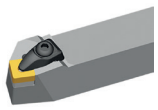
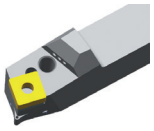
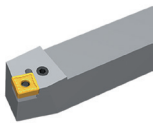
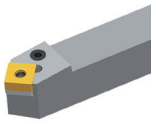
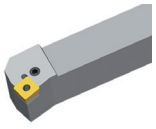
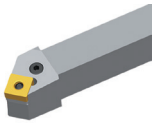
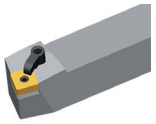


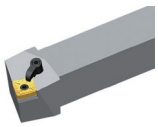
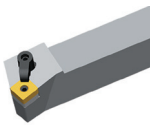
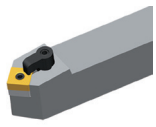
SN** negative insert					HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					○			●																			
M																											
K																											
N																											
S																											
H																											
ISO			r	a_p	f																						
LR	**SNMG190616-LR**		1.6	2.0-8.0	0.3-0.8	○			●																		
Roughing																											
XLR	**SNMG150616-XLR**		1.6	1.5-6.0	0.25-0.60				●																		
Roughing																											

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

MSRNR/L	MSKNR/L	MSDNN
Kr: 75°	Kr: 75°	Kr: 45°
		
A297	A298	A299

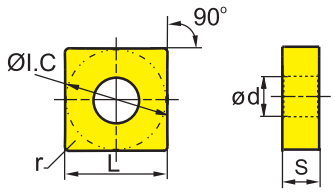
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SNMM	L	I.C	S	d
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 07	25.4	25.4	7.94	9.12
25 09	25.4	25.4	9.525	9.12

SN** negative insert



	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
DR	**SNMM150612-DR**	1.2	1-7	0.25-0.60					○																		
	SNMM150616-DR	1.6	1.5-9.0	0.32-0.90					○	○																	
	SNMM190612-DR	1.2	2.0-10.5	0.25-0.60			○		○																		
	SNMM190616-DR	1.6	2.0-10.5	0.35-0.90			○		●	●																	
	SNMM190624-DR	2.4	2.0-10.5	0.4-1.1			●	●	○																		
	SNMM250716-DR	1.6	2.5-12.5	0.4-1.0					●																		
	SNMM250724-DR	2.4	2.5-12.5	0.5-1.2			○		●																		
	SNMM250924-DR	2.4	2.5-12.5	0.5-1.2				●	●																		
ER	**SNMM150624-ER**	2.4	2.0-8.0	0.3-0.4					○																		
	SNMM250724-ER	2.4	2.5-12.5	0.5-1.2	○				○		○	●															
	SNMM250732-ER	3.2	2.5-12.5	0.5-1.6	○				●																		
	SNMM250924-ER	2.4	3.0-12.5	0.3-1.2	○				●	○		○															
	SNMM250932-ER	3.2	2.8-18.0	0.55-1.80					●																		

Roughing

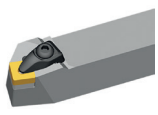
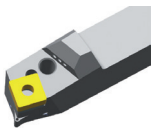
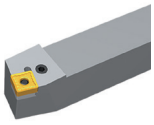
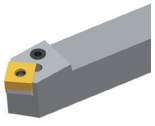
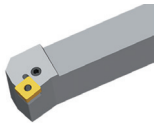
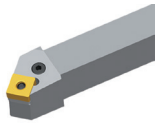
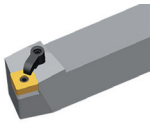
Roughing

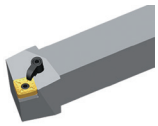
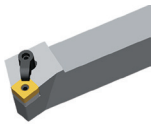
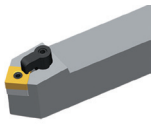
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

MSRNR/L	MSKNR/L	MSDNN
Kr: 75°	Kr: 75°	Kr: 45°
		
A297	A298	A299

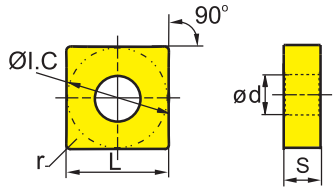
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

SNMM	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 07	25.4	25.4	7.94	9.12
25 09	25.4	25.4	9.525	9.12

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

Turning inserts

SN** negative insert



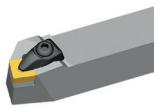
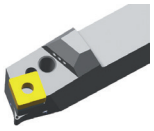
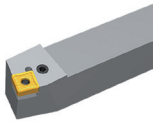
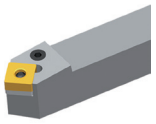
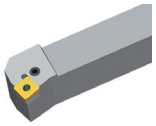
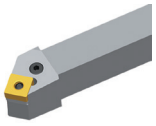
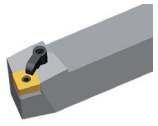
	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	●	●	●	◍	◍	◍									◍	◍	◍		●	◍	●		
M							○	◍					○	○	◍	◍	◍	○	○	◍	○		
K									○	◍	◍	◍											
N												○	○									○	◍
S													○	○	◍	◍	◍	○				○	◍
H																							

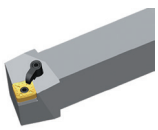
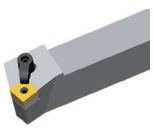
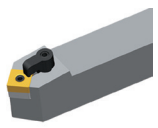
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LR  Roughing	**SNMM120408-LR**	0.8	1-6	0.1-0.5					○																			
	SNMM120412-LR	1.2	1-6	0.2-0.6				○	○																			
	SNMM150612-LR	1.2	1.5-7.0	0.1-0.5					○																			
	SNMM150616-LR	1.6	1.5-7.0	0.1-0.5					○																			
	SNMM190612-LR	1.2	2-10	0.25-0.70				○																				
	SNMM190616-LR	1.6	2-10	0.3-1.0				○	○																			
	SNMM190624-LR	2.4	2-10	0.3-1.1				○	○																			
	SNMM250924-LR	2.4	3.0-12.5	0.3-1.2				○	○	○																		
XLR  Roughing	**SNMM190612-XLR**	1.2	2.0-10.5	0.3-1.0	○			○																				
	SNMM190616-XLR	1.6	2.0-8.5	0.2-0.6	○			○																				
	SNMM190624-XLR	2.4	2.0-10.5	0.3-1.0	○			○																				
	SNMM250724-XLR	2.4	1.0-5.0	0.10-0.5	○																							
	SNMM250924-XLR	2.4	2.0-7.8	0.2-0.65	○			○				○																

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

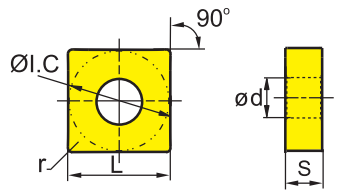
MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

System code A52 Grade selection A46 Technical info A607 Cutting data A414

SNMM	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 07	25.4	25.4	7.94	9.12
25 09	25.4	25.4	9.525	9.12

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

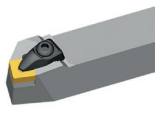
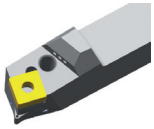
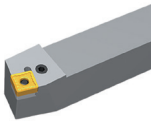
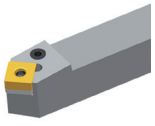
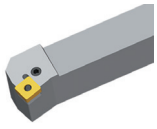
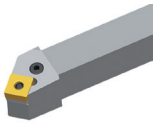
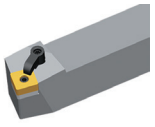


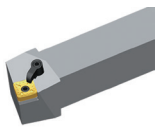
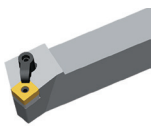
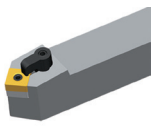
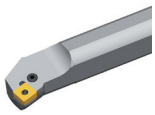
SN** negative insert					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW		
					P																							
					M																							
					K																							
					N																							
					S																							
					H																							
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
HDR Roughing	**SNMM120408-HDR**	0.8	1-6	0.1-0.6					○																				
	SNMM120412-HDR	1.2	1.5-6.0	0.2-0.7					○																				
	SNMM150608-HDR	0.8	1-7	0.2-0.6						○																			
	SNMM150612-HDR	1.2	1-7	0.25-0.70			○		○																				
	SNMM150616-HDR	1.6	1.5-9.0	0.32-1.00					○																				
	SNMM190612-HDR	1.2	2.0-10.5	0.25-0.70			○		○																				
	SNMM190616-HDR	1.6	2.0-10.5	0.35-1.00			○		●			○																	
	SNMM190624-HDR	2.4	2.0-10.5	0.4-1.2			○		○																				
	SNMM250724-HDR	2.4	2.5-12.5	0.5-1.4					●																				
	SNMM250924-HDR	2.4	2.5-12.5	0.5-1.4	○		○	●	●	●																			

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

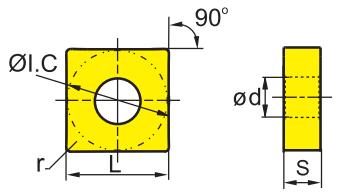
MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SNMM	L	I.C	S	d
19 06	19.05	19.05	6.35	7.94
25 09	25.4	25.4	9.525	9.12



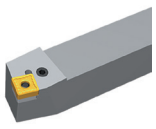
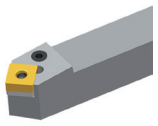
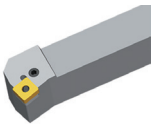
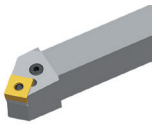
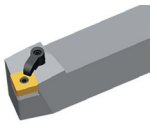
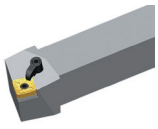
					HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					○	○	○	◉	◉	◉										◉	◉	◉		◉	◉	○		
M											○	◉					○	○	◉	◉	◉	◉	○	○	◉	○		
K													○	◉	◉	◉												
N																	○	○									○	◉
S																	○	○	◉	◉	◉	◉	○				○	◉
H																												
ISO			r	a_p	f																							
HPR	**SNMM190616-HPR**		1.6	2.0-10.5	0.35-1.00					○																		
	SNMM190624-HPR		2.4	2.0-10.5	0.4-1.2			○		○																		
	SNMM250924-HPR		2.4	2.0-12.5	0.5-1.4		○	○		●	●																	
Roughing																												

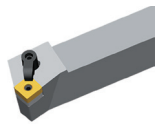
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
						
A289	A276	A278	A279	A280	A296	A297

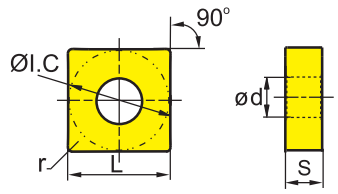
MSKNR/L
Kr: 75°

A298

SNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

Turning inserts

SN** negative insert

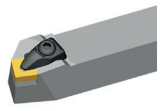
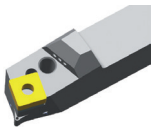
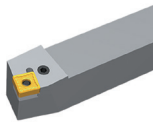
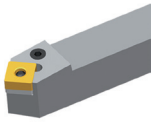
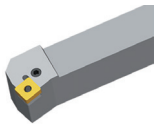
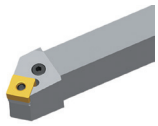
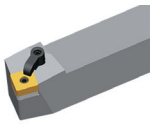


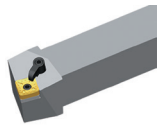
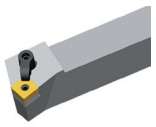
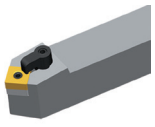
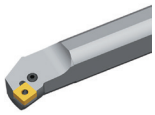
		ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
						YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Basic		**SNMG120408**	0.8	0.5-6.0	0.1-0.6					○																	
		SNMG120412	1.2	0.5-6.0	0.1-0.7					○																	
Medium Cut																											

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

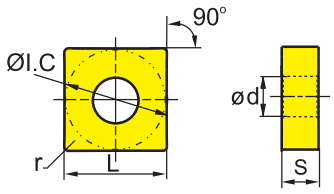
MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

SN**	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 07	25.4	25.4	7.94	9.12

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

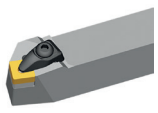
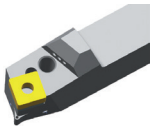
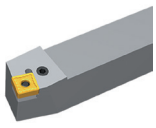
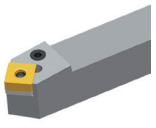
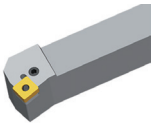
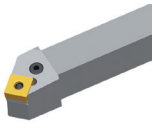
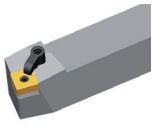


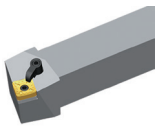
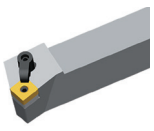
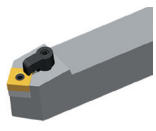
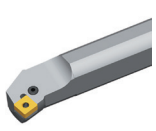
SN** negative insert					HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
		ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P						●	●	●	◉	◉	◉										◉	◉	◉		●	◉	●		
M												○	◉					○	○	◉	◉	◉	◉	○	◉	◉	○		
K														○	◉	◉	◉												
N																		○	○									○	◉
S																		○	○	◉	◉	◉	◉	○				○	◉
H																													
Flat		**SNMA120408**	0.8	0.5-5.0	0.1-0.5									○	●	●													
		SNMA120412	1.2	0.5-5.0	0.2-0.7									○	○	●	○												
		SNMA120416	1.6	0.5-5.0	0.2-1.0										●														
		SNMA150608	0.8	0.8-7.0	0.1-0.5											○													
		SNMA150612	1.2	0.8-7.0	0.2-0.7											○													
		SNMA190612	1.2	0.8-7.0	0.2-0.7									○		○													
		SNMA190616	1.6	0.8-7.0	0.3-0.8									○		●													
Basic		**SNMM250724-1**	2.4	2.0-12.5	0.3-1.2					○	●																		

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

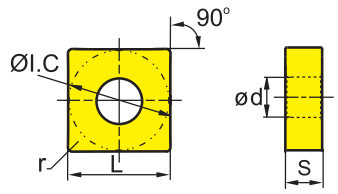
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

SNMM	L	I.C	S	d
19 06	19.05	19.05	6.35	7.94
25 09	25.4	25.4	9.525	9.12

SN** negative insert

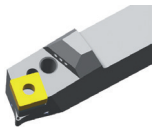
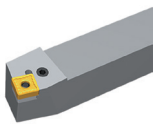
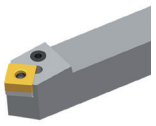
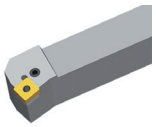
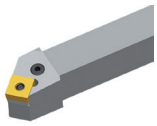
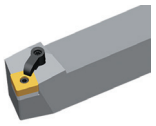
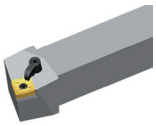


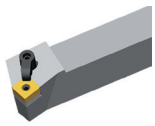
		ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
						YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Basic		**SNMM190612**	1.2	1.5-10.5	0.2-0.7					○																		
		SNMM190616	1.6	1.5-10.5	0.2-1.0					○																		
		SNMM250924	2.4	2.0-12.5	0.3-1.2					○																		

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
						
A289	A276	A278	A279	A280	A296	A297

MSKNR/L
Kr: 75°

A298

A Turning
B Milling
C Drilling
D Technical Information
E Index

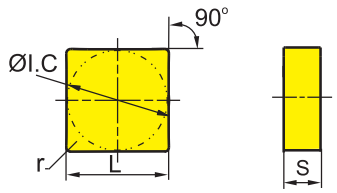
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

SNUN	L	I.C	S
12 04	12.7	12.7	4.76
19 04	19.05	19.05	4.76

SN** negative insert



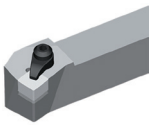
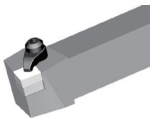
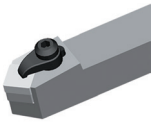
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	●	●	●	○	○	○									○	○	○		●	○	●		
M							●	○					●	●	○	○	○	●	○	○	●		
K									●	○	○	○											
N													●	●								●	○
S													●	●	○	○	○	●				●	○
H																							

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Flat	**SNUN120408**	0.8	0.7-6.0	0.2-0.5											○													
	SNUN120412	1.2	0.7-6.0	0.25-0.60									○		○													
	SNUN190412	1.2	0.9-6.0	0.25-0.60																							○	

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

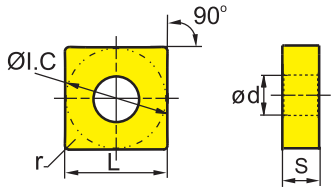
CSKNR/L	CSRNR/L	CSDNN
Kr: 75°	Kr: 75°	Kr: 45°
		
A340	A341	A343

System code A52 Grade selection A46 Technical info A607 Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SN**	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16

SN** negative insert		HC[1] (CVD)											HC[1] (PVD)							HT		HC[2]	HW	
	P	○	○	○	◎	◎	◎									◎	◎	◎		○	◎	○		
	M							○	◎					○	○	◎	◎	◎	○	○	◎	○		
	K									●	◎	◎	◎											
	N													●	●								●	◎
	S													●	●	◎	◎	◎	●				●	◎
	H																							

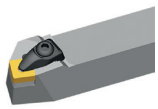
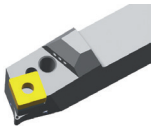
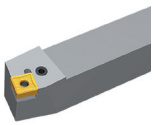
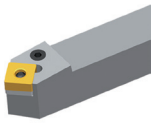
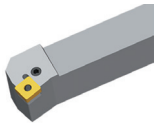
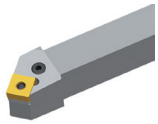
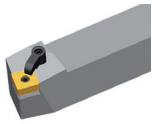


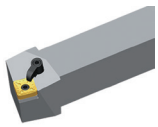
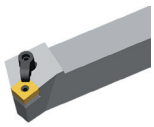
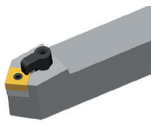
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LH	**SNEG120408-LH**	0.8	1.5-7.0	0.20-0.50																	●						●	
	SNEG120412-LH	1.2	1.5-7.0	0.25-0.60																	●						●	
	SNEG120416-LH	1.6	1.5-7.0	0.25-0.70																	●						●	
LH	**SNMM120408-LH**	0.8	1.0-5.0	0.2-0.6																							○	
Alum Machining																												

● Ex stock ○ On demand

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						
A265	A289	A276	A278	A279	A280	A296

MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

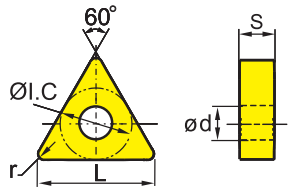
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TN**	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

TN** negative insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	●	●	●	◉	◉	◉										◉	◉	◉		●	◉	●		
M							○	◉					○	○	◉	◉	◉	◉	○	●	◉	○		
K									◉	◉	◉	◉												
N													●	●									●	◉
S													○	○	◉	◉	◉	○					○	◉
H																								

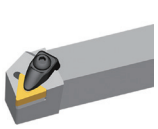
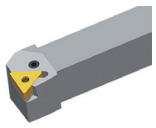
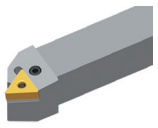
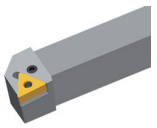
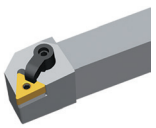
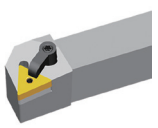
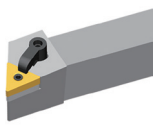
	ISO	r	a_p	f
WG  Wiper	**TNMX160408-WG**	0.8	0.5-5.0	0.15-0.70
	TNMX160412-WG	1.2	0.8-6.0	0.20-0.75
ADF  Finishing	**TNMG160404-ADF**	0.4	0.5-5.0	0.05-0.30
	TNMG160408-ADF	0.8	0.5-5.0	0.1-0.4
	TNMG160412-ADF	1.2	0.5-5.0	0.2-0.5
DF  Finishing	**TNMG160404-DF**	0.4	0.15-2.00	0.08-0.25
	TNMG160408-DF	0.8	0.15-2.00	0.1-0.3
	TNMG160412-DF	1.2	0.2-3.0	0.15-0.50
	TNMG220408-DF	0.8	0.3-3.0	0.1-0.4

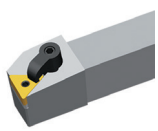
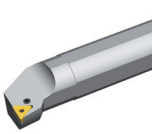
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

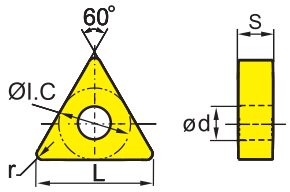
MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81

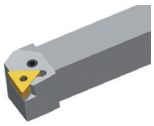
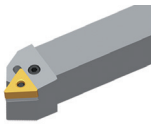
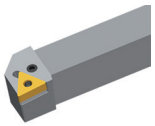
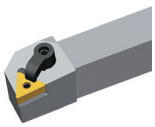
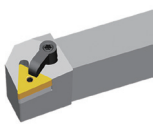
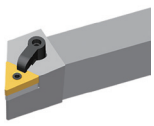


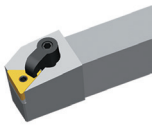
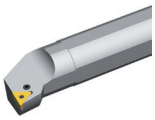
TN** negative insert		HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW		
P		○	○	○	◎	◎	◎									◎	◎	◎		○	◎	○			
M								○	◎				○	○	◎	◎	◎	○		○	◎	○			
K										◎	◎	◎	◎												
N														○	○								○	◎	
S														○	○	◎	◎	◎	○				○	◎	
H																									
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
SF	**TNMG160404-SF**	0.4	0.05-1.00	0.05-0.30																			○		●				
	TNMG160408-SF	0.8	0.05-1.00	0.05-0.40																					●				
Finishing																													

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

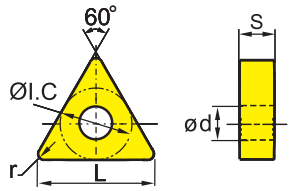
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TNMG	L	I.C	S	d
11 03	11	6.35	3.18	2.26
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

TN** negative insert



		ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
						YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
EF		**TNMG110304-EF**	0.4	0.1-1.0	0.05-0.20															●	○							
		TNMG110308-EF	0.8	0.1-1.0	0.05-0.40															●								
		TNMG160404-EF	0.4	0.1-1.5	0.05-0.30							●								●	●							
		TNMG160408-EF	0.8	0.1-1.5	0.1-0.4							●								●	●							
		TNMG160412-EF	1.2	0.2-2.5	0.15-0.40															●	○							
		TNMG220404-EF	0.4	0.5-2.5	0.05-0.25															●	○							
		TNMG220408-EF	0.8	0.5-2.5	0.1-0.4							○								●	○							
		TNMG220412-EF	1.2	0.5-2.5	0.1-0.5															●	○							
XF		**TNMG160404-XF**	0.4	0.5-2.5	0.1-0.25	●			●																			
		TNMG160408-XF	0.8	0.5-2.5	0.1-0.3	●			●																			

EF Finishing

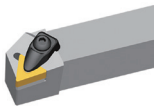
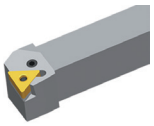
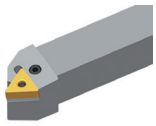
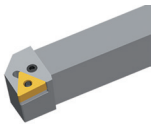
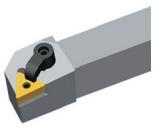
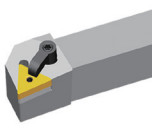
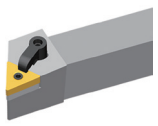
XF Finishing

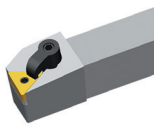
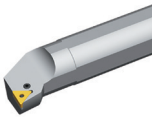
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

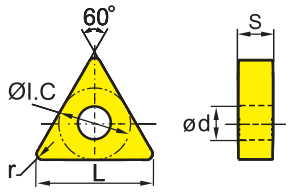
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

TN** negative insert



	HC[1] (CVD)											HC[1] (PVD)							HT		HC[2]	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○		
M							○	◉				○	○	◉	◉	◉	○		○	◉	○		
K									◉	◉	◉	◉											
N												●	●									●	◉
S												○	○	◉	◉	◉	○					○	◉
H																							

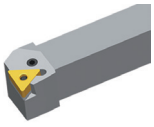
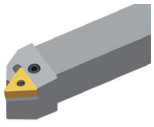
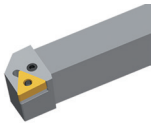
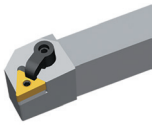
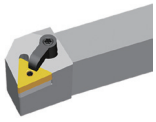
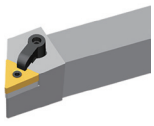
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
FM	**TNMG160404L-FM**	0.4	0.5-3.0	0.1-0.3					●											●								
	TNMG160404R-FM	0.4	0.5-3.0	0.1-0.3					●											●								
	TNMG160408L-FM	0.8	0.5-3.0	0.15-0.50			○		○											●								
	TNMG160408R-FM	0.8	0.5-3.0	0.15-0.50			○		●											●								
Finishing																												
XM	**TNMG160404-XM**	0.4	1-5.6	0.2-0.4	●			○																				
	TNMG160408-XM	0.8	1-5.6	0.2-0.4	●			●																				
	TNMG160412-XM	1.2	1-5.6	0.2-0.6	●			●																				
	TNMG160416-XM	1.6	1-5.6	0.2-0.65	○			●																				
	TNMG220408-XM	0.8	1-7.7	0.2-0.4	●			●																				
	TNMG220412-XM	1.2	1-7.7	0.2-0.6	●			●																				
Medium Cut	**TNMG220416-XM**	1.6	1-7.7	0.2-0.65	○			●																				

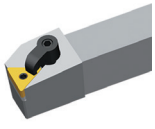
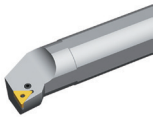
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

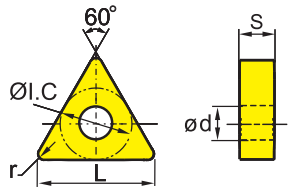
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TNMG	L	I.C	S	d
11 03	11	6.35	3.18	2.26
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

TN** negative insert



	HC[1] (CVD)										HC[1] (PVD)						HT		HC[2]	HW	
P	●	●	●	❁	❁	❁								❁	❁	❁	●	❁	●		
M							○	❁				○	○	❁	❁	❁	○	❁	○		
K									○	❁	❁	❁									
N													●	●						●	❁
S													○	○	❁	❁	❁	○			❁	○
H																					

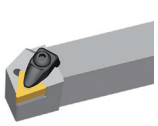
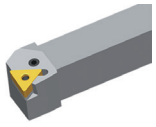
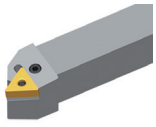
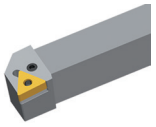
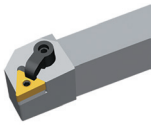
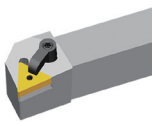
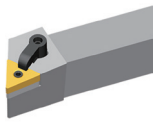
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
DM Medium Cut	**TNMG110308-DM**	0.8	0.3-3.0	0.1-0.4					○																			
	TNMG160404-DM	0.4	0.4-5.0	0.1-0.3			○		●			○																
	TNMG160408-DM	0.8	0.5-5.0	0.15-0.50			●		●																			
	TNMG160412-DM	1.2	0.8-5.0	0.18-0.60			●		○																			
	TNMG220404-DM	0.4	0.4-6.6	0.1-0.3			○		●																			
	TNMG220408-DM	0.8	0.5-6.6	0.15-0.50			○		●																			
	TNMG220412-DM	1.2	0.8-6.6	0.18-0.60			○		●																			
	TNMG220416-DM	1.6	1.0-6.6	0.23-0.65			●		○																			
PM Medium Cut	**TNMG110304-PM**	0.4	0.4-3.0	0.1-0.3					●																			
	TNMG110308-PM	0.8	0.4-3.0	0.15-0.40					○																			
	TNMG160404-PM	0.4	0.4-5.0	0.1-0.3			○		●				○		○													
	TNMG160408-PM	0.8	0.5-5.0	0.15-0.50			○		●				●		●													
	TNMG160412-PM	1.2	0.8-5.0	0.18-0.60			○		●				○		○													
	TNMG220408-PM	0.8	0.5-6.6	0.15-0.50			○		●				●		○													
	TNMG220412-PM	1.2	0.8-6.6	0.18-0.60			○		○						○													
	TNMG220416-PM	1.6	1.0-6.6	0.23-0.65					○																			

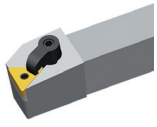
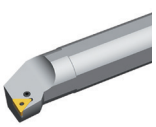
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

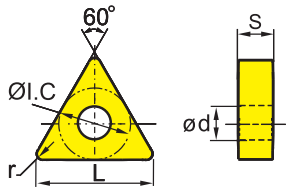
MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81

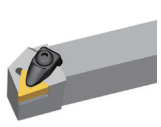
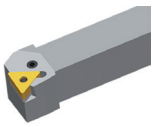
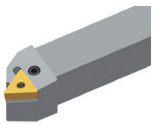
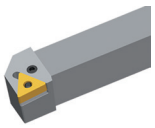
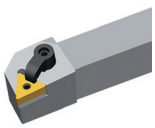
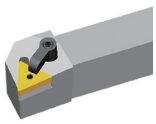
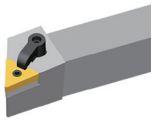


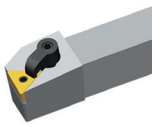
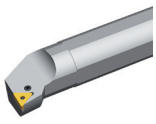
TN** negative insert		HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
		YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YB5103	YNG151	YNT251	YNG151C	YD101	YD201
P		○	○	○	◐	◐	◐										◐	◐	◐		○	◐	○		
M								○	◐					○	○	◐	◐	◐	○		○	◐	○		
K										◐	◐	◐	◐												
N														○	○									◐	◐
S														○	○	◐	◐	◐	○					○	◐
H																									
ISO	r	a_p	f																						
ZM	**TNMG160404-ZM**	0.4	0.5-5.0	0.08-0.30	●																				
	TNMG160408-ZM	0.8	0.5-5.0	0.1-0.4	●																				
	TNMG160412-ZM	1.2	0.5-5.0	0.1-0.6	●																				
Medium Cut																									
SNR	**TNMG160408-SNR**	0.8	1-5.6	0.1-0.5																●					
Roughing																									

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

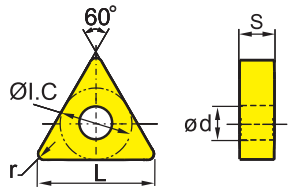
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

TN** negative insert



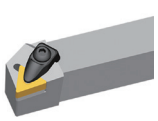
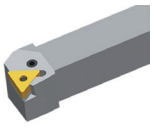
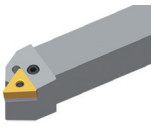
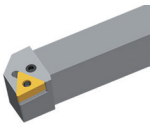
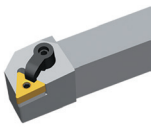
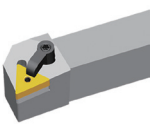
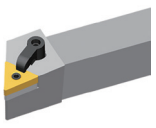
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○		
M							○	◉				○	○	◉	◉	◉	○	○	◉	○			
K									○	◉	◉	◉											
N												○	○									○	◉
S												○	○	◉	◉	◉	○					○	◉
H																							

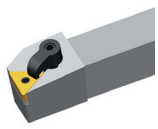
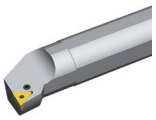
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
EG	**TNMG160404-EG**	0.4	0.5-4.0	0.1-0.3																		●						
	TNMG160408-EG	0.8	0.5-4.0	0.1-0.4							○	○								●		●						
	TNMG160412-EG	1.2	0.5-4.0	0.15-0.50								○																
Medium Cut																												
EM	**TNMG160404-EM**	0.4	0.5-4.8	0.05-0.30							○	○								●	●							
	TNMG160408-EM	0.8	0.5-4.8	0.10-0.45							●	●								●	●							
	TNMG160412-EM	1.2	0.5-4.8	0.1-0.6							○	●								●	○							
	TNMG220408-EM	0.8	0.5-6.6	0.10-0.45							●	●								●	○							
	TNMG220412-EM	1.2	0.5-6.6	0.1-0.6							○	○								●	○							
	TNMG220416-EM	1.6	0.5-6.6	0.10-0.65								○								●	○							
TC	**TNMG160404-TC**	0.4	0.5-3.0	0.05-0.20												○												
	TNMG160408-TC	0.8	0.5-3.0	0.08-0.25										●		○												
	TNMG160412-TC	1.2	1-3	0.1-0.3												○												
	TNMG220412-TC	1.2	1-6	0.15-0.40										○		○												
Medium Cut																												

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

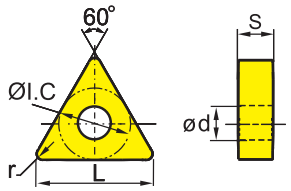
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16
27 06	27.5	15.875	6.35	6.35

TN** negative insert

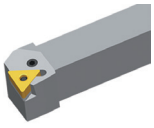
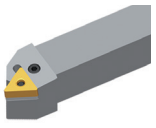
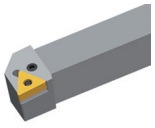
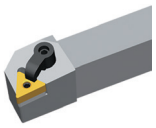
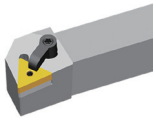
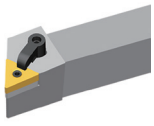


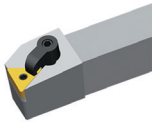
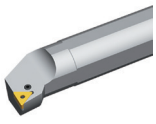
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					HC¹ (CVD)												HC¹ (PVD)							HT		HC²	HW	
P					○	○	○	◉	◉	◉										◉	◉	◉		○	○	○		
M											○	◉					○	○	◉	◉	◉	◉	○	○	◉	○		
K													●	◉	◉	◉												
N																	◉	◉									◉	◉
S																	●	●	◉	◉	◉	●					●	◉
H																												
DR	**TNMG160408-DR**	0.8	0.7-6.0	0.20-0.55			○		○				○		●													
	TNMG160412-DR	1.2	1-6	0.25-0.65			○		○				○		○													
	TNMG220408-DR	0.8	0.7-7.0	0.20-0.55					●						○													
	TNMG220412-DR	1.2	1-7	0.25-0.65					○						●													
	TNMG220416-DR	1.6	1.5-7.0	0.32-0.75					○						○													
Roughing	**TNMG270612-DR**	1.2	2-12	0.35-0.75					○																			
XLR	**TNMG160408-XLR**	0.8	1.5-4.5	0.2-0.38	○			○																				
	TNMG160412-XLR	1.2	1.5-4.5	0.2-0.45	○			○																				
Roughing																												

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

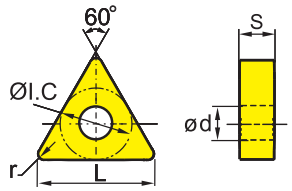
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

TN**	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16
27 06	27.5	15.875	6.35	6.35

TN** negative insert

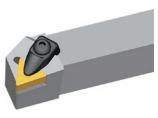
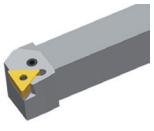
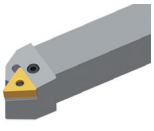
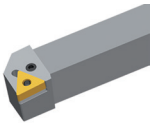
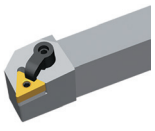
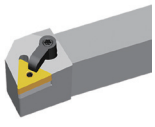
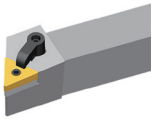


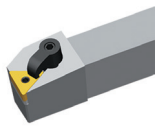
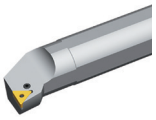
					HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					P																					
					M																					
					K																					
					N																					
					S																					
					H																					
	ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
DR	**TNMM160408-DR**		0.8	0.7-6.0	0.20-0.55					○																	
	TNMM160412-DR		1.2	1-6	0.25-0.70			○																			
	TNMM220408-DR		0.8	0.7-8.0	0.20-0.55					○																	
	TNMM220412-DR		1.2	1-8	0.25-0.70					●																	
Roughing	**TNMM270624-DR**		2.4	3.0-8.0	0.25-0.7					○																	
ER	**TNMG160408-ER**		0.8	2.0-5.6	0.15-0.55								○														
	TNMG160412-ER		1.2	2.0-5.6	0.15-0.60								○														
	TNMG220408-ER		0.8	2.0-7.7	0.15-0.55								○														
Roughing																											
LR	**TNMM160412-LR**		1.2	1.5-6.0	0.1-0.6			○		○																	
Roughing																											

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

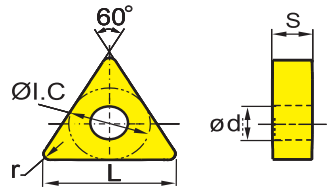
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TNMM	L	I.C	S	d
22 04	22	12.7	4.76	5.16
27 06	27.5	15.875	6.35	6.35

TN** negative insert



	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	○	○	○	◎	◎	◎									◎	◎	◎		○	◎	○		
M							○	◎				○	○	◎	◎	◎	○		○	◎	○		
K									◎	◎	◎	◎											
N												○	○									○	◎
S													○	○	◎	◎	◎	○				○	◎
H																							

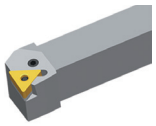
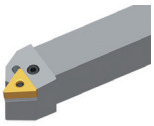
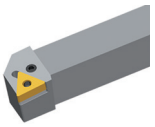
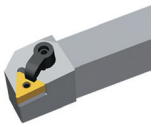
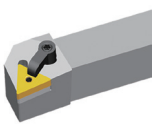
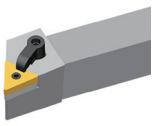
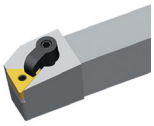
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
HDR	**TNMM220416-HDR**	1.6	2-9	0.35-1.00					○																			
	TNMM270616-HDR	1.6	2-6	0.35-1.00					●																			
	TNMM270624-HDR	2.4	2-7	0.4-1.2					○			○																
Heavy Turning																												

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

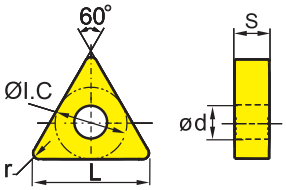
PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L	MTFNR/L
Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°	Kr: 91°
						
A281	A282	A283	A300	A301	A302	A303

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16
27 06	27.5	15.875	6.35	6.35
33 09	33	19.05	9.525	7.94

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

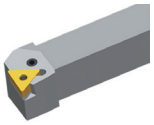
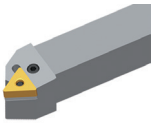
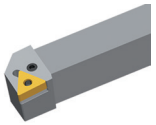
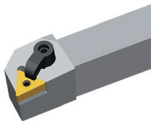
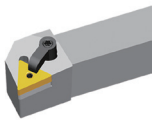
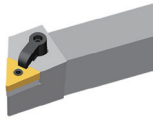


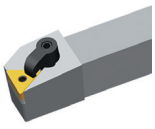
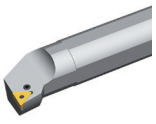
TN** negative insert					HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	ISO	r	a_p	f																							
Basic	**TNMG160404**	0.4	1.0-4.0	0.05-0.20					○																		
	TNMG160408	0.8	1.0-4.0	0.08-0.30			○		○																		
	TNMG220404	0.4	1.0-6.0	0.05-0.20					○																		
	TNMG220416	1.6	1.0-6.0	0.1-0.5					○																		
Medium Cut	**TNMG270612**	1.2	1.0-9.0	0.1-0.5					○																		
	TNMG330916	1.6	1.0-11.0	0.1-0.5					○																		

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

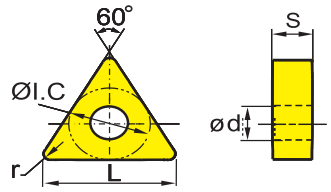
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TN**	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

TN** negative insert



	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	○	○	○	◍	◍	◍										◍	◍	◍		○	◍	○		
M							○	◍					○	○	◍	◍	◍	○		○	◍	○		
K									◍	◍	◍	◍												
N													○	○									◍	◍
S													○	○	◍	◍	◍	○					○	◍
H																								

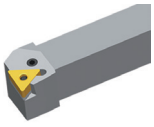
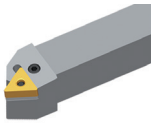
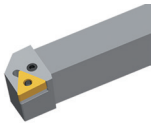
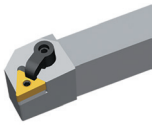
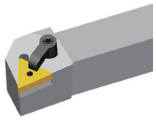
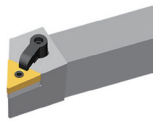
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Flat	**TNMA160404**	0.4	1.0-4.0	0.05-0.20									○		●													
	TNMA160408	0.8	1.0-4.0	0.08-0.30									○	●	●													
	TNMA160412	1.2	1.0-4.0	0.1-0.4											○													
	TNMA160416	1.6	1.0-4.0	0.05-0.50									○		○													
	TNMA220408	0.8	1.0-6.0	0.1-0.3									○		●													
	TNMA220412	1.2	1.0-6.0	0.1-0.4											○													
	TNMA220416	1.6	1.0-6.0	0.1-0.5												○												
Basic	**TNMM160404**	0.4	1.0-7.0	0.05-0.60					○																			
	TNMM220408	0.8	1.0-7.0	0.05-0.60					○																			
	TNMM220416	1.6	1.0-7.0	0.05-0.60					○																			

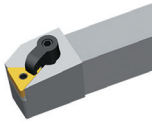
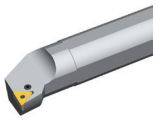
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

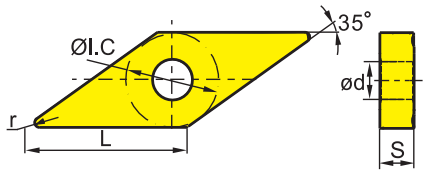
MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VN**	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81



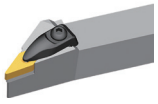
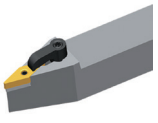
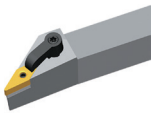
	ISO	r	a_p	f	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
ADF	**VNMG160404-ADF**	0.4	0.5-2.5	0.1-0.3		●															●						
	VNMG160408-ADF	0.8	0.5-2.5	0.1-0.5		●															●						
Finishing																											
DF	**VNMG160404-DF**	0.4	0.25-1.50	0.07-0.30			○		○																		
	VNMG160408-DF	0.8	0.3-1.5	0.1-0.4			●		●																		
Finishing																											
EF	**VNMG160404-EF**	0.4	0.1-1.5	0.05-0.25							●								●	○							
	VNMG160408-EF	0.8	0.2-2.5	0.08-0.35							●								●	○							
	VNMG160412-EF	1.2	0.2-2.5	0.10-0.45							○									○							
Finishing																											
NF	**VNEG160404-NF**	0.4	0.2-4.0	0.05-0.30														●									
	VNEG160408-NF	0.8	0.2-4.0	0.05-0.50														●									
Finishing																											

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

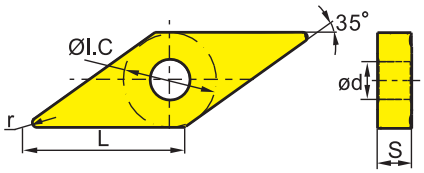
DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			
A267	A268	A304	A305

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VN**	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

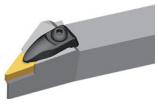
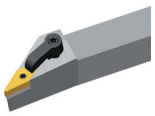


VN** negative insert		HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
		YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P		○	○	○	◎	◎	◎										◎	◎	◎		○	◎	○		
M								○	◎						○	○	◎	◎	◎	○	○	◎	○		
K										○	◎	◎	◎												
N														○	○									○	◎
S															○	○	◎	◎	◎	○				○	◎
H																									
ISO		r	a_p	f																					
NGF	**VNEG160408-NGF**	0.8	0.2-3.0	0.1-0.3												●									
	VNEG160412-NGF	1.2	0.2-3.0	0.1-0.5												○									
Finishing																									
SF	**VNMG160404-SF**	0.4	0.05-3.00	0.05-0.20																			●		
	VNMG160408-SF	0.8	0.05-3.00	0.05-0.35																			○		
Finishing																									

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

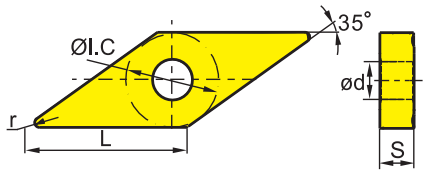
DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			
A267	A268	A304	A305

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VNMG	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

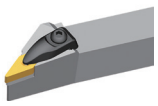
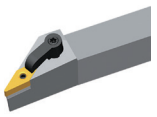


	ISO	r	a_p	f	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					○	○	○	◉	◉	◉										◉	◉	◉		◉	◉	○		
M											○	◉					○	○	◉	◉	◉	◉	○	○	◉	○		
K													◉	◉	◉	◉												
N																	○	○									○	◉
S																	○	○	◉	◉	◉	◉	○				○	◉
H																												
XF	**VNMG160404-XF**	0.4	0.5-2.5	0.1-0.25	●			●																				
	VNMG160408-XF	0.8	0.5-2.5	0.1-0.30	●			●																				
	VNMG160412-XF	1.2	0.5-2.5	0.1-0.35	●			●																				
Finishing																												
XM	**VNMG160404-XM**	0.4	1-5.6	0.2-0.4	●			○																				
	VNMG160408-XM	0.8	1-5.6	0.2-0.4	●			●																				
	VNMG160412-XM	1.2	1-5.6	0.2-0.6	●			●																				
Medium Cut																												

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			
A267	A268	A304	A305

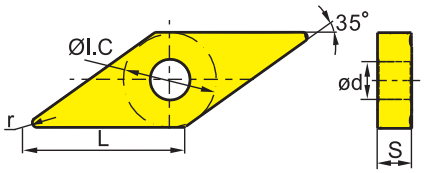
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VNMG	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

VN** negative insert



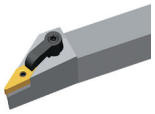
	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
DM	**VNMG160408-DM**	0.8	0.5-4.0	0.15-0.50			○		●																		
	VNMG160412-DM	1.2	0.8-4.0	0.18-0.60			●		●																		
Medium Cut																											
EM	**VNMG160404-EM**	0.4	0.2-3.0	0.05-0.30							●									●	○						
	VNMG160408-EM	0.8	0.5-4.0	0.10-0.45							●									●	○						
Medium Cut																											
NM	**VNMG160412-NM**	1.2	0.2-4.0	0.05-0.40														●									
Medium Cut																											

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

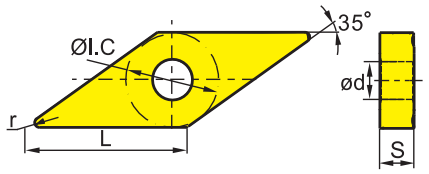
DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			
A267	A268	A304	A305

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VNMG	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81



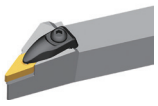
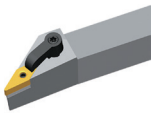
					HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
					P																				
					M																				
					K																				
					N																				
					S																				
					H																				
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
PM	**VNMG160404-PM**	0.4	0.4-4.0	0.13-0.40			●		●				○		○													
	VNMG160408-PM	0.8	0.5-4.0	0.15-0.50			○		●				●		●													
	VNMG160412-PM	1.2	0.8-4.0	0.18-0.60					●				○															
Medium Cut																												
TC	**VNMG160404-TC**	0.4	0.5-2.0	0.05-0.20										●		●												
	VNMG160408-TC	0.8	0.5-2.0	0.08-0.25										○		○												
	VNMG160412-TC	1.2	0.5-3.0	0.08-0.30										●		○												
Medium Cut																												
ZM	**VNMG160404-ZM**	0.4	0.5-3.0	0.08-0.30		○																						
	VNMG160408-ZM	0.8	0.5-3.0	0.1-0.4		●																						
Medium Cut																												
SNR	**VNMG160408-SNR**	0.8	0.2-2.0	0.1-0.4															●			●						
	VNMG160412-SNR	1.2	0.2-2.0	0.1-0.5															●			●						
Roughing																												

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

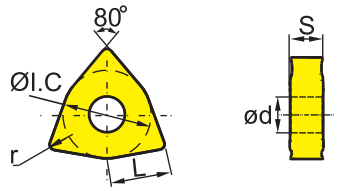
DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			
A267	A268	A304	A305

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

WNMG	L	I.C	S	d
06 T3	6.5	9.525	3.97	3.81
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16



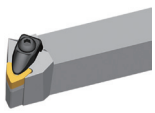
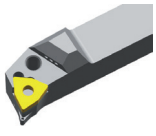
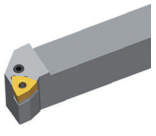
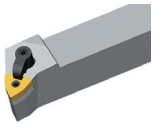
WN** negative insert					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					P																							
					M																							
					K																							
					N																							
					S																							
					H																							
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
ADF	**WNMG060404-ADF**	0.4	0.8-2.5	0.1-0.35		●																						
	WNMG060408-ADF	0.8	0.5-2.5	0.05-0.30		●																						
	WNMG080404-ADF	0.4	0.2-2.5	0.05-0.30		●																●			●			
	WNMG080408-ADF	0.8	0.5-2.5	0.05-0.40		●														○		●			●			
Finishing	**WNMG080412-ADF**	1.2	0.5-2.5	0.05-0.50		●																●						
DF	**WNMG060404-DF**	0.4	0.15-2.00	0.08-0.25			○		●																			
	WNMG060408-DF	0.8	0.15-2.00	0.1-0.3			○		○																			
	WNMG080404-DF	0.4	0.15-2.00	0.08-0.25			●		○																			
	WNMG080408-DF	0.8	0.15-2.00	0.1-0.3					○																			
Finishing	**WNMG080412-DF**	1.2	0.2-2.5	0.10-0.35			○																					
SF	**WNMG060404-SF**	0.4	0.05-0.50	0.05-0.20																						●		
	WNMG060408-SF	0.8	0.05-0.50	0.05-0.35																						●		
	WNMG06T304-SF	0.4	0.05-0.50	0.05-0.20																						●		
	WNMG06T308-SF	0.8	0.05-0.50	0.05-0.35																						●		
	WNMG080404-SF	0.4	0.05-0.50	0.05-0.20																						●		
Finishing	**WNMG080408-SF**	0.8	0.05-0.50	0.05-0.35																						●		

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

DWLNR/L	PWLNR/LC	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A290	A285	A306	A378

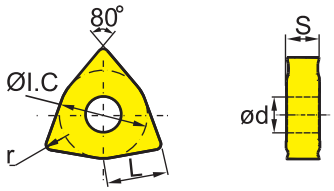
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

WN**	L	I.C	S	d
06 T3	6.5	9.525	3.97	3.81
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16

WN** negative insert

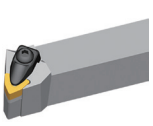
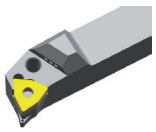
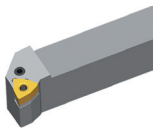
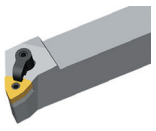


					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	ISO		r	a_p	f																							
WG	**WNMG080408-WG**		0.8	0.5-5.0	0.15-0.70		○		○																			
	WNMG080412-WG		1.2	0.8-6.0	0.20-0.75		●		○																			
Wiper																												
EF	**WNMG060404-EF**		0.4	0.1-1.5	0.05-0.30						○								●	○								
	WNMG060408-EF		0.8	0.1-1.5	0.1-0.4						○								●	○								
	WNMG06T308-EF		0.8	0.1-1.5	0.1-0.4														●	○								
	WNMG06T312-EF		1.2	0.1-1.5	0.1-0.35															○								
	WNMG080404-EF		0.4	0.1-1.5	0.05-0.30						●								●	●								
Finishing	**WNMG080408-EF**		0.8	0.1-1.5	0.1-0.4						●								●	●								
NF	**WNEG080404-NF**		0.4	0.2-3.0	0.05-0.30													○										
	WNEG080408-NF		0.8	0.2-2.5	0.05-0.30														●									
Finishing																												
NF	**WNMG060408-NF**		0.8	0.2-2.5	0.05-0.30														●									
Finishing																												

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

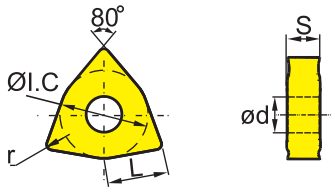
DWLNR/L	PWLNR/LC	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A290	A285	A306	A378

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

WNMG	L	I.C	S	d
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16

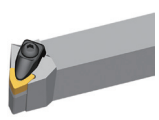
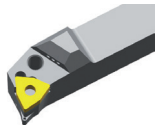
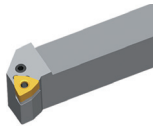
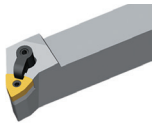


WN** negative insert					HC[1] (CVD)											HC[1] (PVD)							HT		HC[2]	HW	
					P																							
					M																							
					K																							
					N																							
					S																							
					H																							
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XF	**WNMG060404-XF**	0.4	0.5-2.0	0.1-0.25	●																							
	WNMG060408-XF	0.8	0.5-2.0	0.1-0.30	●																							
	WNMG080404-XF	0.4	0.5-2.5	0.1-0.25	●			●																				
	WNMG080408-XF	0.8	0.5-2.5	0.1-0.30	●			●																				
Finishing	**WNMG080412-XF**	1.2	0.5-2.5	0.1-0.35	●			●																				
XMH	**WNMG060408-XMH**	0.8	1.0-2.1	0.2-0.4	●			●																				
	WNMG060412-XMH	1.2	1.0-2.1	0.2-0.6	●																							
	WNMG080408-XMH	0.8	1.0-2.8	0.2-0.4	○			○																				
	WNMG080412-XMH	1.2	1.0-2.8	0.2-0.6	○			○																				
Medium Cut	**WNMG080416-XMH**	1.6	1.0-2.8	0.2-0.8	●																							
XM	**WNMG060404-XM**	0.4	1-2.1	0.2-0.4	●			○																				
	WNMG060408-XM	0.8	1-2.1	0.2-0.4	●			●																				
	WNMG060412-XM	1.2	1-2.1	0.2-0.6	●			●																				
	WNMG080404-XM	0.4	1-2.8	0.2-0.4	●			●																				
	WNMG080408-XM	0.8	1-2.8	0.2-0.4	●			●																				
Medium Cut	**WNMG080412-XM**	1.2	1-2.8	0.2-0.6	●			●																				
	WNMG080416-XM	1.6	1-2.8	0.2-0.65	○			○																				

● Ex stock ○ On demand

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

DWLNR/L	PWLNR/LC	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A290	A285	A306	A378

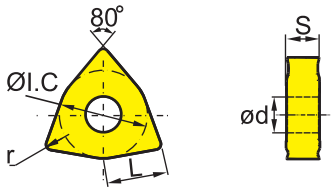
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

WNMG	L	l.C	S	d
06 T3	6.5	9.525	3.97	3.81
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16

WN** negative insert



	HC[1] (CVD)											HC[1] (PVD)						HT		HC[2]	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉	○	◉	○		
M							○	◉					○	○	◉	◉	◉	○	◉	○		
K									○	◉	◉	◉										
N													○	○							○	◉
S													○	○	◉	◉	◉	○			○	◉
H																						

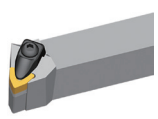
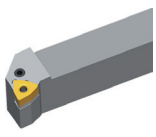
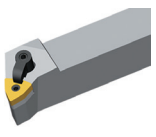
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
DM Medium Cut	**WNMG060408-DM**	0.8	0.5-3.0	0.15-0.50			●		●																			
	WNMG060412-DM	1.2	0.8-3.0	0.18-0.60		○			○																			
	WNMG080404-DM	0.4	0.5-4.0	0.1-0.4			○		●																			
	WNMG080408-DM	0.8	0.5-4.0	0.15-0.50		○	●		●	○		●																
	WNMG080412-DM	1.2	0.8-4.0	0.18-0.60		○	●		●																			
	WNMG080416-DM	1.6	1-4	0.23-0.65			●		●																			
EG Medium Cut	**WNMG080404-EG**	0.4	0.5-3.0	0.10-0.3																		○						
	WNMG080408-EG	0.8	0.5-4.0	0.1-0.4							○	●								●		●						
	WNMG080412-EG	1.2	0.5-4.0	0.1-0.6							○	○								●		●						
EM Medium Cut	**WNMG060404-EM**	0.4	0.5-3.0	0.05-0.30							○	○								●	○							
	WNMG060408-EM	0.8	0.5-3.0	0.1-0.5							●	●								●	○							
	WNMG06T304-EM	0.4	0.5-3.0	0.05-0.30							○																	
	WNMG06T308-EM	0.8	0.5-3.0	0.1-0.5							○																	
	WNMG06T312-EM	1.2	0.5-3.0	0.1-0.7																○								
	WNMG080404-EM	0.4	1-4	0.05-0.30							●	○								●	●							
	WNMG080408-EM	0.8	1-4	0.1-0.5							●	●								●	●							
	WNMG080412-EM	1.2	1-4	0.1-0.7							●	●								●	○							

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

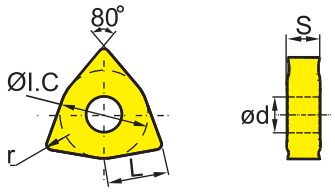
DWLNR/L	PWLNR/LC	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A290	A285	A306	A378

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

WNMG	L	I.C	S	d
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16



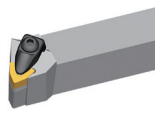
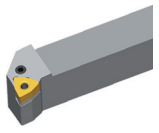
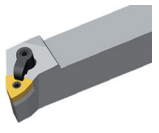
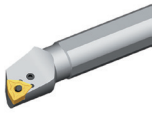
	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
PM	**WNMG060408-PM**	0.8	0.5-3.0	0.15-0.50			○		○				○		○													
	WNMG060412-PM	1.2	0.8-3.0	0.18-0.60			○						○		○													
	WNMG080404-PM	0.4	0.4-4.0	0.12-0.40			○		●				●		○													
	WNMG080408-PM	0.8	0.5-4.0	0.15-0.50			●		●				●		●													
	WNMG080412-PM	1.2	0.8-4.0	0.18-0.60			○		●				○		●													
Medium Cut	**WNMG080416-PM**	1.6	1-4	0.23-0.65											●													
ZM	**WNMG060408-ZM**	0.8	0.5-3.0	0.1-0.4		○																						
	WNMG060412-ZM	1.2	0.5-3.0	0.1-0.4		○																						
	WNMG080408-ZM	0.8	0.5-4.0	0.1-0.5		●																						
	WNMG080412-ZM	1.2	1.0-5.5	0.15-0.60		●																						
Medium Cut	**WNMG080416-ZM**	1.6	1.0-5.5	0.15-0.60		○																						
SNR	**WNMG080408-SNR**	0.8	1-3	0.1-0.5														○				○						
	WNMG080412-SNR	1.2	1-3	0.2-0.6																		●						
Roughing																												

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

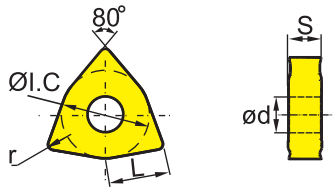
DWLNR/L	PWLNR/LC	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A290	A285	A306	A378

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

WNMG	L	I.C	S	d
08 04	8.7	12.7	4.76	5.16

Turning inserts

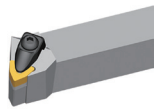
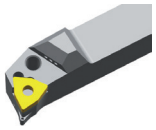
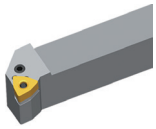
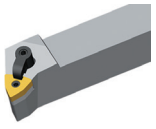
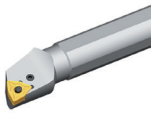


WN** negative insert					HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
				P																					
				M																					
				K																					
				N																					
				S																					
				H																					
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
NM	**WNMG080404-NM**	0.4	0.2-3.0	0.05-0.30															●				●					
	WNMG080408-NM	0.8	0.2-3.0	0.1-0.3															●	○								
	WNMG080412-NM	1.2	0.2-4.0	0.1-0.4															●									
Medium Cut																												
TC	**WNMG080404-TC**	0.4	0.5-3.0	0.08-0.25										●		○												
	WNMG080408-TC	0.8	0.5-4.0	0.15-0.40										●		●												
	WNMG080412-TC	1.2	0.5-4.0	0.2-0.6										●		●												
Medium Cut																												
TK	**WNMG080408-TK**	0.8	0.5-4.0	0.15-0.40										●														
	WNMG080412-TK	1.2	0.5-4.0	0.2-0.6										○														
Medium Cut																												

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

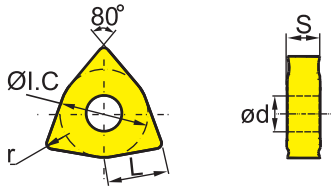
DWLNR/L	PWLNR/LC	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A290	A285	A306	A378

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

WN**	L	I.C	S	d
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16



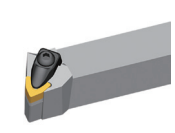
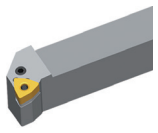
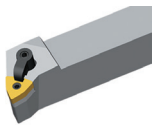
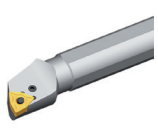
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					HC¹ (CVD)												HC¹ (PVD)							HT		HC²	HW	
P					○	○	○	◉	◉	◉										◉	◉	◉		○	◉	○		
M											○	◉					○	○	◉	◉	◉	○	○	○	◉	○		
K													●	◉	◉	◉												
N																	●	●									●	◉
S																	○	○	◉	◉	◉	○					○	◉
H																												
DR	**WNMG060408-DR**	0.8	0.7-3.5	0.20-0.45			○		○				○		●													
	WNMG060412-DR	1.2	0.8-3.5	0.25-0.55			○		○				○		○													
	WNMG080408-DR	0.8	0.7-5.0	0.20-0.55			●		●	○			○		●													
	WNMG080412-DR	1.2	1-5	0.25-0.70		○	○		●	●			●		●													
Roughing	**WNMG080416-DR**	1.6	1.5-5.0	0.32-0.75			○		●				○		○													
XLR	**WNMG080416-XLR**	1.6	2-6	0.2-0.7	●			●																				
Roughing																												
Flat	**WNMA060408**	0.8	0.5-3.0	0.1-0.3											○													
	WNMA080404	0.4	0.5-4.0	0.08-0.25									○		○	○												
	WNMA080408	0.8	0.5-4.0	0.15-0.30									●		●	○												
	WNMA080412	1.2	0.5-5.0	0.15-0.30									○	○	○	●												
	WNMA080416	1.6	0.5-5.0	0.2-0.5										○		○												

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

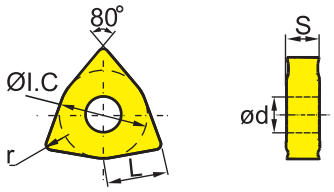
Tool holder

DWLNR/L	PWLNR/LC	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A290	A285	A306	A378

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

WNEG	L	I.C	S	d
08 04	8.7	12.7	4.76	5.16

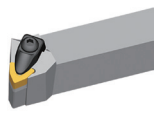
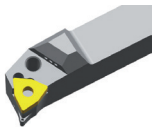
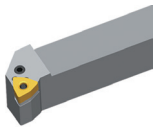
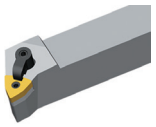


WN** negative insert					HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
				P	○	○	○	◉	◉	◉									◉	◉	◉	○	◉	○	○		
				M							○	◉					○	○	◉	◉	◉	○	◉	○	○		
				K									○	◉	◉	◉											
				N													○	○								○	◉
				S													○	○	◉	◉	◉	○				○	◉
				H																							
	ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LH	**WNEG080404-LH**		0.4	1.5-5.0	0.15-0.30																●					●	
	**WNEG080408-LH**		0.8	1.5-5.0	0.20-0.50																●					●	
	WNEG080412-LH		1.2	1.5-5.0	0.25-0.60																●					●	
Alum Machining																											

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

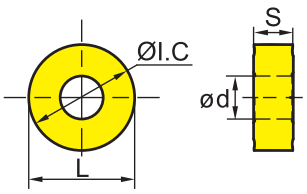
DWLNR/L	PWLNR/LC	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A290	A285	A306	A378

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

RNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16

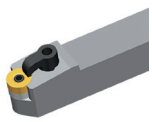
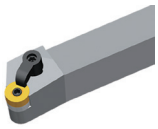


RN** negative insert				HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
			P																								
			M																							
			K																							
			N																							
			S																							
			H																							
ISO		a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Basic	**RNMG120400**	0.5-7.0	0.1-1.8											○	○												
Medium Cut																											

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

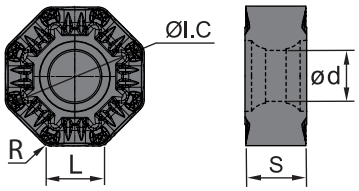
MRDNN	MRGNR/L
	
A307	A308

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

ONMX	L	l.C	S	d
05 05	5.96	12.7	5.56	4.64

Turning inserts

ON** negative insert					HC¹ (CVD)										HC¹ (PVD)								HT		HC²	HW	
				P																							
				M																							
				K																							
				N																							
				S																							
				H																							
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XH	**ONMX050512-XH**	1.2	0.5 -1.5	0.4 – 1.5	●			●																			
Finishing																											

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder
SOXNR/L
Kr: 23°



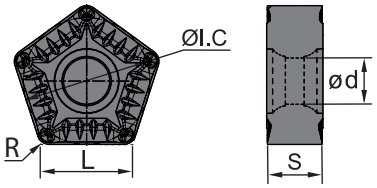
A332

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

PNMX	L	I.C	S	d
09 05	9.77	12.7	5.56	4.64



PN** negative insert					HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
				P																							
				M																							
				K																							
				N																							
				S																							
				H																							
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XH	**PNMX090512-XH**	1.2	1.0 -3.0	0.4 – 1.5	●			●																			
Medium Cut																											

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder
SPXNR/L
Kr: 23°



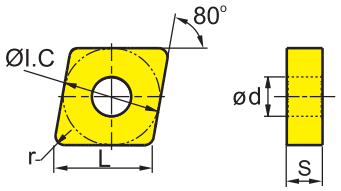
A333

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CN**	L	I.C	S	d
19 07	19.3	19.05	7.94	7.93
19 11	19.3	19.05	11	7.8



					P	M	K	N	S	H	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
	ISO		r	a_p	f						YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
RF	**CNMG191140-RF**		4	1.0-5.5	0.20-0.60								○																					
Finishing																																	
RF	**CNMM190740-RF**		4	1.0-5.5	0.20-0.60								○																					
Finishing	**CNMM191140-RF**		4	1.0-5.5	0.20-0.60								○																					
RH	**CNMM190740-RH**		4	1.5-7.0	0.35-1.20								○		●																			
Roughing	**CNMM191140-RH**		4	1.5-7.0	0.35-1.20								○		●																			

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder
PCLNR/L
Kr: 95°



A364

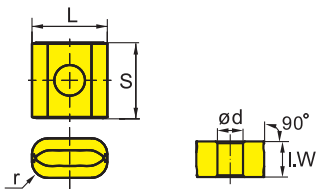
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

LNUX	L	I.C	S	d
19 19	19.05	10	19.05	6.35
30 19	30	10	19.05	6.35

LN** negative insert

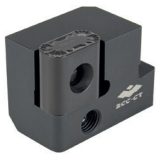


		ISO	r	a_p	f	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
						YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
 Heavy Turning		**LNUX191940-RR**	4	1.5-7.0	0.35-1.2	●				●																			
		LNUX301940-RR	4	1.5-8.0	0.35-1.4	●				●																			
RF  Heavy Turning		**LNUX191940-RF**	4	1.0-5.5	0.20-0.60	○		●		●																			
		LNUX301940-RF	4	1.0-6.0	0.20-0.70	○		●		●																			
RH  Heavy Turning		**LNUX191940-RH**	4	1.5-7.0	0.35-1.20			●		●																			
		LNUX301940-RH	4	1.5-8.0	0.35-1.40			●		●																			

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

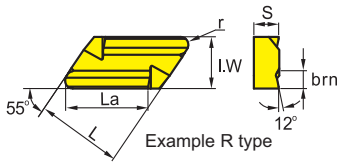
RW-PLFNR/L	RW-PLANR/L
Kr: 90°	Kr: 90°
	
A363	A362

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

KNUX	L	I.W	S
16 04	16.15	9.525	4.76

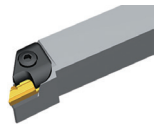
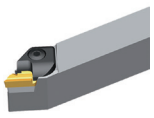


KN** negative insert							HC¹ (CVD)										HC¹ (PVD)							HT		HC²		HW	
						P																							
						M																							
						K																							
						N																							
						S																							
						H																							
ISO		La	brn	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
KNUX	**KNUX160405L11**	16	2.2	0.5	0.2-6.0	0.05-0.70					●																			
	KNUX160405R11	16	2.2	0.5	0.2-6.0	0.05-0.70					●																		○	
	KNUX160410L12	16	2.2	1	0.2-6.0	0.05-0.70			○																					
	KNUX160410R11	16	2.2	1	0.2-6.0	0.05-0.70					●																			
Finishing																														

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder	
CKJNR/L	**CKNNR/L**
Kr: 93°	Kr: 63°
	
A334	A335

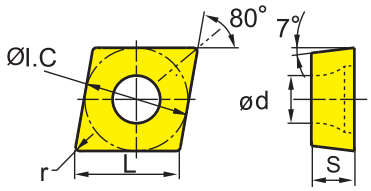
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCGT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



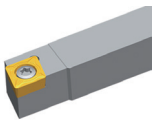
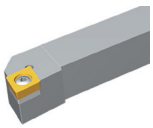
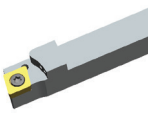
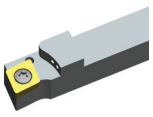
	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW		
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	●	●	●	◉	◉	◉										◉	◉	◉		●	◉	●		
M							○	◉						○	○	◉	◉	◉	○	○	◉	○		
K									◉	◉	◉	◉												
N													●	●									◉	◉
S														●	●	◉	◉	◉	●				●	◉
H																								

	ISO	r	a_p	f																				
Finishing	**CCGT060201-QF**	0.1	0.05-0.2	0.03-0.1														○						
	CCGT060202-QF	0.2	0.1-0.5	0.05-0.2														○						
	CCGT060204-QF	0.4	0.4-1.0	0.1-0.3														●						
	CCGT09T301-QF	0.1	0.05-0.2	0.03-0.1														●						
	CCGT09T302-QF	0.2	0.1-0.5	0.05-0.2														●				●		
	CCGT09T304-QF	0.4	0.4-1.0	0.1-0.3														●				●		
	CCGT09T308-QF	0.8	0.5-2.0	0.15-0.35														●				●		
SF	**CCGT060202-SF**	0.2	0.05-2.00	0.05-0.18																●		●		
	CCGT060204-SF	0.4	0.05-2.00	0.05-0.35																●	●	●		
	CCGT09T302-SF	0.2	0.05-0.5	0.05-0.3																○		●		
	CCGT09T304-SF	0.4	0.05-2.00	0.05-0.35																●	●	●		
Finishing	**CCGT120404-SF**	0.4	0.1-1	0.05-0.3																	○			

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

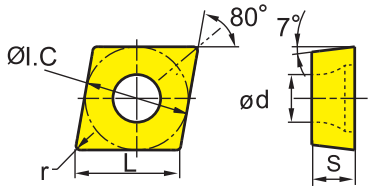
A401

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCGT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert

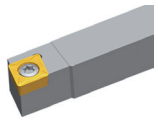
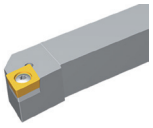
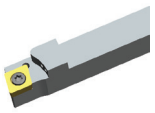
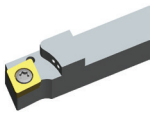
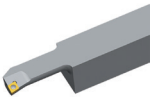
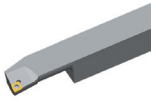


	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
					HC¹ (CVD)												HC¹ (PVD)							HT		HC²	HW	
P					○	○	○	◉	◉	◉										◉	◉	◉		○	○	○		
M											○	◉						○	○	◉	◉	◉	○	○	◉	○		
K													◉	◉	◉	◉												
N																	○	○									○	◉
S																		○	○	◉	◉	◉	○				○	◉
H																												
USF	**CCGT060202L-USF**	0.2	0.05-2.00	0.05-0.18															○									
	CCGT060204L-USF	0.4	0.05-2.00	0.05-0.35															○									
	CCGT09T301L-USF	0.1	0.2-2.0	0.01-0.08																		●						
	CCGT09T302L-USF	0.2	0.2-2.0	0.05-0.18																●								
	CCGT09T304L-USF	0.4	0.2-2.0	0.05-0.20															○									
Finishing	**CCGT120404L-USF**	0.4	0.5-2.0	0.08-0.2															○									
USF	**CCGT09T302R-USF**	0.2	0.2-2.0	0.05-0.18															○									
	CCGT09T304R-USF	0.4	0.2-2.0	0.05-0.20															○									
Finishing																												

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

A401

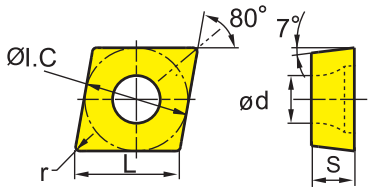
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

CCMT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CC** positive insert



	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
					HC¹ (CVD)												HC¹ (PVD)							HT		HC²	HW	
P					○	○	○	◉	◉	◉										◉	◉	◉		○	○	○		
M											○	◉					○	○	◉	◉	◉	◉	○	○	◉	○		
K													●	◉	◉	◉												
N																	○	○									○	◉
S																	○	○	◉	◉	◉	◉					○	◉
H																												
AHF	**CCMT060204-AHF**	0.4	0.2-2.5	0.05-0.20		●																●	●		●			
	CCMT060208-AHF	0.8	0.3-2.5	0.05-0.30		○																●						
	CCMT09T302-AHF	0.2	0.08-2.00	0.04-0.15																						●		
	CCMT09T304-AHF	0.4	0.2-3.0	0.05-0.30		●														○		●	○		●			
	CCMT09T308-AHF	0.8	0.3-3.0	0.05-0.40		●														○		●			●			
	CCMT120404-AHF	0.4	0.5-4.0	0.05-0.30		○														○		●						
	CCMT120408-AHF	0.8	0.8-4.0	0.08-0.40																		●						
HF	**CCMT060202-HF**	0.2	0.06-1.70	0.03-0.11			○																					
	CCMT060204-HF	0.4	0.1-1.7	0.05-0.17			●		●						○													
	CCMT060208-HF	0.8	0.1-1.7	0.05-0.30			○		○																			
	CCMT09T302-HF	0.2	0.08-2.00	0.04-0.15			○		○															○				
	CCMT09T304-HF	0.4	0.11-2.00	0.06-0.23			●																					
	CCMT09T308-HF	0.8	0.15-2.00	0.08-0.30			○		○						○													
	CCMT120404-HF	0.4	0.14-2.40	0.07-0.27			○		○																			
	CCMT120408-HF	0.8	0.2-3.0	0.08-0.30			○		○																			

AHF

Finishing

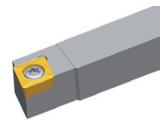
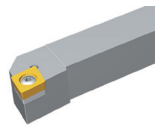
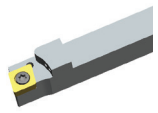
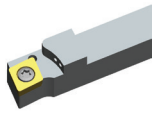
HF

Finishing

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

A401

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

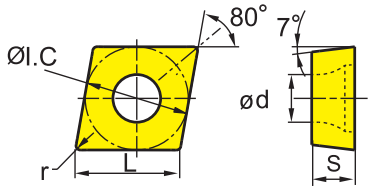
General turning Positive inserts

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCMT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉	○	◉	○			
M						○	◉					○	○	◉	◉	◉	○	○	◉	○			
K								○	◉	◉	◉												
N												○	○								○	◉	
S												○	○	◉	◉	◉	○				○	◉	
H																							

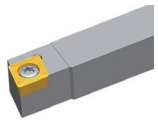
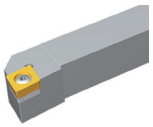
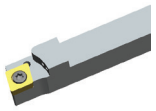
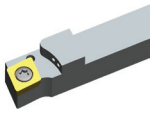
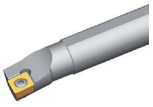
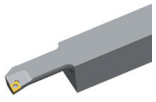
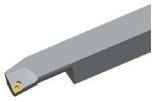
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
EF Finishing	**CCMT060202-EF**	0.2	0.06-1.70	0.03-0.11							●									●	○							
	CCMT060204-EF	0.4	0.1-1.7	0.05-0.17							●									●	●							
	CCMT09T302-EF	0.2	0.08-2.00	0.04-0.15							○									●	○							
	CCMT09T304-EF	0.4	0.11-2.00	0.06-0.23							●								○	●	●							
	CCMT09T308-EF	0.8	0.15-2.00	0.08-0.30							○								○	●	○							
	CCMT120404-EF	0.4	0.14-2.40	0.07-0.27							○									●	○							
	CCMT120408-EF	0.8	0.2-3.0	0.1-0.3							○									●	○							
XF Finishing	**CCMT060204-XF**	0.4	0.5-1.5	0.08-0.15	●																							
	CCMT060208-XF	0.8	0.5-1.5	0.08-0.20	●																							
	CCMT09T302-XF	0.2	0.5-2.0	0.08-0.15	●			●																				
	CCMT09T304-XF	0.4	0.5-2.0	0.08-0.2	●																							
	CCMT09T308-XF	0.8	0.5-2.0	0.08-0.25	●			○																				

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

A401

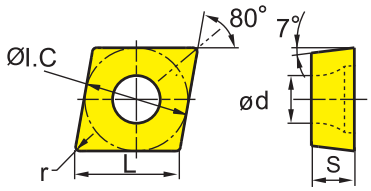
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCMT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW		
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	○	○	○	◉	◉	◉										◉	◉	◉		○	◉	○		
M							○	◉						○	○	◉	◉	◉	○	○	◉	○		
K									◉	◉	◉	◉												
N													○	○									◉	◉
S														○	○	◉	◉	◉	○				○	◉
H																								

ISO		r	a_p	f
EM	**CCMT060204-EM**	0.4	0.2-2.4	0.06-0.17
	CCMT060208-EM	0.8	0.4-2.4	0.08-0.23
	CCMT09T304-EM	0.4	0.25-3.00	0.08-0.23
	CCMT09T308-EM	0.8	0.5-3.0	0.1-0.3
	CCMT120404-EM	0.4	0.3-3.6	0.09-0.27
	CCMT120408-EM	0.8	0.6-3.6	0.12-0.36
	CCMT120412-EM	1.2	0.72-3.60	0.14-0.43



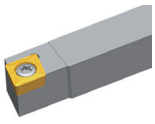
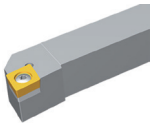
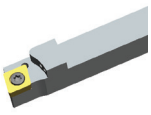
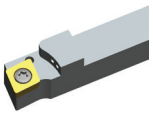
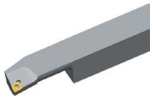
Medium Cut

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

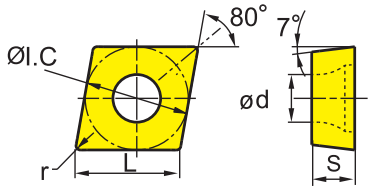
A401

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCMT	L	I.C	S	d
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



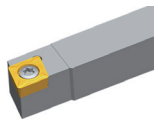
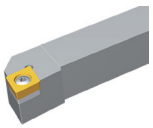
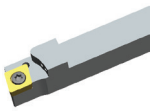
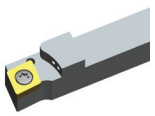
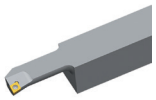
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉		◉	◉	○		
M							○	◉					○	○	◉	◉	◉	○	○	◉	○		
K									◉	◉	◉	◉											
N													○	○								○	◉
S													○	○	◉	◉	◉	○				○	◉
H																							

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XM	**CCMT09T304-XM**	0.4	1-2.5	0.15-0.3	●		○																					
	CCMT09T308-XM	0.8	1-2.5	0.15-0.35	●		●																					
	CCMT09T312-XM	1.2	1-2.5	0.15-0.4	●		●																					
	CCMT120404-XM	0.4	1-3.0	0.15-0.3	○		○																					
Medium Cut	**CCMT120408-XM**	0.8	1-3.0	0.15-0.35	○		○																					
	CCMT120412-XM	1.2	1-3.0	0.15-0.4	○		○																					

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

A401

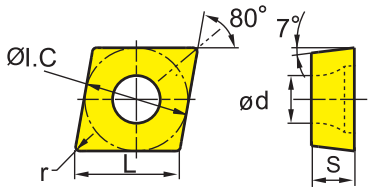
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCMT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	○	○	○	◉	◉	◉										◉	◉	◉		◉	◉	○		
M							○	◉						○	○	◉	◉	◉	○	○	◉	○		
K									◉	◉	◉	◉												
N													○	○									○	◉
S														○	○	◉	◉	◉	○				○	◉
H																								

	ISO	r	a_p	f
HM	**CCMT060204-HM**	0.4	0.2-2.4	0.06-0.17
	CCMT060208-HM	0.8	0.2-3.0	0.08-0.20
	CCMT09T304-HM	0.4	0.25-3.00	0.08-0.23
	CCMT09T308-HM	0.8	0.5-3.0	0.1-0.3
	CCMT120404-HM	0.4	0.3-3.6	0.09-0.27
Medium Cut	**CCMT120408-HM**	0.8	0.6-3.6	0.12-0.36
	CCMT120412-HM	1.2	0.72-3.60	0.14-0.43

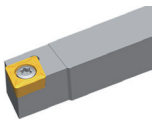
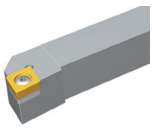
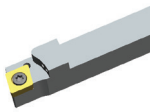
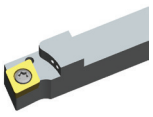
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
CCMT060204-HM			●		●			●	●		●													
CCMT060208-HM			●		●				●		○													
CCMT09T304-HM								●																
CCMT09T308-HM			●		●			●	●		●													
CCMT120404-HM			○		●				○		●													
CCMT120408-HM			●		●				●		●													
CCMT120412-HM			○		○				○															

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

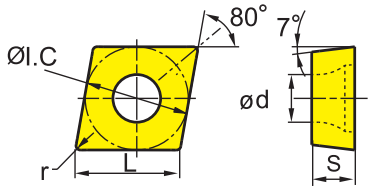
A401

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CC**	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



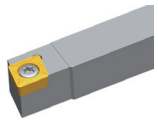
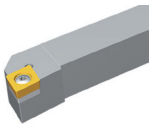
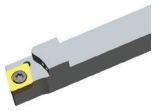
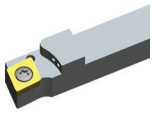
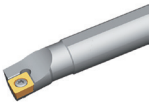
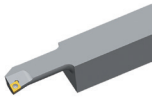
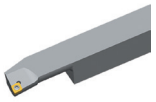
					HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
	ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	Basic	CCMW09T304	0.4	0.1-5.0	0.05-0.50																							○
M		CCMW120404	0.4	0.2-5.0	0.05-0.50																						○	○
K		CCMW120408	0.8	0.5-5.0	0.08-0.50											○												
N	Medium Cut																											
S	TC	CCMT060204-TC	0.4	0.5-3.0	0.1-0.3										○		○											
H		CCMT09T304-TC	0.4	0.5-3.0	0.1-0.3										○		●											
		CCMT09T308-TC	0.8	0.5-3.0	0.1-0.4										●		●											
	Medium Cut	CCMT120404-TC	0.4	1-4	0.1-0.3										●		●											
		CCMT120408-TC	0.8	1-4	0.1-0.4										●		●											
	HR	CCMT060204-HR	0.4	0.5-3.0	0.05-0.24			○		○																		
		CCMT060208-HR	0.8	0.8-3.2	0.09-0.26			○		○						○												
		CCMT09T304-HR	0.4	0.2-4.0	0.05-0.30			●		●																		
		CCMT09T308-HR	0.8	1-4	0.12-0.35			○		●				○		●												
	Roughing	CCMT120408-HR	0.8	1.2-4.8	0.14-0.42			○		○				○		●												
		CCMT120412-HR	1.2	1.5-4.8	0.17-0.50			○		○				○														

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

A401

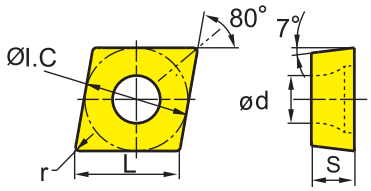
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCGX	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



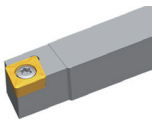
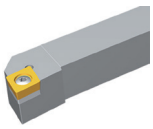
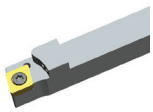
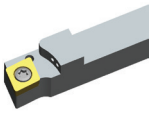
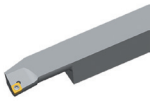
	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW		
P	○	○	○	◔	◔	◔									◔	◔	◔		○	◔	○			
M							○	◔					○	○	◔	◔	◔	○	○	◔	○			
K									◔	◔	◔	◔												
N													○	○									○	◔
S													○	○	◔	◔	◔	○					○	◔
H																								

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LC	**CCGX060202-LC**	0.2	0.3-3.0	0.05-0.15													●										●	
	CCGX060204-LC	0.4	0.5-3.0	0.1-0.3													●										●	
	CCGX09T302-LC	0.2	0.5-4.0	0.1-0.2													●										●	
	CCGX09T304-LC	0.4	0.5-5.0	0.1-0.3													●										●	
	CCGX09T308-LC	0.8	0.5-5.0	0.15-0.60													●										●	
Alum Machining	**CCGX120404-LC**	0.4	0.5-7.0	0.1-0.3													●										●	
	CCGX120408-LC	0.8	0.5-7.0	0.15-0.60													●										●	

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	**SCLCR/L**	**SCACR/L-SC**	**SCLCR/L-SC**	**A***-SCLCR/L**	**S***-SCFCR/L**	**S***-SCLCR**
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E*-SCLCR/L**
Kr: 95°

A401

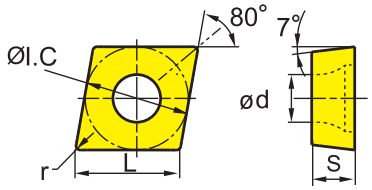
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCGX	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◎	◎	◉								◎	◉	◉			○	◎	○		
M							○	◎				○	○	◎	◉	◎	○	○	◎	○			
K									●	◎	◉	◉											
N													●	◎								●	◎
S													●	◎	◎	◉	◎	●				●	◎
H																							

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LH	**CCGX060202-LH**	0.2	0.3-3.0	0.05-0.15														●									●	
	CCGX060204-LH	0.4	0.5-3.0	0.1-0.3														●									●	
	CCGX060208-LH	0.8	0.6-3.0	0.15-0.40																							●	
	CCGX09T301-LH	0.1	0.1-1.0	0.04-0.15														○										
	CCGX09T302-LH	0.2	0.4-5.0	0.05-0.15														●									●	
	CCGX09T304-LH	0.4	0.5-5.0	0.1-0.3														●									●	
	CCGX09T308-LH	0.8	0.5-5.0	0.15-0.60														●									●	
	CCGX120402-LH	0.2	0.4-7.0	0.05-0.15														○									○	
	CCGX120404-LH	0.4	0.5-7.0	0.1-0.3														●									●	
	CCGX120408-LH	0.8	0.5-7.0	0.15-0.60														●									●	
	CCGX120412-LH	1.2	0.5-7.0	0.15-0.80														●									●	

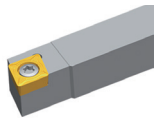
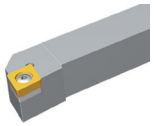
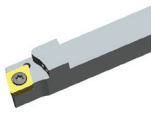
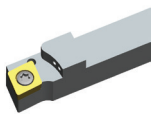
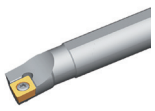


Alum Machining

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

A401

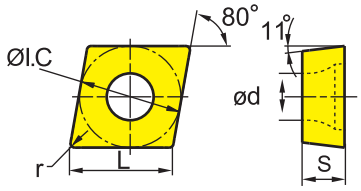
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CP**	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4

CP** positive insert



	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	●	●	●	✱	✱	✱									✱	✱	✱		●	✱	●		
M							○	✱				○	○	✱	✱	✱	○		○	✱	○		
K									●	✱	✱	✱											
N													●	●								●	✱
S													●	●	✱	✱	✱	●				●	✱
H																							

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
HF	**CPMT060204-HF**	0.4	0.1-1.5	0.04-0.18			○								○					○								
	CPMT060208-HF	0.8	0.1-1.5	0.05-0.25																○								
Finishing																												
SF	**CPGT060202-SF**	0.2	0.05-2.00	0.05-0.25																				○		○		
	CPGT060204-SF	0.4	0.05-2.00	0.05-0.35																				○		○		
	CPGT09T304-SF	0.4	0.05-2.00	0.05-0.35																				○		○		
Finishing																												
Flat	**CPGW060204**	0.4	0.5-1.5	0.05-0.40																							○	
Medium Cut																												
HM	**CPMT09T308-HM**	0.8	0.2-3.5	0.10-0.55					●																			
Medium Cut																												

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

S***-SCLPR/L	C***-SCLPR/L
Kr: 95°	Kr: 95°
	
A394	A400

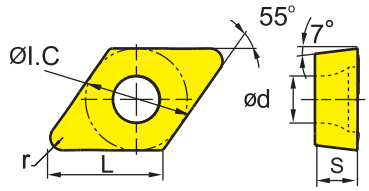
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCGT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



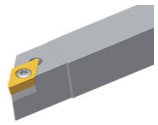
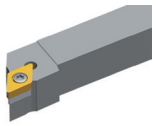
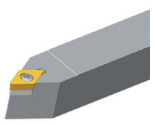
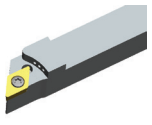
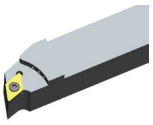
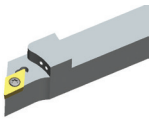
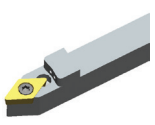
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
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P	○	○	○	◉	◉	◉										◉	◉	◉		○	◉	○		
M							○	◉						○	○	◉	◉	◉	○	○	◉	○		
K									◉	◉	◉	◉												
N													○	○									○	◉
S													○	○	◉	◉	◉	○					○	◉
H																								

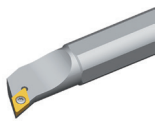
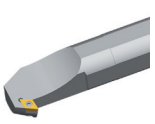
ISO		r	a_p	f																				
	DCGT070201-QF	0.1	0.05-0.2	0.03-0.1													●							
	DCGT070202-QF	0.2	0.1-0.5	0.05-0.2													●							
	DCGT070204-QF	0.4	0.4-1.0	0.1-0.3													●							
	DCGT11T301-QF	0.1	0.05-0.2	0.03-0.1													●							
	DCGT11T302-QF	0.2	0.1-0.5	0.05-0.2													●	●				●		
	DCGT11T304-QF	0.4	0.4-1.0	0.1-0.3													●	●				●		
Finishing	**DCGT11T308-QF**	0.8	0.5-2.0	0.15-0.35													●					●		
	DCGT070202-SF	0.2	0.05-1.50	0.05-0.15																●	●	○		
	DCGT070204-SF	0.4	0.05-1.50	0.05-0.20																○		●		
	DCGT070208-SF	0.8	0.05-1.50	0.05-0.30																		○		
	DCGT11T302-SF	0.2	0.05-2.00	0.05-0.15											○					○	●	●		
	DCGT11T304-SF	0.4	0.05-2.00	0.05-0.20																●	●	●		
Finishing	**DCGT11T308-SF**	0.8	0.05-2.00	0.05-0.30																●	○	●		

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

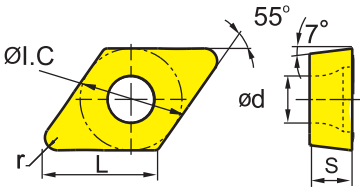
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDUCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 93°	Kr: 107°30'
				
A381	A382	A383	A405	A403

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCGT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

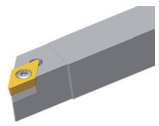
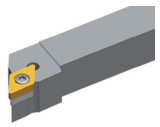
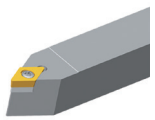
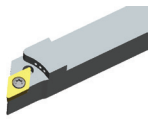
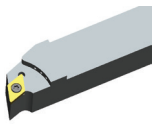
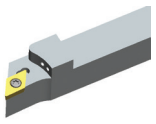
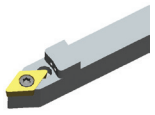


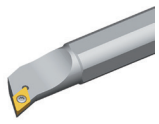
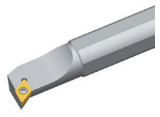
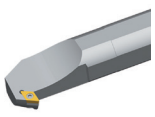
	ISO	r	a_p	f	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
USF	**DCGT070202L-USF**	0.2	0.1-2.0	0.05-0.2																○								
	DCGT11T302L-USF	0.2	0.2-2.0	0.05-0.2																○								
Finishing																												
USF	**DCGT0702005R-USF**	0.05	0.1-2.0	0.01-0.04																								
	DCGT070201R-USF	0.1	0.1-2.0	0.05-0.2																○								
	DCGT070202R-USF	0.2	0.1-2.0	0.05-0.2																○								
	DCGT11T304R-USF	0.4	0.2-1.0	0.05-0.15																●								
Finishing																												

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDUCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 93°	Kr: 107°30'
				
A381	A382	A383	A405	A403

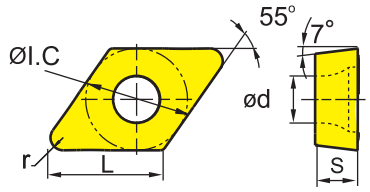
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCMT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○		
M							○	◉					○	○	◉	◉	○	○	◉	○			
K									◉	◉	◉	◉											
N													○	○								○	◉
S													○	○	◉	◉	◉	○				○	◉
H																							

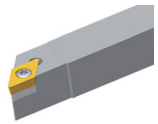
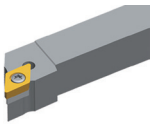
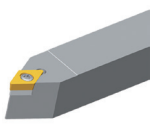
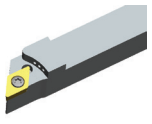
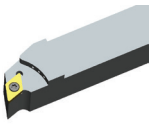
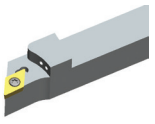
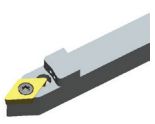
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AHF	**DCMT070204-AHF**	0.4	0.2-2.5	0.05-0.20		○														○		◉			◉				
	DCMT070208-AHF	0.8	0.55-2.5	0.1-0.35		◉																◉							
	DCMT11T302-AHF	0.2	0.5-3.0	0.05-0.15		○														◉		◉	◉		◉				
	DCMT11T304-AHF	0.4	0.5-3.0	0.05-0.30		◉														◉		◉	○		◉	◉			
Finishing	**DCMT11T308-AHF**	0.8	0.5-3.0	0.05-0.40		◉	○															◉	◉		◉				

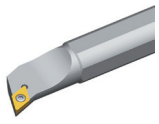
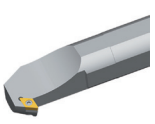
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

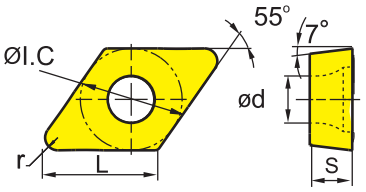
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDUCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 93°	Kr: 107°30'
				
A381	A382	A383	A405	A403

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCMT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4



DC** positive insert		HC[1] (CVD)											HC[1] (PVD)							HT		HC[2]	HW		
	P	○	○	○	◎	◎	◎									◎	◎	◎		○	◎	○			
	M							○	◎					○	○	◎	◎	◎	○	○	◎	○			
	K									◎	◎	◎	◎												
	N													○	○									◎	◎
	S													○	○	◎	◎	◎	○					○	◎
	H																								

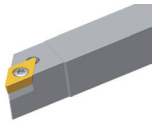
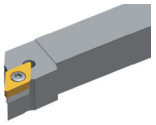
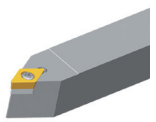
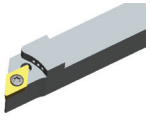
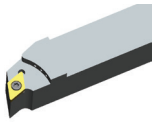
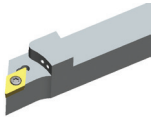
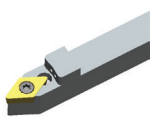
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EF	**DCMT070202-EF**	0.2	0.06-1.50	0.03-0.11							●									○	○							
	DCMT070204-EF	0.4	0.08-1.50	0.05-0.17							●									●	○							
	DCMT11T302-EF	0.2	0.08-2.00	0.04-0.15							○									●	○							
	DCMT11T304-EF	0.4	0.11-2.00	0.06-0.23							●									●	●							
Finishing	**DCMT11T308-EF**	0.8	0.15-2.00	0.08-0.30							●								●	●								
HF	**DCMT070202-HF**	0.2	0.06-1.50	0.03-0.11			○		●																			
	DCMT070204-HF	0.4	0.08-1.50	0.05-0.17			○		●																			
	DCMT070208-HF	0.8	0.08-1.50	0.05-0.30			●		○																			
	DCMT11T302-HF	0.2	0.08-2.00	0.04-0.15			○		●											○								
Finishing	**DCMT11T304-HF**	0.4	0.11-2.00	0.06-0.23			●		●				○		○													
	DCMT11T308-HF	0.8	0.15-2.00	0.08-0.30			●		●				○															
XF	**DCMT070202-XF**	0.2	0.5-1.5	0.08-0.15				○																				
	DCMT070204-XF	0.4	0.5-1.5	0.08-0.15	○																							
	DCMT070208-XF	0.8	0.5-1.5	0.08-0.25	○																							
	DCMT11T302-XF	0.2	0.5-2.0	0.08-0.15	●			○																				
Finishing	**DCMT11T304-XF**	0.4	0.5-2.0	0.08-0.15	●																							
	DCMT11T308-XF	0.8	0.5-2.0	0.08-0.25	●																							

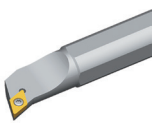
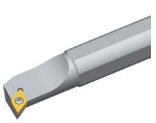
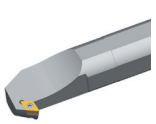
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDUCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 93°	Kr: 107°30'
				
A381	A382	A383	A405	A403

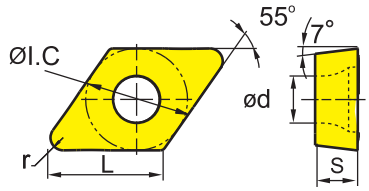
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

DCMT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4
15 04	15.5	12.7	4.76	5.6

DC** positive insert

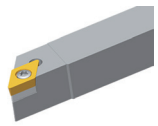
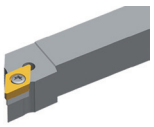
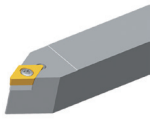
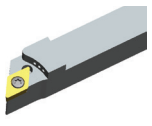
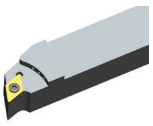
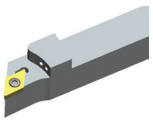
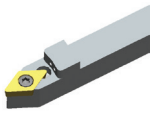


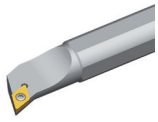
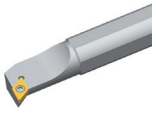
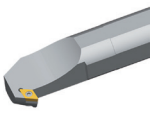
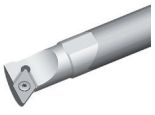
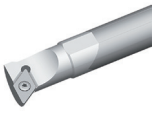
	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
EM	**DCMT070204-EM**	0.4	0.19-2.25	0.06-0.17							○	○								●	●							
	DCMT070208-EM	0.8	0.38-2.25	0.08-0.23							●	○								●	○							
	DCMT11T304-EM	0.4	0.25-3.00	0.08-0.23							●	●								●	●							
	DCMT11T308-EM	0.8	0.5-3.0	0.1-0.3							●	●								●	●							
Medium Cut	**DCMT150404-EM**	0.4	0.5-2	0.05-0.2							●																	
XM	**DCMT070208-XM**	0.8	1-2.5	0.15-0.25	●																							
	DCMT11T304-XM	0.4	1-2.5	0.15-0.3	●			○																				
	DCMT11T308-XM	0.8	1-2.5	0.15-0.35	●			●																				
	DCMT11T312-XM	1.2	1-2.5	0.15-0.4	●			●																				
Medium Cut																												

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDUCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 93°	Kr: 107°30'
				
A381	A382	A383	A405	A403

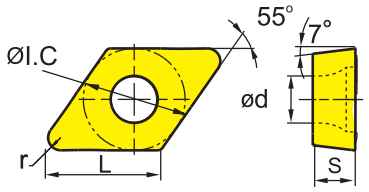
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

○ Ideal machining conditions
◔ Normal machining conditions
◕ Unfavourable machining conditions

DCMT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



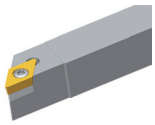
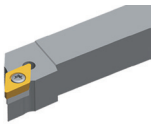
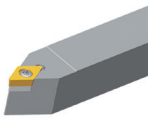
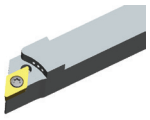
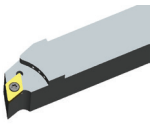
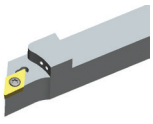
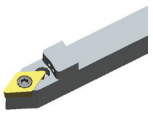
	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					○	○	○	◔	◔	◔										◔	◔	◔		○	○	○		
M											○	◔					○	○	◔	◔	◔	○		○	◔	○		
K													◕	◕	◕	◕												
N																	○	○									○	◔
S																	○	○	◔	◔	◔	○					○	◔
H																												
HM	**DCMT070204-HM**	0.4	0.19-2.25	0.06-0.17		○	○		●				○		○					●								
	DCMT070208-HM	0.8	0.38-2.25	0.08-0.23			●		●				●		○													
	DCMT11T304-HM	0.4	0.25-3.00	0.08-0.23			●		●				●		●							●						
	DCMT11T308-HM	0.8	0.5-3.0	0.1-0.3			●		●				●		●							●						
Medium Cut	**DCMT11T312-HM**	1.2	0.6-3.0	0.12-0.36					●				○		○													

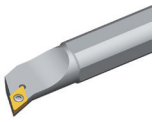
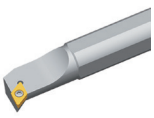
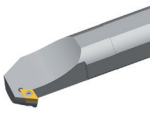
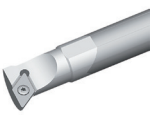
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDUCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 93°	Kr: 107°30'
				
A381	A382	A383	A405	A403

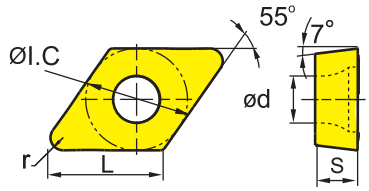
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DC**	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	❁	❁	❁									❁	❁	❁	○	❁	○		
M							○	❁					○	○	❁	❁	❁	○	❁	○		
K									○	❁	❁	❁										
N													○	○							○	❁
S													○	○	❁	❁	❁	○			○	❁
H																						

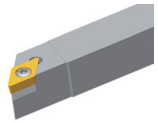
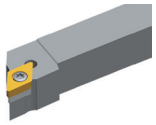
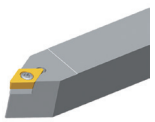
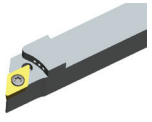
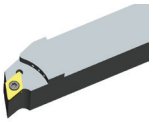
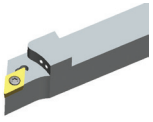
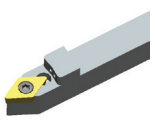
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Flat	**DCMW11T304**	0.4	0.5-5.0	0.05-0.20									○															
	DCMW11T308	0.8	0.4-5.0	0.1-0.4									○															
Medium Cut																												
HR	**DCMT11T304-HR**	0.4	1-4	0.1-0.3			○		○				○		●													
	DCMT11T308-HR	0.8	1-4	0.12-0.35			●		●				○		○													
	DCMT11T312-HR	1.2	1.2-4.0	0.14-0.42			○		●				○															
Roughing																												
LC	**DCGX070201-LC**	0.1	0.3-4.0	0.05-0.10																							●	
	DCGX070202-LC	0.2	0.3-4.0	0.05-0.15													○										●	
	DCGX070204-LC	0.4	0.5-4.0	0.1-0.3													●										●	
	DCGX070208-LC	0.8	0.5-4.0	0.15-0.60													●										●	
Alum Machining	**DCGX11T302-LC**	0.2	0.3-5.5	0.05-0.15													●										●	
	DCGX11T304-LC	0.4	0.5-5.5	0.1-0.3													●										●	
	DCGX11T308-LC	0.8	0.5-5.5	0.15-0.60													●										●	

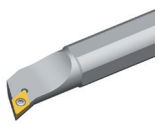
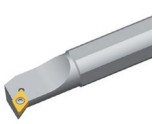
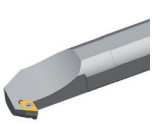
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDUCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 93°	Kr: 107°30'
				
A381	A382	A383	A405	A403

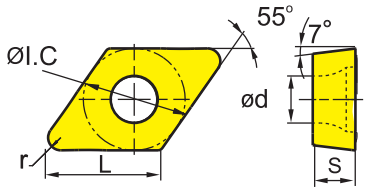
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCGX	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



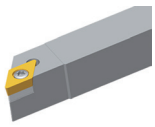
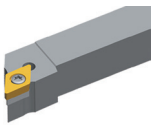
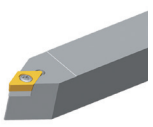
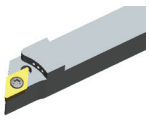
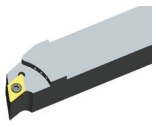
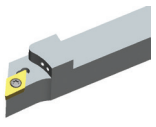
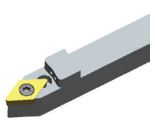
	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	○	○	○	⊛	⊛	⊛									⊛	⊛	⊛		○	⊛	○		
M								○	⊛				○	○	⊛	⊛	⊛	○	○	⊛	○		
K										●	⊛	⊛	⊛										
N												●	●									●	⊛
S													○	○	⊛	⊛	⊛	○				○	⊛
H																							

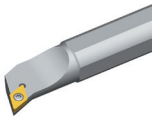
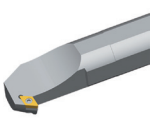
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LH	**DCGX070201-LH**	0.1	0.1-1.0	0.04-0.15														○										
	DCGX070202-LH	0.2	0.3-4.0	0.05-0.15														●									●	
	DCGX070204-LH	0.4	0.5-4.0	0.1-0.3														●									●	
	DCGX070208-LH	0.8	0.5-4.0	0.15-0.60														○									●	
Alum Machining	**DCGX11T301-LH**	0.1	0.1-1.0	0.04-0.15														○										
	DCGX11T302-LH	0.2	0.3-5.5	0.05-0.15														●									●	
	DCGX11T304-LH	0.4	0.5-5.5	0.1-0.3														●									●	
	DCGX11T308-LH	0.8	0.5-5.5	0.15-0.60														●									●	

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDUCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 93°	Kr: 107°30'
				
A381	A382	A383	A405	A403

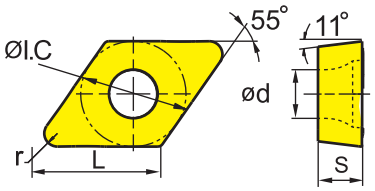
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

DPGT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DP** positive insert



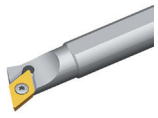
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉	○	◉	○		
M							○	◉				○	○	◉	◉	◉	○	○	◉	○		
K									○	◉	◉	◉										
N													○	○							○	◉
S													○	○	◉	◉	◉	○			○	◉
H																						

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
SF	**DPGT070202-SF**	0.2	0.05-2.00	0.05-0.15																				○		○		
	DPGT070204-SF	0.4	0.05-2.00	0.05-0.30																				●		○		
	DPGT11T304-SF	0.4	0.05-2.00	0.1-0.3																				●		○		
	DPGT11T308-SF	0.8	0.05-2.00	0.1-0.4																				○		○		
Finishing																												

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

S***-SDQPR/L	S***-SDUPR/L	C***-SDQPR/L
Kr: 107°30'	Kr: 93°	Kr: 107°30'
		
A395	A396	A402

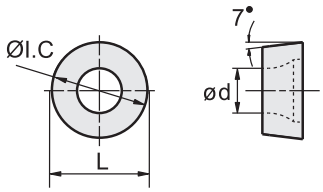
System code A52 Grade selection A46 Technical info A607 Cutting data A414

RC**	L	I.C	S	d
08 03	8	8	3.18	3.36
10 T3	10	10	3.97	3.6
12 04	12	12	4.76	44.4
16 06	16	16	6.35	5.5
20 06	20	20	6.35	6.5
25 07	25	25	7.94	7.7

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

Turning inserts

RC** positive insert

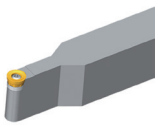
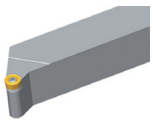


	ISO	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	P			○	○	○	◉	◉	◉										◉	◉	◉		◉	◉	○		
	M									○	◉					○	○	◉	◉	◉	○		◉	◉	○		
	K											○	◉	◉	◉												
	N															○	○									◉	◉
	S															○	○	◉	◉	◉	○					◉	◉
	H																										
Basic Medium Cut	**RCMT0803MO**	0.5-3.0	0.1-0.4					●				●															
	RCMT10T3MO	0.5-4.0	0.1-0.5					●				○															
	RCMT1204MO	0.8-5.0	0.1-0.6			○		●				●		○													
	RCMT1606MO	1-6	0.1-0.8			○		●			○	○															
	RCMT2006MO	1.2-8.0	0.1-1.0			○		●																			
	RCMT2507MO	1.4-10.0	0.1-1.2			○																					
LH Alum Machining	**RCGX0803MO-LH**	1-4	0.2-0.5																							●	
	RCGX1204MO-LH	1.2-5.0	0.2-0.6																							●	

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC[1] Coated carbide
HT Uncoated cermet
HC[2] Coated cermet
HW Uncoated carbide

Tool holder

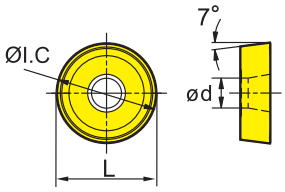
SRDCN	SRGCR/L
	
A329	A331

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

RCMX	L	I.C	S	d
08 03	8	8	3.18	3.36
10 03	10	10	3.18	4.4
12 04	12	12	4.76	4.4
16 06	16	16	6.35	5.5
20 06	20	20	6.35	6.5
25 07	25	25	7.94	7.2
32 09	32	32	9.52	10.2

Turning inserts

● Ideal machining conditions
❁ Normal machining conditions
❁ Unfavourable machining conditions



RC** positive insert				HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
				YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	P			●	●	●	❁	❁	❁										❁	❁	❁		●	❁	●		
	M									○	❁					○	○		❁	❁	❁	○	○	❁	○		
	K											●	❁	❁	❁												
	N															●	●									●	❁
	S															○	○		❁	❁	❁	○				○	❁
	H																										
ISO		a_p	f																								
Basic Light Roughing	**RCMX0803MO**	0.5-4.0	0.1-0.5					○																			
	RCMX1003MO	0.5-5.0	0.1-0.6					○																			
	RCMX1204MO	1-6	0.1-0.8			○		○																			
	RCMX1606MO	1-7	0.2-0.9			○		●			○								○								
	RCMX2006MO	1-9	0.2-1.0			●		●						○													
	RCMX2507MO	2-10	0.25-1.20					●						○													
	RCMX3209MO	2-13	0.25-1.40			○		●																			
Basic Light Roughing	**RCMX2507MO-1**	2-9	0.1-0.4			○																					
Basic Light Roughing	**RCMX3209MO-PV**	3-12	0.1-0.4			○		●																			

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

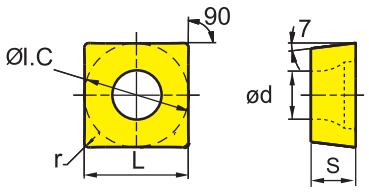
System code > A52 Grade selection > A46 Technical info > A607 Cutting data > A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

SCMT	L	I.C	S	d
09 T3	9.525	9.525	3.97	4.4
12 04	12.7	12.7	4.76	5.56

SC** positive insert



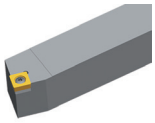
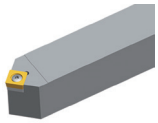
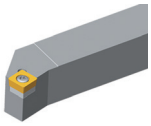
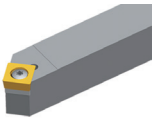
	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○		
M							○	◉				○	○	◉	◉	◉	○		○	◉	○		
K									◉	◉	◉	◉											
N												○	○									○	◉
S												○	○	◉	◉	◉	○					○	◉
H																							

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
AHF	**SCMT09T304-AHF**	0.4	0.5-3.0	0.05-0.30	●																○	●			○			
	SCMT09T308-AHF	0.8	0.5-3.0	0.05-0.40	●																	●			●			
Finishing																												
EF	**SCMT09T302-EF**	0.2	0.07-2.00	0.05-0.15																●	○							
	SCMT09T304-EF	0.4	0.11-2.00	0.06-0.23																●	○							
	SCMT09T308-EF	0.8	0.15-2.00	0.08-0.30																●	○							
Finishing																												
EM	**SCMT09T304-EM**	0.4	0.25-3.00	0.08-0.23							○	○								●	○							
	SCMT09T308-EM	0.8	0.5-3.0	0.1-0.3							●	●								●	●							
	SCMT120404-EM	0.4	0.3-3.6	0.09-0.27							○	○								●	○							
	SCMT120408-EM	0.8	0.6-3.6	0.12-0.36							○	○								●	●							
Finishing	**SCMT120412-EM**	1.2	0.72-3.60	0.14-0.43								○								●	○							
XF	**SCMT09T304-XF**	0.4	0.5-2.0	0.08-0.25	●																							
	SCMT09T308-XF	0.8	0.5-2.0	0.08-0.30	●			○																				
Finishing																												

● Ex stock ○ On demand
YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SSBCR/L	SSDCN	SSKCR/L	SSSCR/L	S***-SSKCR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
				
A320	A321	A322	A323	A384

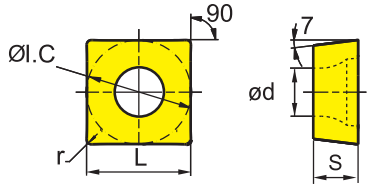
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SCMT	L	I.C	S	d
09 T3	9.525	9.525	3.97	4.4
12 04	12.7	12.7	4.76	5.56

SC** positive insert



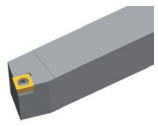
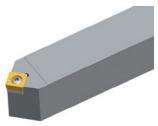
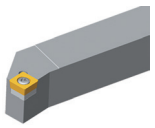
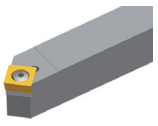
	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
HF	**SCMT09T302-HF**	0.2	0.15-2.00	0.05-0.15					○																		
	SCMT09T304-HF	0.4	0.11-2.00	0.05-0.23					○																		
	SCMT09T308-HF	0.8	0.15-2.00	0.05-0.30			●		○																		
Finishing																											
HM	**SCMT09T304-HM**	0.4	0.25-3.00	0.08-0.23			○		○				○		○												
	SCMT09T308-HM	0.8	0.5-3.0	0.1-0.3			●		●				○		●												
	SCMT120404-HM	0.4	0.3-3.6	0.09-0.27			○		○																		
	SCMT120408-HM	0.8	0.6-3.6	0.12-0.36			●		●				○		●												
Medium Cut	**SCMT120412-HM**	1.2	0.72-3.60	0.14-0.43					●																		
XM	**SCMT09T304-XM**	0.4	1-2.5	0.15-0.3	○			○																			
	SCMT09T308-XM	0.8	1-2.5	0.15-0.35	○			○																			
	SCMT09T312-XM	1.2	1-2.5	0.15-0.4	○			○																			
	SCMT120408-XM	0.8	1-3.0	0.15-0.35	○			○																			
Medium Cut	**SCMT120412-XM**	1.2	1-3.0	0.15-0.4	○			○																			

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SSBCR/L	SSDCN	SSKCR/L	SSSCR/L	S***-SSKCR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
				
A320	A321	A322	A323	A384

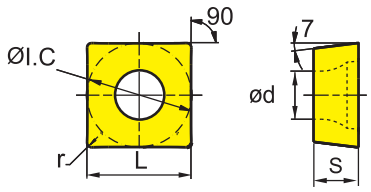
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

SC**	L	I.C	S	d
09 T3	9.525	9.525	3.97	4.4
12 04	12.7	12.7	4.76	5.56

SC** positive insert



	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○		
M							○	◉				○	○	◉	◉	◉	○		○	◉	○		
K									◉	◉	◉	◉											
N												○	○									○	◉
S												○	○	◉	◉	◉	○					○	◉
H																							

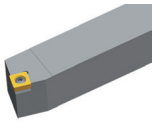
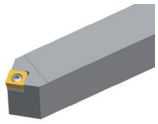
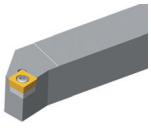
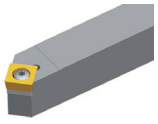
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
HR	**SCMT09T304-HR**	0.4	0.2-4.0	0.05-0.40					○																			
	SCMT09T308-HR	0.8	1-4	0.12-0.35			○		●				○		○													
	SCMT09T312-HR	1.2	1.2-4.0	0.14-0.42					○																			
	SCMT120404-HR	0.4	0.5-4.0	0.05-0.50			○		○																			
Roughing	**SCMT120408-HR**	0.8	1.2-4.8	0.14-0.42			●		●				○		●													
	SCMT120412-HR	1.2	1.44-4.80	0.17-0.50			○		●				○		○													
LC	**SCGX09T304-LC**	0.4	0.5-5.0	0.1-0.5																							●	
	SCGX09T308-LC	0.8	0.5-5.0	0.15-0.60																							●	
	SCGX120408-LC	0.8	1-7	0.15-0.60													●										●	
Alum Machining																												

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SSBCR/L	SSDCN	SSKCR/L	SSSCR/L	S***-SSKCR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
				
A320	A321	A322	A323	A384

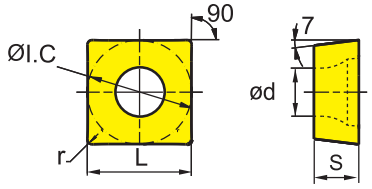
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SCGX	L	I.C	S	d
09 T3	9.525	9.525	3.97	4.4
12 04	12.7	12.7	4.76	5.56

SC** positive insert



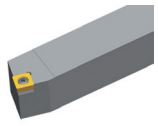
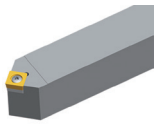
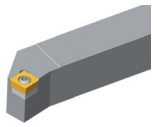
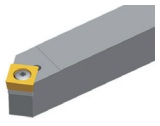
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	●	●	●	◉	◉	◉									◉	◉	◉	●	◉	●		
M							●	◉				●	●	◉	◉	◉	●	●	◉	●		
K									●	◉	◉	◉										
N												●	●								●	◉
S												●	●	◉	◉	◉	●				●	◉
H																						

ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LH	**SCGX09T302-LH**	0.2	0.5-4.0	0.05-0.15														○									●	
	**SCGX09T304-LH**	0.4	0.5-4.0	0.1-0.3														○									●	
	SCGX09T308-LH	0.8	0.5-4.0	0.15-0.60																							●	
Alum Machining	**SCGX120408-LH**	0.8	0.5-5.0	0.15-0.60														○									●	

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SSBCR/L	SSDCN	SSKCR/L	SSSCR/L	S***-SSKCR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
				
A320	A321	A322	A323	A384

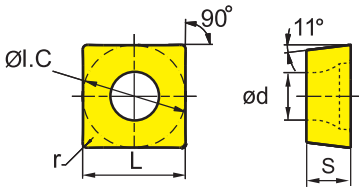
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

SPMW	L	I.C	S	d
09 T3	9.525	9.525	3.97	4.4
12 04	12.7	12.7	4.76	5.56

SP** positive insert



	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	●	●	●	❁	❁	❁									❁	❁	❁		●	❁	●		
M							○	❁					○	○	❁	❁	❁	○	○	❁	○		
K									●	❁	❁	❁											
N													●	●								●	❁
S													●	○	❁	❁	❁	○				●	❁
H																							

ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Flat	**SPMW09T304**	0.4	0.5-4.0	0.1-0.4											○													
	SPMW09T308	0.8	0.5-4.0	0.2-0.4											○													
	SPMW120408	0.8	1-6	0.3-0.6											○													

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

A Turning
B Milling
C Drilling
D Technical Information
E Index

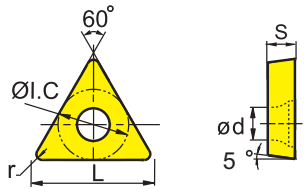
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TBGH	L	I.C	S	d
06 01	6.87	3.97	1.59	2.2

Turning inserts

TB** positive insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉	○	◉	○		
M							○	◉				○	○	◉	◉	◉	○	○	◉	○		
K									●	◉	◉	◉										
N												●	●								●	◉
S												○	○	◉	◉	◉	○				○	◉
H																						

ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	**TBGH060102L**	0.2	0.5-3.5	0.05-0.40														●						●				
	TBGH060104L	0.4	0.5-3.5	0.05-0.40														○						●				

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

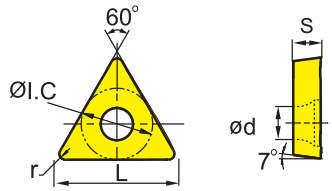
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TCGT	L	I.C	S	d
06 T1	6.87	3.97	1.98	2.2
09 02	9.63	5.56	2.38	2.5
11 03	11	6.35	3.18	2.8

TC** positive insert

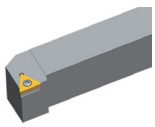


	ISO	r	a_p	f	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					○	○	○	◎	◎	◎										◎	◎	◎		○	◎	○			
M											○	◎					○	○	◎	◎	◎	◎	○	○	◎	○		
K													○	◎	◎	◎												
N																	○	○									○	◎
S																	○	○	◎	◎	◎	◎	○				○	◎
H																												
SF	**TCGT06T102-SF**	0.2	0.05-2.00	0.05-0.15																						●		
	TCGT090202-SF	0.2	0.05-2.00	0.05-0.15																						○		
	TCGT090204-SF	0.4	0.05-2.00	0.1-0.3																						●		
	TCGT090208-SF	0.8	0.05-2.00	0.10-0.35																						○		
	TCGT110302-SF	0.2	0.05-2.00	0.05-0.15																						○		
Finishing	**TCGT110304-SF**	0.4	0.05-2.00	0.1-0.3																				●		●		

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

STGCR/L	E***-STFCR/L
Kr: 91°	Kr: 90°
	
A326	A407

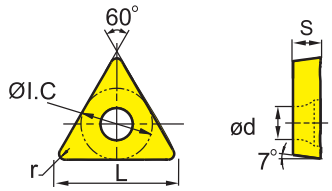
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TCMT	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4

TC** positive insert



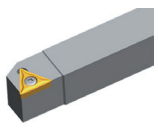
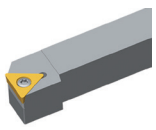
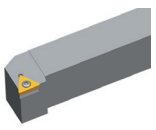
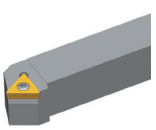
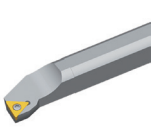
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
					P	P	P	P	P	P	M	M	K	K	K	K	N	N	S	S	S	S	S	HT	HT	HC²	HW	HW
AHF	**TCMT110204-AHF**	0.4	0.2-2.5	0.05-0.30		●																●						
	TCMT110208-AHF	0.8	0.2-2.5	0.1-0.4		●																●						
	TCMT16T304-AHF	0.4	0.5-3.0	0.05-0.30		●																●						
	TCMT16T308-AHF	0.8	0.5-3.5	0.1-0.4		●																●						
Finishing																												
HF	**TCMT090202-HF**	0.2	0.06-1.70	0.03-0.13			○	○																○				
	TCMT090204-HF	0.4	0.1-1.7	0.05-0.19			○	○																				
	TCMT090208-HF	0.8	0.15-1.70	0.10-0.25				○																				
	TCMT110202-HF	0.2	0.08-2.00	0.05-0.20				○																				
	TCMT110204-HF	0.4	0.1-2.0	0.05-0.30			○	●							○													
	TCMT110208-HF	0.8	0.1-2.0	0.05-0.35			○	○					○															
Finishing	**TCMT16T304-HF**	0.4	0.1-2.0	0.05-0.30			○	○																				
XF	**TCMT090202-XF**	0.2	0.5-1.5	0.08-0.15				○																				
	TCMT090204-XF	0.4	0.5-1.5	0.08-0.20	●																							
	TCMT110202-XF	0.2	0.5-2.0	0.08-0.15				○																				
	TCMT110204-XF	0.4	0.5-2.0	0.08-0.20	●																							
	TCMT110208-XF	0.8	0.5-2.5	0.08-0.25	●																							
Finishing	**TCMT16T304-XF**	0.4	0.5-2.5	0.08-0.20	●																							
	TCMT16T308-XF	0.8	0.5-2.5	0.08-0.25	●																							

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					
A324	A325	A326	A327	A386	A407

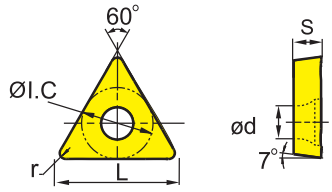
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TCMT	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4
22 04	22	12.7	4.76	5.5

TC** positive insert



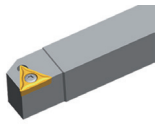
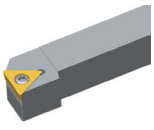
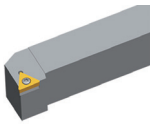
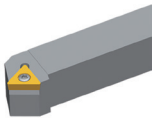
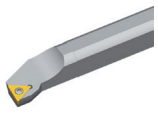
	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
EF	**TCMT090204-EF**	0.4	0.1-1.7	0.05-0.19																●	○							
	TCMT110202-EF	0.2	0.2-2.0	0.05-0.13																●	○							
	TCMT110204-EF	0.4	0.2-2.0	0.05-0.20																●	●							
	TCMT110208-EF	0.8	0.2-2.0	0.1-0.35																	○							
Finishing	**TCMT16T304-EF**	0.4	0.3-3.0	0.05-0.23																●	○							
	TCMT16T308-EF	0.8	0.3-3.0	0.1-0.4							○									●	○							
EM	**TCMT090204-EM**	0.4	0.19-2.25	0.06-0.17							○									●	●							
	TCMT110204-EM	0.4	0.2-2.7	0.05-0.30							○									●	●							
	TCMT110208-EM	0.8	0.8-2.7	0.08-0.30																●	○							
	TCMT16T304-EM	0.4	0.25-3.00	0.08-0.23							○									●								
Medium Cut	**TCMT16T308-EM**	0.8	0.5-3.0	0.1-0.3							○	●								●	●							
	TCMT220408-EM	0.8	1.0-4.0	0.12-0.35																	●							
XM	**TCMT16T304-XM**	0.4	1-3.0	0.15-0.3	○			●																				
	TCMT16T308-XM	0.8	1-3.0	0.15-0.35	○			○																				
	TCMT16T312-XM	1.2	1-3.0	0.15-0.4	○			○																				
Medium Cut																												

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					
A324	A325	A326	A327	A386	A407

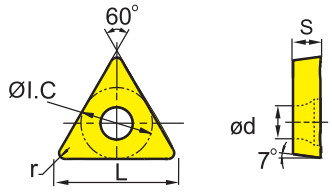
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TC**	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4
22 04	22	12.7	4.76	5.5

TC** positive insert



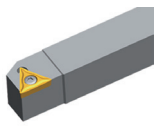
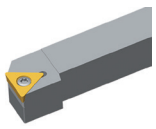
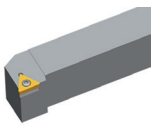
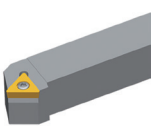
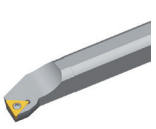
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	P				○	○	○	◉	◉	◉	◉	◉					◉	◉	◉	◉	◉	◉	◉	○	○	○		
	M										○	◉					◉	○	○	◉	◉	◉	○	○	◉	○		
	K												○	◉	◉	◉												
	N																○	○									○	◉
	S																◉	○	○	◉	◉	◉	○				○	◉
	H																											
Flat	**TCMW16T308**	0.8	0.5-5.0	0.05-0.60											○													
Medium Cut																												
HM	**TCMT090204-HM**	0.4	0.19-2.25	0.06-0.17			○		●				○		●													
Medium Cut	**TCMT090208-HM**	0.8	0.38-2.25	0.08-0.23			○		○						○													
	TCMT110204-HM	0.4	0.2-2.7	0.07-0.20			○		●				○		●													
	TCMT110208-HM	0.8	0.5-2.7	0.1-0.3			○		●						●													
	TCMT16T304-HM	0.4	0.25-3.00	0.08-0.23			●		●				●		○													
	TCMT16T308-HM	0.8	0.5-3.0	0.1-0.3			●		●				●		●													
	TCMT16T312-HM	1.2	0.6-3.0	0.12-0.36			○		○																			
HR	**TCMT090208-HR**	0.8	0.5-3.5	0.08-0.50					○						○													
Roughing	**TCMT110204-HR**	0.4	0.5-3.0	0.1-0.4					○																			
	TCMT110208-HR	0.8	1-4	0.1-0.5					○																			
	TCMT16T304-HR	0.4	0.5-4.0	0.1-0.4					●																			
	TCMT16T308-HR	0.8	1-4	0.12-0.35					●				●		●													
	TCMT16T312-HR	1.2	1.2-4.0	0.14-0.42			○								●													
	TCMT220408-HR	0.8	1.2-4.8	0.14-0.42			○		●						●													

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

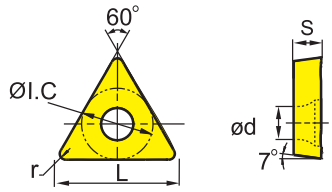
STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					
A324	A325	A326	A327	A386	A407

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TCMT	L	I.C	S	d
22 04	22	12.7	4.76	5.5



TC** positive insert					HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
				P	●	●	●	◐	◐	◐									◐	◐	◐		●	◐	●		
				M							○	◐					○	○	◐	◐	◐	○	○	◐	○		
				K									○	◐	◐	◐											
				N													●	●								●	◐
				S													○	○	◐	◐	◐	○				○	◐
				H																							
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Basic	**TCMT220408**	0.8	1.2-4.8	0.14-0.42									○															

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

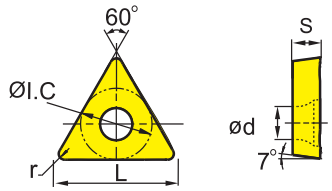
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TCGX	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4

TC** positive insert



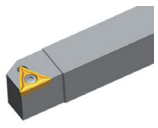
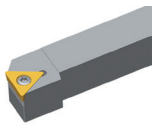
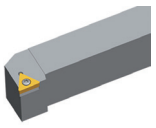
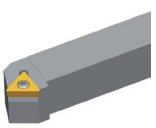
	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LC	**TCGX090202-LC**	0.2	0.3-4.0	0.05-0.15																						●	
	TCGX090204-LC	0.4	0.5-4.0	0.1-0.3													●									●	
	TCGX110202-LC	0.2	0.3-5.0	0.05-0.15																						●	
	TCGX110204-LC	0.4	0.5-5.0	0.1-0.3													●									●	
	TCGX110208-LC	0.8	0.5-5.0	0.15-0.60													●									●	
	TCGX16T304-LC	0.4	0.5-7.0	0.1-0.3																						●	
	TCGX16T308-LC	0.8	0.5-7.0	0.15-0.60													●									●	
LH	**TCGX090202-LH**	0.2	0.3-4.0	0.05-0.15														○								●	
	TCGX090204-LH	0.4	0.5-4.0	0.1-0.3																						●	
	TCGX110202-LH	0.2	0.3-5.0	0.05-0.15														●								●	
	TCGX110204-LH	0.4	0.5-5.0	0.1-0.3														○								●	
	TCGX110208-LH	0.8	0.5-5.0	0.15-0.60																						●	
	TCGX16T302-LH	0.2	0.5-7.0	0.05-0.15																						●	
	TCGX16T304-LH	0.4	0.5-7.0	0.1-0.3														○								●	
	TCGX16T308-LH	0.8	0.5-7.0	0.15-0.60														○								●	

Alum Machining

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					
A324	A325	A326	A327	A386	A407

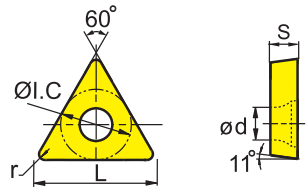
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TPGH	L	I.C	S	d
09 02	9.63	5.56	2.38	2.8
11 03	11	6.35	3.18	3.18

TP** positive insert



	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P	○	○	○	◎	◎	◎									◎	◎	◎		○	◎	○		
M							○	◎				○	○	◎	◎	◎	○		○	◎	○		
K									○	◎	◎	◎											
N												○	○									○	◎
S												○	○	◎	◎	◎	○					○	◎
H																							

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
 Super Finishing	**TPGH090202L**	0.2	0.2-3.0	0.05-0.15														●						●	●			
	TPGH090204L	0.4	0.2-3.0	0.05-0.30														○						●	●			
	TPGH110302L	0.2	0.2-3.5	0.05-0.15														●						●	●			
	TPGH110304L	0.4	0.2-3.5	0.05-0.30														●						●	●			

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

A Turning
B Milling
C Drilling
D Technical Information
E Index

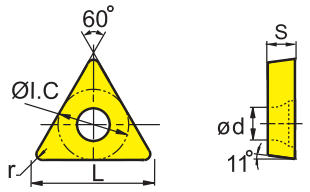
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TPGT	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 03	11	6.35	3.18	2.8

TP** positive insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉		◉	○		
M							○	◉					○	○	◉	◉	◉	○	◉	○		
K									○	◉	◉	◉										
N												○	○								○	◉
S													○	○	◉	◉	◉	○			○	◉
H																						

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
SF	**TPGT090202-SF**	0.2	0.05-2.00	0.05-0.15																						○		
	TPGT090204-SF	0.4	0.05-2.00	0.05-0.25														○						○		○		
	TPGT090208-SF	0.8	0.05-2.00	0.05-0.35																				○				
	TPGT110302-SF	0.2	0.05-2.00	0.05-0.15																				○		○		
Finishing	**TPGT110304-SF**	0.4	0.05-2.00	0.05-0.25																				○		●		
	TPGT110308-SF	0.8	0.05-2.00	0.05-0.35																						○		

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

S***-STUPR/L	C***-STUPR/L	E***-STFPR/L
Kr: 93°	Kr: 93°	Kr: 90°
		
A397	A406	A408

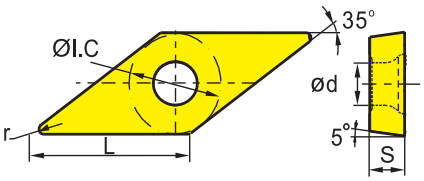
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VBMT	L	I.C	S	d
11 03	11	6.35	3.18	2.8
11 02	11	6.35	2.38	2.8
16 04	16.5	9.525	4.76	4.4

VB** positive insert



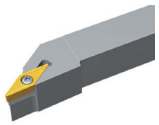
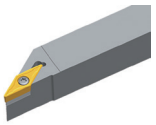
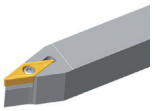
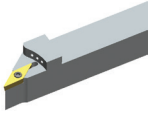
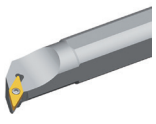
	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
AHF	**VBMT160402-AHF**	0.2	0.2-2.5	0.05-0.25																	○						
	VBMT160404-AHF	0.4	0.2-3.0	0.05-0.30		●															●						
	VBMT160408-AHF	0.8	0.8-3.5	0.08-0.40		●															●						
	VBMT160412-AHF	1.2	0.8-2.6	0.13-0.4		○																					
Finishing																											
EF	**VBMT110302-EF**	0.2	0.06-1.70	0.03-0.13																●	○						
	VBMT110304-EF	0.4	0.1-1.7	0.05-0.19							●									●	○						
	VBMT110308-EF	0.8	0.13-1.70	0.07-0.26							●									○	○						
	VBMT160404-EF	0.4	0.1-1.8	0.05-0.20							●									●	○						
Finishing	**VBMT160408-EF**	0.8	0.14-1.80	0.07-0.27							○									●	○						
XF	**VBMT110202-XF**	0.2	0.5-2.0	0.08-0.20				○																			
	VBMT110204-XF	0.4	0.5-2.0	0.08-0.20	●																						
	VBMT110302-XF	0.2	0.5-2.0	0.08-0.20				○																			
	VBMT110304-XF	0.4	0.5-2.0	0.08-0.20	●																						
Finishing	**VBMT160404-XF**	0.4	0.5-2.5	0.08-0.20	●																						
	VBMT160408-XF	0.8	0.5-2.5	0.08-0.25	●																						

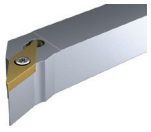
● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SVJBR/L	SVABR/L	SVVBN	SVJBR/L-SC	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 93°
						
A314	A315	A316	A357	A391	A392	A393

SVHBR/L
Kr: 107°30'

A317

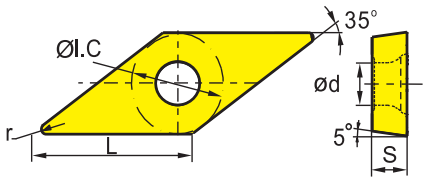
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VBET	L	I.C	S	d
16 04	16.5	9.525	4.76	4.4

VB** positive insert

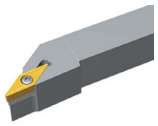
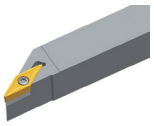
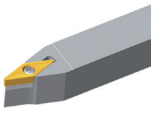
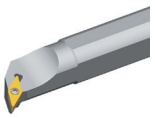


					HC¹ (CVD)										HC¹ (PVD)						HT		HC²	HW	
	ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	NF	**VBET160404-NF**	0.4	0.2-3.0	0.05-0.30														●								
M		**VBET160408-NF**	0.8	0.2-3.0	0.08-0.40														●								
K																											
N	Finishing																										
S																											
H																											

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SVJBR/L	SVABR/L	SVVBN	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 107°30'	Kr: 93°	Kr: 93°
					
A314	A315	A316	A391	A392	A393

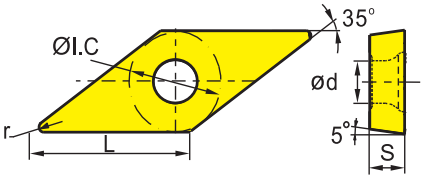
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

VBGT	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4

VB** positive insert

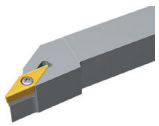
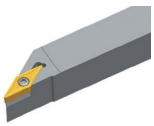
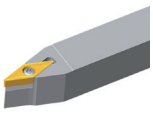
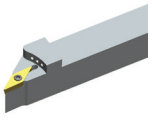
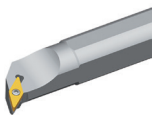
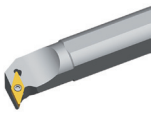


	ISO	r	a_p	f	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P					●	●	●	●	●											●	●	●		●	●	●		
M											●	●					●	●	●	●	●	●	●	○	●	○		
K													●	●	●	●												
N																	●	●									●	●
S																	●	●	●	●	●	●	●				●	●
H																												
SF	**VBGT110302-SF**	0.2	0.05-2.00	0.05-0.15																				○	○	○		
	VBGT110304-SF	0.4	0.05-2.00	0.05-0.20																					○	○		
Finishing																												
	VBGT110301-QF	0.1	0.05-0.2	0.03-0.1																●								
	VBGT110302-QF	0.2	0.1-0.4	0.05-0.2																●						●		
	VBGT110304-QF	0.4	0.4-1.0	0.1-0.3																●						○		
	VBGT160402-QF	0.2	0.2-1.0	0.05-0.15	●															●						○		
Finishing	**VBGT160404-QF**	0.4	0.2-1.5	0.08-0.15	●															●						○		
	VBGT160408-QF	0.8	0.5-2	0.05-0.2																●						○		

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SVJBR/L	SVABR/L	SVVBN	SVJBR/L-SC	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 93°
						
A314	A315	A316	A357	A391	A392	A393

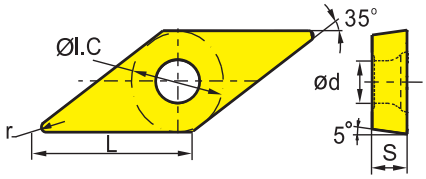
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VB**	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.5	9.525	4.76	4.4

VB** positive insert



	HC¹ (CVD)						HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◎	◎	◎				◎	◎	◎	○	◎	○		
M						○	◎			○	○	◎	◎	○	◎	○	
K								◎	◎	◎	◎						
N							○	○								◎	◎
S							◎	◎	◎	◎	◎	◎				◎	◎
H																	

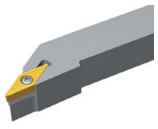
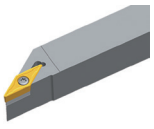
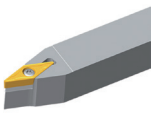
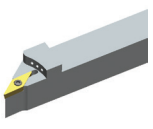
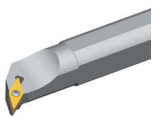
ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
NGF	**VBET160408-NGF**	0.8	0.2-3.0	0.08-0.30															●									
	VBET160412-NGF	1.2	0.2-3.0	0.1-0.4															●									
Finishing																												
EM	**VBMT110304-EM**	0.4	0.15-2.00	0.07-0.20							○								●	○								
	VBMT110308-EM	0.8	0.2-2.0	0.09-0.27			○				○								●	○								
	VBMT160404-EM	0.4	0.23-2.70	0.07-0.20							●								●	○								
	VBMT160408-EM	0.8	0.45-2.70	0.09-0.27							●								●	○								
Medium Cut																												
HM	**VBMT160404-HM**	0.4	0.23-2.70	0.07-0.20			●		●		●		●															
	VBMT160408-HM	0.8	0.45-2.70	0.09-0.27			●		●		○	●	●		●													
	VBMT160412-HM	1.2	0.54-2.70	0.11-0.32			○		○																			
Medium Cut																												
XM	**VBMT160404-XM**	0.4	1-2.5	0.15-0.25	●			○																				
	VBMT160408-XM	0.8	1-2.5	0.15-0.3	●			○																				
	VBMT160412-XM	1.2	1-2.5	0.15-0.35	●			○																				
Medium Cut																												

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

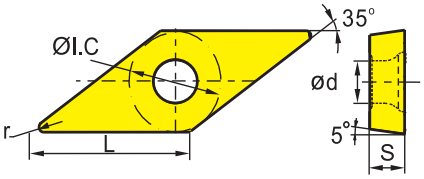
SVJBR/L	SVABR/L	SVVBN	SVJBR/L-SC	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 93°
						
A314	A315	A316	A357	A391	A392	A393

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VBMT	L	I.C	S	d
16 04	16.5	9.525	4.76	4.4



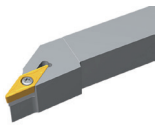
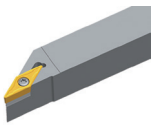
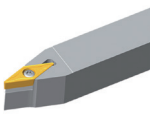
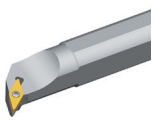
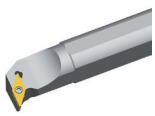
VB** positive insert		HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
		YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P		●	●	●	◉	◉	◉										◉	◉	◉		●	◉	●		
M								●	◉					●	●	◉	◉	◉	◉	●	●	◉	●		
K										●	◉	◉	◉												
N														●	●									●	◉
S														●	●	◉	◉	◉	◉	●				●	◉
H																									
ISO		r	a_p	f																					
HR	**VBMT160404-HR**	0.4	0.5-3.0	0.1-0.3			○	○																	
	VBMT160408-HR	0.8	0.9-3.6	0.11-0.32			○	○																	
	VBMT160412-HR	1.2	1.08-3.60	0.13-0.38			○	○																	
Roughing																									
SNR	**VBMT160408-SNR**	0.8	0.5-4.0	0.1-0.3												●				○					
	VBMT160412-SNR	1.2	0.5-4.0	0.3-0.6												●				○					
Roughing																									

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SVJBR/L	SVABR/L	SVVBN	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 107°30'	Kr: 93°	Kr: 93°
					
A314	A315	A316	A391	A392	A393

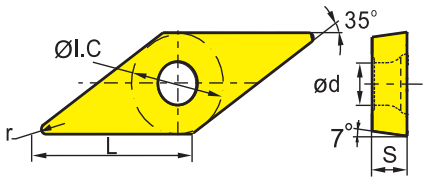
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

VCGT	L	l.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4

VC** positive insert



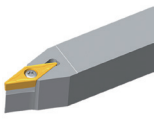
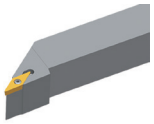
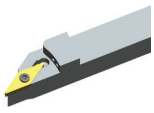
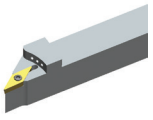
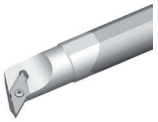
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	◉	◉	◉									◉		◉		○	◉		◉	
M						○	◉					○	○	◉		◉	○	○	◉		◉	
K								○	◉	◉	◉											
N												○	○								◉	◉
S													○	○	◉	◉	○				◉	◉
H																						

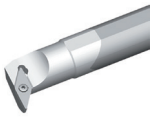
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
SF	**VCGT110302-SF**	0.2	0.05-1.00	0.05-0.15																				●	●	●		
	VCGT110304-SF	0.4	0.05-1.00	0.05-0.25														○		●				●	○	●		
	VCGT160404-SF	0.4	0.05-1.50	0.05-0.25																						●		
Finishing																												
	VCGT110301-QF	0.1	0.1-1	0.05-0.2																	●							
	VCGT110302-QF	0.2	0.1-0.5	0.05-0.1																	●					●		
	VCGT110304-QF	0.4	0.2-0.7	0.08-0.2																	●					○		
	VCGT160402-QF	0.2	0.2-1.5	0.05-0.15	●																●					○		
Finishing	**VCGT160404-QF**	0.4	0.2-1.5	0.08-0.15	●																●					○		
	VCGT160408-QF	0.8	0.5-2	0.05-0.2																	○							

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A318	A319	A356	A358	A389	A390	A409

C***-SVUCR/L	S***-SVJCR/L
Kr: 93°	Kr: 93°
	
A410	A388

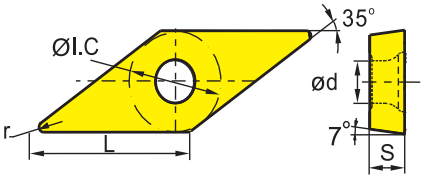
System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VCGT	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.5	9.525	4.76	4.4

VC** positive insert



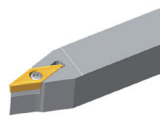
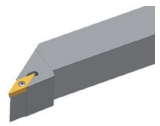
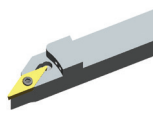
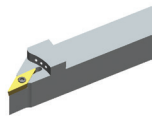
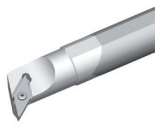
	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	○	○	○	◎	◎	◎										◎	◎	◎		○	◎	○		
M							○	◎						○	○	◎	◎	◎	○	○	◎	○		
K									○	◎	◎	◎												
N													○	○									◎	◎
S														○	○	◎	◎	◎	○				○	◎
H																								

	ISO	r	a_p	f
HF	**VCGT110304-HF**	0.4	0.2-2.0	0.05-0.30
Finishing				
NF	**VCGT160408-NF**	0.8	0.2-2.0	0.1-0.4
Finishing				

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A318	A319	A356	A358	A389	A390	A409

C***-SVUCR/L	S***-SVJCR/L
Kr: 93°	Kr: 93°
	
A410	A388

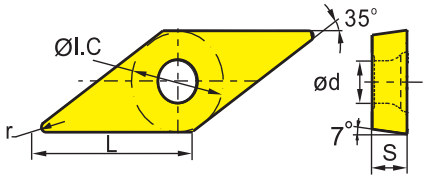
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning/Milling inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VCGX	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4
22 05	22	12.7	5.56	5.5

VC** turning/milling insert



	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉	○	○	○		
M							○	◉					○	○	◉	◉	◉	○	○	○		
K									◉	◉	◉	◉										
N													●	●							◉	◉
S													◉	◉	◉	◉	◉	◉			◉	◉
H																						

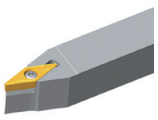
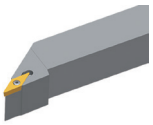
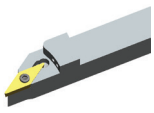
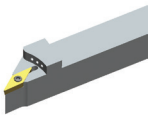
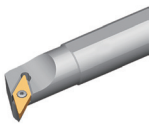
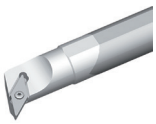
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LC	**VCGX110301-LC**	0.1	0.3-3.0	0.05-0.10													●			●							●	
	VCGX110302-LC	0.2	0.3-3.0	0.05-0.15													●			○							●	
	VCGX110304-LC	0.4	0.5-3.0	0.1-0.3													●										●	
	VCGX110308-LC	0.8	1-3	0.1-0.5													●										●	
	VCGX160402-LC	0.2	0.5-5.0	0.05-0.10													○										○	
	VCGX160404-LC	0.4	0.5-5.0	0.1-0.3													●										●	
	VCGX160408-LC	0.8	0.5-5.0	0.15-0.60													●										●	
	VCGX160412-LC	1.2	0.5-5.0	0.15-0.80													○										●	
	VCGX220530-LC	3	0.5-7.0	0.25-1.00													●										○	●

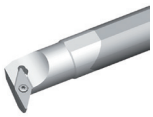
Alum Machining

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A318	A319	A356	A358	A389	A390	A409

C***-SVUCR/L	S***-SVJCR/L
Kr: 93°	Kr: 93°
	
A410	A388

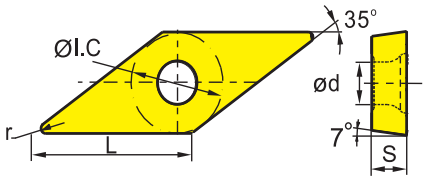
System code A52 Grade selection A46 Technical info A607 Cutting data A414

VCGX	L	I.C	S	d
11 02	11	6.35	2.38	2.8
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4
22 05	22	12.7	5.56	5.5

Turning/Milling inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

VC** turning/milling insert

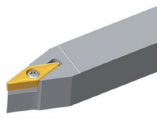
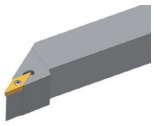
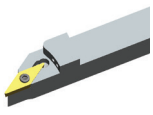
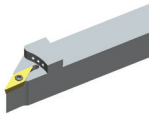
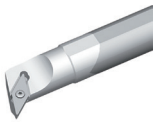


	ISO	r	a_p	f	HC¹ (CVD)										HC¹ (PVD)							HT		HC²	HW	
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LH	**VCGX110204-LH**	0.4	0.5-3.0	0.1-0.3																						●	
	VCGX110301-LH	0.1	0.5-3.0	0.05-0.10																						●	
	VCGX110302-LH	0.2	0.3-3.0	0.05-0.15														●									●	○
	VCGX110304-LH	0.4	0.5-3.0	0.1-0.3														●									●	○
	VCGX110308-LH	0.8	0.5-3.0	0.15-0.60																							●	
	VCGX160402-LH	0.2	0.5-5.0	0.05-0.10														●									●	
Alum Machining	**VCGX160404-LH**	0.4	0.5-5.0	0.1-0.3														●									●	
	VCGX160408-LH	0.8	0.5-5.0	0.15-0.60														●									●	
	VCGX160412-LH	1.2	0.5-5.0	0.15-0.80														○									●	
	VCGX220530-LH	3	0.5-7.0	0.25-1.00																							●	○

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A318	A319	A356	A358	A389	A390	A409

C***-SVUCR/L	S***-SVJCR/L
Kr: 93°	Kr: 93°
	
A410	A388

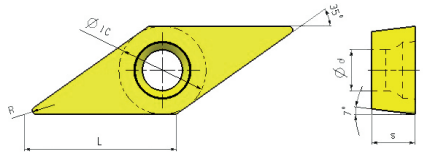
System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VCMT	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16	9.525	4.76	4.4

VC** positive insert



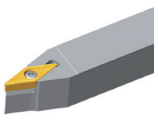
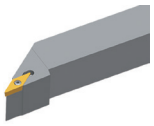
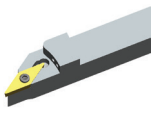
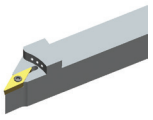
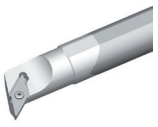
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◉	◉	◉									◉	◉	◉		○	◉	○		
M							○	◉				○	○	◉	◉	◉	○	○	◉	○			
K									○	◉	◉												
N												○	○								○	◉	
S												○	○	◉	◉	◉	○				○	◉	
H																							

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XF	**VCMT110302-XF**	0.2	0.5-2.0	0.08-0.20				○																				
	VCMT110304-XF	0.4	0.5-2.0	0.08-0.20	●																							
	VCMT110308-XF	0.8	0.5-2.0	0.08-0.25	●																							
	VCMT160404-XF	0.4	0.5-2.5	0.08-0.20	●																							
Finishing	**VCMT160408-XF**	0.8	0.5-2.5	0.08-0.25	●																							

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A318	A319	A356	A358	A389	A390	A409

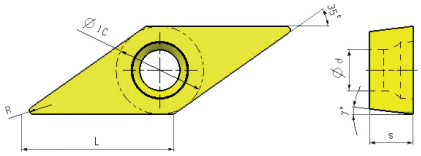
C***-SVUCR/L	S***-SVJCR/L
Kr: 93°	Kr: 93°
	
A410	A388

System code A52 Grade selection A46 Technical info A607 Cutting data A414

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

VCMT	L	I.C	S	d
16 04	16	9.525	4.76	4.4

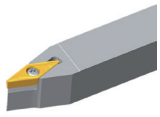
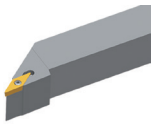
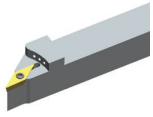
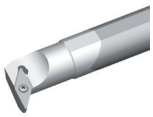


VC** positive insert		HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
		YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YBG205H	YB9320	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P		○	○	○	◍	◍	◍										◍	◍	◍		○	◍	○		
M								○	◍					○	○	◍	◍	◍	○		○	◍	○		
K										●	◍	◍	◍												
N														●	●									◍	◍
S														●	●	◍	◍	◍	●					●	◍
H																									
ISO																									
AHF	**VCMT160404-AHF**	0.4	0.5-2.5	0.05-0.3		○																			
	VCMT160408-AHF	0.8	0.6-2.5	0.1-0.35		○																			
	VCMT160412-AHF	1.2	0.5-3.0	0.08-0.35		○																			
Finishing																									
EF	**VCMT160404-EF**	0.4	0.5-2.5	0.05-0.20													●	○							
Medium Cut																									
EM	**VCMT160404-EM**	0.4	0.5-2.5	0.05-0.35				○									●	○							
	VCMT160408-EM	0.8	0.5-2.5	0.10-0.45				○									●	○							
Medium Cut																									
XM	**VCMT160412-XM**	1.2	1-2.5	0.15-0.35	○		○																		
Medium Cut																									

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

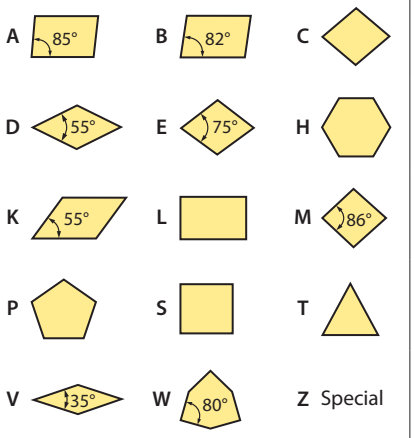
Tool holder

SVVCN	SVJCR/L	SVJCR/L-SC	S***-SVUCR/L	E***-SVUCR/L
Kr: 72°30'	Kr: 93°	Kr: 93°	Kr: 93°	Kr: 93°
				
A318	A319	A358	A390	A410

System code A52 | Grade selection A46 | Technical info A607 | Cutting data A414

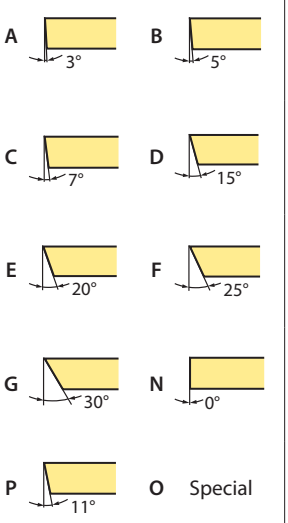
C	N	G	A	12	04	08	T	020	20	–	2	(W)
1	2	3	4	5	6	7	8	9	10		11	12

Insert shape



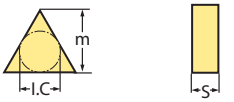
1

Clearance angle



2

Tolerance class

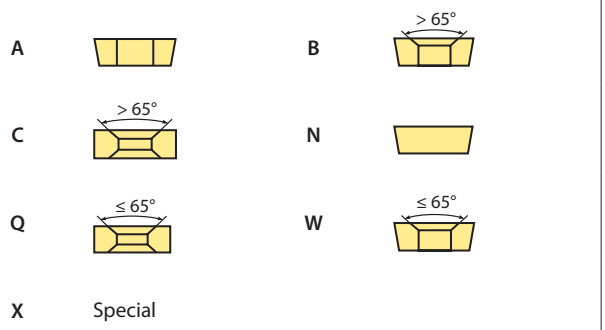


Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20	±0,025
U	±0,08–0,25	±0,13–0,38	±0,130

3

Fastening features (metric)

Insert shape



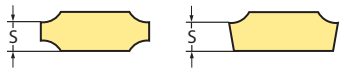
4

Cutting edge length l [mm]

I.C [mm]	Insert shape C	D	S	T	V	W
3,97				06		
5,0						
5,56				09		
6,0						
6,35	06	07		11	11	
8,0						
9,525	09	11	09	16	16	06
10,0						
12,0						
12,7	12	15	12	22	22	08
15,875	16		15	27		
16,0		19				
19,05	19		19	33		
20,0						
25,0	25	25				
25,4			25			
31,75						
32						

5

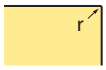
Insert thickness S [mm]



Code	S	Code	S
02	2,38	**06**	6,35
T2	2,58	**T6**	6,75
03	3,18	**07**	7,94
T3	3,97	**09**	9,52
04	4,76	**T9**	9,72
T4	4,96	**11**	11,11
05	5,56	**12**	12,70
T5	5,95		

6

Nose radius r [mm]



Code	r
00	–
02	0,2
04	0,4
08	0,8
12	1,2
16	1,6
20	2,0
24	2,4
32	3,2
X	Special
MO	Round inserts

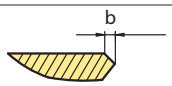
7

Cutting edge profile

Code	Cutting edge	Insert shape
E	Rounding	
F	Sharp edge	
T	Chamfer	
S	Chamfer + Rounding	

8

Chamfer width b [mm]



Code	b
010	0,10
015	0,15
020	0,20
025	0,25
030	0,30
035	0,35
040	0,40
045	0,45
050	0,50
100	1,00
200	2,00

9

Chamfer angle α



Code	α
05	5°
10	10°
15	15°
20	20°
25	25°
30	30°

10

Cutting edges

Code	Form
1	
2	
3	
4	

11

Extra

Code	Description
W	Wiper
HS	Full face single brazed CBN insert
M	Solid CBN with clamping dimple
CB	Chip breaker (CBN)
MED	Chip breaker, fine – medium (PCD)
ROF	Chip breaker, medium – roughing (PCD)
L (L/R)	Full-edge tipped (PCD)

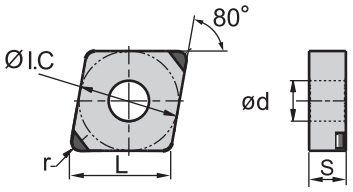
12

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNGA	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16

CN** negative insert



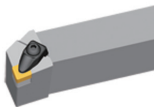
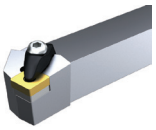
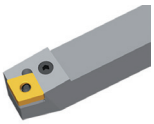
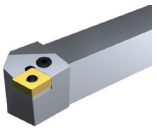
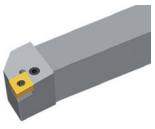
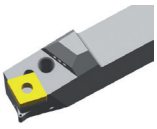
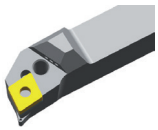
	BL (CBN)				BC (CBN)			BH (CBN)
P								
M								
K								●
N								
S	○			◉				
H		○	◉	◉	○	◉	◉	

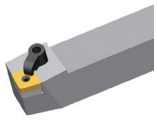
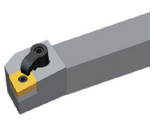
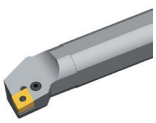
ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
CNGA120402S01020-2	0.2	0.08-0.50	0.05-0.15			○			○		
CNGA120402S01225-2	0.2	0.08-0.50	0.05-0.15		○			○			
CNGA120404E-2	0.4	0.08-0.50	0.05-0.20	○			○				
CNGA120404S01020-2	0.4	0.08-0.50	0.05-0.20			●			○		○
CNGA120404S01225-2	0.4	0.08-0.50	0.05-0.20		●			○			
CNGA120408E-2	0.8	0.08-0.50	0.05-0.25	○			○				
CNGA120408S01525-2	0.8	0.08-0.50	0.05-0.25		●		●	●			
CNGA120408S02020-2	0.8	0.08-0.50	0.05-0.25			●			●		○
CNGA120412E-2	1.2	0.08-0.50	0.05-0.30	○			○				
CNGA120412S01020-2	1.2	0.08-0.50	0.05-0.30								●
CNGA120412S01525-2	1.2	0.08-0.50	0.05-0.30		●		●	●			
CNGA120412S02020-2	1.2	0.08-0.50	0.05-0.30			●			○		
CNGA120416S01020-2	1.6	0.08-0.50	0.05-0.35								○
CNGA120416S01525-2	1.6	0.08-0.50	0.05-0.35		○		○	○			
CNGA120416S02020-2	1.6	0.08-0.50	0.05-0.35			○			○		

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

DCLNR/L	DCKNR/L	PCBNR/L	PCKNR/L	PCLNR/L	PCBNR/LC	PCLNR/LC
Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°
						
A262	A263	A270	A271	A272	A286	A287

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

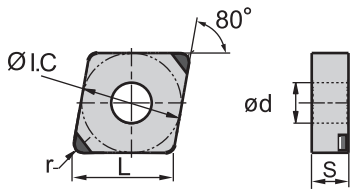
System code A188 Grade selection A46 Technical info A607 Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNGA	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16

Turning CBN inserts

CN** negative insert



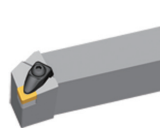
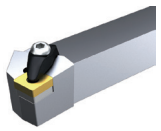
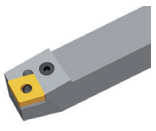
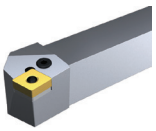
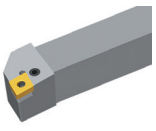
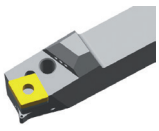
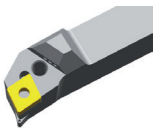
	BL (CBN)	BC (CBN)	BH (CBN)
P			
M			
K			○
N			
S	○	◉	
H	○ ◉ ◉	○ ◉ ◉	

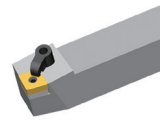
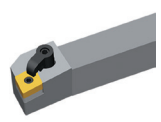
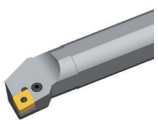
	ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
	**CNGA120408S01525-2W**	0.8	0.08-0.50	0.05-0.25	●		○		○			
	CNGA120408S02020-2W	0.8	0.08-0.50	0.05-0.25		●				○		

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

DCLNR/L	DCKNR/L	PCBNR/L	PCKNR/L	PCLNR/L	PCBNR/LC	PCLNR/LC
Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°
						
A262	A263	A270	A271	A272	A286	A287

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

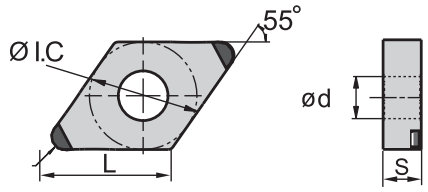
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNGA	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

DN** negative insert



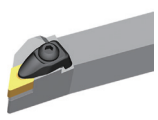
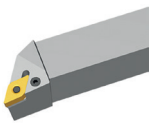
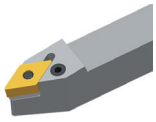
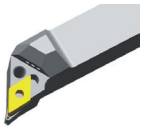
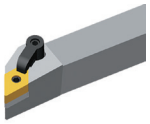
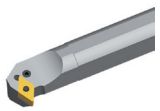
	BL (CBN)	BC (CBN)	BH (CBN)
P			
M			
K			○
N			
S	○		
H	○	○	

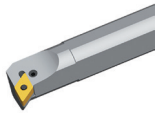
ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
DNGA150604E-2	0.4	0.08-0.50	0.05-0.20	○			○				
DNGA150604S01020-2	0.4	0.08-0.50	0.05-0.20			○			○		○
DNGA150604S01225-2	0.4	0.08-0.50	0.05-0.20		○		○	○			
DNGA150608E-2	0.8	0.08-0.50	0.05-0.25	○			○				
DNGA150608S01020-2	0.8	0.08-0.50	0.05-0.25								○
DNGA150608S01525-2	0.8	0.08-0.50	0.05-0.25		●		●	●			
DNGA150608S02020-2	0.8	0.08-0.50	0.05-0.25			●			●		
DNGA150612S01020-2	1.2	0.08-0.50	0.05-0.30								○
DNGA150612S01525-2	1.2	0.08-0.50	0.05-0.30		●						
DNGA150612S02020-2	1.2	0.08-0.50	0.05-0.30			●			○		

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

DDJNR/L	PDJNR/L	PDNNR/L	PDJNR/LC	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A274	A275	A288	A294	A295	A372

S***-PDUNR/L
Kr: 93°

A373

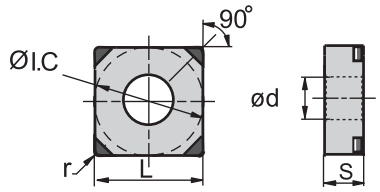
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

SNGA	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

Turning CBN inserts

SN** negative insert



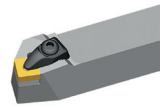
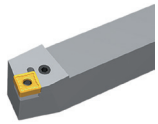
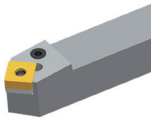
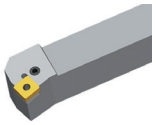
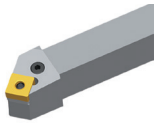
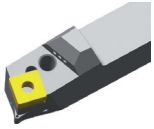
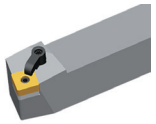
	BL (CBN)				BC (CBN)			BH (CBN)
P								
M								
K								●
N								
S	●			○				
H		●	○	○	●	○	○	

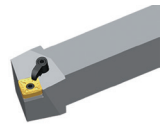
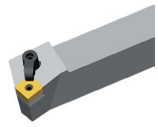
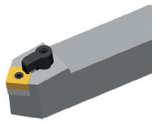
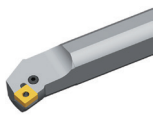
	ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
	**SNGA120408S01020-4**	0.8	0.08-0.50	0.05-0.25								○
	SNGA120408S01525-4	0.8	0.08-0.50	0.05-0.25		○		○	○			
	SNGA120408S02020-4	0.8	0.08-0.50	0.05-0.25			○			○		
	SNGA120412S01020-4	1.2	0.08-0.50	0.05-0.30								○
	SNGA120412S01525-4	1.2	0.08-0.50	0.05-0.30		○		○	○			
	SNGA120412S02020-4	1.2	0.08-0.50	0.05-0.30			○			○		

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	PSBNR/LC	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
						
A265	A276	A278	A279	A280	A289	A296

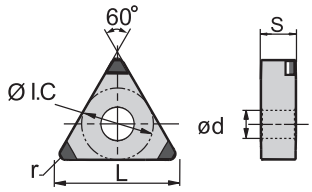
MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TNGA	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81

Turning CBN inserts

TN** negative insert



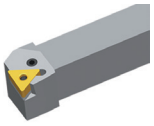
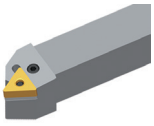
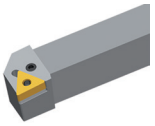
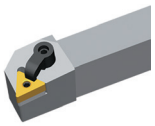
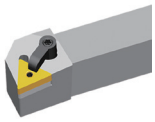
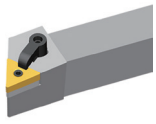
	BL (CBN)	BC (CBN)	BH (CBN)
P			
M			
K			●
N			
S	○ ❁		
H	○ ❁ ❁	○ ❁ ❁	

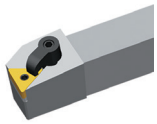
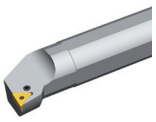
ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
TNGA160404S01020-3	0.4	0.08-0.50	0.05-0.20			○			○		○
TNGA160404S01225-3	0.4	0.08-0.50	0.05-0.20		○			○			
TNGA160408S01020-3	0.8	0.08-0.50	0.05-0.25								○
TNGA160408S01525-3	0.8	0.08-0.50	0.05-0.25		○		○	○			
TNGA160408S02020-3	0.8	0.08-0.50	0.05-0.25			●			○		
TNGA160412S01020-3	1.2	0.08-0.50	0.05-0.30								○
TNGA160412S01525-3	1.2	0.08-0.50	0.05-0.30		○		○	○			
TNGA160412S02020-3	1.2	0.08-0.50	0.05-0.30			○			○		

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

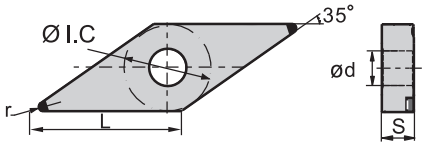
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VNGA	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

VN** negative insert



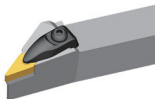
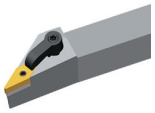
	BL (CBN)				BC (CBN)			BH (CBN)
P								
M								
K								○
N								
S	○			◉				
H		○	◉	◉	○	◉	◉	

	ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
	**VNGA160402S01020-2**	0.2	0.08-0.30	0.05-0.20			○					
	VNGA160404S01020-2	0.4	0.08-0.50	0.05-0.20			●			○		○
	VNGA160404S01225-2	0.4	0.08-0.50	0.05-0.20		●			○			
	VNGA160408S01020-2	0.8	0.08-0.50	0.05-0.25								○
	VNGA160408S01525-2	0.8	0.08-0.50	0.05-0.25		●			○			
	VNGA160408S02020-2	0.8	0.08-0.50	0.05-0.25			●			○		

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			
A267	A268	A304	A305

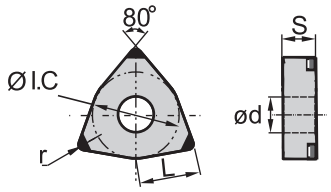
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

WNGA	L	I.C	S	d
08 04	8.69	12.7	4.76	5.16

Turning CBN inserts

WN** negative insert



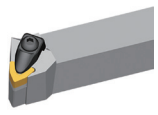
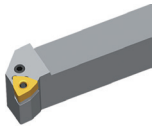
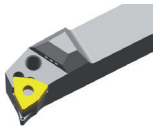
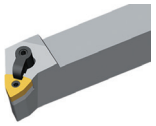
	BL (CBN)	BC (CBN)	BH (CBN)
P			
M			
K			●
N			
S	○		
H	○ ◌ ◌	○ ◌ ◌	

	ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
	**WNGA080404S01020-3**	0.4	0.08-0.50	0.05-0.20			○			○		○
	WNGA080404S01225-3	0.4	0.08-0.50	0.05-0.20		○			○			
	WNGA080408S01020-3	0.8	0.08-0.50	0.05-0.25								○
	WNGA080408S01525-3	0.8	0.08-0.50	0.05-0.25		○			○			
	WNGA080408S02020-3	0.8	0.08-0.50	0.05-0.25			○			○		
	WNGA080412S01020-3	1.2	0.08-0.50	0.05-0.30								○
	WNGA080412S01525-3	1.2	0.08-0.50	0.05-0.30		○		○	○			
	WNGA080412S02020-3	1.2	0.08-0.50	0.05-0.30			○			○		

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

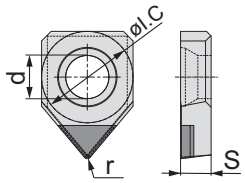
DWLNR/L	PWLNR/L	PWLNR/LC	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A285	A290	A306	A378

System code A188 Grade selection A46 Technical info A607 Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

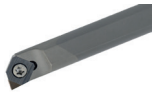
ZNEX	I.C	S	d
04 01	4.76	1.59	2.3

Turning CBN inserts

ZN** negative insert						BL (CBN)				BC (CBN)			BH (CBN)
					P								
					M								
					K								●
					N								
					S	○			◐				
					H		●	◐	◉	○	◐	◉	
	ISO		r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
	**ZNEX040102S01515**		0.2	0.08-0.50	0.05-0.15		○	○					
	ZNEX040104S01515		0.4	0.08-0.50	0.05-0.20		○	○					

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder
C*-SZLNR/L**
Kr: 95°

A411

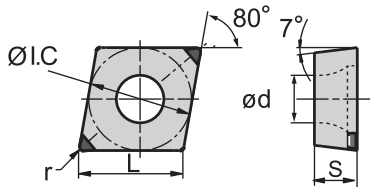
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCGW	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.5

CC** positive insert



	BL (CBN)				BC (CBN)			BH (CBN)
	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
P								
M								
K								○
N								
S	○			◉				
H		○	◉	◉	○	◉	◉	

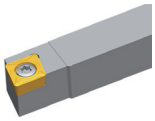
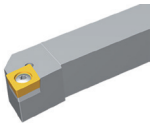
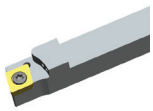
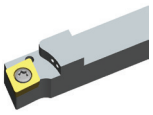
ISO	r	a_p	f
CCGW060202S01020-2	0.2	0.08-0.50	0.05-0.20
CCGW060202S01225-2	0.2	0.08-0.50	0.05-0.20
CCGW060204S01020-2	0.4	0.08-0.50	0.05-0.20
CCGW060204S01225-2	0.4	0.08-0.50	0.05-0.20
CCGW060208S01020-2	0.8	0.08-0.50	0.05-0.25
CCGW060208S01525-2	0.8	0.08-0.50	0.05-0.25
CCGW060208S02020-2	0.8	0.08-0.50	0.05-0.25
CCGW09T302S01020-2	0.2	0.08-0.50	0.05-0.15
CCGW09T302S01225-2	0.2	0.08-0.50	0.05-0.15
CCGW09T304S01225-2	0.4	0.08-0.50	0.05-0.20
CCGW09T308S01525-2	0.8	0.08-0.50	0.05-0.25
CCGW09T308S02020-2	0.8	0.08-0.50	0.05-0.25
CCGW09T312E-2	1.2	0.08-0.50	0.05-0.30
CCGW120404S01020-2	0.4	0.08-0.50	0.05-0.20
CCGW120404S01225-2	0.4	0.08-0.50	0.05-0.20
CCGW120408S01020-2	0.8	0.08-0.50	0.05-0.25
CCGW120408S01525-2	0.8	0.08-0.50	0.05-0.25
CCGW120408S02020-2	0.8	0.08-0.50	0.05-0.25
CCGW120412S01020-2	1.2	0.08-0.50	0.05-0.30
CCGW120412S01525-2	1.2	0.08-0.50	0.05-0.30
CCGW120412S02020-2	1.2	0.08-0.50	0.05-0.30

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

System code A188 Grade selection A46 Technical info A607 Cutting data A414

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

A401

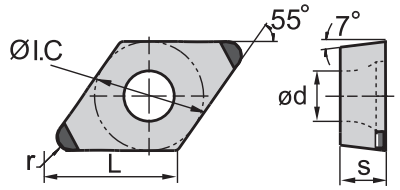
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCGW	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



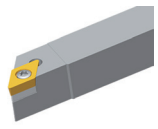
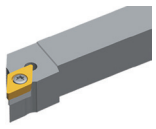
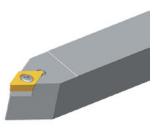
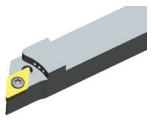
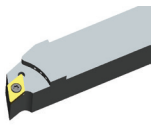
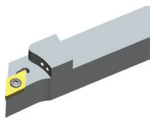
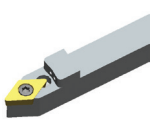
	BL (CBN)	BC (CBN)	BH (CBN)
P			
M			
K			○
N			
S	○	❁	
H	○ ❁ ❁	○ ❁ ❁	

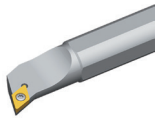
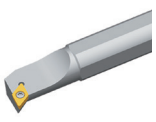
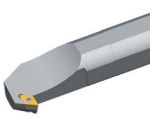
ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
DCGW070202S01020-2	0.2	0.08-0.50	0.05-0.15			●			○		
DCGW070202S01225-2	0.2	0.08-0.50	0.05-0.15		○			○			
DCGW070204S01020-2	0.4	0.08-0.50	0.05-0.20			●			○		○
DCGW070204S01225-2	0.4	0.08-0.50	0.05-0.20		●			○			
DCGW070208S01020-2	0.8	0.08-0.50	0.05-0.25								○
DCGW070208S01525-2	0.8	0.08-0.50	0.05-0.25		●			○			
DCGW070208S02020-2	0.8	0.08-0.50	0.05-0.25			●			○		
DCGW11T302S01020-2	0.2	0.08-0.50	0.05-0.15			○			○		○
DCGW11T302S01225-2	0.2	0.08-0.50	0.05-0.15		○			○			
DCGW11T304E-2	0.4	0.08-0.50	0.05-0.20	○			○				
DCGW11T304S01020-2	0.4	0.08-0.50	0.05-0.20			●			○		●
DCGW11T304S01225-2	0.4	0.08-0.50	0.05-0.20		●			○			
DCGW11T308E-2	0.8	0.08-0.50	0.05-0.25	○			○				
DCGW11T308S01020-2	0.8	0.08-0.50	0.05-0.25			●					●
DCGW11T308S01525-2	0.8	0.08-0.50	0.05-0.25		●		○	●			
DCGW11T308S02020-2	0.8	0.08-0.50	0.05-0.25			●			●		
DCGW11T312E-2	1.2	0.08-0.50	0.05-0.30	○			○				
DCGW11T312S01020-2	1.2	0.08-0.50	0.05-0.25								○

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L	E***-SDUCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'	Kr: 93°
				
A381	A382	A383	A403	A405

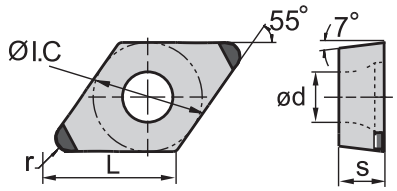
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCGW	L	I.C	S	d
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



	BL (CBN)				BC (CBN)			BH (CBN)
	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
P								
M								
K								●
N								
S	○			◎				
H		○	◎	◉	○	◎	◉	

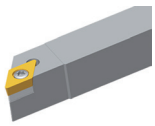
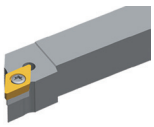
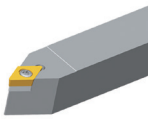
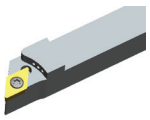
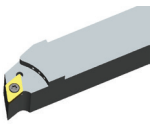
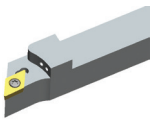
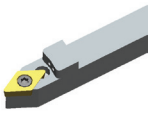
ISO	r	a_p	f
DCGW11T304S01020-2W	0.4	0.08-0.50	0.05-0.20

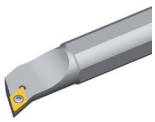
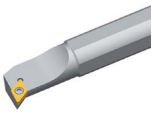
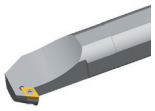


● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L	E***-SDUCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'	Kr: 93°
				
A381	A382	A383	A403	A405

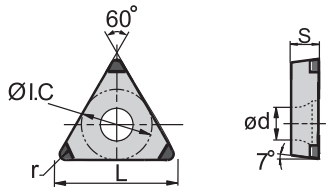
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TCGW	L	I.C	S	d
11 02	11	6.35	2.38	2.5
16 T3	16.5	9.525	3.97	4.4

TC** positive insert



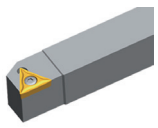
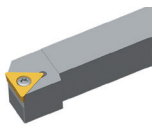
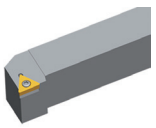
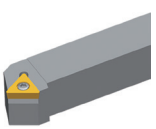
	BL (CBN)	BC (CBN)	BH (CBN)
P			
M			
K			●
N			
S	○		
H	○ ❁ ❁	○ ❁ ❁	

	ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
	**TCGW110204S01020-3**	0.4	0.08-0.50	0.05-0.20			○			○		○
	TCGW110204S01225-3	0.4	0.08-0.50	0.05-0.20		○			○			
	TCGW110208S01015-3	0.8	0.08-0.5	0.05-0.25					○			
	TCGW110208S01020-3	0.8	0.08-0.50	0.05-0.25								○
	TCGW110208S01525-3	0.8	0.08-0.50	0.05-0.25		○			○			
	TCGW110208S02020-3	0.8	0.08-0.50	0.05-0.25						○		
	TCGW16T304S01020-3	0.4	0.08-0.50	0.05-0.20			●			○		○
	TCGW16T304S01225-3	0.4	0.08-0.50	0.05-0.20		●			○			
	TCGW16T308S01020-3	0.8	0.08-0.50	0.05-0.25								○
	TCGW16T308S01525-3	0.8	0.08-0.50	0.05-0.25		●			○			
	TCGW16T308S02020-3	0.8	0.08-0.50	0.05-0.25			●			○		
	**TCGW110204S01020-3W**	0.4	0.08-0.50	0.05-0.20					○			

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					
A324	A325	A326	A327	A386	A407

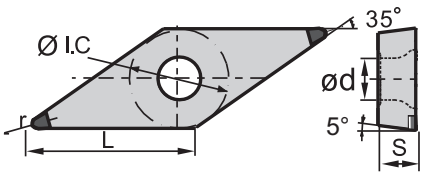
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VBGW	L	I.C	S	d
11 02	11	6.35	2.38	2.8
16 04	16.6	9.525	4.76	4.4

VB** positive insert



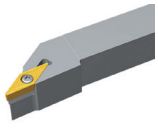
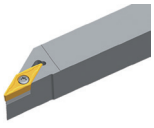
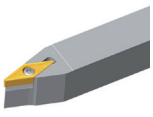
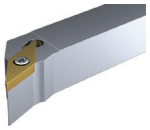
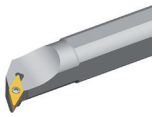
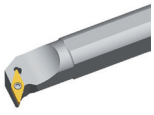
	BL (CBN)				BC (CBN)			BH (CBN)
P								
M								
K								○
N								
S	○			◍				
H		○	◍	◉	○	◍	◉	

	ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
	**VBGW110202S01020-2**	0.2	0.08-0.50	0.05-0.15			○					
	VBGW160402S01020-2	0.2	0.08-0.30	0.05-0.20			○					
	VBGW160402S01225-2	0.2	0.08-0.30	0.05-0.20		○						
	VBGW160404S01020-2	0.4	0.08-0.50	0.05-0.20			●	○		○		○
	VBGW160404S01225-2	0.4	0.08-0.50	0.05-0.20		●			○			
	VBGW160408S01020-2	0.8	0.08-0.50	0.05-0.25								○
	VBGW160408S01525-2	0.8	0.08-0.50	0.05-0.25		●			○			
	VBGW160408S02020-2	0.8	0.08-0.50	0.05-0.25			●			○		

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

SVJBR/L	SVABR/L	SVVBN	SVHBR/L	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 107°30'	Kr: 107°30'	Kr: 93°	Kr: 93°
						
A314	A315	A316	A317	A391	A392	A393

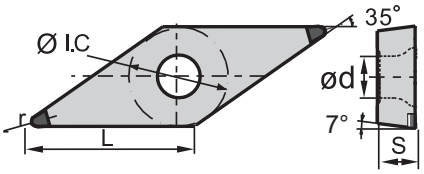
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VCGW	L	I.C	S	d
11 03	11.1	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4

VC** positive insert



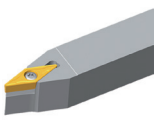
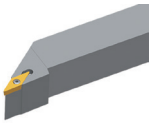
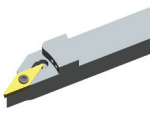
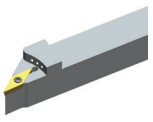
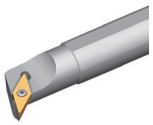
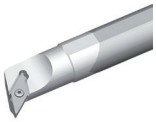
	BL (CBN)	BC (CBN)	BH (CBN)
P			
M			
K			●
N			
S	○	◉	
H	○ ◍ ◉	○ ◍ ◉	

ISO	r	a_p	f	YCB112	YCB113	YCB121	YCB131	YCB113C	YCB121C	YCB131C	YCB215
VCGW110302E-2	0.2	0.08-0.50	0.05-0.15	○			○				
VCGW110304E-2	0.4	0.08-0.50	0.05-0.20	○			○				
VCGW160404E-2	0.4	0.08-0.50	0.05-0.20	○			○				○
VCGW160404S01020-2	0.4	0.08-0.50	0.05-0.20			●			○		○
VCGW160404S01225-2	0.4	0.08-0.50	0.05-0.20		●			○			
VCGW160408E-2	0.8	0.08-0.50	0.05-0.25	○			○				
VCGW160408S01020-2	0.8	0.08-0.50	0.05-0.25								○
VCGW160408S01525-2	0.8	0.08-0.50	0.05-0.25		●			○			
VCGW160408S02020-2	0.8	0.08-0.50	0.05-0.25			●			○		
VCGW160412E-2	1.2	0.08-0.50	0.05-0.30	○			○				

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A318	A319	A356	A358	A389	A390	A409

S***-SVJCR/L	C***-SVUCR/L
Kr: 93°	Kr: 93°
	
A388	A410

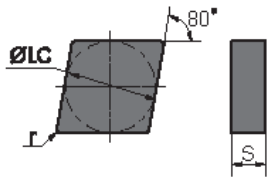
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNGN	L	I.C	S
09 03	9.7	9.525	3.18
12 04	12.9	12.7	4.76

CN** negative insert

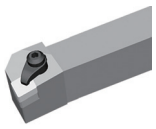


	BL (CBN)	BC (CBN)	BH (CBN)
P			
M			
K			⊛
N			
S			
H	⊛	⊛	

	ISO	r	a_p	f	YZB630	YZB630C	YZB223
	**CNGN090308S01525**	0.8	0.5-2.0	0.3-0.5	○	○	
	CNGN090308T01525	0.8	0.5-2.0	0.3-0.5			○
	CNGN090312S01525	1.2	0.5-2.0	0.3-0.5	○	○	
	CNGN090312T01525	1.2	0.5-2.0	0.3-0.5			○
	CNGN120408S01525	0.8	0.5-2.0	0.3-0.5	○	○	
	CNGN120408T01525	0.8	0.5-2.0	0.3-0.5			●
	CNGN120412S01525	1.2	0.5-2.0	0.3-0.5	●	○	
	CNGN120412T01525	1.2	0.5-2.0	0.3-0.5			●
	CNGN120416S01525	1.6	0.5-2.0	0.3-0.5	○	○	
	**CNGN120408T01525-M**	0.8	0.5-2.0	0.3-0.5			○
	CNGN120412T01525-M	1.2	0.5-2.0	0.3-0.5			○
	CNGN120416T01525-M	1.6	0.5-2.0	0.3-0.5			○

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder
CCLNR/L
Kr: 95°

A336

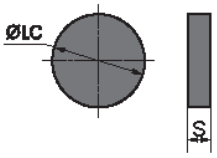
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

RNGN	I.C	S
09 03	9.525	3.18
12 04	12.7	4.76

RN** negative insert



	BL (CBN)	BC (CBN)	BH (CBN)
P			
M			
K			⊛
N			
S			
H	⊛	⊛	

ISO		a_p	f	YZB630	YZB630C	YZB223
	**RNGN090300S01525**	0.2-2.0	0.08-0.25	○	○	
	RNGN090300T01525	0.2-2.0	0.08-0.25			○
	RNGN120400S01525	0.3-2.4	0.1-0.4	○	○	
	RNGN120400T01525	0.3-2.4	0.1-0.4			●

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

CRDNN



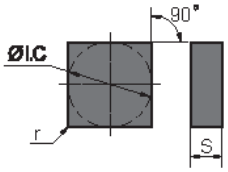
A342

System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning CBN inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

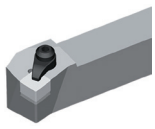
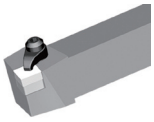
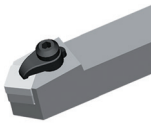
SNGN	L	I.C	S
12 04	12.7	12.7	4.76

SN** negative insert					BL (CBN)	BC (CBN)	BH (CBN)
				P			
				M			
				K			⊛
				N			
				S			
				H	⊛	⊛	
	ISO	r	a_p	f	YZB630	YZB630C	YZB223
	**SNGN120408S01525**	0.8	0.5-2.0	0.3-0.5	○	○	
	SNGN120408T01525	0.8	0.5-2.0	0.3-0.5			●
	SNGN120412S01525	1.2	0.5-2.0	0.3-0.5	○	○	
	SNGN120412T01525	1.2	0.5-2.0	0.3-0.5			○
	SNGN120416T02020	1.6	0.1-0.6	0.1-0.4			○
	**SNGN120412T01525-M**	1.2	0.5-2.0	0.3-0.5			○
	SNGN120416T01525-M	1.6	0.5-2.0	0.3-0.5			●

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

Tool holder

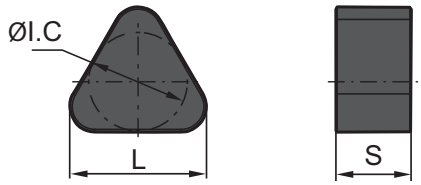
CSKNR/L	CSRNR/L	CSDNN
Kr: 75°	Kr: 75°	Kr: 45°
		
A340	A341	A343

System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning CBN inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

TNGN	L	I.C	S
11 04	11	6.35	4.76

TN** negative insert					BL (CBN)	BC (CBN)	BH (CBN)
				P			
				M			
				K			●
				N			
				S			
				H	○	○	
ISO		r	a_p	f	YZB630	YZB630C	YZB223
	**TNGN110416T01525**	1.6	0.1-0.5	0.1-0.6			○

● Ex stock ○ On demand

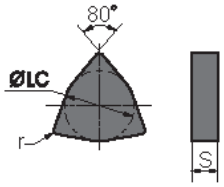
BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

System code A188 Grade selection A46 Technical info A607 Cutting data A414

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

WNGN	L	I.C	S
08 04	8.69	12.7	4.76

Turning CBN inserts



WN** negative insert					BL (CBN)	BC (CBN)	BH (CBN)
				P			
				M			
				K			⊛
				N			
				S			
				H	⊛	⊛	
	ISO	r	a_p	f	YZB630	YZB630C	YZB223
	**WNGN080408T01525**	0.8	0.5-2.0	0.3-0.5			○
	WNGN080412T01525	1.2	0.5-2.0	0.3-0.5			○
	WNGN080416T01525	1.6	0.5-2.0	0.3-0.5			○
	**WNGN080408T01525-M**	0.8	0.5-2.0	0.3-0.5			○
	WNGN080412T01525-M	1.2	0.5-2.0	0.3-0.5			○
	WNGN080416T01525-M	1.6	0.5-2.0	0.3-0.5			○

● Ex stock ○ On demand

BL CBN with a low CBN content
BC CBN with coating
BH CBN with a high CBN content

A Turning
B Milling
C Drilling
D Technical Information
E Index

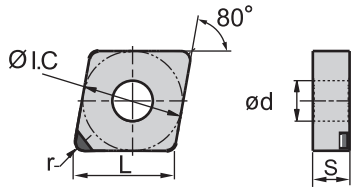
System code > A188 Grade selection > A46 Technical info > A607 Cutting data > A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNGA	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16

Turning PCD inserts

CN** negative insert

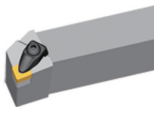
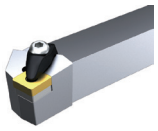
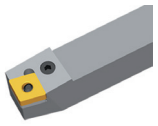
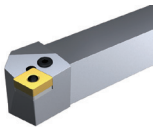
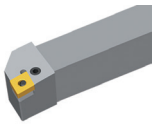
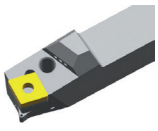
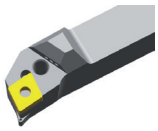


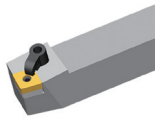
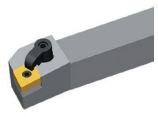
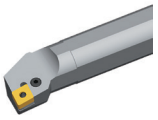
					DP
					P
					M
					K
					N ○
					S
					H
ISO		r	a_p	f	YCD421
	**CNGA120402F-1**	0.2	0.08-0.50	0.05-0.15	○
	CNGA120404F-1	0.4	0.08-0.50	0.05-0.20	○
	CNGA120408F-1	0.8	0.08-0.50	0.05-0.25	○
	CNGA120412F-1	1.2	0.08-0.50	0.05-0.30	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

DCLNR/L	DCKNR/L	PCBNR/L	PCKNR/L	PCLNR/L	PCBNR/LC	PCLNR/LC
Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°
						
A262	A263	A270	A271	A272	A286	A287

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

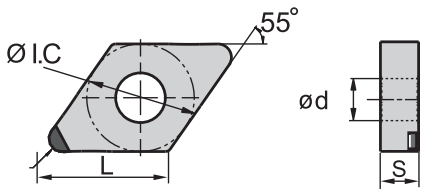
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNGA	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

DN** negative insert



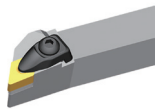
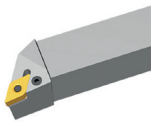
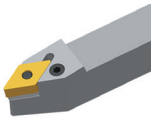
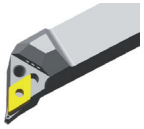
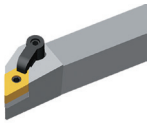
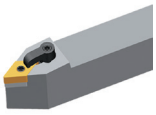
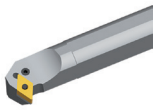
	ISO	r	a_p	f	YCD421
P					
M					
K					
N					○
S					
H					
	**DNGA150602F-1**	0.2	0.08-0.50	0.05-0.15	○
	DNGA150604F-1	0.4	0.08-0.50	0.05-0.20	○
	DNGA150608F-1	0.8	0.08-0.50	0.05-0.25	○

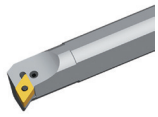
DP

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

DDJNR/L	PDJNR/L	PDNNR/L	PDJNR/LC	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A274	A275	A288	A294	A295	A372

S***-PDUNR/L
Kr: 93°

A373

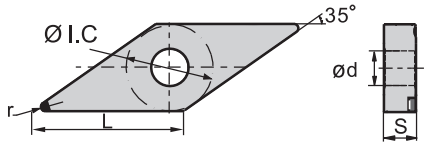
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VNGA	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

Turning PCD inserts

VN** negative insert

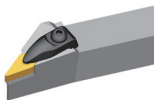
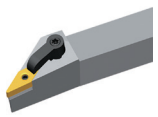


	ISO	r	a_p	f	DP YCD421
P					
M					
K					
N					○
S					
H					
	**VNGA160402F-1**	0.2	0.08-0.50	0.05-0.15	○
	VNGA160404F-1	0.4	0.08-0.50	0.05-0.20	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			
A267	A268	A304	A305

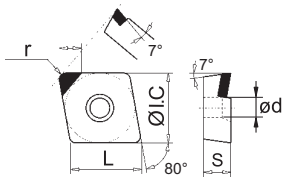
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCGT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



DP

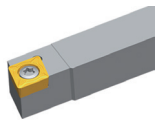
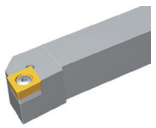
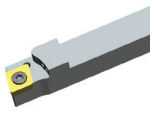
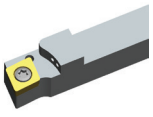
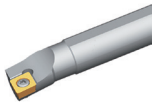
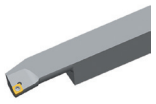
P
M
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	ISO	r	a_p	f	YCD421
	**CCGT060202F-1**	0.2	0.05-0.50	0.05-0.15	○
	CCGT060204F-1	0.4	0.08-0.50	0.05-0.20	●
	CCGT060208F-1	0.8	0.08-0.50	0.05-0.25	○
	CCGT09T302F-1	0.2	0.08-0.50	0.05-0.15	○
	CCGT09T304F-1	0.4	0.08-0.50	0.05-0.20	○
	CCGT09T308F-1	0.8	0.08-0.50	0.05-0.25	○
	CCGT120402F-1	0.2	0.08-0.50	0.05-0.15	○
	CCGT120404F-1	0.4	0.08-0.50	0.05-0.20	○
	**CCGT060201F-1MED**	0.1	0.05-0.10	0.05-0.08	○
	CCGT060202F-1MED	0.2	0.05-0.30	0.05-0.15	○
	CCGT060204F-1MED	0.4	0.08-0.50	0.05-0.20	○
	CCGT060208F-1MED	0.8	0.08-0.50	0.05-0.25	○
	CCGT09T302F-1MED	0.2	0.08-0.50	0.05-0.15	○
	CCGT09T304F-1MED	0.4	0.08-0.50	0.05-0.20	○
	CCGT09T308F-1MED	0.8	0.08-0.50	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SCACR/L	**SCLCR/L**	**SCACR/L-SC**	**SCLCR/L-SC**	**A***-SCLCR/L**	**S***-SCFCR/L**	**S***-SCLCR**
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E*-SCLCR/L**
Kr: 95°

A401

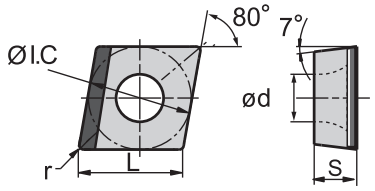
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCGT	L	I.C	S	d
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

CC** positive insert



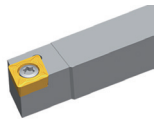
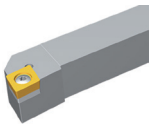
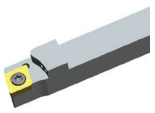
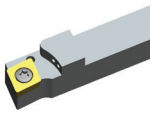
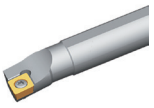
	DP
P	
M	
K	
N	○
S	
H	

	ISO	r	a_p	f	YCD421
	**CCGT09T304-LL**	0.4	0.1-8.0	0.05-0.3	○
	CCGT09T304-LR	0.4	0.1-8.0	0.05-0.3	○
	CCGT09T308-LL	0.8	0.1-8.0	0.05-0.25	○
	CCGT09T308-LR	0.8	0.1-8.0	0.05-0.25	○
	CCGT120402-LL	0.2	0.1-8.0	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

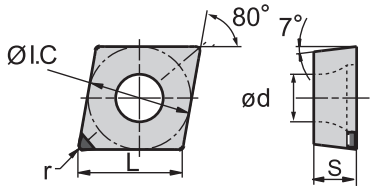
A401

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCGW	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
12 04	12.9	12.7	4.76	5.56

CC** positive insert

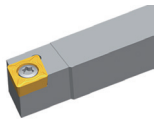
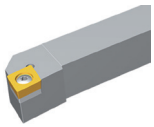
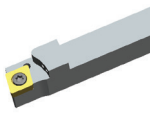
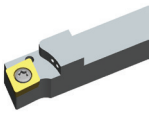


	ISO	r	a_p	f	DP YCD421
P					
M					
K					
N					○
S					
H					
	**CCGW060204F-1**	0.4	0.08-0.50	0.05-0.20	○
	CCGW120404F-1	0.4	0.08-0.50	0.05-0.20	●
	CCGW120408F-1	0.8	0.08-0.50	0.05-0.25	●

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

A401

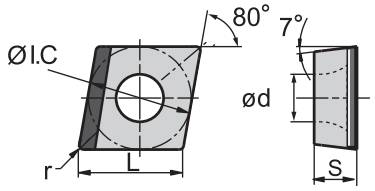
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CCGW	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
12 04	12.9	12.7	4.76	5.56

CC** positive insert



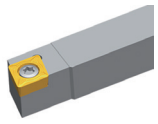
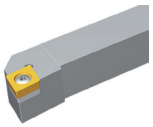
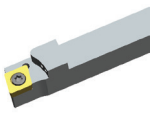
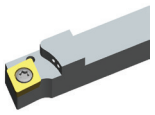
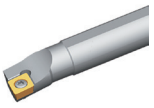
	P	M	K	N	S	H
DP				○		

	ISO	r	a_p	f	YCD421
	**CCGW060204-LL**	0.2	0.08-4.0	0.05-0.20	○
	CCGW120404-LL	0.4	0.1-8.0	0.05-0.20	○
	CCGW120404-LR	0.4	0.1-8.0	0.05-0.20	○
	CCGW120408-LL	0.8	0.1-8.0	0.05-0.25	○
	CCGW120408-LR	0.8	0.1-8.0	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A309	A310	A350	A351	A379	A398	A399

E***-SCLCR/L
Kr: 95°

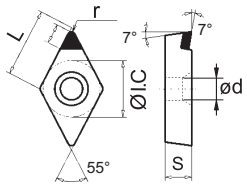
A401

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCGT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



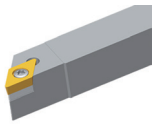
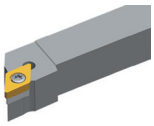
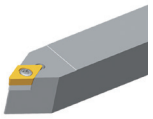
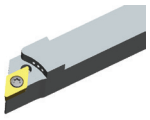
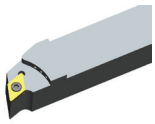
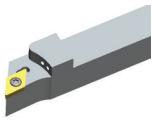
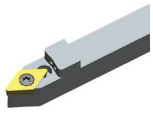
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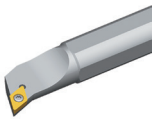
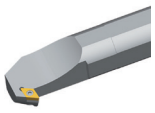
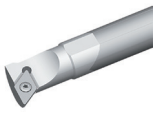
	ISO	r	a_p	f	YCD421
P					
M					
K					
N					○
S					
H					
	**DCGT070202F-1**	0.2	0.08-0.50	0.05-0.15	○
	DCGT070204F-1	0.4	0.08-0.50	0.05-0.20	○
	DCGT11T302F-1	0.2	0.08-0.50	0.05-0.15	●
	DCGT11T304F-1	0.4	0.08-0.50	0.05-0.20	●
	DCGT11T308F-1	0.8	0.08-0.50	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L	E***-SDUCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'	Kr: 93°
				
A381	A382	A383	A403	A405

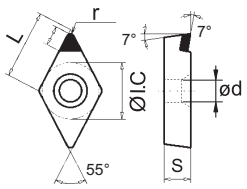
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCGT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



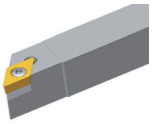
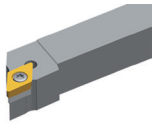
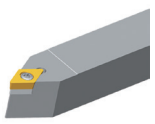
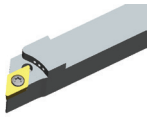
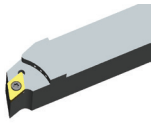
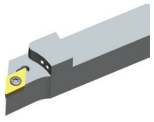
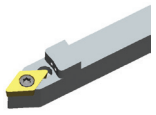
	DP
P	
M	
K	
N	○
S	
H	

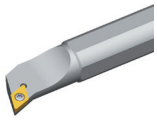
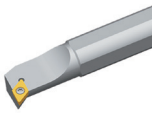
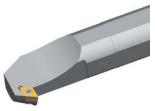
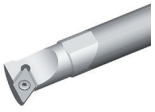
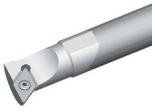
	ISO	r	a_p	f	YCD421
	**DCGT070202F-1MED**	0.2	0.08-0.50	0.05-0.15	○
	DCGT070204F-1MED	0.4	0.08-0.50	0.05-0.20	○
	DCGT070208F-1MED	0.8	0.08-0.50	0.05-0.25	○
	**DCGT11T302F-1MED**	0.2	0.08-0.50	0.05-0.15	○
	DCGT11T304F-1MED	0.4	0.08-0.50	0.05-0.20	○
	DCGT11T308F-1MED	0.8	0.08-0.50	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L	E***-SDUCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'	Kr: 93°
				
A381	A382	A383	A403	A405

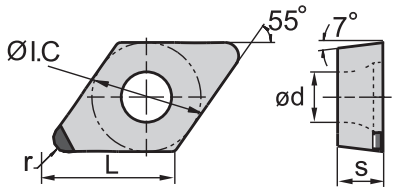
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DCGW	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** positive insert



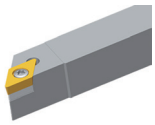
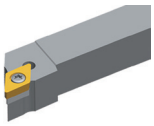
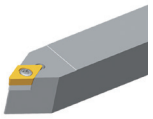
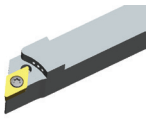
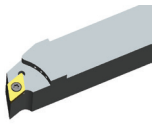
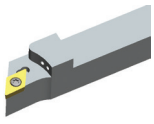
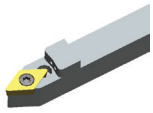
	ISO	r	a_p	f	YCD421
	**DCGW070204F-1**	0.4	0.08-0.50	0.05-0.20	●
	DCGW070208F-1	0.8	0.08-0.50	0.05-0.25	○
	DCGW11T302F-1	0.2	0.08-0.50	0.05-0.15	●
	DCGW11T304F-1	0.4	0.08-0.50	0.05-0.20	●

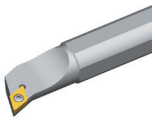
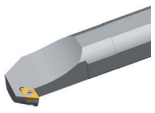
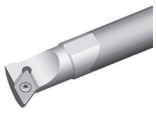
P M K N S H — DP

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A311	A312	A313	A352	A353	A354	A355

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L	E***-SDUCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'	Kr: 93°
				
A381	A382	A383	A403	A405

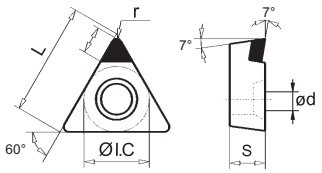
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

TCGT	L	I.C	S	d
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4

Turning PCD inserts

TC** positive insert

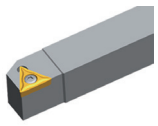
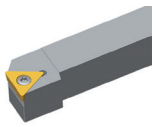
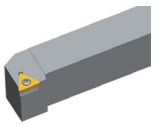
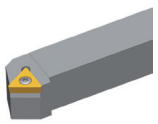


	ISO	r	a_p	f	YCD421
	TCGT110202F-1	0.2	0.08-5.0	0.05-0.15	○
	TCGT110204F-1	0.4	0.08-5.0	0.05-0.20	○
	TCGT110208F-1	0.8	0.08-5.0	0.05-0.25	○
	TCGT16T302F-1	0.2	0.08-7.0	0.05-0.15	○
	TCGT16T304F-1	0.4	0.08-7.0	0.05-0.20	○
	TCGT110202F-1MED	0.2	0.08-5.0	0.05-0.15	○
	TCGT110204F-1MED	0.4	0.08-5.0	0.05-0.20	○
	TCGT110208F-1MED	0.8	0.08-5.0	0.05-0.25	○
	TCGT16T302F-1MED	0.2	0.08-7.0	0.05-0.15	○
	TCGT16T304F-1MED	0.4	0.08-7.0	0.05-0.20	○
	TCGT16T308F-1MED	0.8	0.08-7.0	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					
A324	A325	A326	A327	A386	A407

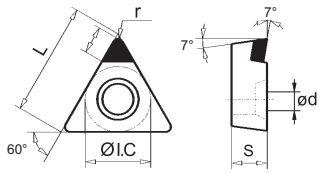
System code A188 Grade selection A46 Technical info A607 Cutting data A414

TCGT	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

Turning PCD inserts

TC** positive insert



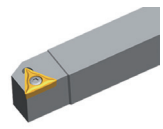
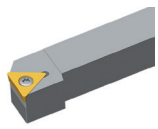
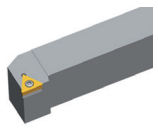
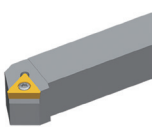
		ISO	r	a_p	f	YCD421
		**TCGT090204-L**	0.4	0.08-4.0	0.05-0.25	○
		TCGT110202-L	0.2	0.08-5.0	0.05-0.15	○
		TCGT110204-L	0.4	0.08-5.0	0.05-0.20	○
		TCGT110208-L	0.8	0.08-5.0	0.05-0.25	○
		TCGT16T302-L	0.2	0.08-7.0	0.05-0.15	○
		TCGT16T304-L	0.4	0.08-7.0	0.05-0.20	○
		TCGT16T308-L	0.8	0.08-7.0	0.05-0.25	○

P M K N S H — DP: N ●

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					
A324	A325	A326	A327	A386	A407

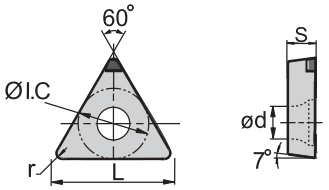
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TCGW	L	I.C	S	d
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4

TC** positive insert



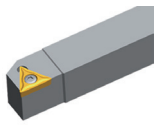
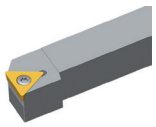
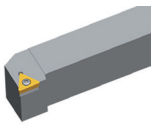
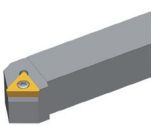
	DP
P	
M	
K	
N	○
S	
H	

	ISO	r	a_p	f	YCD421
	**TCGW110202F-1**	0.2	0.08-5.0	0.05-0.15	○
	TCGW110204F-1	0.4	0.08-5.0	0.05-0.20	●
	TCGW110208F-1	0.8	0.08-5.0	0.05-0.25	○
	TCGW16T304F-1	0.4	0.08-7.0	0.05-0.20	●
	TCGW16T308F-1	0.8	0.08-7.0	0.05-0.25	○
	TCGW16T312F-1	1.2	0.08-7.0	0.05-0.30	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					
A324	A325	A326	A327	A386	A407

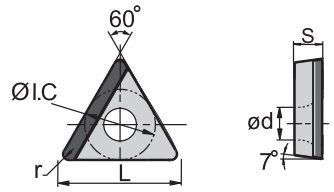
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TCGW	L	I.C	S	d
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4

TC** positive insert



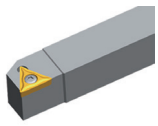
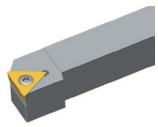
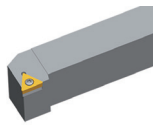
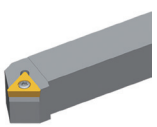
	ISO	r	a_p	f	YCD421
	**TCGW110202-L**	0.2	0.08-5.0	0.05-0.15	○
	TCGW110204-L	0.4	0.08-5.0	0.05-0.20	○
	TCGW110208-L	0.8	0.08-5.0	0.05-0.25	○
	TCGW16T302-L	0.2	0.08-7.0	0.05-0.15	○
	TCGW16T304-L	0.4	0.08-7.0	0.05-0.20	○
	TCGW16T308-L	0.8	0.08-7.0	0.05-0.25	○

P M K N S H — DP — N: ○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					
A324	A325	A326	A327	A386	A407

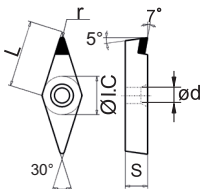
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VBGT	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4

VB** positive insert



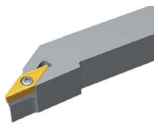
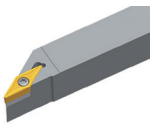
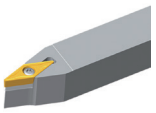
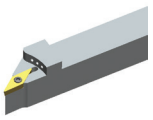
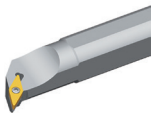
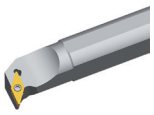
	DP
P	
M	
K	
N	○
S	
H	

	ISO	r	a_p	f	YCD421
	**VBGT110302F-1**	0.2	0.08-0.50	0.05-0.15	○
	VBGT110304F-1	0.4	0.08-0.50	0.05-0.20	○
	VBGT110308F-1	0.8	0.08-0.50	0.05-0.25	○
	VBGT160402F-1	0.2	0.08-0.50	0.05-0.15	○
	VBGT160404F-1	0.4	0.08-0.50	0.05-0.20	○
	VBGT160408F-1	0.8	0.08-0.50	0.05-0.25	○
	**VBGT160404F-1MED**	0.4	0.08-0.50	0.05-0.20	○
	VBGT160408F-1MED	0.8	0.08-0.50	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SVJBR/L	SVABR/L	SVVBN	SVJBR/L-SC	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 93°
						
A314	A315	A316	A357	A391	A392	A393

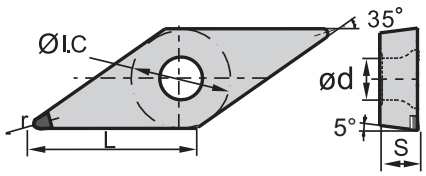
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VBGW	L	I.C	S	d
11 02	11	6.35	2.38	2.8
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4

VB** positive insert



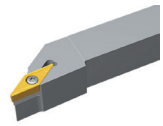
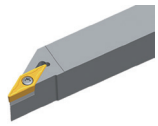
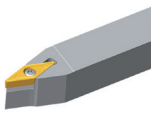
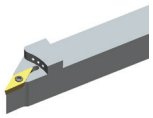
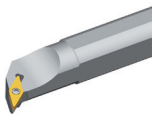
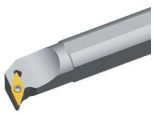
DP

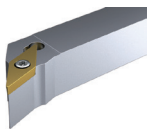
	ISO	r	a_p	f	YCD421
	**VBGW110202F-1**	0.2	0.08-0.30	0.05-0.15	○
	VBGW110304F-1	0.4	0.08-0.50	0.05-0.20	●
	VBGW160402F-1	0.2	0.08-0.50	0.05-0.15	○
	VBGW160404F-1	0.4	0.08-0.50	0.05-0.20	●
	VBGW160408F-1	0.8	0.08-0.50	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SVJBR/L	**SVABR/L**	**SVVBN**	**SVJBR/L-SC**	**S***-SVQBR/L**	**S***-SVUBR/L**	**S***-SVXBR/L**
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 93°
						
A314	A315	A316	A357	A391	A392	A393

SVHBR/L
Kr: 107°30'

A317

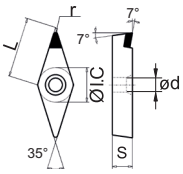
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VCGT	L	I.C	S	d
11 02	11	6.35	2.38	2.8
16 04	16.6	9.525	4.76	4.4

VC** positive insert



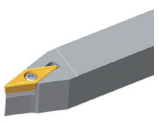
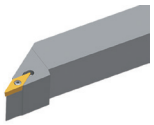
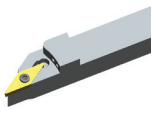
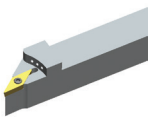
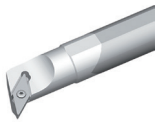
	DP
P	
M	
K	
N	○
S	
H	

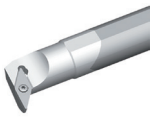
	ISO	r	a_p	f	YCD421
	**VCGT110202F-1**	0.2	0.08-0.50	0.05-0.15	○
	VCGT110204F-1	0.4	0.08-0.50	0.05-0.20	○
	VCGT160402F-1	0.2	0.08-0.50	0.05-0.15	○
	VCGT160404F-1	0.4	0.08-0.50	0.05-0.20	○
	VCGT160408F-1	0.8	0.08-0.50	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A318	A319	A356	A358	A389	A390	A409

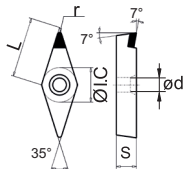
C***-SVUCR/L
Kr: 93°

A410

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VCGT	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4

VC** positive insert

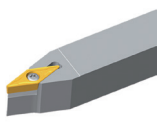
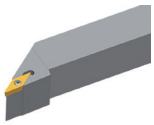
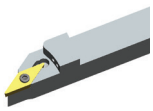
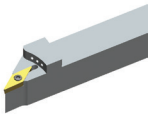
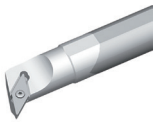


	ISO	r	a_p	f	DP YCD421
	VCGT110302F-1MED	0.2	0.08-0.50	0.05-0.15	○
	VCGT110304F-1MED	0.4	0.08-0.50	0.05-0.20	○
	VCGT160404F-1MED	0.4	0.08-0.50	0.05-0.20	○
	VCGT160408F-1MED	0.8	0.08-0.50	0.05-0.25	○
	VCGT160412F-1MED	1.2	0.08-0.50	0.05-0.30	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A318	A319	A356	A358	A389	A390	A409

S***-SVJCR/L	C***-SVUCR/L
Kr: 93°	Kr: 93°
	
A388	A410

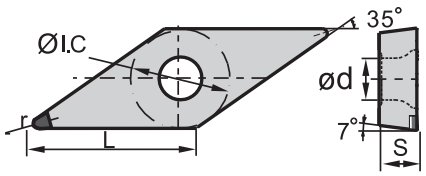
System code A188 Grade selection A46 Technical info A607 Cutting data A414

Turning PCD inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VCGW	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4

VC** positive insert



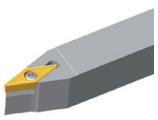
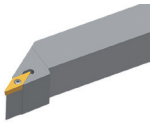
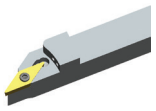
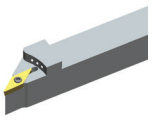
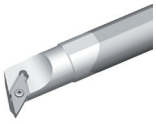
	DP
P	
M	
K	
N	○
S	
H	

ISO	r	a_p	f	YCD421
VCGW110302F-1	0.2	0.08-0.50	0.05-0.15	○
VCGW110304F-1	0.4	0.08-0.50	0.05-0.20	○
VCGW110308F-1	0.8	0.08-0.30	0.05-0.20	○
VCGW160402F-1	0.2	0.08-0.50	0.05-0.15	○
VCGW160404F-1	0.4	0.08-0.50	0.05-0.20	○
VCGW160408F-1	0.8	0.08-0.50	0.05-0.25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A318	A319	A356	A358	A389	A390	A409

S***-SVJCR/L	C***-SVUCR/L
Kr: 93°	Kr: 93°
	
A388	A410

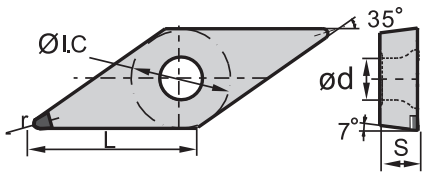
System code A188 | Grade selection A46 | Technical info A607 | Cutting data A414

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

VCGX	L	I.C	S	d
22 05	22	12.7	5.56	5.5

Turning PCD inserts

VC** positive insert



		ISO	r	a_p	f	YCD421
P						
M						
K						
N						
S						
H						
DP						
	VCGX220530-1	3	0.5-10.0	0.25-1.00	○	
	VCGX220530-1 SL12	3	0.5-10.0	0.25-1.00	○	

● Ex stock ○ On demand

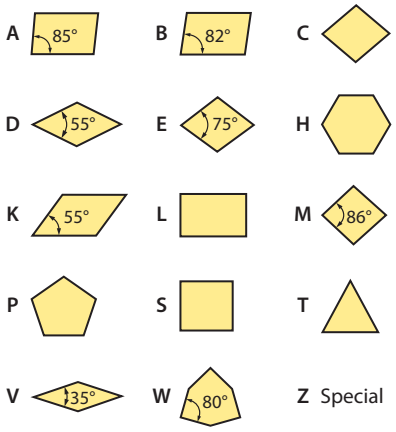
DP Polycrystalline diamond

System code A188 Grade selection A46 Technical info A607 Cutting data A414

General turning ISO code – ceramic inserts

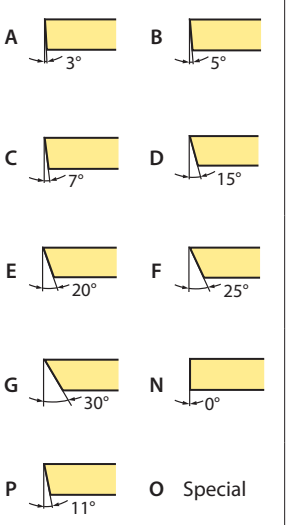
T	N	G	A	12	04	08	T	020	20
1	2	3	4	5	6	7	8	9	10

Insert shape



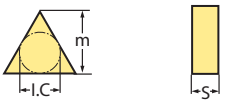
1

Clearance angle



2

Tolerance class

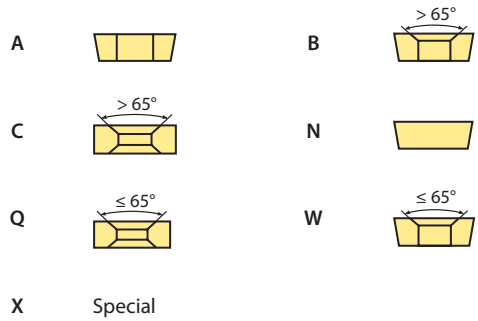


Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20	±0,025
U	±0,08–0,25	±0,13–0,38	±0,130

3

Fastening features (metric)

Insert shape



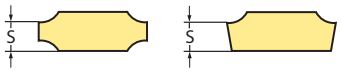
4

Cutting edge length l [mm]

I.C [mm]	Insert shape C	D	S	T	V	W
3,97				06		
5,0						
5,56				09		
6,0						
6,35	06	07		11	11	
8,0						
9,525	09	11	09	16	16	06
10,0						
12,0						
12,7	12	15	12	22	22	08
15,875	16		15	27		
16,0		19				
19,05	19		19	33		
20,0						
25,0	25	25				
25,4			25			
31,75						
32						

5

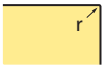
Insert thickness S [mm]



Code	S	Code	S
02	2,38	**06**	6,35
T2	2,58	**T6**	6,75
03	3,18	**07**	7,94
T3	3,97	**09**	9,52
04	4,76	**T9**	9,72
T4	4,96	**11**	11,11
05	5,56	**12**	12,70
T5	5,95		

6

Nose radius r [mm]



Code	r
00	–
02	0,2
04	0,4
08	0,8
12	1,2
16	1,6
20	2,0
24	2,4
32	3,2
X	Special
MO	Plaquettes rondes

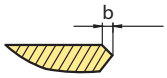
7

Cutting edge profile

Code	Cutting edge	Insert shape
E	Rounding	
F	Sharp edge	
T	Chamfer	
S	Chamfer + Rounding	

8

Chamfer width b [mm]



Code	b
010	0,10
015	0,15
020	0,20
025	0,25
030	0,30
035	0,35
040	0,40
045	0,45
050	0,50
100	1,00
200	2,00

9

Angle du chanfrein α



Code	α
05	5°
10	10°
15	15°
20	20°
25	25°
30	30°

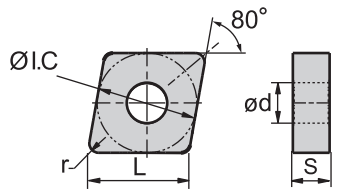
10

Turning ceramic inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CNGA	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35

CN** negative insert



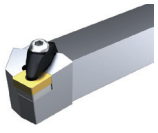
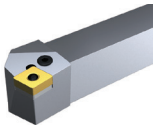
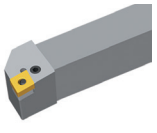
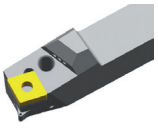
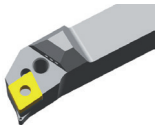
	CM	CC	CN	CR
P	○			
M				
K	○		◉	
N				
S			○	◉ ○
H		○		

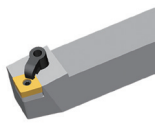
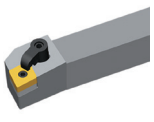
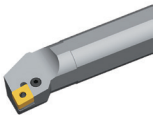
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	CNGA120402T02020	0.2	0.1-0.2	0.08-0.15		○		
	CNGA120404S02020	0.4	0.1-0.3	0.08-0.25		●		
	CNGA120404T01020	0.4	0.1-0.3	0.08-0.25		○		
	CNGA120404T02020	0.4	0.1-0.3	0.08-0.25	○	●	●	
	CNGA120408S01520	0.8	0.1-0.25	0.5-2.5				○
	CNGA120408S02020	0.8	0.1-0.4	0.1-0.3		●		
	CNGA120408T00520	0.8	0.1-0.25	0.5-2.5				○ ●
	CNGA120408T01020	0.8	0.1-0.4	0.1-0.3		○		
	**CNGA120408T02020**	0.8	0.1-0.4	0.1-0.3	○	●	○	
	CNGA120412S01520	1.2	0.1-0.3	0.5-2.5				○
	CNGA120412S02020	1.2	0.1-0.5	0.1-0.3		●		
	CNGA120412T00520	1.2	0.1-0.3	0.5-2.5				○
	CNGA120412T02020	1.2	0.1-0.5	0.1-0.3		○	●	
	CNGA120416S01520	1.6	0.1-0.35	0.5-3.0				○
	CNGA120416T00520	1.6	0.1-0.35	0.5-3.0				○ ○
	CNGA120416T02020	1.6	0.1-0.35	0.5-3.0			○	
	CNGA160612T02020	1.2	0.2-2.0	0.1-0.3			●	

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder

DCLNR/L	DCKNR/L	PCBNR/L	PCKNR/L	PCLNR/L	PCBNR/LC	PCLNR/LC
Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°
						
A262	A263	A270	A271	A272	A286	A287

MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 75°	Kr: 95°	Kr: 95°
		
A291	A292	A370

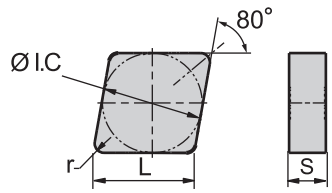
System code A230 Grade selection A46 Technical info A607 Cutting data A414

CNGN	L	I.C	S
12 04	12.9	12.7	4.76
12 07	12.9	12.7	7.94
16 07	16.1	15.875	7.94

Turning ceramic inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CN** negative insert



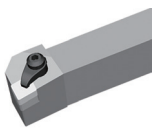
	CM	CC	CN	CR
P	○			
M				
K	○		⊛	
N				
S			○	⊛ ⊛
H		○		

	ISO	r	a_p	f	CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
	CNGN120404T02020	0.4	0.1-0.3	0.08-0.25	○			
	CNGN120408S01520	0.8	0.1-0.25	0.5-2.5				○
	CNGN120408S02020	0.8	0.1-0.4	0.1-0.3		○		
	CNGN120408T00520	0.8	0.1-0.25	0.5-2.5				●
	CNGN120408T02020	0.8	0.1-0.4	0.1-0.3	●		●	
	CNGN120412S01520	1.2	0.1-0.3	0.5-2.5				○
	CNGN120412T00520	1.2	0.1-0.3	0.5-2.5				●
	CNGN120412T02020	1.2	0.1-0.5	0.1-0.3	○		○	
	CNGN120416S01520	1.6	0.1-0.35	0.5-3.0				○
	CNGN120416T00520	1.6	0.1-0.35	0.5-3.0				●
	CNGN120708S01520	0.8	0.1-0.25	0.5-2.5				○
	**CNGN120708T00525**	0.8	0.1-0.25	0.5-2.5				○
	CNGN120708T02020	0.8	0.1-0.4	0.1-0.3	○			
	CNGN120712S01520	1.2	0.1-0.3	0.5-2.5				○
	CNGN120712S02025	1.2	0.1-0.3	0.5-2.5				○
	CNGN120712T00520	1.2	0.1-0.3	0.5-2.5				●
	CNGN120712T00525	1.2	0.1-0.3	0.5-2.5			○	○ ○
	CNGN120712T02020	1.2	0.1-0.5	0.1-0.3	●		○	
	CNGN120716S01520	1.6	0.1-0.35	0.5-3.0				○
	CNGN120716T00520	1.6	0.1-0.35	0.5-3.0				○
	CNGN120716T01520	1.6	0.1-0.35	0.5-3.0				○
	CNGN120716T02020	1.6	0.1-0.6	0.1-0.4	○		○	
	CNGN160716T01525	1.6	0.1-0.6	0.1-0.4	○			
	CNGN160716T02020	1.6	0.5-2.0	0.1-0.35	○		○	

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder
CCLNR/L
Kr: 95°



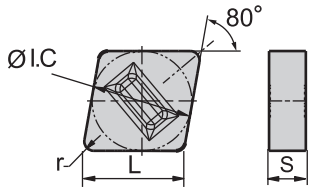
A336

System code A230 | Grade selection A46 | Technical info A607 | Cutting data A414

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CNGX	L	I.C	S
12 07	12.9	12.7	7.94

Turning ceramic inserts

CN** negative insert						CM	CC	CN	CR
					P	○			
					M				
					K	●		◔	
					N				
					S			◑	◔ ◔
					H		○		
ISO		r	a_p	f		CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
 Medium Cut	**CNGX120712T02020**	1.2	0.2-2.0	0.1-0.3				●	
	CNGX120716T02020	1.6	0.5-2.0	0.1-0.35				○	

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder
JCLNR/L
Kr: 95°

A344

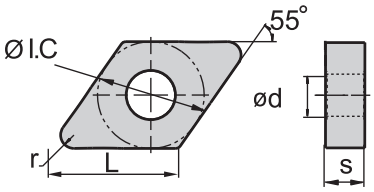
System code A230 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning ceramic inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNGA	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16
15 04	15.5	12.7	4.76	5.16

DN** negative insert



	CM	CC	CN	CR
P	○			
M				
K	○		✱	
N				
S			●	✱ ✱
H		○		

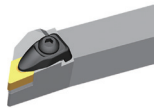
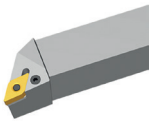
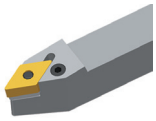
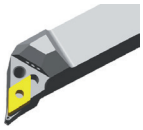
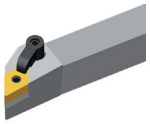
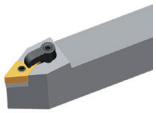
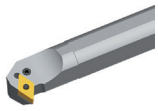
	ISO	r	a_p	f	CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
	DNGA150404T02020	0.4	0.1-0.3	0.08-0.25		○		
	DNGA150408S01520	0.8	0.1-0.25	0.5-2.5				○
	DNGA150408T00520	0.8	0.1-0.25	0.5-2.5				●
	DNGA150408T01520	0.8	0.1-0.25	0.5-2.5				○
	DNGA150408T02020	0.8	0.1-0.4	0.1-0.3		○		
	DNGA150412S01520	1.2	0.1-0.3	0.5-2.5				○
	DNGA150412T00520	1.2	0.1-0.3	0.5-2.5				●
	DNGA150412T01520	1.2	0.1-0.3	0.5-2.5				○
	DNGA150412T02020	1.2	0.1-0.5	0.1-0.3		○	○	○
	**DNGA150416S01520**	1.6	0.1-0.35	0.5-3.0				○
	DNGA150416T00520	1.6	0.1-0.35	0.5-3.0				○
	DNGA150604S02020	0.4	0.1-0.3	0.08-0.25		●		
	DNGA150604T01020	0.4	0.1-0.3	0.08-0.25		○		
	DNGA150604T02020	0.4	0.1-0.3	0.08-0.25		●	○	
	DNGA150608S02020	0.8	0.1-0.4	0.1-0.3		●		
	DNGA150608T02020	0.8	0.1-0.4	0.1-0.3		○	●	
	DNGA150612S02020	1.2	0.1-0.5	0.1-0.3		●		
	DNGA150612T01020	1.2	0.1-0.5	0.1-0.3		○		
	DNGA150612T02020	1.2	0.1-0.5	0.1-0.3		●	○	
	DNGA150616T02020	1.6	0.5-2.0	0.1-0.35			○	

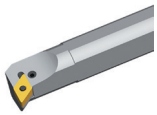
● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

System code A230 Grade selection A46 Technical info A607 Cutting data A414

Tool holder

DDJNR/L	PDJNR/L	PDNNR/L	PDJNR/LC	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						
A264	A274	A275	A288	A294	A295	A372

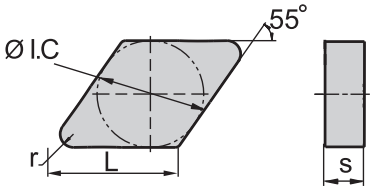
S***-PDUNR/L
Kr: 93°

A373

Turning ceramic inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

DNGN	L	I.C	S
15 07	15.5	12.7	7.94
15 04	15.5	12.7	4.76

DN** negative insert



	CM	CC	CN	CR
P	○			
M				
K	○		⊛	
N				
S			○	⊛ ⊛
H		○		

	ISO	r	a_p	f	CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
Medium Cut	**DNGN150408S01520**	0.8	0.1-0.25	0.5-2.5				○
	DNGN150408T00520	0.8	0.1-0.25	0.5-2.5				●
	DNGN150408T02020	0.8	0.1-0.4	0.1-0.3		○		
	DNGN150412S01520	1.2	0.1-0.3	0.5-2.5				○
	DNGN150412T00520	1.2	0.1-0.3	0.5-2.5				●
	DNGN150412T02020	1.2	0.1-0.5	0.1-0.3	○			
	DNGN150416S01520	1.6	0.1-0.35	0.5-3.0				○
	DNGN150416T00520	1.6	0.1-0.35	0.5-3.0				○
	DNGN150704T02020	0.4	0.1-0.3	0.08-0.25	○		○	
	DNGN150708T01520	0.8	0.1-0.25	0.5-2.5				○
	DNGN150708T02020	0.8	0.1-0.4	0.1-0.3	●			
	DNGN150712T02020	1.2	0.1-0.5	0.1-0.3	○		○	
	DNGN150716T02020	1.6	0.1-0.6	0.1-0.4	○			

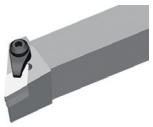
● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder

CDJNR/L

Kr: 93°



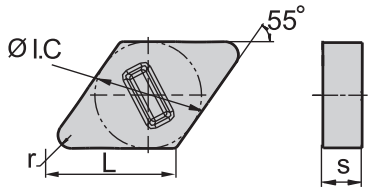
A338

System code A230 Grade selection A46 Technical info A607 Cutting data A414

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

DNGX	L	I.C	S
15 07	15.5	12.7	7.94

Turning ceramic inserts

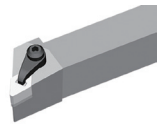


DN** negative insert					CM	CC	CN		CR	
				P	○					
				M						
				K	○		◉			
				N						
				S			●		◉	◉
				H		○				
ISO		r	a_p	f	CA1000	CM1000	CN1000	CS1000	CW1400	CW1800
 Medium Cut	**DNGX150708T02020**	0.8	0.15-1.5	0.1-025			○			
	DNGX150712T02020	1.2	0.2-2.0	0.1-0.3			○			
	DNGX150716T02020	1.6	0.5-2.0	0.1-0.35			○			

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder
JDJNR/L
Kr: 93°



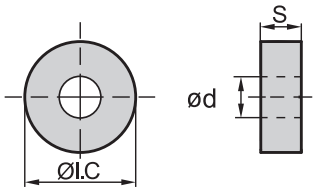
A345

System code A230 Grade selection A46 Technical info A607 Cutting data A414

RNGA	I.C	S	d
12 04	12.7	4.76	

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

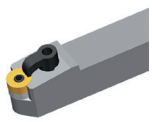
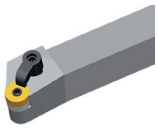
Turning ceramic inserts

RN** negative insert				CM	CC	CN	CR
			P	○			
			M				
			K	○		◐	
			N				
			S			○	◐ ◐
			H		○		
ISO		a_p	f	CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
	**RNGA120400T02020**	0.1-0.6	0.1-0.4		○		

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder

MRDNN	MRGNR/L
	
A307	A308

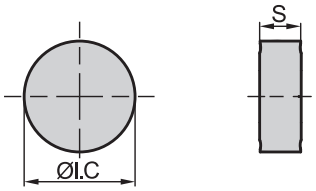
System code A230 Grade selection A46 Technical info A607 Cutting data A414

RNGN	I.C	S
06 03	6.35	3.18
09 03	9.525	3.18
09 04	9.525	4.76
12 07	12.7	7.94
12 04	12.712.4	4.76
15 07	15.875	7.94
19 07	19.05	7.94
25 10	25.4	10.05
25 07	25.4	7.94

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

Turning ceramic inserts

RN** negative insert



	ISO	a_p	f	CM CA1000	CC CM1000	CN CN1000 CS1000	CR CW1400 CW1800
P				○			
M							
K				○		○	
N							
S						○	○ ○
H					○		
	RNGN060300T01020	0.2-2.0	0.08-0.25	○	○		
	RNGN090300S01520	0.2-2.0	0.08-0.25				○
	RNGN090300T00520	0.2-2.0	0.08-0.25				○ ○
	RNGN090300T00525	0.2-2.0	0.08-0.25				
	RNGN090300T01525	0.2-2.0	0.08-0.25	○	○		
	RNGN090300T02020	0.2-2.0	0.08-0.25	○	○		
	RNGN090400S01520	0.2-2.0	0.08-0.25				○
	RNGN090400T00520	0.2-2.0	0.08-0.25				○
	RNGN090400T02020	0.2-2.0	0.08-0.25	○			
	RNGN120400S01520	0.3-2.4	0.1-0.4				○
	RNGN120400S02020	0.3-2.4	0.1-0.4		●		
	RNGN120400T00520	0.3-2.4	0.1-0.4				●
	RNGN120400T00525	0.3-2.4	0.1-0.4				
	RNGN120400T01020	0.3-2.4	0.1-0.4			○	
	RNGN120400T01525	0.3-2.4	0.1-0.4	●	●		
	RNGN120400T02020	0.3-2.4	0.1-0.4	○		○	
	RNGN120700S01520	0.3-2.4	0.1-0.4				○
	RNGN120700S02020	0.3-2.4	0.1-0.4		●		
	RNGN120700T00520	0.3-2.4	0.1-0.4				● ●
	RNGN120700T00525	0.3-2.4	0.1-0.4			○	○ ○
	RNGN120700T01520	0.3-2.4	0.1-0.4				○
	RNGN120700T01525	0.3-2.4	0.1-0.4	●	●	○	
	RNGN120700T02020	0.3-2.4	0.1-0.4	●		●	
	RNGN150700T02020	0.3-2.6	0.1-0.6	○			
	RNGN190700S01520	0.5-4.0	0.15-0.7				○

● Ex stock ○ On demand

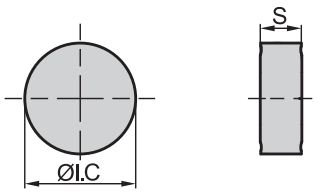
CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

System code A230 Grade selection A46 Technical info A607 Cutting data A414

RNGN	I.C	S
06 03	6.35	3.18
09 03	9.525	3.18
09 04	9.525	4.76
12 07	12.7	7.94
12 04	12.712.4	4.76
15 07	15.875	7.94
19 07	19.05	7.94
25 10	25.4	10.05
25 07	25.4	7.94

Turning ceramic inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions



RN** negative insert				CM	CC	CN	CR
			P	●			
			M				
			K	●		⊛	
			N				
			S			●	⊛ ⊛
			H		○		
ISO		a_p	f	CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
	RNGN190700T00520	0.5-4.0	0.15-0.7				○
	RNGN190700T03020	0.5-4.0	0.15-0.7	○			
	RNGN250700T19015	1.0-5.5	0.15-0.7	○			
	RNGN251000T05020	1.0-5.5	0.15-0.7	○			

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder
CRDNN



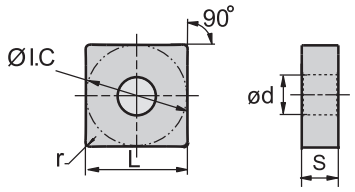
A342

System code A230 Grade selection A46 Technical info A607 Cutting data A414

Turning ceramic inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SNGA	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16

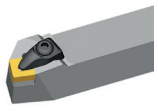
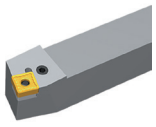
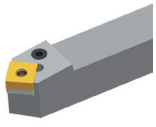
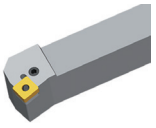
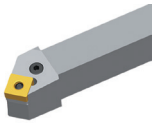
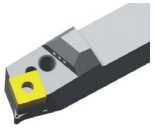
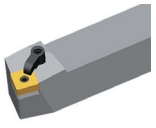


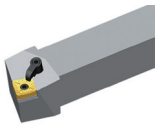
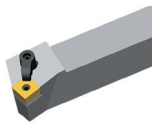
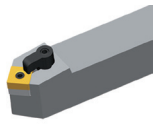
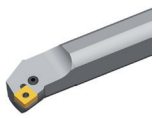
SN** negative insert					CM	CC	CN	CR
				P	○			
				M				
				K	○		◎	
				N				
				S			●	◎ ◎
				H		○		
ISO		r	a_p	f	CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
	SNGA120404T02020	0.4	0.1-1.0	0.1-0.2			○	
	SNGA120408S02020	0.8	0.1-0.4	0.1-0.3		○		
	SNGA120408T02020	0.8	0.1-0.4	0.1-0.3	○	○	○	
	SNGA120412T02020	1.2	0.2-2.0	0.1-0.3			○	

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder

DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	PSBNR/LC	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
						
A265	A276	A278	A279	A280	A289	A296

MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			
A297	A298	A299	A375

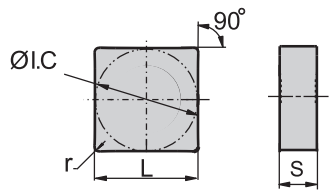
System code A230 | Grade selection A46 | Technical info A607 | Cutting data A414

SNGN	L	I.C	S
09 04	9.525	9.525	4.76
12 07	12.7	12.7	7.94
12 04	12.7	12.7	4.76
15 07	15.875	15.875	7.94
19 07	19.05	19.05	7.94

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

Turning ceramic inserts

SN** negative insert



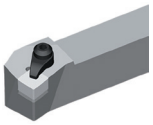
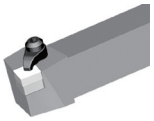
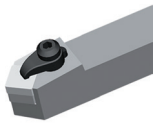
	ISO	r	a_p	f	CM CA1000	CC CM1000	CN CN1000	CN CS1000	CR CW1400	CR CW1800
P					○					
M										
K					○		◍			
N										
S								○	◍	◍
H						○				
	SNGN090416T01525	1.6	0.1-0.3	0.5-3.0			○			
	SNGN120404T02020	0.4	0.1-0.3	0.08-0.25	○					
	SNGN120408S01520	0.8	0.1-0.25	0.5-2.5					○	
	SNGN120408S02020	0.8	0.1-0.4	0.1-0.3		○				
	SNGN120408T00520	0.8	0.15-1.5	0.1-025			○			●
	SNGN120408T02020	0.8	0.1-0.4	0.1-0.3	○		●			
	SNGN120412S01520	1.2	0.1-0.3	0.5-2.5					○	
	SNGN120412T00520	1.2	0.1-0.3	0.5-2.5						●
	SNGN120412T02020	1.2	0.1-0.5	0.5-2.5	○	○	○			
	SNGN120416S01520	1.6	0.1-0.35	0.5-3.0					○	
	SNGN120416T00520	1.6	0.1-0.35	0.5-3.0						○
	SNGN120416T02020	1.6	0.1-0.6	0.1-0.4			○			
	SNGN120704T02020	0.4	0.1-0.3	0.08-0.25	●					
	SNGN120708S01520	0.8	0.1-0.25	0.5-2.5					○	
	SNGN120708T00520	0.8	0.1-0.25	0.5-2.5						●
	SNGN120708T02020	0.8	0.1-0.4	0.1-0.3	○	○	○			
	SNGN120712S01520	1.2	0.1-0.3	0.5-2.5					○	
	SNGN120712T00520	1.2	0.1-0.3	0.5-2.5						●
	SNGN120712T00525	1.2	0.1-0.3	0.5-2.5						○
	SNGN120712T02020	1.2	0.1-0.5	0.1-0.3	○	○	●			
	SNGN120716S01520	1.6	0.1-0.35	0.5-3.0					○	
	SNGN120716T00520	1.6	0.1-0.35	0.5-3.0						○
	SNGN120716T00525	1.6	0.1-0.35	0.5-3.0						○
	SNGN120716T01520	1.6	0.1-0.35	0.5-3.0					○	
	SNGN120716T01525	1.6	0.1-0.35	0.5-3.0			○			
	SNGN120716T02020	1.6	0.1-0.6	0.1-0.4	○					
	SNGN150708T02020	0.8	0.1-0.4	0.1-0.3	○					
	SNGN150712T02020	1.2	0.1-0.5	0.1-0.3	●		○			
	SNGN150716T02020	1.6	0.1-0.6	0.1-0.4	●		○			
	SNGN190716S02030	1.6	0.5-2.0	0.1-0.35			○			
	SNGN190716T03020	1.6	0.1-0.6	0.1-0.4	○					

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

System code A230 Grade selection A46 Technical info A607 Cutting data A414

Tool holder

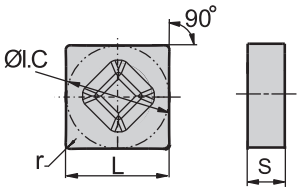
CSKNR/L	CSRNR/L	CSDNN
Kr: 75°	Kr: 75°	Kr: 45°
		
A340	A341	A343

System code A230 Grade selection A46 Technical info A607 Cutting data A414

Turning ceramic inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

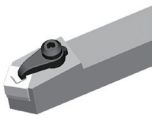
SNGX	L	I.C	S
12 07	12.7	12.7	7.94

SN** negative insert					CM	CC	CN	CR
				P	○			
				M				
				K	●			
				N				
				S			○	◐ ◐
				H		○		
ISO		r	a_p	f	CA1000	CM1000	CS1000	CW1400 CW1800
 Medium Cut	**SNGX120716T01525**	1.6	0.1-0.35	0.5-3.0				

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder
JSDNN
Kr: 45°



A346

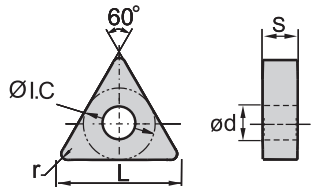
System code A230 | Grade selection A46 | Technical info A607 | Cutting data A414

Turning ceramic inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TNGA	L	I.C	S	d
16 04	16.5	9.525	4.76	3.86
22 04	22	12.7	4.76	5.16

TN** negative insert



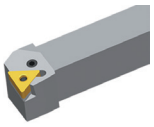
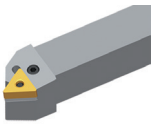
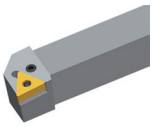
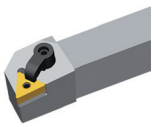
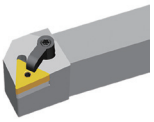
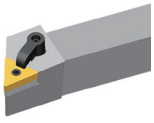
	CM	CC	CN	CR
P	○			
M				
K	○		◉	
N				
S			○	◉ ◉
H		○		

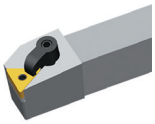
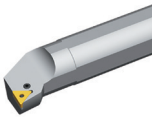
ISO	r	a_p	f	CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
TNGA160404S02020	0.4	0.1-0.3	0.08-0.25		●		
TNGA160404T01020	0.4	0.1-0.3	0.08-0.25		○	●	
TNGA160404T02020	0.4	0.1-0.3	0.08-0.25		○		
TNGA160408S02020	0.8	0.1-0.4	0.1-0.3		●		
TNGA160408T02020	0.8	0.1-0.4	0.1-0.3		○	●	
TNGA160412T02020	1.2	0.1-0.5	0.1-0.3		○	●	
TNGA220408T02020	0.8	0.15-1.5	0.1-025			○	
TNGA220412T02020	1.2	0.2-2.0	0.1-0.3			○	
TNGA220416T02020	1.6	0.5-2.0	0.1-0.35			○	

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						
A266	A281	A282	A283	A300	A301	A302

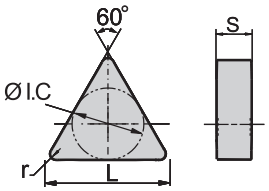
MTFNR/L	S***-PTFNR/L
Kr: 91°	Kr: 90°
	
A303	A376

System code A230 Grade selection A46 Technical info A607 Cutting data A414

TNGN	L	I.C	S
16 04	16.5	9.525	4.76
16 07	16.5	9.525	7.94
22 04	22	12.7	4.76

Turning ceramic inserts

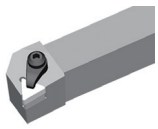
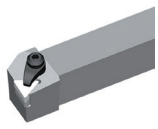
- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TN** negative insert					CM	CC	CN		CR	
				P	●					
				M						
				K	●		⊛			
				N						
				S				●	⊛	⊛
				H		○				
	ISO	r	a_p	f	CA1000	CM1000	CN1000	CS1000	CW1400	CW1800
 Medium Cut	**TNGN160404T02020**	0.4	0.1-0.3	0.08-0.25	○					
	TNGN160408S02020	0.8	0.1-0.4	0.1-0.3		○				
	TNGN160408T02020	0.8	0.1-0.4	0.1-0.3	○		○			
	TNGN160412T02020	1.2	0.1-0.5	0.1-0.3	○		○			
	TNGN160712T02020	1.2	0.1-0.5	0.1-0.3	○					
	TNGN220408T02020	0.8	0.1-0.4	0.1-0.3	○		○			
	TNGN220412T02020	1.2	0.1-0.5	0.1-0.3	○		○			
	TNGN220416T02020	1.6	0.1-0.6	0.1-0.4	○		○			

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder

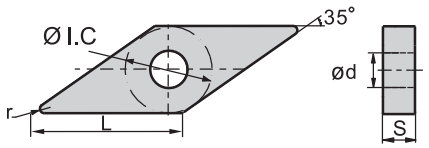
CTJNR/L	CTUNR/L
Kr: 93°	Kr: 93°
	
A337	A339

System code A230 Grade selection A46 Technical info A607 Cutting data A414

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

VNGA	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

Turning ceramic inserts

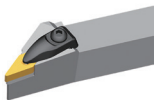
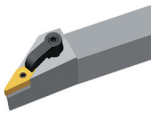


VN** negative insert					CM	CC	CN	CR
					P ○			
					M			
					K ○		✲	
					N			
					S		●	✲ ✲
					H	○		
	ISO	r	a_p	f	CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
	**VNGA160404S02020**	0.4	0.1-0.3	0.08-0.25		●		
	VNGA160404T01020	0.4	0.1-0.3	0.08-0.25		○		
	VNGA160408S02020	0.4	0.1-0.4	0.1-0.3		●		
	VNGA160408T01020	0.8	0.1-0.4	0.1-0.3		○		
	VNGA160408T02020	0.8	0.1-0.4	0.1-0.3		●		

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder

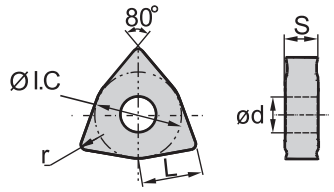
DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			
A267	A268	A304	A305

System code A230 Grade selection A46 Technical info A607 Cutting data A414

Turning ceramic inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

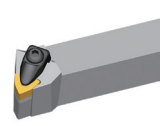
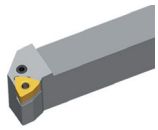
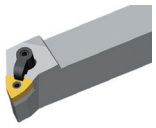
WNGA	L	I.C	S	d
08 04	8.69	12.7	4.76	5.16

WN** negative insert						CM		CC		CN		CR	
					P	○							
					M								
					K	○				⊛			
					N								
					S					●		⊛	⊛
					H			○					
ISO		r	a_p	f		CA1000		CM1000		CN1000	CS1000	CW1400	CW1800
	**WNGA080404T01020**	0.4	0.1-0.3	0.08-0.25				○					
	WNGA080408S02020	0.8	0.1-0.4	0.1-0.3				○					
	WNGA080408T02020	0.8	0.1-0.4	0.1-0.3				○		●			
	WNGA080412S02020	1.2	0.1-0.5	0.1-0.3				○					
	WNGA080412T02020	1.2	0.1-0.5	0.1-0.3				○		●			
	WNGA080416T01525	1.6	0.5-2.0	0.1-0.35						○			
	WNGA080416T02020	1.6	0.5-2.0	0.1-0.35				○		●			

● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

Tool holder

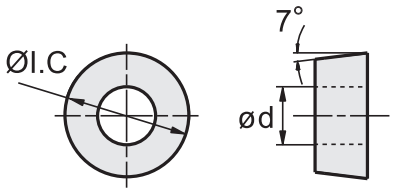
DWLNR/L	PWLNR/L	PWLNR/LC	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				
A269	A285	A290	A306	A378

RCGX	I.C	S	d
06 06	6	6.35	
06 04	6	4.76	
06 07	6	7.94	
09 07	9	7.94	
12 07	12	7.94	
19 10	19	10	

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

Turning ceramic inserts

RC** positive insert



ISO		a_p	f	CM CA1000	CC CM1000	CN CN1000 CS1000	CR CW1400 CW1800
	RCGX060400S01520	0.1-0.25	0.5-2.5				○
	RCGX060400T00520	0.1-0.25	0.5-2.5				○
	RCGX060600S02020	0.1-0.3	0.08-0.25	○			
	RCGX060600T01020	0.1-0.25	0.5-2.5				○
	RCGX060700T00525	0.1-0.25	0.5-2.5			○	○ ○
	RCGX090700T00520	0.1-0.3	0.5-2.5				○
	RCGX090700T00525	0.1-0.3	0.5-2.5			○	○ ○
	RCGX090700T20015	0.1-0.3	0.1-0.3	○			
	RCGX120700E	0.5-2.0	0.1-0.2			○	
	RCGX120700S01020	0.5-2.0	0.1-0.2			○	
	RCGX120700S01520	0.1-0.35	0.5-3.0				○
	RCGX120700T00520	0.1-0.35	0.5-3.0				○
	RCGX120700T00525	0.1-0.35	0.5-3.0				○ ○
	RCGX120700T01020	0.1-0.35	0.5-3.0		○		○
	RCGX191000T02020	0.1-0.6	0.1-0.5		○		

● Ex stock ○ On demand

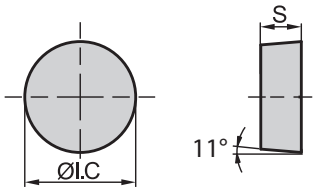
CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

System code A230 Grade selection A46 Technical info A607 Cutting data A414

RPGN	I.C	S
12 04	12.7	4.76

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

Turning ceramic inserts



RP** positive insert				CM		CC		CN		CR	
			P	○							
			M								
			K	○				✲			
			N								
			S					●		✲	✲
			H			○					
ISO		a_p	f	CA1000		CM1000		CN1000	CS1000	CW1400	CW1800
	**RPGN120400S01520**	0.1-0.35	0.5-3.0							○	
	RPGN120400T00520	0.1-0.35	0.5-3.0								○

● Ex stock ○ On demand

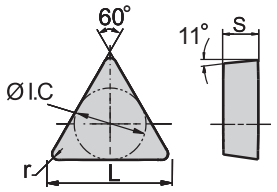
CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

System code > A230 Grade selection > A46 Technical info > A607 Cutting data > A414

Turning ceramic inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

TPGN	L	I.C	S
11 03	11	6.35	3.18
16 03	16.5	9.525	3.18



TP** positive insert					CM	CC	CN	CR
				P	●			
				M				
				K	●		◉	
				N				
				S			●	◉ ◉
				H		○		
ISO		r	a_p	f	CA1000	CM1000	CN1000 CS1000	CW1400 CW1800
	TPGN110304T02020	0.4	0.1-0.3	0.08-0.25		○		
	TPGN160304T01020	0.4	0.1-0.3	0.08-0.25		○		
	TPGN160308T01020	0.8	0.1-0.4	0.1-0.3		○		

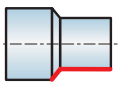
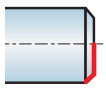
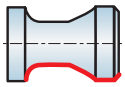
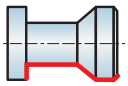
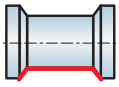
● Ex stock ○ On demand

CM Mixed ceramic
CC Mixed ceramic, coated
CN Si3N4 Ceramic
CR Al2O3 cutting ceramic, reinforced

System code A230 Grade selection A46 Technical info A607 Cutting data A414

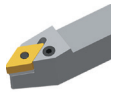
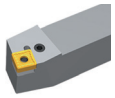
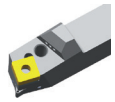
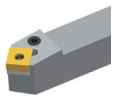
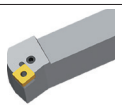
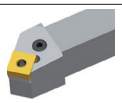
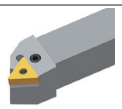
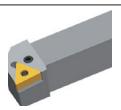
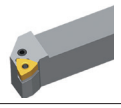
Notes

External turning tool holders

	Tool holder	Application					Workpiece		Page
		External machining	Facing	Profiling	Profiling	Profiling	Stable	Unstable	
									
D	DCLNR/L 95°	●	●				●		A262
D	DCKNR/L 75°	●					●		A263
D	DDJNR/L 93°			●	●	●	●	●	A264
D	DSBNR/L 75°	●					●		A265
D	DTGNR/L 91°	●					●		A266
D	DVVNN 72.5°					●	●		A267
D	DVJNR/L 93°			●	●		●	●	A268
D	DWLNR/L 95°	●	●				●		A269
P	PCBNR/L 75°	●					●		A270
P	PCBNR/LC 75°	●					●		A286
P	PCKNR/L 75°	●					●		A271
P	PCLNR/L 95°	●	●				●		A272
P	PCLNR/LC 95°	●	●				●		A287
P	PDJNR/L 93°			●	●	●	●	●	A274
P	PDJNR/LC 93°			●	●	●	●	●	A288

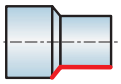
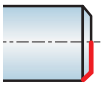
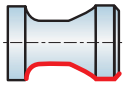
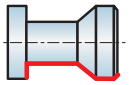
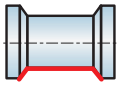
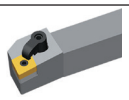
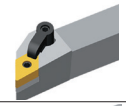
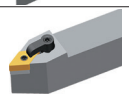
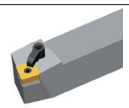
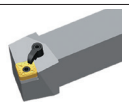
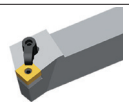
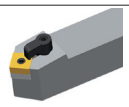
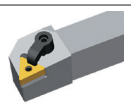
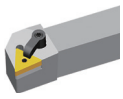
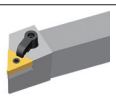
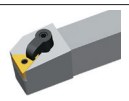
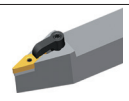
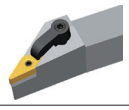
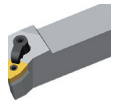
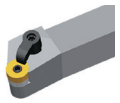
● Recommended

External turning tool holders

	Tool holder		Application					Workpiece		Page
			External machining	Facing	Profiling	Profiling	Profiling	Stable	Unstable	
P	PDNNR/L 63°						●	●		A275
P	PSBNR/L 75°		●					●		A276
P	PSBNR/LC 75°		●					●		A289
P	PSDNN 45°		●				●	●		A278
P	PSKNR/L 75°			●				●		A279
P	PSSNR/ L 45°		●	●				●		A280
P	PTFNR/L 91°			●				●		A281
P	PTTNR/L 60°		●					●		A282
P	PTGNR/L 90°		●					●		A283
P	PWLNR/L 95°		●	●				●		A285
P	PWLNR/LC 95°		●	●				●		A290
P	PLANR/L 90°		●	●			●	●		A362
P	PLFNR/L 90°		●					●		A363
P	PCLNR/L 95°		●	●				●		A364
M	MCBNR/L 75°		●					●		A291

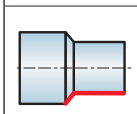
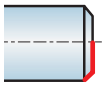
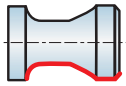
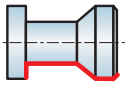
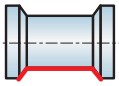
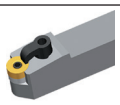
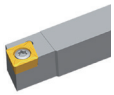
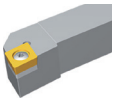
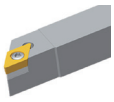
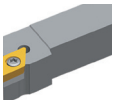
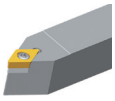
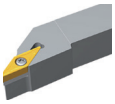
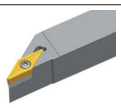
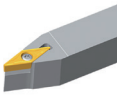
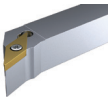
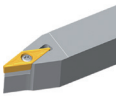
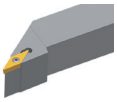
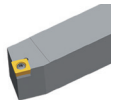
● Recommended

External turning tool holders

	Tool holder	Application: External machining	Facing	Profiling	Profiling	Profiling	Workpiece: Stable	Unstable	Page
									
M	MCLNR/L 95° 	●	●				●		A292
	MDJNR/L 93° 			●	●	●	●	●	A294
	MDPNN 62.5° 					●	●		A295
	MSBNR/L 75° 	●					●		A296
	MSRNR/L 75° 	●					●		A297
	MSKNR/L 75° 		●				●		A298
	MSDNN 45° 					●	●		A299
	MTGNR/L 90° 	●					●		A300
	MTJNR/L 93° 	●					●		A301
	MTJNR/L-Z 93° 		●		●		●		A302
	MTFNR/L 91° 		●				●		A303
	MVVNN 72,5° 					●	●		A304
	MVJNR/L 93° 			●	●		●	●	A305
	MWLNR/L 95° 	●	●				●		A306
	MRGNR/L – 			●			●		A308

● Recommended

External turning tool holders

	Tool holder		Application					Workpiece		Page
			External machining	Facing	Profiling	Profiling	Profiling	Stable	Unstable	
										
M	**MRDNN** –						●	●		A307
S	**SOXNR/L** 23°		●	●				●		A332
	SPXNR/L 23°		●	●				●		A333
	SCACR/L 90°		●					●	●	A309
	SCLCR/L 95°		●	●				●	●	A310
	SDACR/L 90°					●		●	●	A311
	SDJCR/L 93°		●			●		●	●	A312
	SDNCN 63°						●	●	●	A313
	SVJBR/L 93°		●			●		●	●	A314
	SVABR/L 90°		●			●		●	●	A315
	SVVBN 72,5°						●	●	●	A316
	SVHBR/L 107°					●		●	●	A317
	SVVCN 72,5°						●	●	●	A318
	SVJCR/L 93°		●			●		●	●	A319
	SSBCR/L 75°		●					●		A320

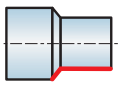
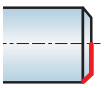
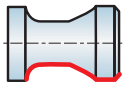
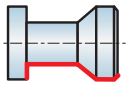
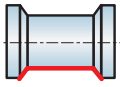
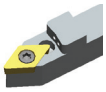
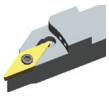
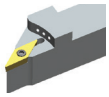
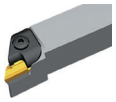
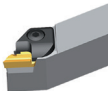
● Recommended

External turning tool holders

Tool holder		Application					Workpiece		Page
		External machining	Facing	Profiling	Profiling	Profiling	Stable	Unstable	
S	SSDCN 45°					●	●		A321
	SSKCR/L 75°		●				●		A322
	SSSCR/L 45°	●					●		A323
	STACR/L 90°	●					●	●	A324
	STFCR/L 91°		●				●		A325
	STGCR/L 91°	●					●	●	A326
	STTCR/L 60°	●					●		A327
	SWACR/L 90°	●					●	●	A328
	SRDCN –					●	●		A329
	SRGCR/L –			●			●		A331
	SCACR/L-SC 90°	●					●	●	A350
	SCLCR/L-SC 95°	●	●				●	●	A351
	SDACR/L-SC 90°				●		●	●	A352
	SDHCR/L-SC 107°30'				●		●	●	A353
	SDJCR/L-SC 93°	●			●		●	●	A354

● Recommended

External turning tool holders

	Tool holder		Application					Workpiece		Page
			External machining	Facing	Profiling	Profiling	Profiling	Stable	Unstable	
										
S	SDNCN-SC 62°30'						●	●	●	A355
S	SVACR/L-SC 90°		●			●		●	●	A356
S	SVJCR/L-SC 93°		●			●		●	●	A358
S	SVJBR/L-SC 93°		●			●		●	●	A357
C	CKJNR/L 93°		●			●		●		A334
C	CKNNR/L 63°						●	●		A335

● Recommended

General turning ISO code – external tool holders

P	C	L	N	L	25	25	M	12	C
1	2	3	4	5	6	7	8	9	10

Clamping system

Code	Description	
P	Lever lock clamping	
M	Wedge/pin lock clamping	
S	Screw-on clamping	
C/J	Wedge clamping	
D	Dual wedge clamping	

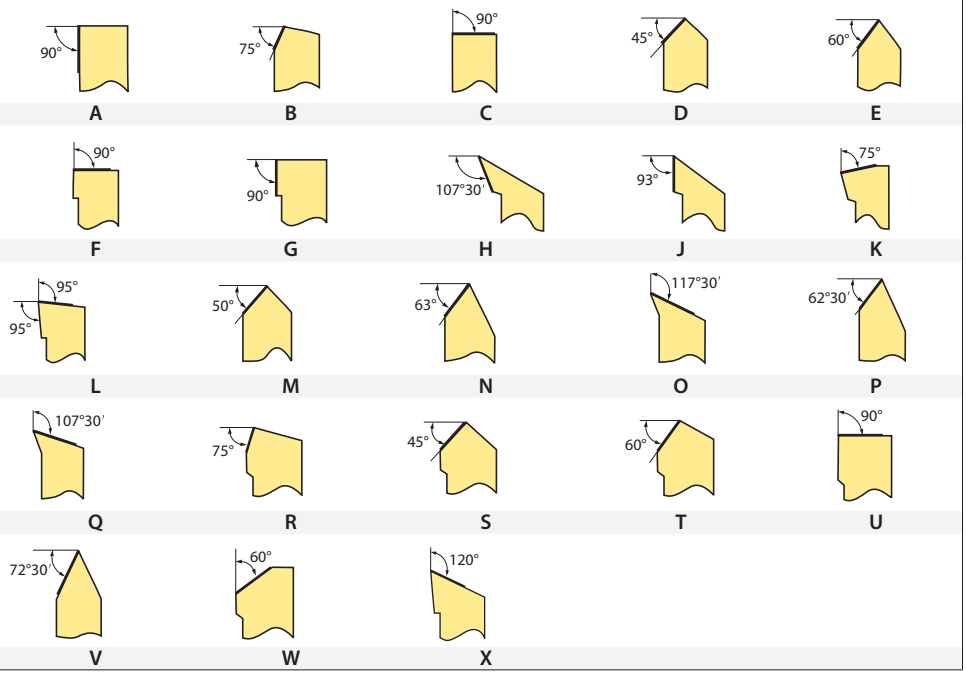
1

Insert shape

C	
D	
R	
S	
T	
V	
W	

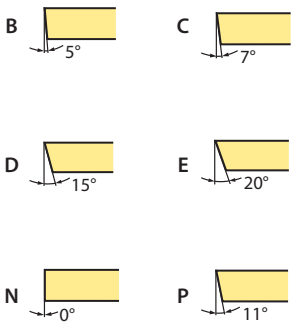
2

Tool holder type and entering angle



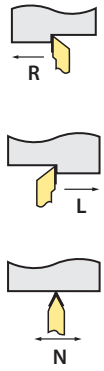
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Clearance angle



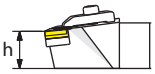
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Cutting direction



5

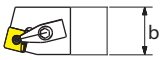
Shank height h [mm]



Code	h
12	12
16	16
20	20
25	25
32	32
40	40
50	50

6

Shank width b [mm]



Code	b
12	12
16	16
20	20
25	25
32	32
40	40
50	50

7

Holder length L [mm]



Code	L
H	100
K	125
M	150
P	170
Q	180
R	200
S	250
T	300
X	Factory standard

8

Cutting edge length l [mm]

I.C [mm]	Insert shape						
	C	D	R	S	T	V	W
5,56					**09**		
6,35	**06**	**07**			**11**		
9,525	**09**	**11**	**09**	**09**	**16**	**16**	**06**
12,7	**12**	**15**	**12**	**12**	**22**	**22**	**08**
15,875	**16**	**19**	**15**	**15**	**27**		
19,05	**19**		**19**	**19**	**33**		
25,4	**25**		**25**	**25**	**44**		
32			**32**				

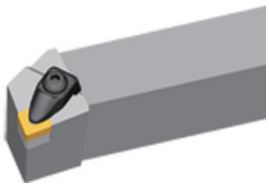
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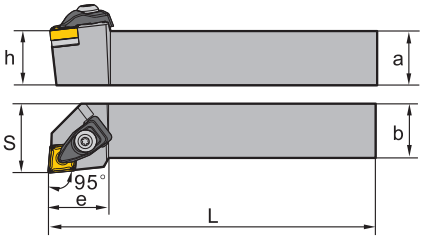
With internal cooling

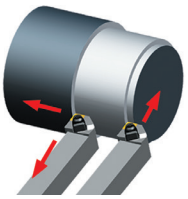
10

CN** holder (external) D-Clamping

DCLNR/L Kr: 95°







Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
DCLNR/L1616H09		●	○	16	16	100	16	20	24	CN**0903**
DCLNR/L2020K09		●	●	20	20	125	20	25	24	CN**0903**
DCLNR/L2525M09		●	●	25	25	150	25	32	24	CN**0903**
DCLNR/L2020K12		●	●	20	20	125	20	25	28	CN**1204**
DCLNR/L2525M12		●	●	25	25	150	25	32	28	CN**1204**
DCLNR/L3225P12		●	●	32	25	170	32	32	28	CN**1204**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	CN**0903**	CN**1204**
	h	16-25	20-32
	Clamp	C1RA	C2RA
	Screw (clamp)	CM5×22C (4.0 Nm)	CM6×25C (7.0 Nm)
	Screw (shim)	SM5×8.65XA1	SM6×10XA1
	Shim	C09BM	C12BM
	Spring	SPR6	SPR4
	Wrench (shim)	WH30L	WH40L
	Wrench (clamp)	WH30L	WH40L

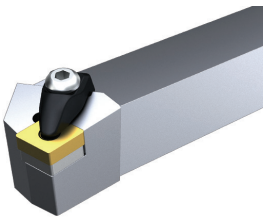
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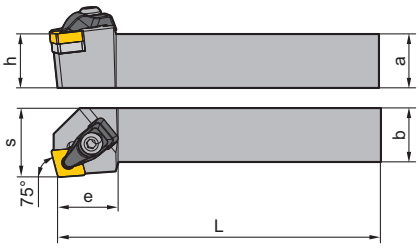
Wiper	Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A55	A57	A59	A65	A74	A73	A210

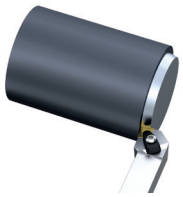
System code A260 Grade selection A46 Technical info A607 Cutting data A414

CN** holder (external) D-Clamping

DCKNR/L Kr: 75°







Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
DCKNR/L2525M12		○	●	25	25	152	25	32	28	CN**1204**
DCKNR/L3232P12			○	32	32	170	32	40	28	CN**1204**
DCKNR/L3225P12		○	○	32	25	172	32	32	28	CN**1204**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	CN**1204**
	h	16-32
	Clamp	C2RA
	Screw (clamp)	CM6×25C (7.0 Nm)
	Screw (shim)	SM6×10XA1 (7.0 Nm)
	Shim	C12BM
	Spring	SPR4
	Wrench (shim)	WH40L
	Wrench (clamp)	WH40L

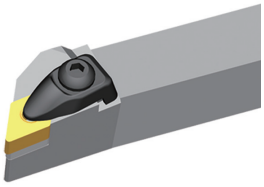
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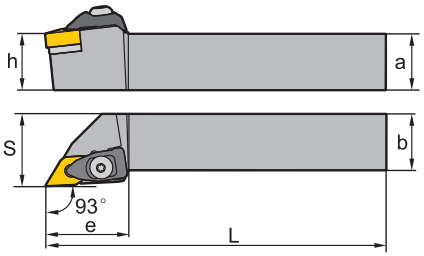
Wiper	Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A55	A57	A59	A65	A74	A73	A210

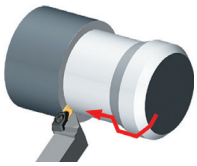
System code A260 Grade selection A46 Technical info A607 Cutting data A414

DN** holder (external) D-Clamping

DDJNR/L Kr: 93°







Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
DDJNR/L1616H11		●	●	16	16	100	16	20	30	DN**1104**
DDJNR/L2020K11		●	●	20	20	125	20	25	30	DN**1104**
DDJNR/L2525M11		●	●	25	25	150	25	32	30	DN**1104**
DDJNR/L3225P11		○		32	25	170	32	32	30	DN**1104**
DDJNR/L2020K15		●	●	20	20	125	20	25	35	DN**1506**
DDJNR/L2525M15		●	●	25	25	150	25	32	35	DN**1506**
DDJNR/L3225P15		●	●	32	25	170	32	32	35	DN**1506**
DDJNR/L3232P15		●	●	32	32	170	32	40	35	DN**1506**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DN**1104**	DN**1506**
	h	16-32	20-32
	Clamp	C1RA	C2RA
	Screw (clamp)	CM5×22C (4.0 Nm)	CM6×25C (7.0 Nm)
	Screw (shim)	SM5×8.65XA1	SM6×10XA1
	Shim	D11BM	D15BM
	Spring	SPR6	SPR4
	Wrench (shim)	WH30L	WH40L
	Wrench (clamp)	WH30L	WH40L

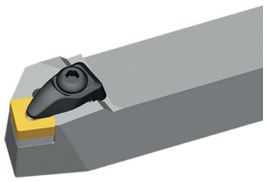
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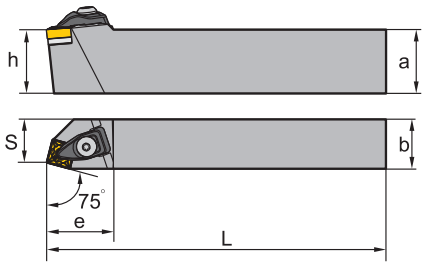
Wiper	Finishing	Medium Cut	Roughing	Cast Iron	PCBN/PCD
A75	A77	A77	A87	A88	A211

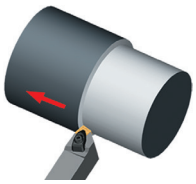
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

SN** holder (external) D-Clamping

DSBNR/L Kr: 75°







Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
DSBNR/L1616H09		○		16	16	100	16	13	26	SN**0903**
DSBNR/L2020K12			●	20	20	125	20	17	34	SN**1204**
DSBNR/L2525M12		●	●	25	25	150	25	22	34	SN**1204**
DSBNR/L3225P12		●	●	32	25	170	32	22	34	SN**1204**
DSBNR/L3232P15		●	●	32	32	170	32	27	41	SN**1506**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	SN**0903**	SN**1204**	SN**1506**
	h	16	20-32	32
	Clamp	C1RA	C2RA	C3RA
	Screw (clamp)	CM5×22C (4.0 Nm)	CM6×25C (7.0 Nm)	CM6×25C (7.0 Nm)
	Screw (shim)	SM5×8.65XA1	SM6×10XA1	SM6×10XA2
	Shim	S09BM	S12BM	S15BM
	Spring	SPR6	SPR4	SPR4
	Wrench (shim)	WH30L	WH40L	WH40L
	Wrench (clamp)	WH30L	WH40L	WH40L

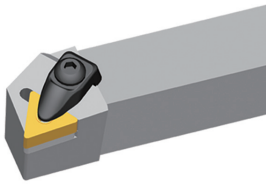
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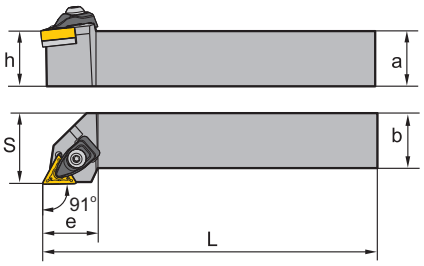
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A94	A94	A99	A109	A106	A193

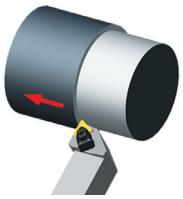
System code A260 Grade selection A46 Technical info A607 Cutting data A414

TN** holder (external) D-Clamping

DTGNR/L Kr: 91°







Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
DTGNR/L1616H16		●	●	16	16	100	16	20	25	TN**1604**
DTGNR/L2020K16		●	●	20	20	125	20	25	25	TN**1604**
DTGNR/L2525M16		●	●	25	25	150	25	32	25	TN**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TN**1604**
	h	**16-25**
	Clamp	C1RA
	Screw (clamp)	CM5×22C (4.0 Nm)
	Screw (shim)	SM5×8.65XA1
	Shim	T16BM
	Spring	SPR6
	Wrench (shim)	WH30L
	Wrench (clamp)	WH30L

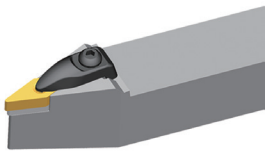
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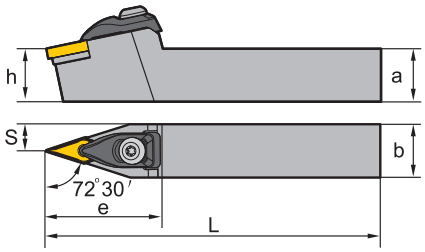
					
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Cast Iron**	**PCBN/PCD**
A110	A112	A113	A115	A121	A194

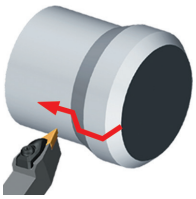
System code A260 Grade selection A46 Technical info A607 Cutting data A414

VN** holder (external) D-Clamping

DVVNN Kr: 72°30'







Article	✻	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
DVVNN2020K16		●	20	20	125	20	10	44	VN**1604**
DVVNN2525M16		●	25	25	150	25	12.5	44	VN**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VN**1604**
	h	20-25
	Clamp	C6RA
	Screw (clamp)	CM5×22C (4.0 Nm)
	Screw (shim)	SM5×8.65XA1
	Shim	V16BM
	Spring	SPR6
	Wrench (shim)	WH30L
	Wrench (clamp)	WH30L

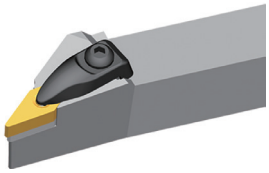
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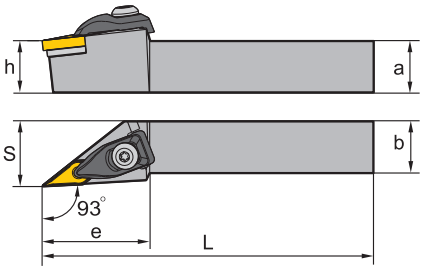
Finishing	Medium Cut	Roughing	Cast Iron	PCBN/PCD
A124	A124	A126	A126	A212

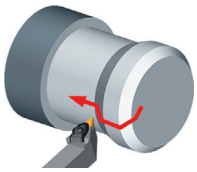
System code A260 Grade selection A46 Technical info A607 Cutting data A414

VN** holder (external) D-Clamping

DVJNR/L Kr: 93°







Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
DVJNR/L2020K16		●	●	20	20	125	20	25	41	VN**1604**
DVJNR/L2525M16		●	●	25	25	150	25	32	41	VN**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VN**1604**
	h	**20-25**
	Clamp	C6RA
	Screw (clamp)	CM5×22C (4.0 Nm)
	Screw (shim)	SM5×8.65XA1
	Shim	V16BM
	Spring	SPR6
	Wrench (clamp)	WH30L
	Wrench (shim)	WH30L

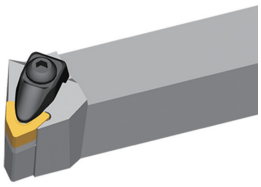
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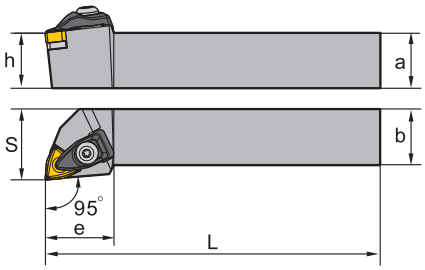
Finishing	Medium Cut	Roughing	Cast Iron	PCBN/PCD
A124	A124	A126	A126	A212

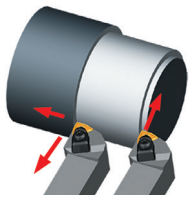
System code A260 Grade selection A46 Technical info A607 Cutting data A414

WN** holder (external) D-Clamping

DWLNR/L Kr: 95°







Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
DWLNR/L1616H06		●	●	16	16	100	16	25	24	WN**0604**
DWLNR/L2020K06		●	●	20	20	125	20	25	24	WN**0604**
DWLNR/L2525M06		●	●	25	25	150	25	32	24	WN**0604**
DWLNR/L2020K08		●	●	20	20	125	20	25	31	WN**0804**
DWLNR/L2525M08		●	●	25	25	150	25	32	31	WN**0804**
DWLNR/L3225P08		●	●	32	25	170	32	32	31	WN**0804**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	WN**0604**	WN**0804**
	h	16-25	20-32
	Clamp	C1RA	C2RA
	Screw (clamp)	CM5×22C (4.0 Nm)	CM6×25C (7.0 Nm)
	Screw (shim)	SM5×8.65XA1	SM6×10XA1
	Shim	W06BM	W08BM
	Spring	SPR6	SPR4
	Wrench (shim)	WH30L	WH40L
	Wrench (clamp)	WH30L	WH40L

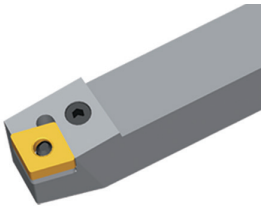
Insert

Wiper	Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A128	A129	A129	A131	A134	A133	A196

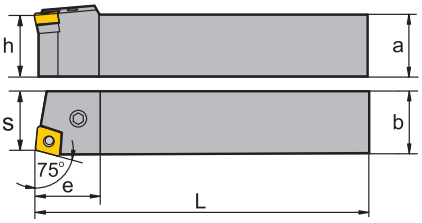
System code A260 Grade selection A46 Technical info A607 Cutting data A414

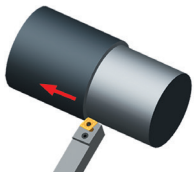
CN** holder (external) P-Clamping

PCBNR/L Kr: 75°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
PCBNR/L2020K12		●	●	20	20	125	20	17	27	CN**1204**
PCBNR/L2525M12		●	●	25	25	150	25	22	27	CN**1204**
PCBNR/L3232P12		●	●	32	32	170	32	27	27	CN**1204**
PCBNR/L2525M16		●	●	25	25	150	25	22	33	CN**1606**
PCBNR/L3232P16		●	●	32	32	170	32	27	33	CN**1606**
PCBNR/L3232P19		●	●	32	32	170	32	27	38	CN**1906**
PCBNR/L4040S19		●	●	40	40	250	40	35	38	CN**1906**
PCBNR/L4040S2507		●		40	40	250	40	35	50	CN**2507**
PCBNR/L4040S2509		●	●	40	40	250	40	35	50	CN**2509**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	CN**1204**	CN**1606**	CN**1906**	CN**2507**	CN**2509**
	h	20-32	25-32	32-40	40	40
	Knee lever	L4	L5	L6	L8	L8
	Screw	LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)	LEM10×27 (16.6 Nm)		
	Screw				LEM12×36A (25.2 Nm)	LEM12×36A (25.2 Nm)
	Shim	C12AP	C16AP	C19AP	C25AP-07	C25AP
	Shim pin (shim)	SP4	SP5	SP6	SP8	SP8
	Wrench	WH30L	WH30L	WH40L	WH50L	WH50L

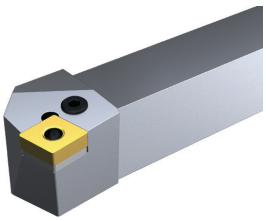
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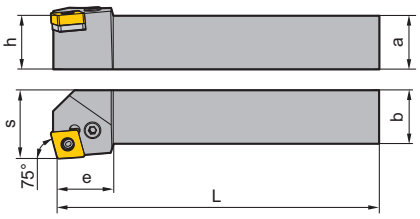
						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A55	A57	A59	A65	A74	A73	A210

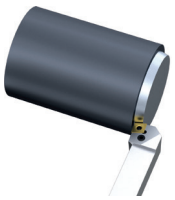
System code A260 Grade selection A46 Technical info A607 Cutting data A414

CN** holder (external) P-Clamping

PCKNR/L Kr: 75°







Right hand style

Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
PCKNR/L2525M12		○	○	25	25	153	25	32	29	CN**1204**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	CN**1204**
	h	20-32
	Knee lever	L4
	Screw	LEM8×21 (10.2 Nm)
	Shim	C12AP
	Shim pin (shim)	SP4
	Wrench	WH30L

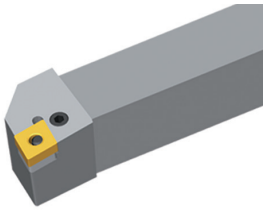
Insert

Wiper	Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A55	A57	A59	A65	A74	A73	A210

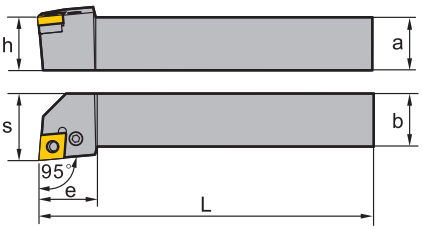
System code A260 Grade selection A46 Technical info A607 Cutting data A414

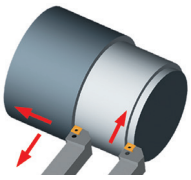
CN** holder (external) P-Clamping

PCLNR/L Kr: 95°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
PCLNR/L1616H09		●	●	16	16	100	16	20	20	CN**0903**
PCLNR/L2020K09		●	●	20	20	125	20	25	22	CN**0903**
PCLNR/L2525M09		○	●	25	25	150	25	32	22	CN**0903**
PCLNR/L1616H12		○	○	16	16	100	16	20	20	CN**1204**
PCLNR/L2020K12		●	●	20	20	125	20	25	28	CN**1204**
PCLNR/L2525M12		●	●	25	25	150	25	32	28	CN**1204**
PCLNR/L2525M12C	✻	○		25	25	150	25	32	40	CN**1204**
PCLNR/L3225P12		●	○	32	25	170	32	32	33	CN**1204**
PCLNR/L3232P12		●	●	32	32	170	32	40	28	CN**1204**
PCLNR/L2525M16		●	●	25	25	150	25	32	33	CN**1606**
PCLNR/L3232P16		●	●	32	32	170	32	40	33	CN**1606**
PCLNR/L3232P19		●	●	32	32	170	32	40	38	CN**1906**
PCLNR/L4040S19		●	●	40	40	250	40	50	38	CN**1906**
PCLNR/L4040S2507		●	●	40	40	250	40	50	49	CN**2507**
PCLNR/L4040S2509		●	●	40	40	250	40	50	49	CN**2509**
PCLNR/L5050T25		○	○	50	50	300	50	63	49	CN**2509**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	CN**0903**	CN**1204**	CN**1606**	CN**1906**	CN**2507**	CN**2509**
	h	16-25	16-32	25-32	32-40	40	40-50
	Knee lever	L3	L4	L5	L6	L8	L8
	Screw		LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)	LEM10×27 (16.6 Nm)		
	Screw	LEM6×13.4A (7.0 Nm)				LEM12×36A (25.2 Nm)	LEM12×36A (25.2 Nm)
	Shim	C09AP	C12AP	C16AP	C19AP	C25AP-07	C25AP
	Shim pin (shim)	SP10	SP4	SP5	SP6	SP8	SP8
	Wrench	WH25L	WH30L	WH30L	WH40L	WH50L	WH50L

System code A260 Grade selection A46 Technical info A607 Cutting data A414

CN** holder (external)

Insert

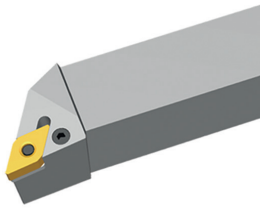
						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A55	A57	A59	A65	A74	A73	A210

A Turning
B Milling
C Drilling
D Technical Information
E Index

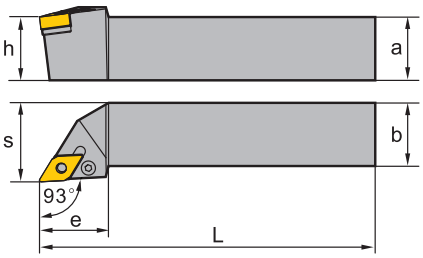
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

DN** holder (external) P-Clamping

PDJNR/L Kr: 93°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
PDJNR/L1616H11		●	●	16	16	100	16	20	25	DN**1104**
PDJNR/L2020K11		●	●	20	20	125	20	25	25	DN**1104**
PDJNR/L2525M11		●	●	25	25	150	25	32	30	DN**1104**
PDJNR/L2020K15-3		●	○	20	20	125	20	25	35	DN**1504**
PDJNR/L2525M15-3		●	●	25	25	150	25	32	35	DN**1504**
PDJNR/L3232P15-3		●	●	32	32	170	32	40	35	DN**1504**
PDJNR/L2020K15		●	○	20	20	125	20	25	35	DN**1506**
PDJNR/L2525M15		●	●	25	25	150	25	32	35	DN**1506**
PDJNR/L3225P15		●	○	32	25	170	32	32	35	DN**1506**
PDJNR/L3232P15		●	●	32	32	170	32	40	35	DN**1506**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DN**1104**	DN**1504**	DN**1506**
	h	16-32	20-32	20-32
	Knee lever	L3	L4	L4B
	Screw		LEM8×21 (10.2 Nm)	LEM8×21 (10.2 Nm)
	Screw	LEM6×13.4A (7.0 Nm)		
	Shim	D11AP	D15AP	D15AP
	Shim pin (shim)	SP3	SP4	SP4
	Wrench	WH25L	WH30L	WH30L

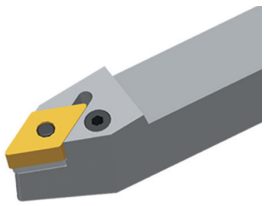
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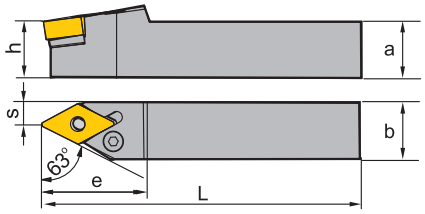
 Wiper	 Finishing	 Medium Cut	 Roughing	 Cast Iron	 PCBN/PCD
A75	A77	A77	A87	A88	A211

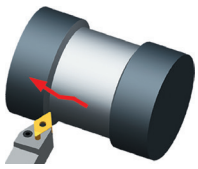
System code A260 Grade selection A46 Technical info A607 Cutting data A414

DN** holder (external) P-Clamping

PDNNR/L Kr: 63°







Left hand style

Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
PDNNR/L2020K15-3			○	20	20	125	20	8	37	DN**1504**
PDNNR/L2525M15-3		●	○	25	25	150	25	12.5	37	DN**1504**
PDNNR/L3232P15-3			●	32	32	170	32	16	37	DN**1504**
PDNNR/L2020K15		●	●	20	20	125	20	8	37	DN**1506**
PDNNR/L2525M15		●	●	25	25	150	25	12.5	37	DN**1506**
PDNNR/L3232P15		●	●	32	32	170	32	16	37	DN**1506**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DN**1504**	DN**1506**
	h	**20-32**	**20-32**
	Knee lever	L4	L4B
	Screw	LEM8×21 (10.2 Nm)	LEM8×21 (10.2 Nm)
	Shim	D15AP	D15AP
	Shim pin (shim)	SP4	SP4
	Wrench	WH30L	WH30L

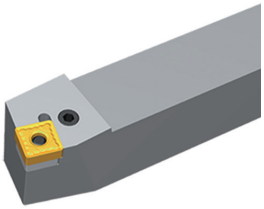
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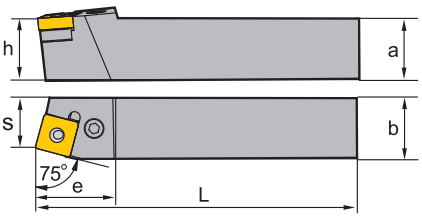
					
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Cast Iron**	**PCBN/PCD**
A75	A77	A77	A87	A88	A211

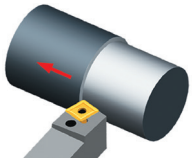
System code A260 | Grade selection A46 | Technical info A607 | Cutting data A414

SN** holder (external) P-Clamping

PSBNR/L Kr: 75°







Right hand style

Article	*	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
PSBNR/L1616H09		●	○	16	16	100	16	13	21	SN**0903**
PSBNR/L2020K09			○	20	20	125	20	17	23	SN**0903**
PSBNR/L2020K12		●	●	20	20	125	20	17	28	SN**1204**
PSBNR/L2525M12		●	●	25	25	125	25	22	28	SN**1204**
PSBNR/L3232P12		●	○	32	32	170	32	27	28	SN**1204**
PSBNR/L2525M15		●	○	25	25	150	25	22	35	SN**1506**
PSBNR/L3232P15		●	●	32	32	170	32	27	35	SN**1506**
PSBNR/L3232P19		●	●	32	32	170	32	27	40	SN**1906**
PSBNR/L4040S19		●	●	40	40	250	40	35	40	SN**1906**
PSBNR/L4040S2507		○	○	40	40	250	40	35	48	SN**2507**
PSBNR/L4040S2509		○	○	40	40	250	40	35	48	SN**2509**
PSBNR/L5050T25		○		50	50	300	50	45	48	SN**2509**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	SN**0903**	SN**1204**	SN**1506**	SN**1906**	SN**2507**	SN**2509**
	h	16-20	20-32	25-32	32-40	40	40-50
	Knee lever	L3	L4	L5	L6	L8	L8
	Screw		LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)	LEM10×27 (16.6 Nm)		
	Screw	LEM6×13.4A (7.0 Nm)				LEM12×36A (25.2 Nm)	LEM12×36A (25.2 Nm)
	Shim	S09AP	S12AP	S15AP	S19AP	S25AP	
	Shim						S25AP-09
	Shim pin (shim)	SP10	SP4	SP5	SP6	SP8	SP8
	Wrench	WH25L	WH30L	WH30L	WH40L	WH50L	WH50L

System code A260 Grade selection A46 Technical info A607 Cutting data A414

SN** holder (external)

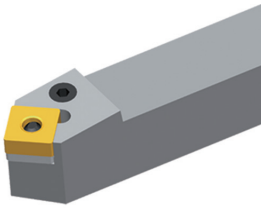
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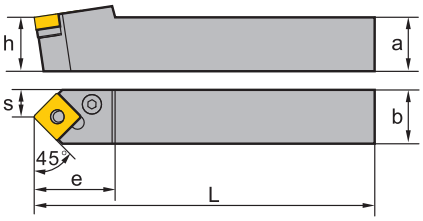
					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A94	A94	A99	A109	A106	A193

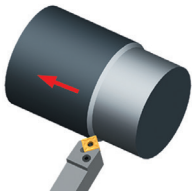
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

SN** holder (external) P-Clamping

PSDNN Kr: 45°







Article	✻	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
PSDNN1212F09		○	12	12	80	12	6	21	SN**0903**
PSDNN1616H09		●	16	16	100	16	8	23	SN**0903**
PSDNN2020K12		●	20	20	125	20	10	30	SN**1204**
PSDNN2525M12		●	20	20	150	20	12.5	30	SN**1204**
PSDNN3232P12		●	32	32	170	32	16	40	SN**1204**
PSDNN2525M15		●	25	25	150	25	12.5	40	SN**1506**
PSDNN3232P15		●	32	32	170	32	16	40	SN**1506**
PSDNN3232P19		●	32	32	170	32	16	40	SN**1906**
PSDNN4040S19		●	40	40	250	40	20	40	SN**1906**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SN**0903**	SN**0903**	SN**1204**	SN**1506**	SN**1906**
	h	12	16	20-32	25-32	32-40
	Knee lever	L3B	L3	L4	L5	L6
	Screw	LEM5×12B (4.0 Nm)				
	Screw			LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)	LEM10×27 (16.6 Nm)
	Screw		LEM6×13.4A (7.0 Nm)			
	Shim		S09AP	S12AP	S15AP	S19AP
	Shim pin (shim)		SP10	SP4	SP5	SP6
	Wrench		WH25L	WH30L	WH30L	WH40L
	Wrench	WT09IP				

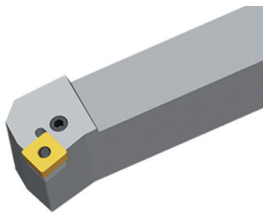
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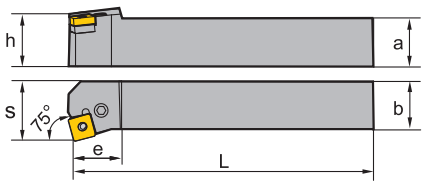
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A94	A94	A99	A109	A106	A193

System code A260 Grade selection A46 Technical info A607 Cutting data A414

SN** holder (external) P-Clamping

PSKNR/L Kr: 75°







Right hand style

Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
PSKNR/L1616H09			○	16	16	100	16	20	17	SN**0903**
PSKNR/L2020K09			○	20	20	125	20	25	20	SN**0903**
PSKNR/L2020K12		●	●	20	20	125	20	25	26	SN**1204**
PSKNR/L2525M12		●	●	25	25	150	25	32	26	SN**1204**
PSKNR/L3232P12		●	●	32	32	170	32	40	26	SN**1204**
PSKNR/L2525M15		●	○	25	25	150	25	32	32	SN**1506**
PSKNR/L3232P15		●	●	32	32	170	32	40	32	SN**1506**
PSKNR/L3232P19		●	●	32	32	170	32	40	36	SN**1906**
PSKNR/L4040P19		○		40	40	170	40	50	36	SN**1906**
PSKNR/L4040S19		○	○	40	40	250	40	50	40	SN**1906**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	SN**0903**	SN**1204**	SN**1506**	SN**1906**
	h	16-20	20-32	25-32	32-40
	Knee lever	L3	L4	L5	L6
	Screw		LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)	LEM10×27 (16.6 Nm)
	Screw	LEM6×13.4A (7.0 Nm)			
	Shim	S09AP	S12AP	S15AP	S19AP
	Shim pin (shim)	SP10	SP4	SP5	SP6
	Wrench	WH25L	WH30L	WH30L	WH40L

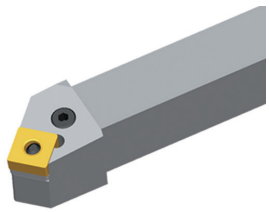
Insert

					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A94	A94	A99	A109	A106	A193

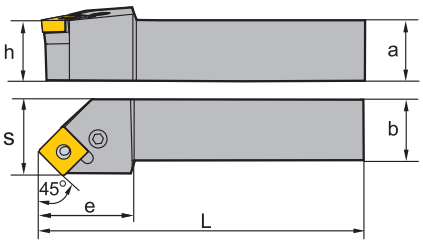
System code A260 Grade selection A46 Technical info A607 Cutting data A414

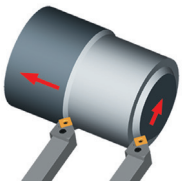
SN** holder (external) P-Clamping

PSSNR/L Kr: 45°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
PSSNR/L1616H09		●	●	16	16	100	16	20	25	SN**0903**
PSSNR/L2020K12		●	●	20	20	125	20	25	30	SN**1204**
PSSNR/L2525M12		●	●	25	25	150	25	32	30	SN**1204**
PSSNR/L3232P12		●	●	32	32	170	32	40	40	SN**1204**
PSSNR/L2525M15		●	●	25	25	150	25	32	30	SN**1506**
PSSNR/L3232P15		●	●	32	32	170	32	40	40	SN**1506**
PSSNR/L3232P19		●	●	32	32	170	32	40	40	SN**1906**
PSSNR/L4040S19		●	●	40	40	250	40	50	50	SN**1906**
PSSNR/L4040S2507		●	●	40	40	250	40	50	50	SN**2507**
PSSNR/L4040S2509		●	●	40	40	250	40	50	50	SN**2509**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SN**0903**	SN**1204**	SN**1506**	SN**1906**	SN**2507**	SN**2509**
	h	**16**	**20-32**	**25-32**	**32-40**	**40**	**40**
	Knee lever	L3	L4	L5	L6	L8	L8
	Screw		LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)	LEM10×27 (16.6 Nm)		
	Screw	LEM6×13.4A (7.0 Nm)				LEM12×36A (25.2 Nm)	LEM12×36A (25.2 Nm)
	Shim	S09AP	S12AP	S15AP	S19AP	S25AP	
	Shim						S25AP-09
	Shim pin (shim)	SP10	SP4	SP5	SP6	SP8	SP8
	Wrench	WH25L	WH30L	WH30L	WH40L	WH50L	WH50L

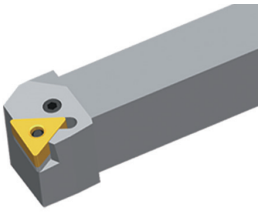
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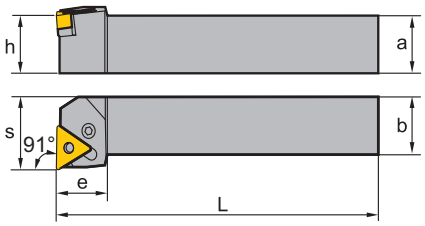
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A94	A94	A99	A109	A106	A193

System code A260 Grade selection A46 Technical info A607 Cutting data A414

TN** holder (external) P-Clamping

PTFNR/L Kr: 91°







Right hand style

Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
PTFNR/L1616H16		●	●	16	16	100	16	20	20	TN**1604**
PTFNR/L2020K16		●	●	20	20	125	20	25	20	TN**1604**
PTFNR/L2525M16		●	●	25	25	150	25	32	20	TN**1604**
PTFNR/L2525M22		●	●	25	25	150	25	32	25	TN**2204**
PTFNR/L3232P22		●	●	32	32	170	32	40	25	TN**2204**
PTFNR/L3232P27		●		32	32	170	32	40	34	TN**2706**
PTFNR/L4040S27		○		40	40	250	40	50	34	TN**2706**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	TN**1604**	TN**2204**	TN**2706**
	h	16-25	25-32	32-40
	Knee lever	L3	L4	L5
	Screw		LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)
	Screw	LEM6×13.4A (7.0 Nm)		
	Shim	T16AP	T22AP	T27AP
	Shim pin (shim)	SP3	SP4	SP5
	Wrench	WH25L	WH30L	WH30L

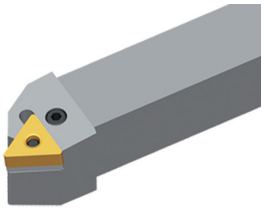
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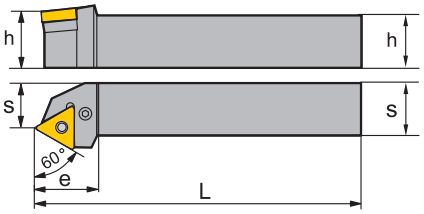
Wiper	Finishing	Medium Cut	Roughing	Heavy Turning	Cast Iron	PCBN/PCD
A110	A112	A113	A115	A119	A121	A194

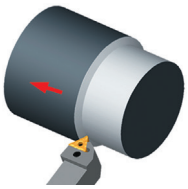
System code A260 Grade selection A46 Technical info A607 Cutting data A414

TN** holder (external) P-Clamping

PTTNR/L Kr: 60°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
PTTNR/L1616H16		●		16	16	100	16	13	25	TN**1604**
PTTNR/L2020K16		●	○	20	20	125	20	17	25	TN**1604**
PTTNR/L2525M22		●	●	25	25	150	20	22	32	TN**2204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TN**1604**	TN**2204**
	h	**16-25**	**20**
	Knee lever	L3	L4
	Screw		LEM8×21 (10.2 Nm)
	Screw	LEM6×13.4A (7.0 Nm)	
	Shim	T16AP	T22AP
	Shim pin (shim)	SP3	SP4
	Wrench	WH25L	WH30L

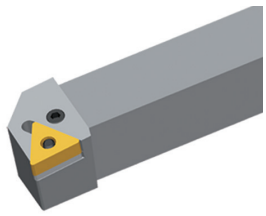
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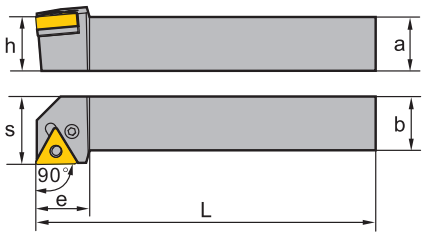
						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Heavy Turning**	**Cast Iron**	**PCBN/PCD**
A110	A112	A113	A115	A119	A121	A194

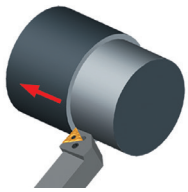
System code A260 Grade selection A46 Technical info A607 Cutting data A414

TN** holder (external) P-Clamping

PTGNR/L Kr: 90°







Right hand style

Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
PTGNR/L1212F11		●	●	12	12	80	12	16	14	TN**1103**
PTGNR/L1616H11		●		16	16	100	16	20	18	TN**1103**
PTGNR/L2020K11		●	○	20	20	125	20	25	19	TN**1103**
PTGNR/L2525M11		○	○	25	25	150	25	32	20	TN**1103**
PTGNR/L1616H16		●	●	16	16	100	16	20	20	TN**1604**
PTGNR/L2020K16		●	●	20	20	125	20	25	20	TN**1604**
PTGNR/L2525M16		●	●	25	25	150	25	32	20	TN**1604**
PTGNR/L3232P16		●	○	32	32	170	32	40	20	TN**1604**
PTGNR/L2525M22		●	●	25	25	150	25	32	28	TN**2204**
PTGNR/L3232P22		●	●	32	32	170	32	40	28	TN**2204**
PTGNR/L3232P27		●	○	32	32	170	32	40	33	TN**2706**
PTGNR/L4040S27		○		40	40	250	40	50	33	TN**2706**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TN**1103**	TN**1604**	TN**2204**	TN**2706**
	h	10-25	16-32	25-32	32-40
	Knee lever	L2	L3	L4	L5
	Screw	LEM5×9B (4.0 Nm)			
	Screw			LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)
	Screw		LEM6×13.4A (7.0 Nm)		
	Shim		T16AP	T22AP	T27AP
	Shim pin (shim)		SP3	SP4	SP5
	Wrench		WH25L	WH30L	WH30L
	Wrench	WT09IP			

System code A260 Grade selection A46 Technical info A607 Cutting data A414

TN** holder (external)

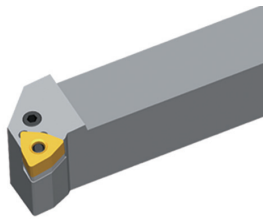
Insert

						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Heavy Turning**	**Cast Iron**	**PCBN/PCD**
A110	A112	A113	A115	A119	A121	A194

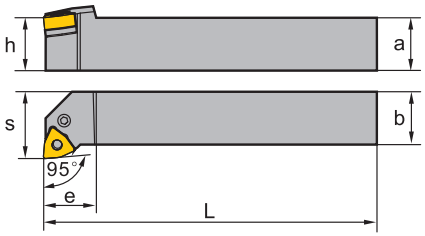
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

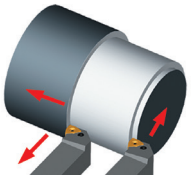
WN** holder (external) P-Clamping

PWLNR/L Kr: 95°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
PWLNR/L1616H06		●	●	16	16	100	16	20	20	WN**0604**
PWLNR/L2020K06		●	●	20	20	125	20	25	20	WN**0604**
PWLNR/L2525M06		●	●	25	25	150	25	32	20	WN**0604**
PWLNR/L2020K08		●	●	20	20	125	20	25	26	WN**0804**
PWLNR/L2525M08		●	●	25	25	150	25	32	26	WN**0804**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	WN**0604**	WN**0804**
	h	**16-25**	**20-25**
	Knee lever	L3	L4
	Screw		LEM8×21 (10.2 Nm)
	Screw	LEM6×13.4A (7.0 Nm)	
	Shim	W06AP	W08AP
	Shim pin (shim)	SP3	SP4
	Wrench	WH25L	WH30L

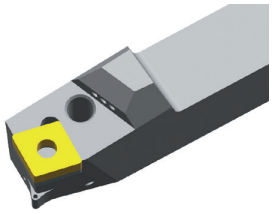
Insert

						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A128	A129	A129	A131	A134	A133	A196

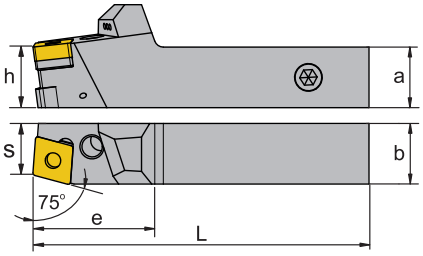
System code A260 | Grade selection A46 | Technical info A607 | Cutting data A414

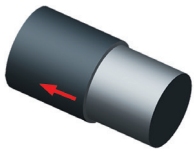
CN** holder (external) P-Clamping

PCBNR/LC Kr: 75°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	M	Inserts
PCBNR/L2020X12C	✻	●	●	20	20	112	20	17	42	G1/8	CN**1204**
PCBNR/L2525X12C	✻	●	●	25	25	127	25	22	42	G1/8	CN**1204**
PCBNR/L2525X16C	✻	●	●	25	25	132	25	22	47	G1/8	CN**1606**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	CN**1204**	CN**1606**
	h	**16-32**	**16-40**
	Knee lever	L4	L5
	Screw	LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)
	Shim	C12AP	C16AP
	Shim pin (shim)	SP4	SP5
	Wrench	WH30L	WH30L

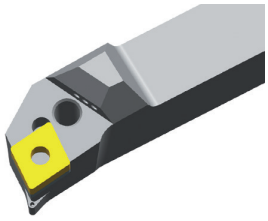
Insert

						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A55	A57	A59	A65	A74	A73	A210

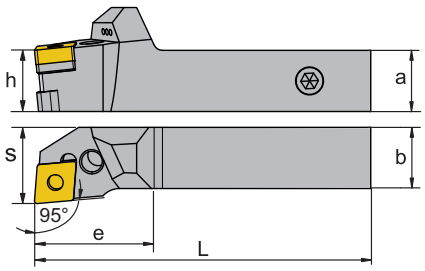
System code A260 Grade selection A46 Technical info A607 Cutting data A414

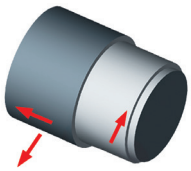
CN** holder (external) P-Clamping

PCLNR/LC Kr: 95°



Right hand style





Article	✲	Stock		Dimensions [mm]							Inserts
		R	L	a	b	L	h	s	e	M	
PCLNR/L2020X12C	✲	●	●	20	20	112	20	27	42	G1/8	CN**1204**
PCLNR/L2525K12C	✲	○		25	25	125	25	32	40	G1/8	CN**1204**
PCLNR/L2525X16C	✲	●	●	25	25	131	25	32	46	G1/8	CN**1606**
PCLNR/L3232X16C	✲		●	32	32	146	32	40	46	G1/8	CN**1606**
PCLNR/L3232X19C	✲	●	●	32	32	153	32	40	53	G1/8	CN**1906**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	CN**1204**	CN**1606**	CN**1906**
	h	16-32	16-40	25-40
	Knee lever	L4	L5	L6
	Screw	LEM8×21 (10.2 Nm)	LEM8×25 (10.2 Nm)	LEM10×27 (16.6 Nm)
	Shim	C12AP	C16AP	C19AP
	Shim pin (shim)	SP4	SP5	SP6
	Wrench	WH30L	WH30L	WH40L

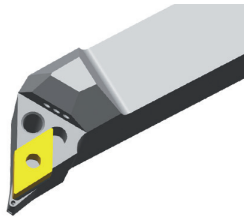
Insert

Wiper	Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A55	A57	A59	A65	A74	A73	A210

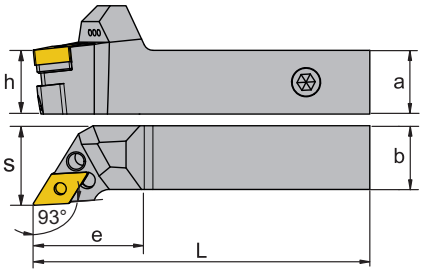
System code A260 Grade selection A46 Technical info A607 Cutting data A414

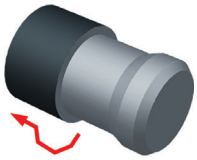
DN** holder (external) P-Clamping

PDJNR/LC Kr: 93°



Right hand style





Article	✲	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	M	Inserts
PDJNR/L2020X11C	✲	●	●	20	20	106	20	27	36	G1/8	DN**1104**
PDJNR/L2525X11C	✲	●	●	25	25	121	25	32	36	G1/8	DN**1104**
PDJNR/L2020X15C	✲	●	●	20	20	115	20	27	45	G1/8	DN**1506**
PDJNR/L2525X15C	✲	●	●	25	25	128	25	32	43	G1/8	DN**1506**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert h	DN**1104** 16-32	DN**1506** 20-40
	Knee lever	L3	L4B
	Screw		LEM8×21 (10.2 Nm)
	Screw	LEM6×13.4A (7.0 Nm)	
	Shim	D11AP	D15AP
	Shim pin (shim)	SP3	SP4
	Wrench	WH25L	WH30L

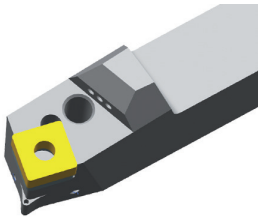
Insert

 Wiper	 Finishing	 Medium Cut	 Roughing	 Cast Iron	 PCBN/PCD
A75	A77	A77	A87	A88	A211

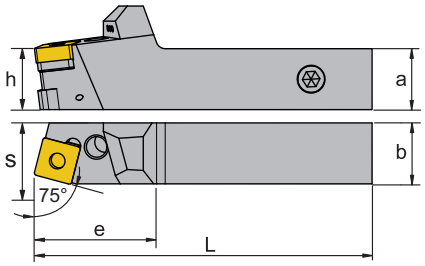
System code A260 Grade selection A46 Technical info A607 Cutting data A414

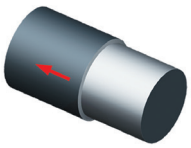
SN** holder (external) P-Clamping

PSBNR/LC Kr: 75°



Right hand style





Article	✻	Stock		Dimensions [mm]							Inserts
		R	L	a	b	L	h	s	e	M	
PSBNR/L2020G12C	✻	○		20	20	90	20	17	38		SN**1204**
PSBNR/L2020X12C	✻	●	●	20	20	112	20	17	42	G1/8	SN**1204**
PSBNR/L2525X12C	✻	●	●	25	25	127	25	22	42	G1/8	SN**1204**
PSBNR/L3232X19C	✻	●	●	32	32	155	32	27	55	G1/8	SN**1906**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SN**1204**	SN**1204**	SN**1906**
	h	20-32	20-40	25-40
	Knee lever	L4	L4	L6
	Screw	LEM8×21 (10.2 Nm)	LEM8×21 (10.2 Nm)	LEM10×27 (16.6 Nm)
	Shim	S12AP	S12AP	S19AP
	Shim pin (shim)	SP4	SP4	SP6
	Wrench	WH30L	WH30L	WH40L

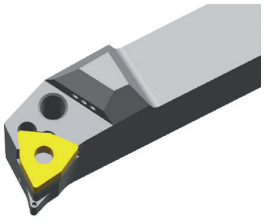
Insert

					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A94	A94	A99	A109	A106	A193

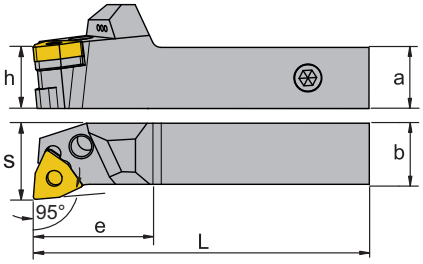
System code A260 Grade selection A46 Technical info A607 Cutting data A414

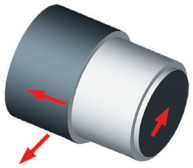
WN** holder (external) P-Clamping

PWLNR/LC Kr: 95°



Right hand style





Article	✲	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	M	Inserts
PWLNR/L2020G06C	✲	○		20	20	90	20	25	38		WN**0604**
PWLNR/L2020X08C	✲	●	●	20	20	112	20	25	42	G1/8	WN**0804**
PWLNR/L2525X08C	✲	●	●	25	25	127	25	31	42	G1/8	WN**0804**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	WN**0604**	WN**0804**
	h	**16-32**	**20-32**
	Knee lever	L3	L4
	Screw		LEM8×21 (10.2 Nm)
	Screw	LEM6×13.4A (7.0 Nm)	
	Shim	W06AP	W08AP
	Shim pin (shim)	SP3	SP4
	Wrench	WH25L	WH30L

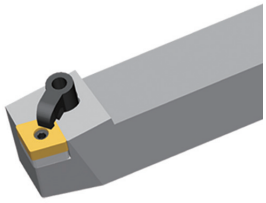
Insert

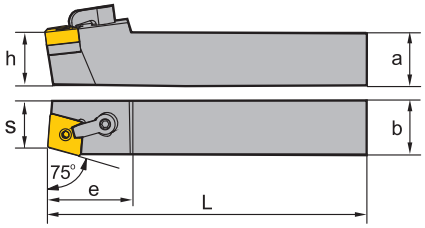
Wiper	Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A128	A129	A129	A131	A134	A133	A196

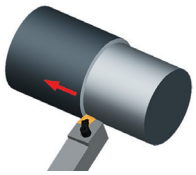
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

CN** holder (external) M-Clamping

MCBNR/L Kr: 75°







Right hand style

Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
MCBNR/L2020K12		●	○	20	20	125	20	17	32	CN**1204**
MCBNR/L2525M12		●	●	25	25	150	20	22	32	CN**1204**
MCBNR/L3225P12		●	●	32	25	170	32	22	32	CN**1204**
MCBNR/L2525M16		○	○	25	25	150	25	22	40	CN**1606**
MCBNR/L3232P16		●	●	32	32	170	32	27	40	CN**1606**
MCBNR/L3232P19		○	○	32	32	170	32	27	45	CN**1906**
MCBNR/L4040R19		○	●	40	40	200	40	35	45	CN**1906**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	CN**1204**	CN**1204**	CN**1606**	CN**1906**
	h	20	25-32	25-32	32-40
	Clamp	C1RD	C1RD	C2RD	C5RD
	Dowel pin	TM6×17	TM6×17	TM8×21	TM10×21
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)	
	Screw (clamp)				DM8×30X (10.2 Nm)
	Shim	C12BM	C12BM	C16BM	C19BM
	Wrench (dowel pin)	WH30L	WH30L	WH30L	WH40L
	Wrench (clamp)	WH30L	WH30L	WH30L	WH40L

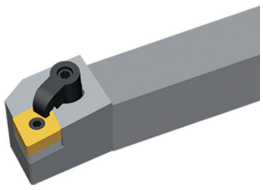
Insert

						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A55	A57	A59	A65	A74	A73	A210

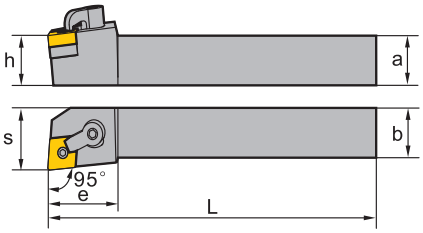
System code A260 | Grade selection A46 | Technical info A607 | Cutting data A414

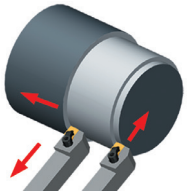
CN** holder (external) M-Clamping

MCLNR/L Kr: 95°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
MCLNR/L2020K12		●	●	20	20	125	20	25	32	CN**1204**
MCLNR/L2525M12		●	●	25	25	150	25	32	32	CN**1204**
MCLNR/L3225P12		●	●	32	25	170	32	32	32	CN**1204**
MCLNR/L3232P12		○		32	32	170	32	40	32	CN**1204**
MCLNR/L2525M16		●	●	25	25	150	25	32	38	CN**1606**
MCLNR/L3232P16		●	●	32	32	170	32	40	38	CN**1606**
MCLNR/L3232P19		●	●	32	32	170	32	40	45	CN**1906**
MCLNR/L4040R19		●	○	40	40	200	40	50	45	CN**1906**
MCLNR/L4040S19		○	○	40	40	250	40	50	45	CN**1906**
MCLNR/L4040S25		○	○	40	40	250	40	50	38	CN**2509**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	CN**1204**	CN**1204**	CN**1606**	CN**1906**	CN**2509**
	h	20	25-32	25-32	32-40	40
	Clamp	C1RD	C1RD	C2RD	C5RD	C6RD
	Dowel pin	TM6×17	TM6×17	TM8×21	TM10×21	TM12×29 (25.2 Nm)
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)		
	Screw (clamp)				DM8×30X (10.2 Nm)	DM10×35X (16.6 Nm)
	Shim	C12BM	C12BM	C16BM	C19BM	
	Shim					C25BM-09
	Wrench (clamp)	WH30L	WH30L	WH30L	WH40L	WH50L
	Wrench (dowel pin)	WH30L	WH30L	WH30L	WH40L	WH40L

System code A260 Grade selection A46 Technical info A607 Cutting data A414

CN** holder (external)

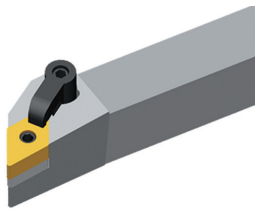
Insert

						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A55	A57	A59	A65	A74	A73	A210

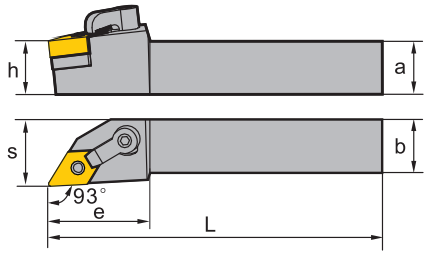
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

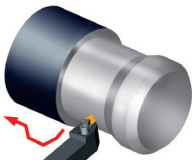
DN** holder (external) M-Clamping

MDJNR/L Kr: 93°



Right hand style





Article	*	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
MDJNR/L2020K11		●	●	20	20	125	20	25	32	DN**1104**
MDJNR/L2525M11		●	●	25	25	150	25	32	32	DN**1104**
MDJNR/L3225P11		●	○	32	25	170	32	32	32	DN**1104**
MDJNR/L2020K15		●	●	20	20	125	20	25	38	DN**1506**
MDJNR/L2525M15		●	●	25	25	150	25	32	38	DN**1506**
MDJNR/L3225P15		●	●	32	25	170	32	32	38	DN**1506**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	DN**1104**	DN**1104**	DN**1506**	DN**1506**
	h	**20**	**25-32**	**20**	**25-32**
	Clamp	C1RD	C1RD	C2RD	C2RD
	Dowel pin	TM5×13	TM5×13	TM6×19	TM6×19
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	D11BM	D11BM	D15BM	D15BM
	Wrench (clamp)	WH30L	WH30L	WH30L	WH30L
	Wrench (dowel pin)	WH20L	WH20L	WH30L	WH30L

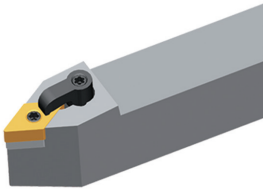
Insert

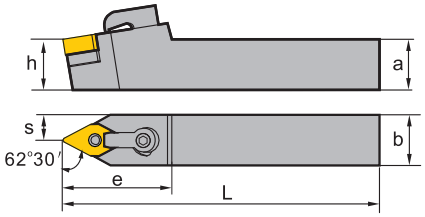
					
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Cast Iron**	**PCBN/PCD**
A75	A77	A77	A87	A88	A211

System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

DN** holder (external) M-Clamping

MDPNN Kr: 62°30'







Article	✻	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
MDPNN2020K11		●	20	20	125	20	10	35	DN**1104**
MDPNN2525M11		●	25	25	150	25	12.5	35	DN**1104**
MDPNN2020K15		●	20	20	125	20	10	40	DN**1506**
MDPNN2525M15		●	25	25	150	25	12.5	40	DN**1506**
MDPNN3225P15		●	32	25	170	32	12.5	40	DN**1506**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DN**1104**	DN**1104**	DN**1506**	DN**1506**
	h	20	25-32	20	25-32
	Clamp	C1RD	C1RD	C2RD	C2RD
	Dowel pin	TM5×13	TM5×13	TM6×19	TM6×19
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	D11BM	D11BM	D15BM	D15BM
	Wrench (clamp)	WH30L	WH30L	WH30L	WH30L
	Wrench (dowel pin)	WH20L	WH20L	WH30L	WH30L

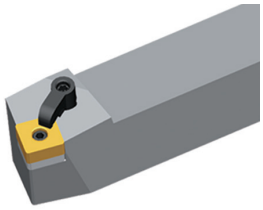
Insert

					
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Cast Iron**	**PCBN/PCD**
A75	A77	A77	A87	A88	A211

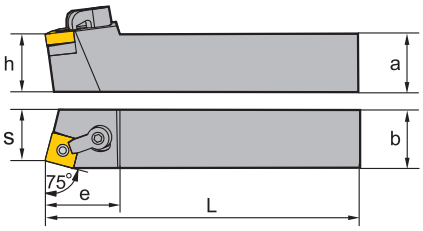
System code A260 Grade selection A46 Technical info A607 Cutting data A414

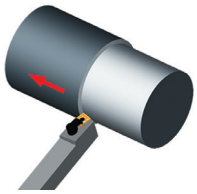
SN** holder (external) M-Clamping

MSBNR/L Kr: 75°



Right hand style





Article	*	Stock R	Stock L	a	b	L	h	s	e	Inserts
MSBNR/L2020K12		●	●	20	20	125	20	17	32	SN**1204**
MSBNR/L2525M12		●	○	25	25	150	25	22	32	SN**1204**
MSBNR/L3225P12			●	32	25	170	32	22	32	SN**1204**
MSBNR/L2525M15		●	○	25	25	150	25	22	38	SN**1506**
MSBNR/L3232P15			●	32	32	170	32	29	38	SN**1506**
MSBNR/L4032R15		○		40	32	200	40	27	38	SN**1506**
MSBNR/L3232P19		●	●	32	32	170	32	27	45	SN**1906**
MSBNR/L4040R19		○		40	40	200	40	35	45	SN**1906**
MSBNR/L4040R25			○	40	40	200	40	35	50	SN**2507**
MSBNR/L4040S2509		○	○	40	40	250	40	35	50	SN**2509**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	SN**1204**	SN**1204**	SN**1506**	SN**1906**	SN**2507**	SN**2509**
	h	**20**	**25-32**	**25-40**	**32-40**	**40**	**40**
	Clamp	C1RD	C1RD	C2RD	C5RD	C6RD	C6RD
	Dowel pin	TM6×17	TM6×17	TM8×21	TM10×21	TM12×29	TM12×29
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)			
	Screw (clamp)				DM8×30X (10.2 Nm)	DM10×35X (16.6 Nm)	DM10×35X (16.6 Nm)
	Shim	S12BM	S12BM	S15BM	S19BM	S25BM	S25BM
	Wrench (clamp)	WH30L	WH30L	WH30L	WH40L	WH40L	WH40L
	Wrench (dowel pin)	WH31L	WH31L	WH30L	WH40L	WH50L	WH50L

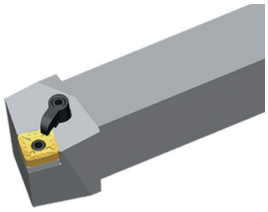
Insert

					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A94	A94	A99	A109	A106	A193

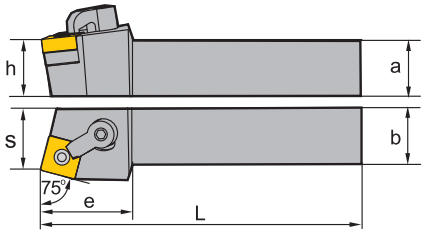
System code A260 Grade selection A46 Technical info A607 Cutting data A414

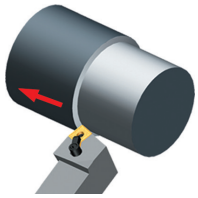
SN** holder (external) M-Clamping

MSRNR/L Kr: 75°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
MSRNR/L2020K12		●		20	20	125	20	22	36	SN**1204**
MSRNR/L2525M12		●		25	25	150	25	27	36	SN**1204**
MSRNR/L3225P12			○	32	25	170	32	27	36	SN**1204**
MSRNR/L2525M15		●	○	25	25	150	25	27	40	SN**1506**
MSRNR/L3232P15		●		32	32	170	32	35	40	SN**1506**
MSRNR/L4032R15		○		40	32	200	40	35	40	SN**1506**
MSRNR/L3232P19		○	○	32	32	170	32	35	45	SN**1906**
MSRNR/L4040R19		○		40	40	200	40	43	45	SN**1906**
MSRNR/L4040R2509		○	○	40	40	200	40	43	50	SN**2509**
MSRNR/L4040S2509		○		40	40	250	40	43	50	SN**2509**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SN**1204**	SN**1204**	SN**1506**	SN**1906**	SN**2509**
	h	20	25-32	25-40	32-40	40
	Clamp	C1RD	C1RD	C2RD	C5RD	C6RD
	Dowel pin	TM6×17	TM6×17	TM8×21	TM10×21	TM12×29
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)		
	Screw (clamp)				DM8×30X (10.2 Nm)	DM10×35X (16.6 Nm)
	Shim	S12BM	S12BM	S15BM	S19BM	S25BM
	Wrench (clamp)	WH30L	WH30L	WH30L	WH40L	WH40L
	Wrench (dowel pin)	WH31L	WH31L	WH30L	WH40L	WH50L

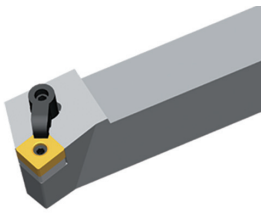
Insert

					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A94	A94	A99	A109	A106	A193

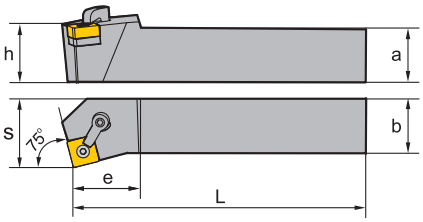
System code A260 Grade selection A46 Technical info A607 Cutting data A414

SN** holder (external) M-Clamping

MSKNR/L Kr: 75°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
MSKNR/L2020K12		●	●	20	20	125	20	25	32	SN**1204**
MSKNR/L2525M12		●	●	25	25	150	25	32	32	SN**1204**
MSKNR/L3225P12		●	○	32	25	170	32	32	32	SN**1204**
MSKNR/L2525M15		●	○	25	25	150	25	32	28	SN**1506**
MSKNR/L3232P15			○	32	32	170	32	40	38	SN**1506**
MSKNR/L4032R15			○	40	32	200	40	40	38	SN**1506**
MSKNR/L3232P19		●	●	32	32	170	32	40	45	SN**1906**
MSKNR/L4040R19		○	○	40	40	200	40	50	45	SN**1906**
MSKNR/L4040S19		●		40	40	250	40	50	45	SN**1906**
MSKNR/L4040S2509		○	●	40	40	250	40	50	50	SN**2509**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SN**1204**	SN**1204**	SN**1506**	SN**1906**	SN**2509**
	h	20	25-32	25-40	32-40	40
	Clamp	C1RD	C1RD	C2RD	C5RD	C6RD
	Dowel pin	TM6×17	TM6×17	TM8×21	TM10×21	TM12×29
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)		
	Screw (clamp)				DM8×30X (10.2 Nm)	DM10×35X (16.6 Nm)
	Shim	S12BM	S12BM	S15BM	S19BM	S25BM
	Wrench (clamp)	WH30L	WH30L	WH30L	WH40L	WH40L
	Wrench (dowel pin)	WH30L	WH30L	WH30L	WH40L	WH50L

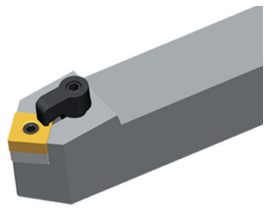
Insert

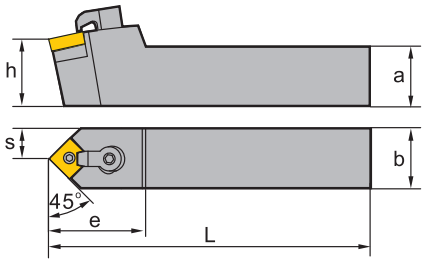
 Finishing	 Medium Cut	 Roughing	 Alum Machining	 Cast Iron	 PCBN/PCD
A94	A94	A99	A109	A106	A193

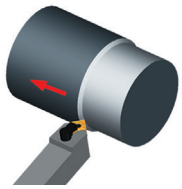
System code A260 Grade selection A46 Technical info A607 Cutting data A414

SN** holder (external) M-Clamping

MSDNN Kr: 45°







Article	✻	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
MSDNN2020K12		●	20	20	125	20	10	35	SN**1204**
MSDNN2525M12		●	25	25	150	25	12.5	35	SN**1204**
MSDNN3225P12		●	32	25	170	32	12.5	35	SN**1204**
MSDNN2525M15		●	25	25	150	25	12.5	42	SN**1506**
MSDNN3232P15		○	32	32	170	32	16	42	SN**1506**
MSDNN4032R15		○	40	32	200	40	16	42	SN**1506**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SN**1204**	SN**1204**	SN**1506**
	h	**20**	**25-32**	**25-40**
	Clamp	C1RD	C1RD	C2RD
	Dowel pin	TM6×17	TM6×17	TM8×21
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	S12BM	S12BM	S15BM
	Wrench (clamp)	WH30L	WH30L	WH30L
	Wrench (dowel pin)	WH30L	WH30L	WH30L

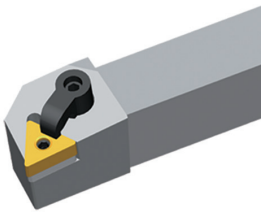
Insert

					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A94	A94	A99	A109	A106	A193

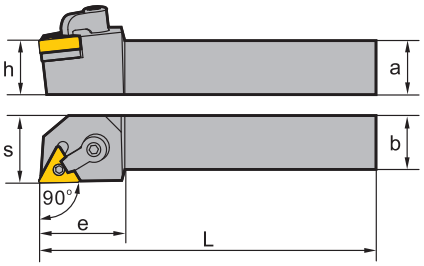
System code A260 Grade selection A46 Technical info A607 Cutting data A414

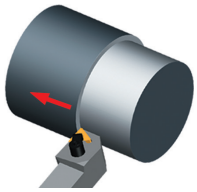
TN** holder (external) M-Clamping

MTGNR/L Kr: 90°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
MTGNR/L2020K16		●	○	20	20	125	20	25	33	TN**1604**
MTGNR/L2525M16		●	●	25	25	150	25	32	33	TN**1604**
MTGNR/L3225P16		●	○	32	25	170	32	32	33	TN**1604**
MTGNR/L2525M22		●	○	25	25	150	25	32	35	TN**2204**
MTGNR/L3225P22		○	○	32	25	170	32	32	35	TN**2204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TN**1604**	TN**1604**	TN**2204**
	h	20	25-32	25-32
	Clamp	C1RD	C1RD	C2RD
	Dowel pin	TM5×13	TM5×13	TM6×17
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	T16BM	T16BM	T22BM
	Wrench (clamp)	WH30L	WH30L	WH30L
	Wrench (dowel pin)	WH20L	WH20L	WH30L

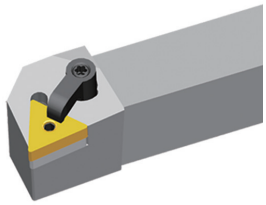
Insert

Wiper	Finishing	Medium Cut	Roughing	Heavy Turning	Cast Iron	PCBN/PCD
A110	A112	A113	A115	A119	A121	A194

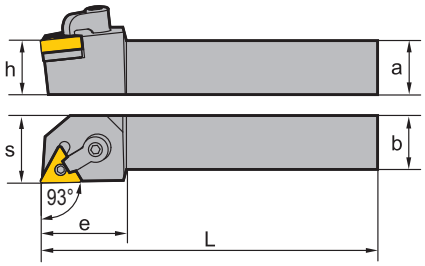
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

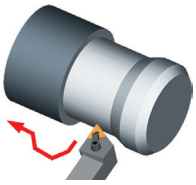
TN** holder (external) M-Clamping

MTJNR/L Kr: 93°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
MTJNR/L2020K16		●		20	20	125	20	25	32	TN**1604**
MTJNR/L2525M16		○	○	25	25	150	25	32	32	TN**1604**
MTJNR/L3225P16		○		32	25	170	32	32	32	TN**1604**
MTJNR/L2525M22		○		25	25	150	25	32	36	TN**2204**
MTJNR/L3225P22		○	●	32	25	170	32	32	36	TN**2204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TN**1604**	TN**1604**	TN**2204**
	h	20	25-32	25-32
	Clamp	C1RD	C1RD	C2RD
	Dowel pin	TM5×13	TM5×13	TM6×17
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	T16BM	T16BM	T22BM
	Wrench (clamp)	WH30L	WH30L	WH30L
	Wrench (dowel pin)	WH20L	WH20L	WH30L

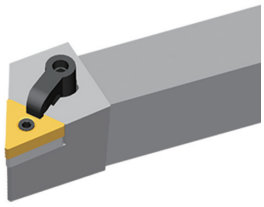
Insert

Wiper	Finishing	Medium Cut	Roughing	Heavy Turning	Cast Iron	PCBN/PCD
A110	A112	A113	A115	A119	A121	A194

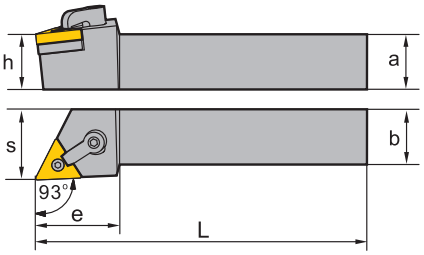
System code A260 Grade selection A46 Technical info A607 Cutting data A414

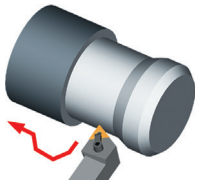
TN** holder (external) M-Clamping

MTJNR/L-Z Kr: 93°



Right hand style





Article	*	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
MTJNR/L2020K16-Z		●	●	20	20	125	20	25	32	TN**1604**
MTJNR/L2525K16-Z		○	●	25	25	125	25	32	32	TN**1604**
MTJNR/L2525M16-Z		●	●	25	25	150	25	32	32	TN**1604**
MTJNR/L3225P16-Z		●	○	32	25	170	32	32	32	TN**1604**
MTJNR/L2525M22-Z		●	●	25	25	150	25	32	36	TN**2204**
MTJNR/L3225P22-Z		●	○	32	25	170	32	32	36	TN**2204**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	TN**1604**	TN**1604**	TN**2204**
	h	20	25-32	25-32
	Clamp	C1RD	C1RD	C2RD
	Dowel pin	TM5×13	TM5×13	TM6×17
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	T16BM	T16BM	T22BM
	Wrench (clamp)	WH30L	WH30L	WH30L
	Wrench (dowel pin)	WH20L	WH20L	WH30L

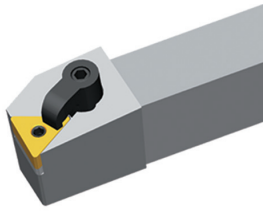
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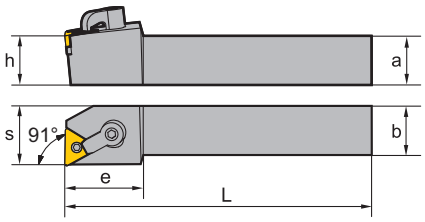
Wiper	Finishing	Medium Cut	Roughing	Heavy Turning	Cast Iron	PCBN/PCD
A110	A112	A113	A115	A119	A121	A194

System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

TN** holder (external) M-Clamping

MTFNR/L Kr: 91°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
MTFNR/L2020K16		●		20	20	125	20	25	32	TN**1604**
MTFNR/L2525M16		●		25	25	150	25	32	32	TN**1604**
MTFNR/L2525M22		●	○	25	25	150	25	32	36	TN**2204**
MTFNR/L3225P22		●	○	32	25	170	32	32	36	TN**2204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TN**1604**	TN**1604**	TN**2204**
	h	20	25-32	25-32
	Clamp	C1RD	C1RD	C2RD
	Dowel pin	TM5×13	TM5×13	TM6×17
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	T16BM	T16BM	T22BM
	Wrench (clamp)	WH30L	WH30L	WH30L
	Wrench (dowel pin)	WH20L	WH20L	WH30L

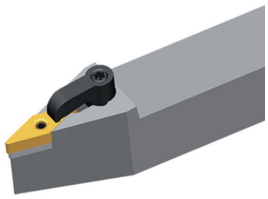
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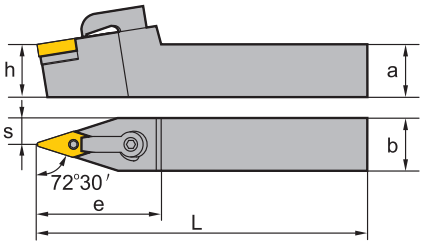
Wiper	Finishing	Medium Cut	Roughing	Heavy Turning	Cast Iron	PCBN/PCD
A110	A112	A113	A115	A119	A121	A194

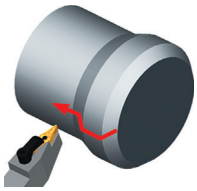
System code A260 Grade selection A46 Technical info A607 Cutting data A414

VN** holder (external) M-Clamping

MVVNN Kr: 72°30'







Article	✻	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
MVVNN2020K16		●	20	20	125	20	10	45	VN**1604**
MVVNN2525M16		●	25	25	150	25	12.5	45	VN**1604**
MVVNN3232P16		●	32	32	170	32	16	45	VN**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VN**1604**	VN**1604**
	h	**20**	**25-32**
	Clamp	C3RD	C3RD
	Dowel pin	TM5×13	TM5×13
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	V16BM	V16BM
	Wrench (clamp)	WH30L	WH30L
	Wrench (dowel pin)	WH20L	WH20L

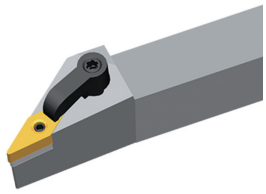
Insert

				
Finishing	**Medium Cut**	**Roughing**	**Cast Iron**	**PCBN/PCD**
A124	A124	A126	A126	A212

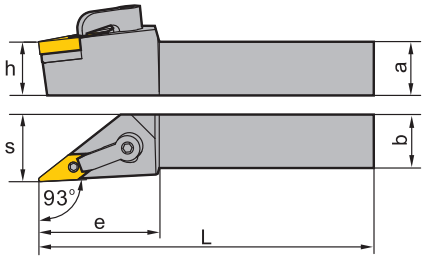
System code A260 Grade selection A46 Technical info A607 Cutting data A414

VN** holder (external) M-Clamping

MVJNR/L Kr: 93°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
MVJNR/L2020K16		●	●	20	20	125	20	25	45	VN**1604**
MVJNR/L2525M16		●	●	25	25	150	25	32	45	VN**1604**
MVJNR/L3225P16		●	●	32	25	170	32	32	45	VN**1604**
MVJNR/L3232P16		●	●	32	32	170	32	40	45	VN**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VN**1604**	VN**1604**
	h	20	25-32
	Clamp	C3RD	C3RD
	Dowel pin	TM5×13	TM5×13
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	V16BM	V16BM
	Wrench (clamp)	WH30L	WH30L
	Wrench (dowel pin)	WH20L	WH20L

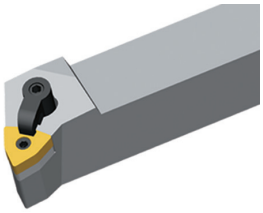
Insert

Finishing	Medium Cut	Roughing	Cast Iron	PCBN/PCD
A124	A124	A126	A126	A212

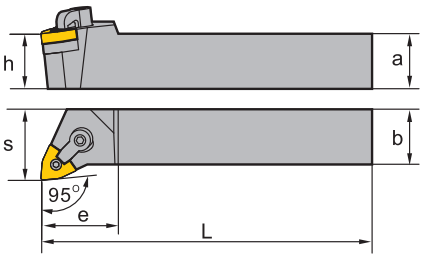
System code A260 Grade selection A46 Technical info A607 Cutting data A414

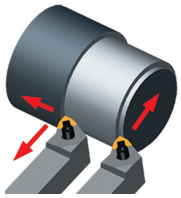
WN** holder (external) M-Clamping

MWLNR/L Kr: 95°



Right hand style





Article	*	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
MWLNR/L2020K06		●	●	20	20	125	20	25	30	WN**0604**
MWLNR/L2525M06		●	●	25	25	150	25	32	30	WN**0604**
MWLNR/L2020K08		●	●	20	20	125	20	25	30	WN**0804**
MWLNR/L2525M08		●	●	25	25	150	25	32	35	WN**0804**
		○		25	25	170	25	32	35	WN**0804**
MWLNR/L3232P08		●	●	32	32	170	32	40	35	WN**0804**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	WN**0604**	WN**0604**	WN**0804**	WN**0804**
	h	20	25	20	25-32
	Clamp	C1RD	C1RD	C1RD	C1RD
	Dowel pin	TM5×13	TM5×13	TM6×17	TM6×17
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	W06BM	W06BM	W08BM	W08BM
	Wrench (clamp)	WH30L	WH30L	WH30L	WH30L
	Wrench (dowel pin)	WH20L	WH20L	WH30L	WH30L

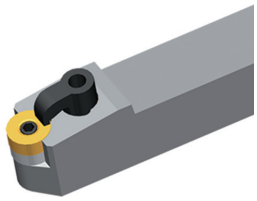
Insert

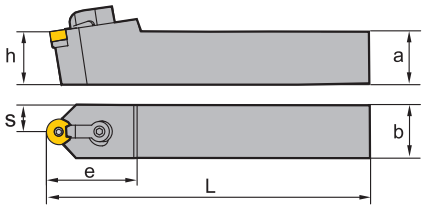
Wiper	Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A128	A129	A129	A131	A134	A133	A196

System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

RN** holder (external) M-Clamping

MRDNN







Right hand style

Article	✻	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
MRDNN2020K12		○	20	20	125	20	10	35	RN**1204**
MRDNN2525M12		○	25	25	150	25	12.5	35	RN**1204**
MRDNN3225P12		○	32	25	170	32	12.5	35	RN**1204**
MRDNN3232P12		○	32	32	170	32	16	35	RN**1204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	RN**1204**	RN**1204**
	h	**20**	**25-32**
	Clamp	C1RD	C1RD
	Dowel pin	TM6×17	TM6×17
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	R12BM	R12BM
	Wrench (clamp)	WH30L	WH30L
	Wrench (dowel pin)	WH30L	WH30L

Insert



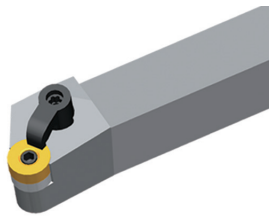
Cast Iron

A135

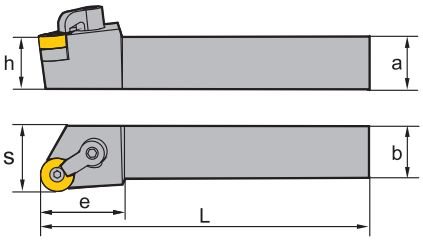
System code A260 Grade selection A46 Technical info A607 Cutting data A414

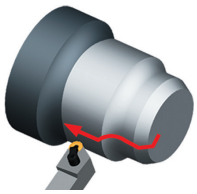
RN** holder (external) M-Clamping

MRGNR/L



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
MRGNR/L2020K12		○	○	20	20	125	20	25	32	RN**1204**
MRGNR/L2525M12		○	●	25	25	150	25	32	32	RN**1204**
MRGNR/L3225P12		○	○	32	25	170	32	32	32	RN**1204**
MRGNR/L3232P12		○		32	32	170	32	40	32	RN**1204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	RN**1204**	RN**1204**
	h	**20**	**25-32**
	Clamp	C1RD	C1RD
	Dowel pin	TM6×17	TM6×17
	Screw (clamp)	DM6×25 (7.0 Nm)	DM6×30 (7.0 Nm)
	Shim	R12BM	R12BM
	Wrench (clamp)	WH30L	WH30L
	Wrench (dowel pin)	WH30L	WH30L

Insert



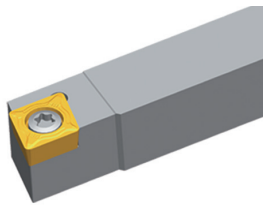
Cast Iron

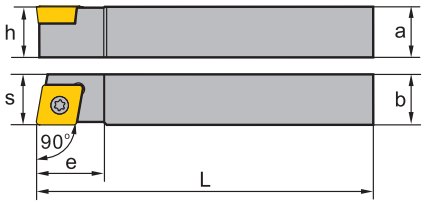
A135

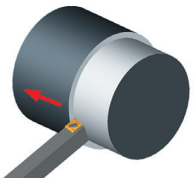
System code A260 Grade selection A46 Technical info A607 Cutting data A414

CC** holder (external) S-Clamping

SCACR/L Kr: 90°







Right hand style

Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
SCACR/L1010E06		●	●	10	10	70	10	10.5	10	CC**0602**
SCACR/L1212F09		●	●	12	12	80	12	12.7	16	CC**09T3**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	CC**0602**	CC**09T3**
	h	**10**	**12**
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)
	Wrench (screw)	WT07IP	WT15IP

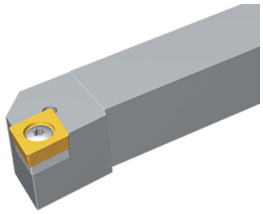
Insert

Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A142	A146	A148	A149	A148	A213

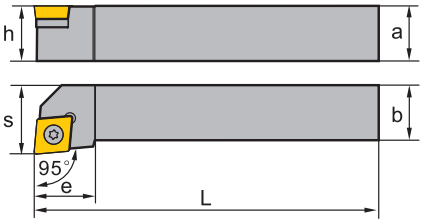
System code A260 Grade selection A46 Technical info A607 Cutting data A414

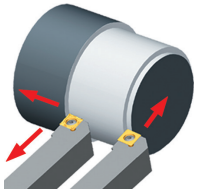
CC** holder (external) S-Clamping

SCLCR/L Kr: 95°



Right hand style





Article	*	Stock R	Stock L	a	b	L	h	s	L_2	e	Inserts
SCLCR/L0808D06		●	●	8	8	60	8	10	10	10	CC**0602**
SCLCR/L1010E06		●	●	10	10	70	10	12	10	10	CC**0602**
SCLCR/L1212F09		●	●	12	12	80	12	16	16	16	CC**09T3**
SCLCR/L1616H09		●	●	16	16	100	16	20	16	16	CC**09T3**
SCLCR/L2020K09		●	●	20	20	125	20	25	25	25	CC**09T3**
SCLCR/L1616H12		●	●	16	16	100	16	20	18	18	CC**1204**
SCLCR/L2020K12		●	●	20	20	125	20	25	25	25	CC**1204**
SCLCR/L2525M12		●	●	25	25	150	25	32	26	26	CC**1204**
SCLCR/L3225P12		○	○	32	25	170	32	32	26	26	CC**1204**
SCLCR/L3232P12		●	●	32	32	170	32	40	28	28	CC**1204**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	CC**0602**	CC**09T3**	CC**1204**
	h	8-10	12-20	16-32
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)	
	Screw			I60M4×11X (3.4 Nm)
	Screw (shim)			SM6×10XA
	Shim			C12BS
	Wrench (screw)	WT07IP	WT15IP	WT15IP
	Wrench (shim)			WH40L

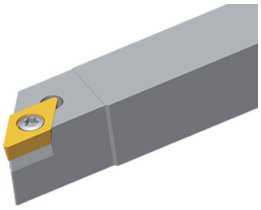
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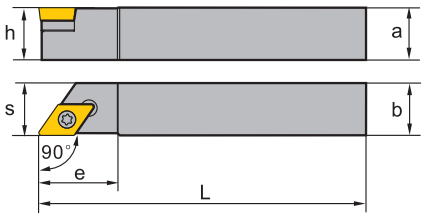
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A142	A146	A148	A149	A148	A213

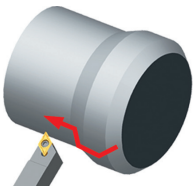
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

DC** holder (external) S-Clamping

SDACR/L Kr: 90°







Right hand style

Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
SDACR/L1010E07		●	●	10	10	70	10	10.5	15	DC**0702**
SDACR/L1212F11		●	●	12	12	80	12	12.5	15	DC**11T3**
SDACR/L1616H11		●	●	16	16	100	16	16.7	24	DC**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DC**0702**	DC**11T3**	DC**11T3**
	h	10	12	16
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)			SM5×8.65XA
	Shim			D11BS
	Wrench (screw)	WT07IP	WT15IP	WT15IP
	Wrench (shim)			WH35L

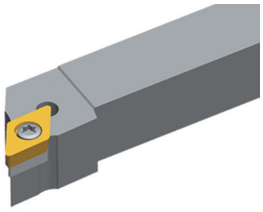
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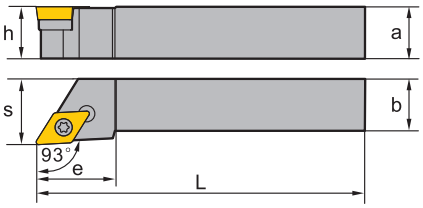
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A155	A156	A158	A158	A158	A217

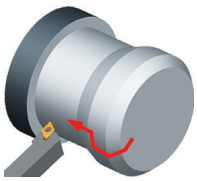
System code A260 Grade selection A46 Technical info A607 Cutting data A414

DC** holder (external) S-Clamping

SDJCR/L Kr: 93°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
SDJCR/L1010E07		●	●	10	10	70	10	12	15	DC**0702**
SDJCR/L1212F07		●	●	12	12	80	12	16	15	DC**0702**
SDJCR/L1212H07		○		12	12	100	12	12	15	DC**0702**
SDJCR/L1616H07		●	●	16	16	100	16	20	18	DC**0702**
SDJCR/L1616H11		●	●	16	16	100	16	20	24	DC**11T3**
SDJCR/L2020K11		●	●	20	20	125	20	25	24	DC**11T3**
SDJCR/L2525M11		●	●	25	25	150	25	32	29	DC**11T3**
SDJCR/L3225P11		●	●	32	25	170	32	32	29	DC**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DC**0702**	DC**11T3**
	h	**10-16**	**16-32**
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)		SM5×8.65XA
	Shim		D11BS
	Wrench (screw)	WT07IP	WT15IP
	Wrench (shim)		WH35L
	Wrench	WT07IP	

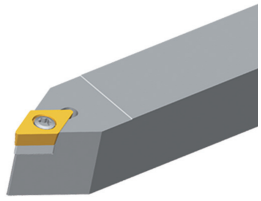
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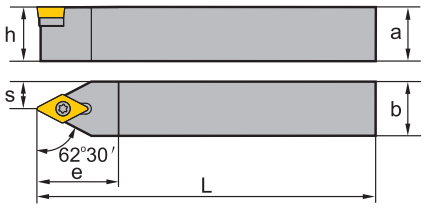
					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A155	A156	A158	A158	A158	A217

System code A260 Grade selection A46 Technical info A607 Cutting data A414

DC** holder (external) S-Clamping

SDNCN Kr: 62°30'







Article	✲	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
SDNCN1010E07		●	10	10	70	10	5	20	DC**0702**
SDNCN1212F07		●	12	12	80	12	6	20	DC**0702**
SDNCN1212H11		●	12	12	100	12	6	30	DC**11T3**
SDNCN1616H11		●	16	16	100	16	8	30	DC**11T3**
SDNCN2020K11		●	20	20	125	20	10	30	DC**11T3**
SDNCN2525M11		●	25	25	150	25	12.5	30	DC**11T3**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	DC**0702**	DC**11T3**	DC**11T3**
	h	10-12	12	16-25
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)			SM5×8.65XA
	Shim			D11BS
	Wrench (screw)	WT07IP	WT15IP	WT15IP
	Wrench (shim)			WH35L

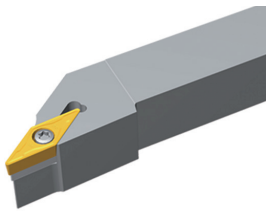
Insert

Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A155	A156	A158	A158	A158	A217

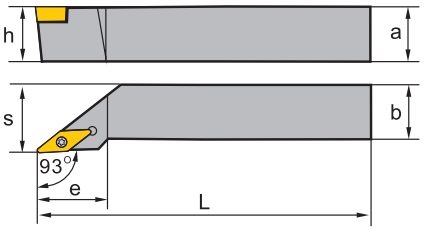
System code A260 Grade selection A46 Technical info A607 Cutting data A414

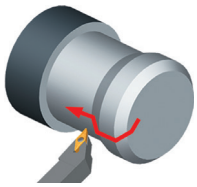
VB** holder (external) S-Clamping

SVJBR/L Kr: 93°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
SVJBR/L1212F1102		●	●	12	12	80	12	16	27	VB**1102**
SVJBR/L1616H1102		●		16	16	100	16	20	27	VB**1102**
SVJBR/L2020K1102		●	●	20	20	125	20	25	27	VB**1102**
SVJBR/L2525M1102		●	●	25	25	150	25	32	27	VB**1102**
SVJBR/L1212F11			●	12	12	80	12	16	27	VB**1103**
SVJBR/L1616H11		●	●	16	16	100	16	20	27	VB**1103**
SVJBR/L2525M11		●	●	25	25	150	25	32	27	VB**1103**
SVJBR/L1616H16		●	●	16	16	100	16	20	36	VB**1604**
SVJBR/L2020K16		●	●	20	20	125	20	25	41	VB**1604**
SVJBR/L2525M16		●	●	25	25	150	25	32	41	VB**1604**
SVJBR/L3225P16		●	●	32	25	170	32	32	41	VB**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VB**1102**	VB**1103**	VB**1604**
	h	10-32	12-25	16-32
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)			SM5×8.65XA
	Shim			V16BS
	Wrench (screw)	WT07IP	WT07IP	WT15IP
	Wrench (shim)			WH35L

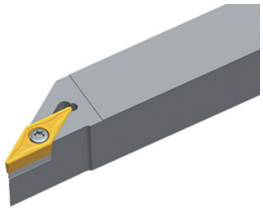
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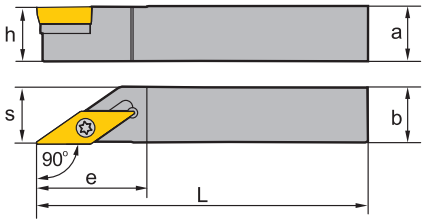
			
Finishing	**Medium Cut**	**Roughing**	**PCBN/PCD**
A177	A180	A181	A224

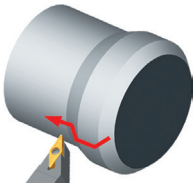
System code A260 Grade selection A46 Technical info A607 Cutting data A414

VB** holder (external) S-Clamping

SVABR/L Kr: 90°







Right hand style

Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
SVABR/L2020K1102		●		20	20	125	20	20.5	32	VB**1102**
SVABR/L1010F11		●	●	10	10	80	10	10.5	28	VB**1103**
SVABR/L1616H16		●	○	16	16	100	16	16.5	28	VB**1604**
SVABR/L2020K16		●	○	20	20	125	20	20.5	28	VB**1604**
SVABR/L2525M16		●	●	25	25	150	25	25.5	28	VB**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VB**1102**	VB**1103**	VB**1604**
	h	10-32	10	16-32
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)			SM5×8.65XA
	Shim			V16BS
	Wrench (screw)	WT07IP	WT07IP	WT15IP
	Wrench (shim)			WH35L

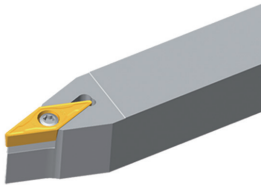
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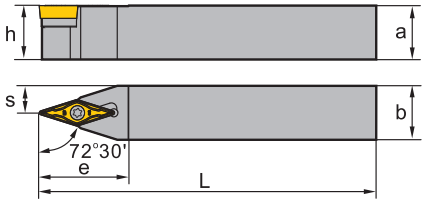
Finishing	Medium Cut	Roughing	PCBN/PCD
A177	A180	A181	A224

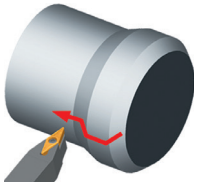
System code A260 Grade selection A46 Technical info A607 Cutting data A414

VB** holder (external) S-Clamping

SVVBN Kr: 72°30'







Article	✻	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
SVVBN1212F1102		●	12	12	80	12	6	27	VB**1102**
SVVBN2020K1102		●	20	20	125	20	10	30	VB**1102**
SVVBN1616H11		●	16	16	100	16	8	27	VB**1103**
SVVBN2020K11		●	20	20	125	20	10	30	VB**1103**
SVVBN1616H16		●	16	16	100	16	8	33	VB**1604**
SVVBN2020K16		●	20	20	125	20	10	33	VB**1604**
SVVBN2525M16		●	25	25	150	25	12.5	38	VB**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VB**1102**	VB**1103**	VB**1604**
	h	10-32	12-25	16-32
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)			SM5×8.65XA
	Shim			V16BS
	Wrench (screw)	WT07IP	WT07IP	WT15IP
	Wrench (shim)			WH35L

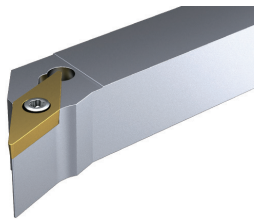
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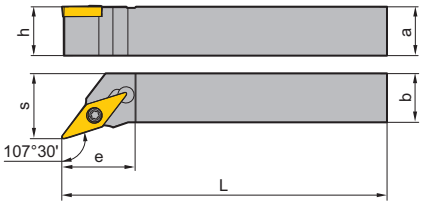
			
Finishing	**Medium Cut**	**Roughing**	**PCBN/PCD**
A177	A180	A181	A224

System code A260 Grade selection A46 Technical info A607 Cutting data A414

VB** holder (external)

SVHBR/L Kr: 107°30'





Right hand style

Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
SVHBR/L1212F1102		○	○	12	12	80	12	16	18	VB**1102**
SVHBR/L1616H1102			○	16	16	100	16	20	20	VB**1102**
SVHBR/L2020K1102		○	○	20	20	125	20	25	25	VB**1102**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	**VB**1102****
	h	**10-32**
	Screw	I60M2.5×6.5 (1.0 Nm)
	Wrench (screw)	WT07IP

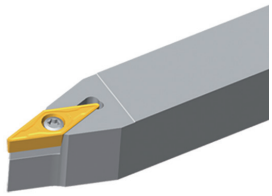
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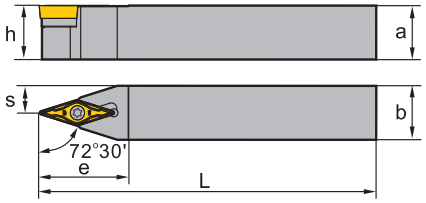
	
Finishing	**PCBN/PCD**
A177	A203

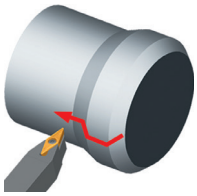
A Turning
B Milling
C Drilling
D Technical Information
E Index

VC** holder (external) S-Clamping

SVVCN Kr: 72°30'







Article	✻	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
SVVCN1212F11		●	12	12	80	12	6	27	VC**1103**
SVVCN1616H11		●	16	16	100	16	8	27	VC**1103**
SVVCN2020K11		●	20	20	125	20	10	30	VC**1103**
SVVCN1212M11		●	12	12	150	12	6	27	VC**1103**
SVVCN2525M11		●	25	25	150	25	12.5	38	VC**1103**
SVVCN1616H16		●	16	16	100	16	8	33	VC**1604**
SVVCN2020K16		●	20	20	125	20	10	33	VC**1604**
SVVCN2525M16		●	25	25	150	25	12.5	38	VC**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VC**1103**	VC**1604**
	h	12-25	16-32
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)		SM5×8.65XA
	Shim		V16BSC
	Wrench (screw)	WT07IP	WT15IP
	Wrench (shim)		WH35L

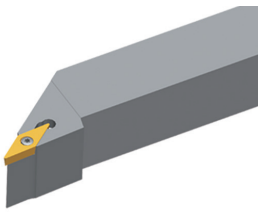
Insert

			
Finishing	**Medium Cut**	**Alum Machining**	**PCBN/PCD**
A186	A187	A184	A226

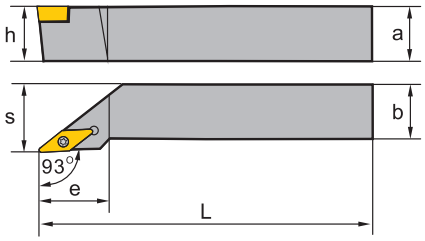
System code A260 Grade selection A46 Technical info A607 Cutting data A414

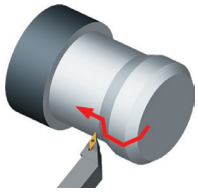
VC** holder (external) S-Clamping

SVJCR/L Kr: 93°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
SVJCR/L2020M11		●	●	20	20	150	20	25	27	VC**1103**
SVJCR/L1010E11		●		10	10	70	10	12	22	VC**1103**
SVJCR/L1212F11		●	●	12	12	80	12	16	27	VC**1103**
SVJCR/L1616H11		●	●	16	16	100	16	20	27	VC**1103**
SVJCR/L2020K11		●	●	20	20	125	20	25	27	VC**1103**
SVJCR/L1010M11			●	10	10	150	10	12	22	VC**1103**
SVJCR/L1212M11		●		12	12	150	12	16	27	VC**1103**
SVJCR/L2525M11		●	●	25	25	150	25	32	27	VC**1103**
SVJCR/L1616H16		●	●	16	16	100	16	20	36	VC**1604**
SVJCR/L2020K16		●	●	20	20	125	20	25	41	VC**1604**
SVJCR/L1616M16		●	●	16	16	150	16	20	36	VC**1604**
SVJCR/L2020M16		●	●	20	20	150	20	25	41	VC**1604**
SVJCR/L2525M16		●	●	25	25	150	20	32	41	VC**1604**
SVJCR/L3225P16		○	○	32	25	170	32	32	41	VC**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VC**1103**	VC**1604**
	h	10-25	16-32
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)		SM5×8.65XA
	Shim		V16BSC
	Wrench (screw)	WT07IP	WT15IP
	Wrench (shim)		WH35L

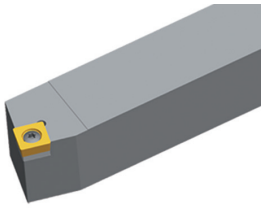
Insert

Finishing	Medium Cut	Alum Machining	PCBN/PCD
A186	A187	A184	A226

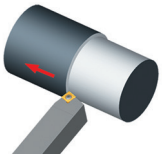
System code A260 Grade selection A46 Technical info A607 Cutting data A414

SC** steel boring bar S-Clamping

SSBCR/L Kr: 75°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
SSBCR/L1212F09		●	●	12	12	80	12	11	16	SC**09T3**
SSBCR/L1616H09		●	●	16	16	100	16	13	16	SC**09T3**
SSBCR/L2020K12		●	●	20	20	125	20	17	25	SC**1204**
SSBCR/L2525M12			●	25	25	150	25	22	25	SC**1204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SC**09T3**	SC**09T3**	SC**1204**
	h	12	16	20-25
	Screw	I60M3.5×8 (2.7 Nm)	I60M3.5×8 (2.7 Nm)	
	Screw			I60M4×11X (3.4 Nm)
	Screw (shim)		SM5×8.65XA	
	Screw (shim)			SM6×10XA
	Shim		S09BS	S12BS
	Wrench (screw)	WT15IP	WT15IP	WT15IP
	Wrench (shim)		WH35L	WH40L

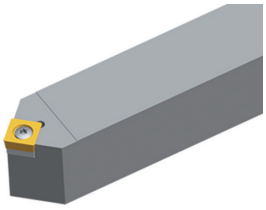
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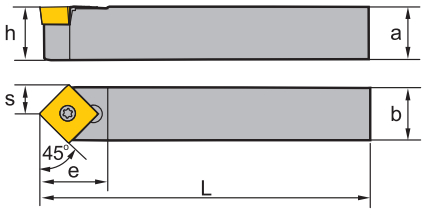
			
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**
A163	A164	A165	A165

System code A260 Grade selection A46 Technical info A607 Cutting data A414

SC** steel boring bar S-Clamping

SSDCN Kr: 45°







Right hand style

Article	✲	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
SSDCN1212F09		●	12	12	80	12	6	15.5	SC**09T3**
SSDCN1616H09		●	16	16	100	16	8	15.5	SC**09T3**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	SC**09T3**	SC**09T3**
	h	12	16
	Screw	I60M3.5×8 (2.7 Nm)	I60M3.5×8 (2.7 Nm)
	Screw (shim)		SM5×8.65XA
	Shim		S09BS
	Wrench (screw)	WT15IP	WT15IP
	Wrench (shim)		WH35L

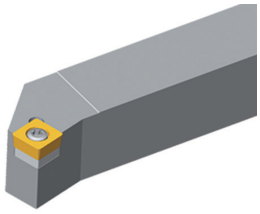
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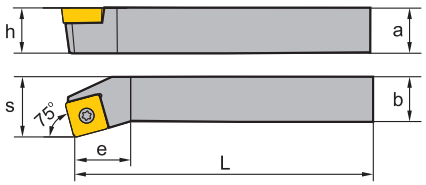
Finishing	Medium Cut	Roughing	Alum Machining
A163	A164	A165	A165

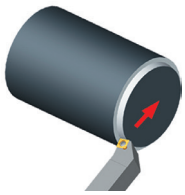
System code A260 Grade selection A46 Technical info A607 Cutting data A414

SC** steel boring bar S-Clamping

SSKCR/L Kr: 75°







Right hand style

Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
SSKCR/L1616H09		●	●	16	16	100	16	20	13	SC**09T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SC**09T3**
	h	**16**
	Screw	I60M3.5×8 (2.7 Nm)
	Screw (shim)	SM5×8.65XA
	Shim	S09BS
	Wrench (screw)	WT15IP
	Wrench (shim)	WH35L

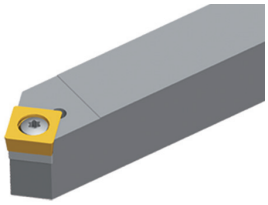
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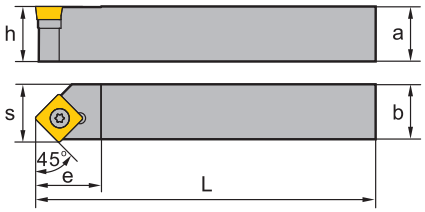
Finishing	Medium Cut	Roughing	Alum Machining
A163	A164	A165	A165

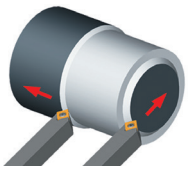
System code A260 Grade selection A46 Technical info A607 Cutting data A414

SC** steel boring bar S-Clamping

SSSCR/L Kr: 45°







Right hand style

Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
SSSCR/L1616H09		●	●	16	16	100	16	17	17	SC**09T3**
SSSCR/L2020K12		●	●	20	20	125	20	21	21	SC**1204**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	SC**09T3**	SC**1204**
	h	16	20
	Screw	I60M3.5×12 (2.7 Nm)	
	Screw		I60M4×11X (3.4 Nm)
	Screw (shim)		SM6×10XA
	Shim		S12BS
	Wrench (screw)	WT15IP	WT15IP
	Wrench (shim)		WH40L

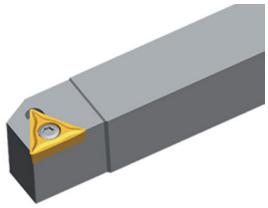
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Finishing	Medium Cut	Roughing	Alum Machining
A163	A164	A165	A165

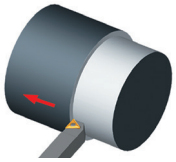
System code A260 Grade selection A46 Technical info A607 Cutting data A414

TC** holder (external) S-Clamping

STACR/L Kr: 90°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
STACR/L1212F11		●	●	12	12	80	12	12.5	14	TC**1102**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TC**1102**
	h	**12**
	Screw	I60M2.5×6.5 (1.0 Nm)
	Wrench (screw)	WT07IP

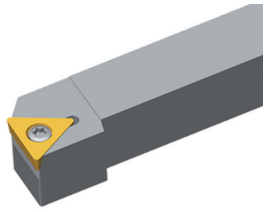
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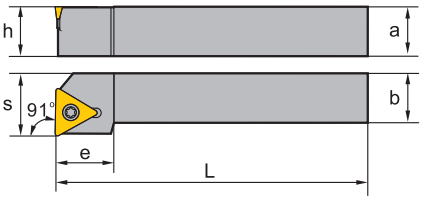
 Finishing	 Medium Cut	 Roughing	 Alum Machining	 PCBN/PCD
A170	A171	A172	A174	A220

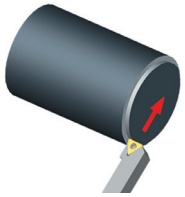
System code A260 Grade selection A46 Technical info A607 Cutting data A414

TC** holder (external) S-Clamping

STFCR/L Kr: 91°







Right hand style

Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
STFCR/L1212F11		●	○	12	12	80	12	16	14	TC**1102**
STFCR/L1616H11		●	○	16	16	100	16	20	14	TC**1102**
STFCR/L1616H16		●	○	16	16	100	16	20	19	TC**16T3**
STFCR/L2020K16		●	●	20	20	125	20	25	19	TC**16T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TC**1102**	TC**16T3**
	h	12-16	16-20
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)		SM5×8.65XA
	Shim		T16BS
	Wrench (screw)	WT07IP	WT15IP
	Wrench (shim)		WH35L

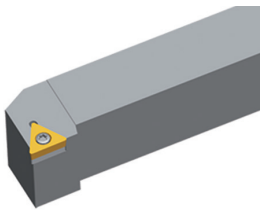
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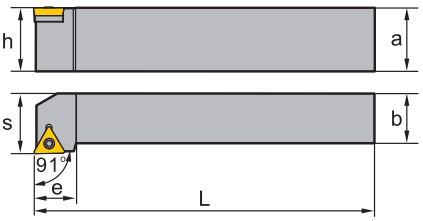
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A170	A171	A172	A174	A172	A220

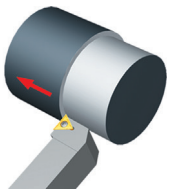
System code A260 Grade selection A46 Technical info A607 Cutting data A414

TC** holder (external) S-Clamping

STGCR/L Kr: 91°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
STGCR/L1010E09			○	10	10	70	10	12	11	TC**0902**
STGCR/L1212F11		●	●	12	12	80	12	16	14	TC**1102**
STGCR/L1616H11		●	●	16	16	100	16	20	16	TC**1102**
STGCR/L2020K16		●	●	20	20	125	20	25	21	TC**16T3**
STGCR/L2525M16		●	●	25	25	150	25	25	21	TC**16T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TC**0902**	TC**1102**	TC**16T3**
	h	8-10	12-16	20-25
	Screw	I60M2.2×5.5 (0.8 Nm)	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)			SM5×8.65XA
	Shim			T16BS
	Wrench (screw)	WT06IP	WT07IP	WT15IP
	Wrench (shim)			WH35L

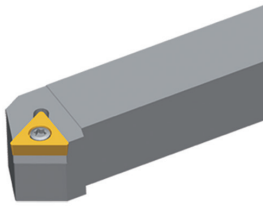
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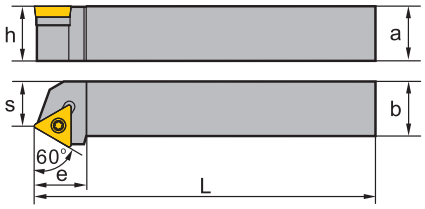
 Finishing	 Medium Cut	 Roughing	 Alum Machining	 Cast Iron	 PCBN/PCD
A170	A171	A172	A174	A172	A220

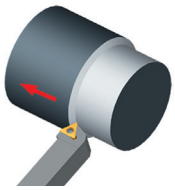
System code A260 Grade selection A46 Technical info A607 Cutting data A414

TC** holder (external) S-Clamping

STTCR/L Kr: 60°







Right hand style

Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
STTCR/L1616H11		●	○	16	16	100	16	13	14	TC**1102**
STTCR/L1616H16		●		16	16	100	16	13	19	TC**16T3**
STTCR/L2020K16		●	●	20	20	125	20	17	19	TC**16T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TC**1102**	TC**16T3**
	h	**16**	**16-20**
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)		SM5×8.65XA
	Shim		T16BS
	Wrench (screw)	WT07IP	WT15IP
	Wrench (shim)		WH35L

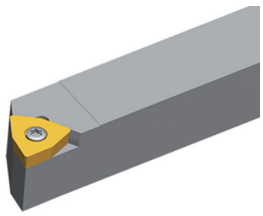
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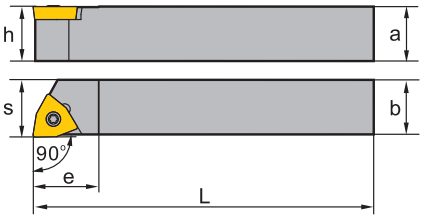
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A170	A171	A172	A174	A172	A220

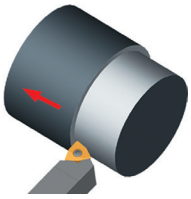
System code A260 Grade selection A46 Technical info A607 Cutting data A414

WC** holder (external) S-Clamping

SWACR/L Kr: 90°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
SWACR/L1010E04		●	○	10	10	70	10	10.5	10	WC**0402**
SWACR/L1212F04		●		12	12	80	12	12	14	WC**0402**
SWACR/L1616H06		●	●	16	16	100	16	16.5	20	WC**06T3**
SWACR/L2020K08		●	●	20	20	125	20	20.5	24	WC**0804**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	WC**0402**	WC**06T3**	WC**0804**
	h	**10-12**	**16**	**20**
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3×7 (1.8 Nm)	I60M3.5×12 (2.7 Nm)
	Wrench (screw)	WT07IP	WT10IP	WT15IP

Insert



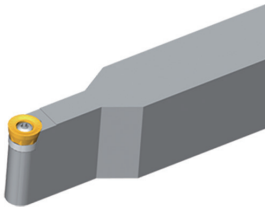
Medium Cut

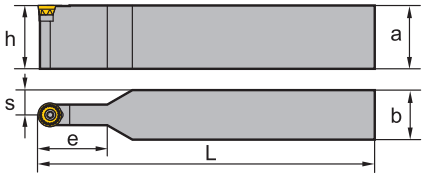
C28

System code A260 Grade selection A46 Technical info A607 Cutting data A414

RC** holder (external) S-Clamping

SRDCN







Article	✻	Stock	Dimensions [mm]						Inserts	
			a	b	L	h	s	e		
SRDCN1616H08		○	16	16	100	16	8	16	RCGX0803MO	RCMT0803MO
SRDCN2020K08		●	20	20	125	20	10	16	RCGX0803MO	RCMT0803MO
SRDCN2020K12		●	20	20	125	20	10	35	RCGX1204MO	RCMT1204MO
SRDCN2020M12		●	20	20	150	20	10	35	RCGX1204MO	
SRDCN2525M12		●	25	25	150	25	12.5	35	RCGX1204MO	RCMT1204MO
SRDCN3225P12		●	32	25	170	32	12.5	35	RCGX1204MO	RCMT1204MO
SRDCN2020K10		●	20	20	125	20	10	25	RCMT10T3MO	
SRDCN2525M10		●	25	25	150	25	12.5	25	RCMT10T3MO	
SRDCN3225P16		●	32	25	170	32	12.5	35	RCMT1606MO	
SRDCN3232P16		●	32	32	170	32	16	40	RCMT1606MO	
SRDCN4040S16		●	40	40	250	40	20	50	RCMT1606MO	
SRDCN3232P20		●	32	32	170	32	16	40	RCMT2006MO	
SRDCN4040S20		●	40	40	250	40	20	50	RCMT2006MO	

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	RCGX0803MO	RCGX1204MO	RCMT10T3MO	RCMT1606MO	RCMT2006MO
	h	16-20	20-32	20-25	32-40	32-40
	Screw	I60M3×7 (1.8 Nm)	I60M3.5×12 (2.7 Nm)	I60M3.5×10 (2.7 Nm)		I43M6×16 (9.1 Nm)
	Screw				I60M4×15X (3.4 Nm)	
	Screw (shim)		SM5×8.65XA			
	Screw (shim)				SM6×10XA	
	Shim		R12BS		R16BS	
	Wrench (screw)	WT10IP	WT15IP	WT15IP	WT15IP	
	Wrench (screw)					WT25IT
	Wrench (shim)		WH35L		WH40L	

System code A260 Grade selection A46 Technical info A607 Cutting data A414

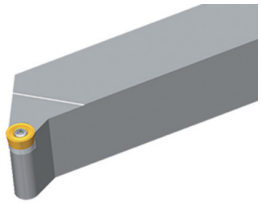
RC** holder (external)

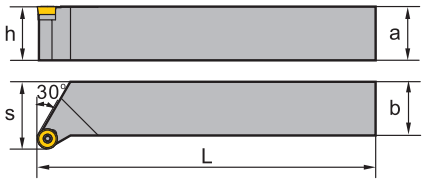
Insert	
	
Alum Machining	**Cast Iron**
A161 B108 B112	A161

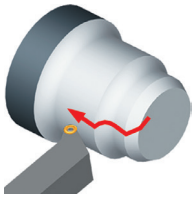
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

RC** holder (external) S-Clamping

SRGCR/L







Right hand style

Article	✻	Stock		Dimensions [mm]					Inserts	
		R	L	a	b	L	h	s		
SRGCR/L1616H08		●	●	16	16	100	16	20	RCGX0803MO-LH	RCMT0803MO
SRGCR/L2020K12		●	○	20	20	125	20	27	RCGX1204MO	RCMT1204MO
SRGCR/L2525M12		●	○	25	25	150	25	32	RCGX1204MO	RCMT1204MO
SRGCR/L2525M10		●	○	25	25	100	25	32	RCMT10T3MO	
SRGCR/L2020K10		●	○	20	20	125	20	25	RCMT10T3MO	

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	RCGX0803MO-LH	RCGX1204MO	RCMT10T3MO
	h	**16**	**20-25**	**16-25**
	Screw	I60M3.5×10 (2.7 Nm)	I60M3.5×12 (2.7 Nm)	I60M3.5×10 (2.7 Nm)
	Screw (shim)		SM5×8.65XA	
	Shim		R12BS	
	Wrench (screw)	WT15IP	WT15IP	WT15IP
	Wrench (shim)		WH35L	

Insert

 **Alum Machining**	 **Cast Iron**
A161 B108 B112	A161

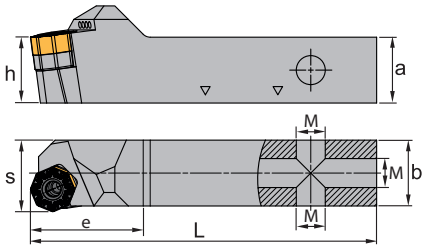
System code A260 Grade selection A46 Technical info A607 Cutting data A414

ON** holder (external) S-Clamping

SOXNR/L Kr: 23°



Right hand style



Article	✲	Stock R	Stock L	a	b	L	h	s	e	M	Inserts
SOXNL2020X05C	✲		●	20	20	105	20	21.7	35	G1/8	ONMX0505
SOXNR2020X05C	✲	●		20	20	105	20	21.7	35	G1/8	ONMX0505
SOXNL2525X05C	✲		●	25	25	120	25	26.7	35	G1/8	ONMX0505
SOXNR2525X05C	✲	●		25	25	120	25	26.7	35	G1/8	ONMX0505

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	ONMX0505	ONMX0505
	h	20	25
	Grub screw	PT1/8×7	PT1/8×7
	Screw	I60M4×15 (3.4 Nm)	I60M4×15 (3.4 Nm)
	Shim	O05BM	O05BM
	Wrench (screw)	WT15IP	WT15IP
	Wrench (shim)	WH50L	WH50L

Insert



Finishing

A136

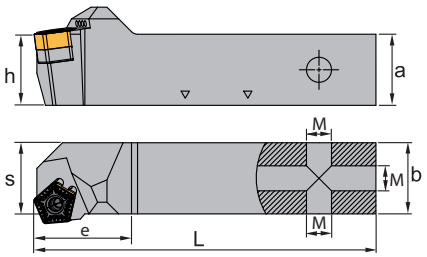
System code A260 Grade selection A46 Technical info A607 Cutting data A414

PN** holder (external) S-Clamping

SPXNR/L Kr: 23°



Right hand style



Article	✻	Stock R	Stock L	a	b	L	h	s	e	M	Inserts
SPXNL2525X09C	✻		●	25	25	120	25	28.4	35	G1/8	PNMX0905
SPXNR2525X09C	✻	●		25	25	120	25	28.4	35	G1/8	PNMX0905
SPXNL3225X09C	✻		●	32	25	135	32	28.4	35	G1/8	PNMX0905
SPXNR3225X09C	✻	●		32	25	135	32	28.4	35	G1/8	PNMX0905

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	PNMX0905	PNMX0905
	h	25	32
	Grub screw	PT1/8×7	PT1/8×7
	Screw	I60M4×15 (3.4 Nm)	I60M4×15 (3.4 Nm)
	Shim	P09BM	P09BM
	Wrench (screw)	WT15IP	WT15IP
	Wrench (shim)	WH50L	WH50L

Insert

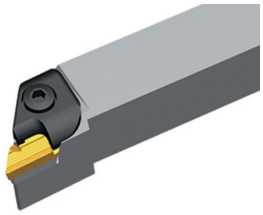
Medium Cut

A137

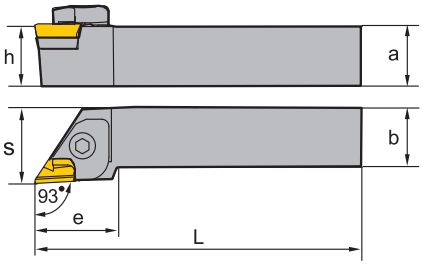
System code A260 Grade selection A46 Technical info A607 Cutting data A414

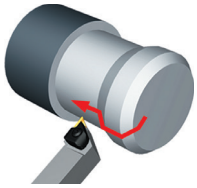
KNUX** holder C-Clamping

CKJNR/L Kr: 93°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts
CKJNL2525M16			●	25	25	150	25	32	32	KNUX1604**L
CKJNL3232P16			●	32	32	170	32	40	32	KNUX1604**L
CKJNL4040R16			●	40	40	200	40	50	32	KNUX1604**L
CKJNR2525M16		●		25	25	150	25	32	32	KNUX1604**R
CKJNR3232P16		●		32	32	170	32	40	32	KNUX1604**R
CKJNR4040R16		○		40	40	200	40	50	32	KNUX1604**R

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	KNUX1604**L	KNUX1604**R
	h	25-40	25-40
	Clamp	C6L1T	C6R1T
	Dowel pin	P0515	P0515
	Screw (clamp)	CM6×25A (7.0 Nm)	CM6×25A (7.0 Nm)
	Screw (shim)	SM3×10B	SM3×10B
	Shim		K16CC
	Shim	K16CCL	
	Spring (clamp)	SPR1	SPR1
	Spring (dowel pin)	SPR2	SPR2
	Wrench (clamp)	WH40L	WH40L
	Wrench (shim)	WH20L	WH20L

Insert

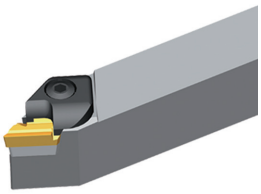


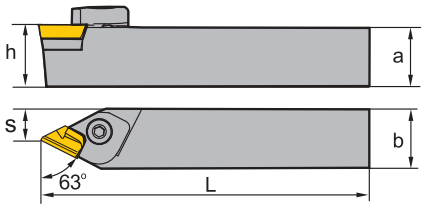
Finishing
A140

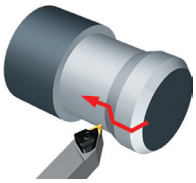
System code > A260 Grade selection > A46 Technical info > A607 Cutting data > A414

KNUX** holder C-Clamping

CKNNR/L Kr: 63°







Right hand style

Article	✲	Stock		Dimensions [mm]					Inserts
		R	L	a	b	L	h	s	
CKNNL2525M16			●	25	25	150	25	14.3	KNUX1604**L
CKNNR2525M16		●		25	25	150	25	14.3	KNUX1604**R

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	KNUX1604**L	KNUX1604**R
	h	25-32	25-32
	Clamp	C6L1T	C6R1T
	Dowel pin	P0515	P0515
	Screw (clamp)	CM6×25A (7.0 Nm)	CM6×25A (7.0 Nm)
	Screw (shim)	SM3×10B	SM3×10B
	Shim		K16CC
	Shim	K16CCL	
	Spring (clamp)	SPR1	SPR1
	Spring (dowel pin)	SPR2	SPR2
	Wrench (clamp)	WH40L	WH40L
	Wrench (shim)	WH20L	WH20L

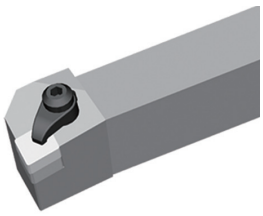
Insert

Finishing
A140

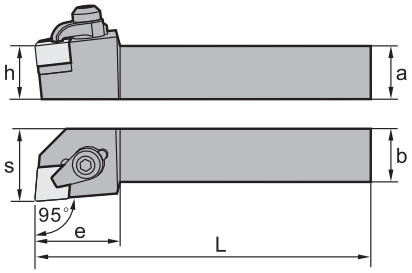
System code A260 Grade selection A46 Technical info A607 Cutting data A414

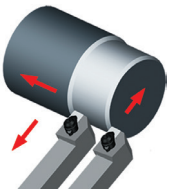
CN** holder (external) C-Clamping

CCLNR/L Kr: 95°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts	
		R	L	a	b	L	h	s	e		
CCLNR/L2020K12		○	○	20	20	125	20	27	32	CNGN1204**	CNGN1207**
CCLNR/L2525M12		○	●	25	20	100	25	27	36	CNGN1204**	CNGN1207**
CCLNR/L2525M16			○	25	25	150	25	32	36	CNGN1604**	CNGN1606**
CCLNR/L3225P16		○	○	32	25	170	32	32	36	CNGN1604**	CNGN1606**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	CNGN1204**	CNGN1207**	CNGN1604**	CNGN1606**
	h	20-25	20-25	25-32	25-32
	Clamp	C1RC	C1RC	C2RC	C2RC
	Screw (clamp)	CM6×30B (7.0 Nm)	CM6×30B (7.0 Nm)	CM8×30B (10.2 Nm)	CM8×30B (10.2 Nm)
	Screw (shim)	SM3×10B	SM3×10B	SM4×12B	SM4×12B
	Shim	C12CC-04	C12CC-07	C16CC-04	C16CC-06
	Spring	SPR1	SPR1	SPR3	SPR3
	Wrench (clamp)	WH40L	WH40L	WH50L	WH50L
	Wrench (shim)	WH20L	WH20L	WH30L	WH30L

Insert



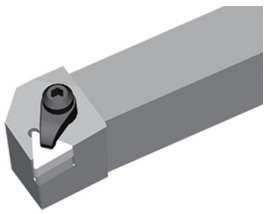
PCBN/PCD

A205

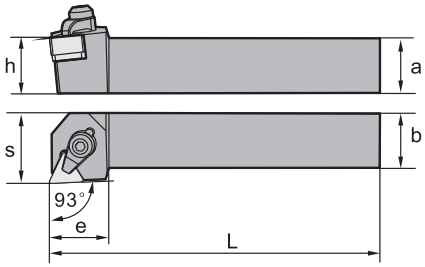
System code A260 Grade selection A46 Technical info A607 Cutting data A414

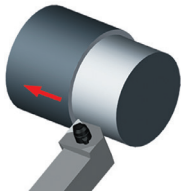
TN** holder (external) C-Clamping

CTJNR/L Kr: 93°



Right hand style





Article	✲	Stock		Dimensions [mm]						Inserts	
		R	L	a	b	L	h	s	e		
CTJNR/L2020K16		○	○	20	20	125	20	25	30	TNGN1604**	TNGN1607**
CTJNR/L2525M16		○	○	25	25	150	25	32	30	TNGN1604**	TNGN1607**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	TNGN1604**	TNGN1607**
	h	20-25	20-25
	Clamp	C1RC	C1RC
	Screw (clamp)	CM6×30B (7.0 Nm)	CM6×30B (7.0 Nm)
	Screw (shim)	SM3×10B	SM3×10B
	Shim	T16CC-04	T16CC-07
	Spring	SPR1	SPR1
	Wrench (clamp)	WH40L	WH40L
	Wrench (shim)	WH20L	WH20L

Insert



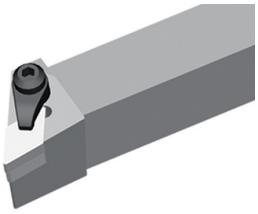
Medium Cut

A247

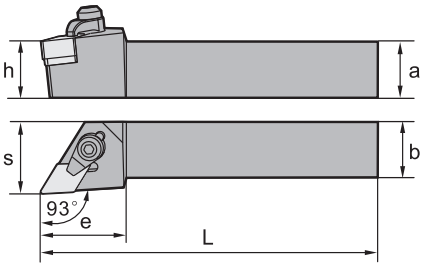
System code A260 Grade selection A46 Technical info A607 Cutting data A414

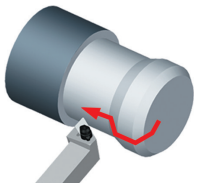
DN** holder (external) C-Clamping

CDJNR/L Kr: 93°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts	
CDJNR/L2525M15		●	●	25	25	150	25	32	32	DNGN1504**	DNGN1507**
CDJNR/L3225P15		○	○	32	25	170	32	32	32	DNGN1504**	DNGN1507**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DNGN1504**	DNGN1507**
	h	25-32	25-32
	Clamp	C1RC	C1RC
	Screw (clamp)	CM6×30B (7.0 Nm)	CM6×30B (7.0 Nm)
	Screw (shim)	SM3×10B	SM3×10B
	Shim	D15CC-04	D15CC-07
	Spring	SPR1	SPR1
	Wrench (clamp)	WH40L	WH40L
	Wrench (shim)	WH20L	WH20L

Insert



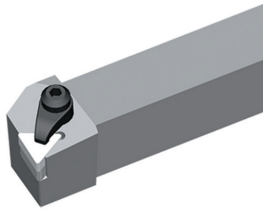
Medium Cut

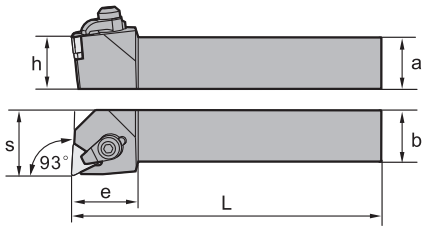
A237

System code A260 Grade selection A46 Technical info A607 Cutting data A414

TN** holder (external) C-Clamping

CTUNR/L Kr: 93°







Right hand style

Article	✲	Stock		Dimensions [mm]						Inserts	
		R	L	a	b	L	h	s	e		
CTUNR/L2525M16		○	○	25	25	150	25	32	27	TNGN1604**	TNGN1607**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	TNGN1604**	TNGN1607**
	h	**20-25**	**20-25**
	Clamp	C1RC	C1RC
	Screw (clamp)	CM6×30B (7.0 Nm)	CM6×30B (7.0 Nm)
	Screw (shim)	SM3×10B	SM3×10B
	Shim	T16CC-04	T16CC-07
	Spring	SPR1	SPR1
	Wrench (clamp)	WH40L	WH40L
	Wrench (shim)	WH20L	WH20L

Insert



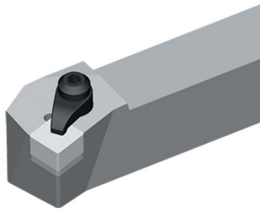
Medium Cut

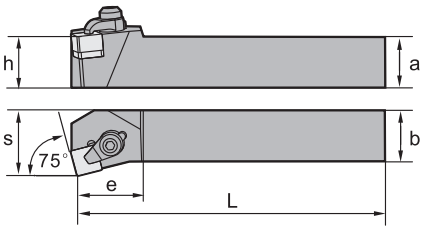
A247

System code A260 Grade selection A46 Technical info A607 Cutting data A414

SN** holder (external) C-Clamping

CSKNR/L Kr: 75°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] a	b	L	h	s	e	Inserts	
CSKNR/L2020K12		○	○	20	20	125	20	25	25	SNGN1204**	SNGN1207**
CSKNR/L2525M12		○	○	25	25	170	25	32	25	SNGN1204**	SNGN1207**
CSKNR/L3225P12		○	○	32	25	170	32	32	25	SNGN1204**	SNGN1207**
CSKNR/L3225P15		○	○	32	25	170	32	32	30	SNGN1507**	

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SNGN1204**	SNGN1207**	SNGN1507**
	h	20-32	20-32	32
	Clamp	C1RC	C1RC	C2RC
	Screw (clamp)	CM6×30B (7.0 Nm)	CM6×30B (7.0 Nm)	CM8×30B (10.2 Nm)
	Screw (shim)	SM3×10B	SM3×10B	SM4×12B
	Shim	S12CC-04	S12CC-07	S15CC-07
	Spring	SPR1	SPR1	SPR3
	Wrench (clamp)	WH40L	WH40L	WH50L
	Wrench (shim)	WH20L	WH20L	WH30L

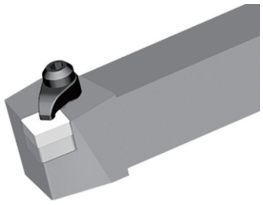
Insert

	
Cast Iron	**PCBN/PCD**
A108	A207

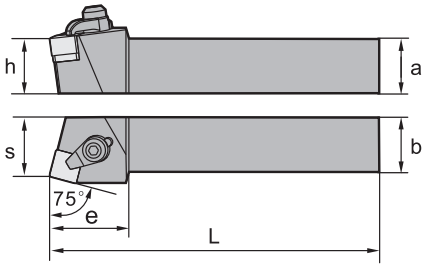
System code A260 Grade selection A46 Technical info A607 Cutting data A414

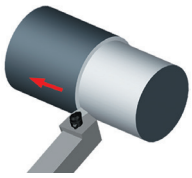
SN** holder (external) C-Clamping

CSRNR/L Kr: 75°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts	
		R	L	a	b	L	h	s	e		
CSRNR/L2020K12		○	○	20	20	125	20	22	32	SNGN1204**	SNGN1207**
CSRNR/L2525M12		○	○	25	20	100	25	27	32	SNGN1204**	SNGN1207**
CSRNR/L3225P12		○	○	32	25	170	32	27	32	SNGN1204**	SNGN1207**
CSRNR/L3225P15		○		32	25	170	32	32	40	SNGN1507**	
CSRNR/L4040R15		○	○	40	40	200	40	43	40	SNGN1507**	

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SNGN1204**	SNGN1207**	SNGN1507**
	h	20-32	20-32	32-40
	Clamp	C1RC	C1RC	C2RC
	Screw (clamp)	CM6×30B (7.0 Nm)	CM6×30B (7.0 Nm)	CM8×30B (10.2 Nm)
	Screw (shim)	SM3×10B	SM3×10B	SM4×12B
	Shim	S12CC-04	S12CC-07	S15CC-07
	Spring	SPR1	SPR1	SPR3
	Wrench (clamp)	WH40L	WH40L	WH50L
	Wrench (shim)	WH20L	WH20L	WH30L

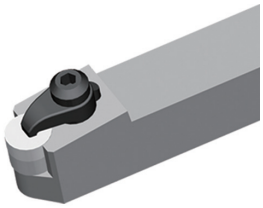
Insert

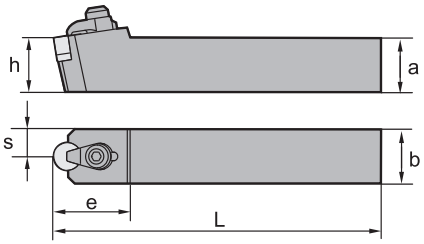
Cast Iron	PCBN/PCD
A108	A207

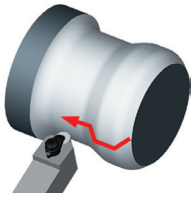
System code A260 Grade selection A46 Technical info A607 Cutting data A414

RN** holder (external) C-Clamping

CRDNN







Article	✻	Stock	Dimensions [mm]						Inserts	
			a	b	L	h	s	e		
CRDNN2020K12		○	20	20	125	20	10	32	RNGN1204**	RNGN1207**
CRDNN2525M12		○	25	25	150	25	12.5	32	RNGN1204**	RNGN1207**
CRDNN3225P12		○	32	25	170	32	12.5	32	RNGN1204**	RNGN1207**
CRDNN3232P15		○	32	32	170	32	17.5	40	RNGN1507**	
CRDNN4040R15		○	40	40	200	40	20	40	RNGN1507**	

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	RNGN1204**	RNGN1207**	RNGN1507**
	h	**20-32**	**20-32**	**32-40**
	Clamp	C1RC	C1RC	C2RC
	Screw (clamp)	CM6×30B (7.0 Nm)	CM6×30B (7.0 Nm)	CM8×30B (10.2 Nm)
	Screw (shim)	SM3×10B	SM3×10B	SM4×12B
	Shim	R12CC-04	R12CC-07	R15CC-07
	Spring	SPR1	SPR1	SPR3
	Wrench (clamp)	WH40L	WH40L	WH50L
	Wrench (shim)	WH20L	WH20L	WH30L

Insert



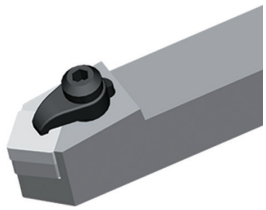
PCBN/PCD

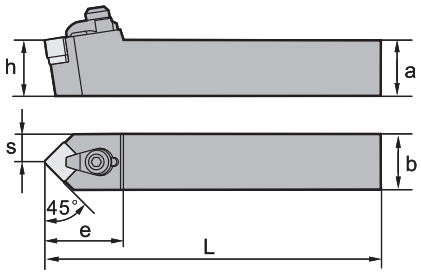
A206

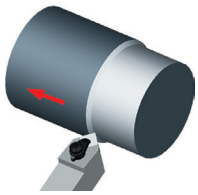
System code A260 Grade selection A46 Technical info A607 Cutting data A414

SN** holder (external) C-Clamping

CSDNN Kr: 45°







Article	✻	Stock	Dimensions [mm]						Inserts	
			a	b	L	h	s	e		
CSDNN2020K12		○	20	20	125	20	10	35	SNGN1204**	SNGN1207**
CSDNN2525M12		●	25	25	150	25	12.5	30	SNGN1204**	SNGN1207**
CSDNN3225P12		○	32	25	170	32	12.5	35	SNGN1204**	SNGN1207**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SNGN1204**	SNGN1207**
	h	20-32	20-32
	Clamp	C1RC	C1RC
	Screw (clamp)	CM6×30B (7.0 Nm)	CM6×30B (7.0 Nm)
	Screw (shim)	SM3×10B	SM3×10B
	Shim	S12CC-04	S12CC-07
	Spring	SPR1	SPR1
	Wrench (clamp)	WH40L	WH40L
	Wrench (shim)	WH20L	WH20L

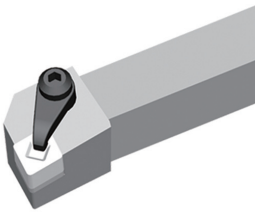
Insert

Cast Iron	PCBN/PCD
A108	A207

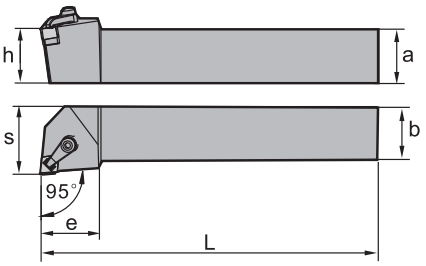
System code A260 Grade selection A46 Technical info A607 Cutting data A414

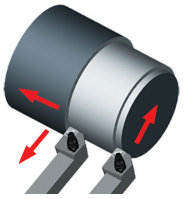
CN** holder (external) J-Clamping

JCLNR/L Kr: 95°



Right hand style





Article	✻	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
JCLNR/L2020K12			○	20	20	125	20	29	32	CNGX1207**
JCLNR/L2525M12		○		25	25	150	25	32	32	CNGX1207**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	CNGX1207**
	h	20-25
	Clamp	C1RJ
	Screw (clamp)	CM6×30B (7.0 Nm)
	Screw (shim)	SM3×10B
	Shim	C12CC-07
	Spring	SPR1
	Wrench (clamp)	WH40L
	Wrench (shim)	WH20L

Insert

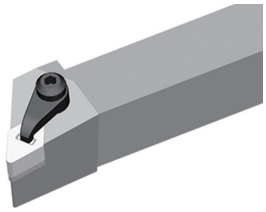
Medium Cut

A234

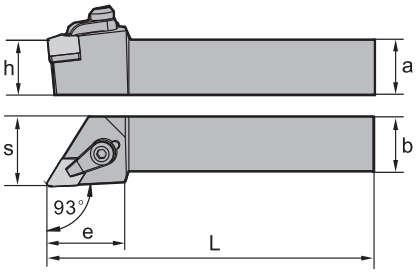
System code A260 Grade selection A46 Technical info A607 Cutting data A414

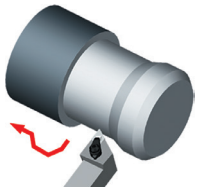
DN** holder (external) J-Clamping

JDJNR/L Kr: 93°



Right hand style





Article	✲	Stock		Dimensions [mm]						Inserts
		R	L	a	b	L	h	s	e	
JDJNR/L2525M15		●	○	25	25	150	25	32	38	DNGX1507**
JDJNR/L3225P15		○	○	32	25	170	32	32	38	DNGX1507**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	DNGX1507**
	h	25-32
	Clamp	C1RJ
	Screw (clamp)	CM6×30B (7.0 Nm)
	Screw (shim)	SM3×10B
	Shim	D15CC-07
	Spring	SPR1
	Wrench (clamp)	WH40L
	Wrench (shim)	WH20L

Insert



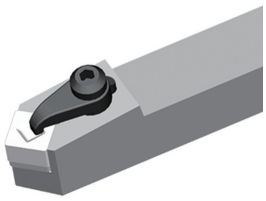
Medium Cut

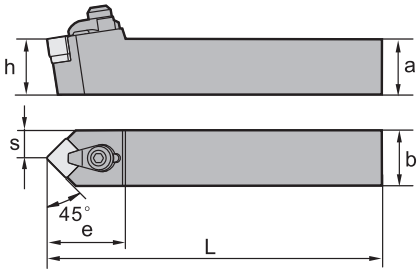
A238

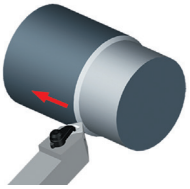
System code A260 Grade selection A46 Technical info A607 Cutting data A414

SN** holder (external) J-Clamping

JSDNN Kr: 45°







Article	✻	Stock	Dimensions [mm]						Inserts
			a	b	L	h	s	e	
JSDNN2525M12		○	25	25	150	25	12.5	40	SNGX1207**
JSDNN3225P12		○	32	25	170	32	12.5	40	SNGX1207**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	**SNGX1207****
	h	**20-32**
	Clamp	C1RJ
	Screw (clamp)	CM6×30B (7.0 Nm)
	Screw (shim)	SM3×10B
	Shim	S12CC-07
	Spring	SPR1
	Wrench (clamp)	WH40L
	Wrench (shim)	WH20L

Insert

Medium Cut

A245

System code A260 Grade selection A46 Technical info A607 Cutting data A414

Notes

S	C	L	N	L	25	25	M	12	–	S	C
1	2	3	4	5	6	7	8	9		10	11

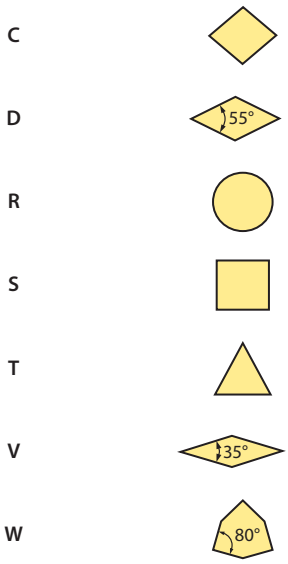
Clamping system

Code	Description
S	Knee lever clamping



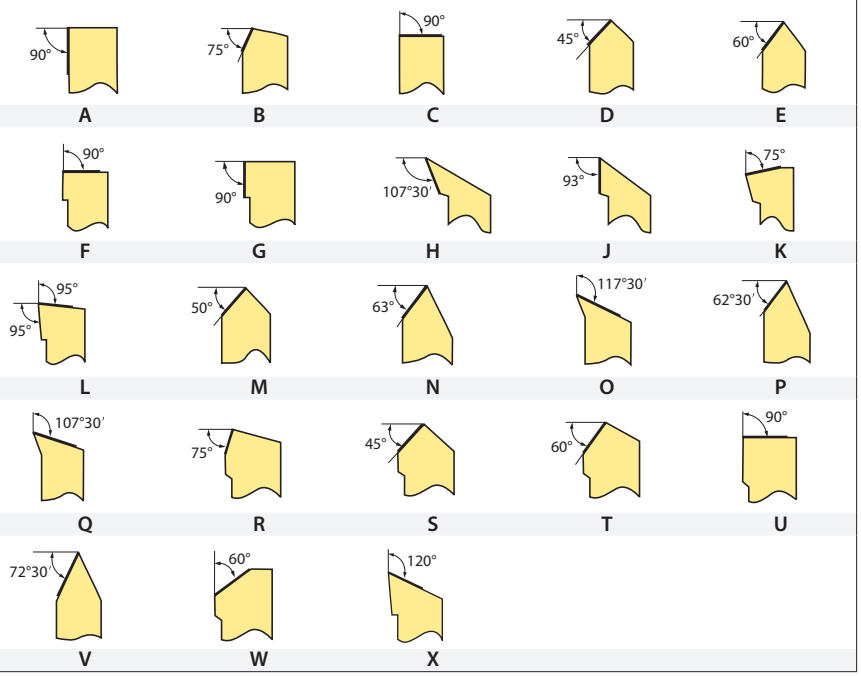
1

Insert shape



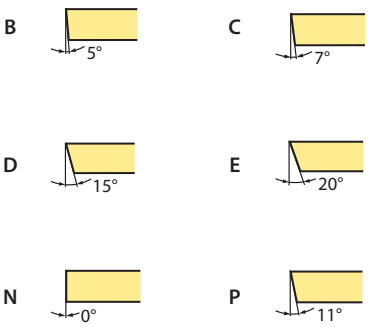
2

Tool holder type and entering angle



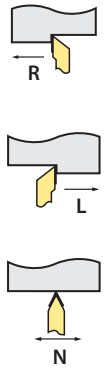
3

Clearance angle



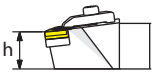
4

Cutting direction



5

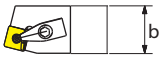
Shank height h [mm]



Code	h
12	12
16	16
20	20
25	25
32	32
40	40
50	50

6

Shank width b [mm]



Code	b
12	12
16	16
20	20
25	25
32	32
40	40
50	50

7

Holder length L [mm]



Code	L
H	100
K	125
M	150
P	170
Q	180
R	200
S	250
T	300

8

Cutting edge length l [mm]

I.C [mm]	Insert shape						
	C	D	R	S	T	V	W
5,56					**09**		
6,35	**06**	**07**			**11**		
9,525	**09**	**11**	**09**	**09**	**16**	**16**	**06**
12,7	**12**	**15**	**12**	**12**	**22**	**22**	**08**
15,875	**16**	**19**	**15**	**15**	**27**		
19,05	**19**		**19**	**19**	**33**		
25,4	**25**		**25**	**25**	**44**		
32			**32**				

9

Swissturning

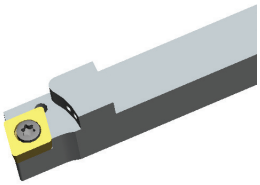
10

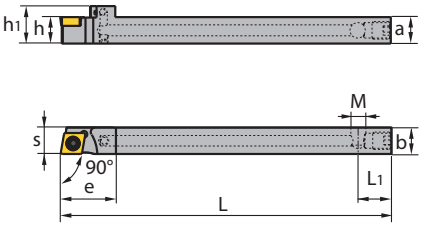
With internal cooling

11

CC** holder S-Clamping

SCACR/L-SC Kr: 90°





Article	*	Stock R	Stock L	a	b	L	h	h_1	s	L_1	e	M	kg	Inserts
SCACR/L1212M09-SC	*	●		12	12	150	12	17	12	15	25	M8X1	0.14	CC**09T3**
SCACR/L1616H09-SC	*	●	●	16	16	100	16	21	16	15	28	M8X1	0.21	CC**09T3**
SCACR/L2020K12-SC	*	●	○	20	20	125	20	25	20	15	25	M8X1	0.36	CC**1204**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	CC**09T3**	CC**1204**
	h	12-16	20
	Screw	I60M3.5×8 (2.7 Nm)	
	Screw		I60M4×11X (3.4 Nm)
	Screw (shim)		SM6×10XA (7.0 Nm)
	Shim		C12BS
	Wrench (screw)	WT15IP	WT15IP
	Wrench (shim)		WH40L

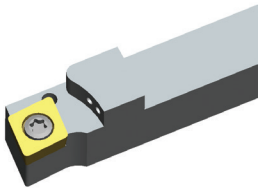
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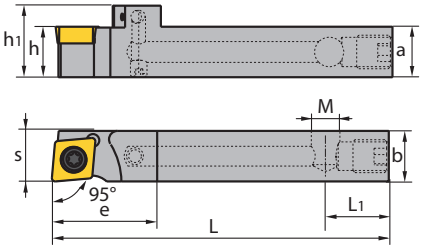
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A143	A146	A148	A149	A148	A213

System code A348 Grade selection A46 Technical info A607 Cutting data A414

CC** holder S-Clamping

SCLCR/L-SC Kr: 95°





Article	✲	Stock		Dimensions [mm]									kg	Inserts
		R	L	a	b	L	h	h_1	s	L_1	e	M		
SCLCR/L1010F06-S		●	●	10	10	80	10	15	10	15	10	M8X1	0.06	CC**0602**
SCLCR/L1212F09-SC	✲	●	●	12	12	80	12	17	12	15	25	M8X1	0.07	CC**09T3**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	CC**0602**	CC**09T3**
	h	**10**	**12**
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)
	Wrench	WT07IP	WT15IP

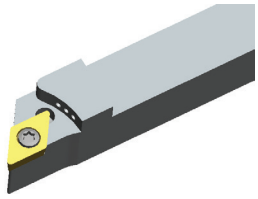
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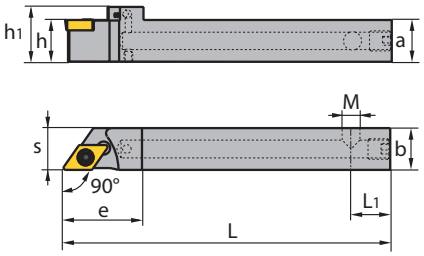
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A142	A146	A148	A149	A148	A213

System code A348 Grade selection A46 Technical info A607 Cutting data A414

DC** holder S-Clamping

SDACR/L-SC Kr: 90°





Article	✲	Stock R	Stock L	a	b	L	h	h_1	s	L_1	e	M	kg	Inserts
SDACR/L1212M07-SC	✲	●	●	12	12	150	12	17	12	15	25	M8X1	0.15	DC**0702**
SDACR/L1212H11-SC	✲	●		12	12	100	12	17	12	15	30	M8X1	0.1	DC**11T3**
SDACR/L1616K11-SC	✲	●	●	16	16	125	16	21	16	15	30	M8X1	0.21	DC**11T3**
SDACR/L1212M11-SC	✲	●		12	12	150	12	17	12	15	30	M8X1	0.14	DC**11T3**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	DC**0702**	DC**11T3**	DC**11T3**
	h	12	12	12-16
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)	I60M3.5×8 (2.7 Nm)
	Wrench	WT07IP	WT15IP	WT15IP

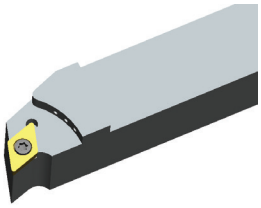
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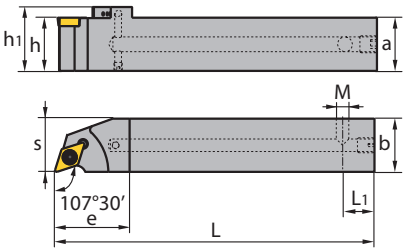
 Finishing	 Medium Cut	 Roughing	 Alum Machining	 Cast Iron	 PCBN/PCD
A155	A156	A158	A158	A158	A217

System code A348 Grade selection A46 Technical info A607 Cutting data A414

DC** holder S-Clamping

SDHCR/L-SC Kr: 107°30'





Article	✻	Stock		Dimensions [mm]									Inserts
		R	L	a	b	L	h	h_1	s	L_1	e	M	
SDHCR/L2020K11-SC	✻	●	●	20	20	125	20	25	20	15	30	M8X1	DC**11T3**
SDHCR/L2525M11-SC	✻	●	●	25	25	150	25	30	25	15	35	M8X1	DC**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	**DC**11T3****
	h	**20-25**
	Screw	I60M3.5×8 (2.7 Nm)
	Wrench (screw)	WT15IP

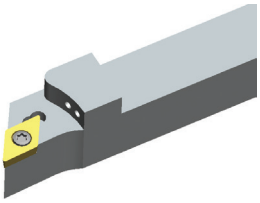
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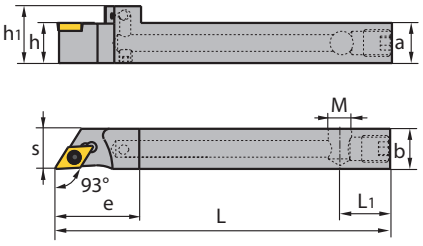
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A155	A156	A158	A158	A158	A217

System code A348 Grade selection A46 Technical info A607 Cutting data A414

DC** holder S-Clamping

SDJCR/L-SC Kr: 93°





Article	✻	Stock R	Stock L	a	b	L	h	h_1	s	L_1	e	M	kg	Inserts
SDJCR/L1212H07-SC	✻	●	●	12	12	100	12	17	12	15	25	M8X1	0.1	DC**0702**
SDJCR/L1212H11-SC	✻	●	●	12	12	100	12	17	12	15	30	M8X1	0.1	DC**11T3**
SDJCR/L1616K11-SC	✻	●	●	16	16	125	16	21	16	15	30	M8X1	0.21	DC**11T3**
SDJCR/L2020K11-SC	✻	●		20	20	125	20	25	20	15	30	M8X1	0.36	DC**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DC**0702**	DC**11T3**
	h	**12**	**12-20**
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)
	Wrench (screw)	WT07IP	WT15IP

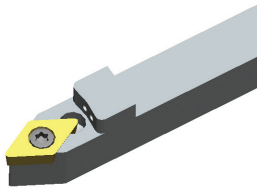
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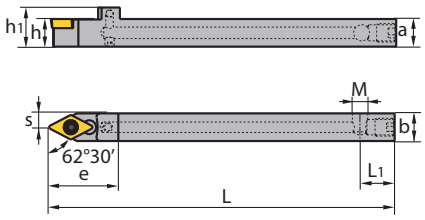
 Finishing	 Medium Cut	 Roughing	 Alum Machining	 Cast Iron	 PCBN/PCD
A155	A156	A158	A158	A158	A217

System code A348 Grade selection A46 Technical info A607 Cutting data A414

DC** holder S-Clamping

SDNCN-SC Kr: 62°30'





Article	✻	Stock	Dimensions [mm]									kg	Inserts
			a	b	L	h	h_1	s	L_1	e	M		
SDNCN1212H11-SC	✻	●	12	12	100	12	17	6	15	30	M8X1	0.09	DC**11T3**
SDNCN1212M11-SC	✻	●	12	12	150	12	17	6	15	30	M8X1	0.1	DC**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	**DC**11T3****
	h	**12**
	Screw	I60M3.5×8 (2.7 Nm)
	Wrench	WT15IP

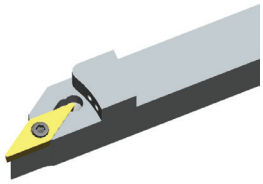
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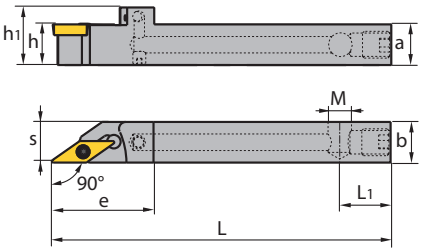
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A155	A156	A158	A158	A158	A217

System code A348 Grade selection A46 Technical info A607 Cutting data A414

VC** holder S-Clamping

SVACR/L-SC Kr: 90°





Article	✻	Stock R	Stock L	a	b	L	h	h_1	s	L_1	e	M	kg	Inserts
SVACR/L1212H11-SC	✻	●	●	12	12	100	12	17	12	15	30	M8X1	0.1	VC**1103**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VC**1103**
	h	12
	Screw	I60M2.5×6.5 (1.0 Nm)
	Wrench	WT07IP

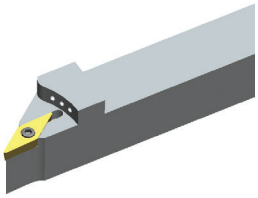
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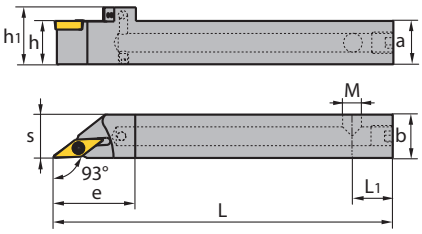
 Finishing	 Alum Machining	 PCBN/PCD
A186	A184	A226

System code A348 Grade selection A46 Technical info A607 Cutting data A414

VB** holder (external) S-Clamping

SVJBR/L-SC Kr: 93°





Article	✲	Stock	Dimensions [mm]									Inserts
			a	b	L	h	h_1	s	L_1	e	M	
SVJBR/L2020G11-SC	✲	○	20	20	90	20	25	20	15	32	M8X1	VB**1103**
SVJBR/L2020K11-SC	✲	○	20	20	125	20	25	20	15	32	M8X1	VB**1103**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	**VB**1103****
	h	**10-32**
	Screw	I60M2.5×6.5 (1.0 Nm)
	Wrench (screw)	WT07IP

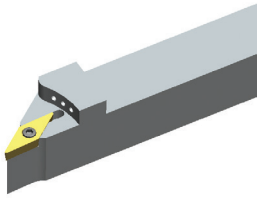
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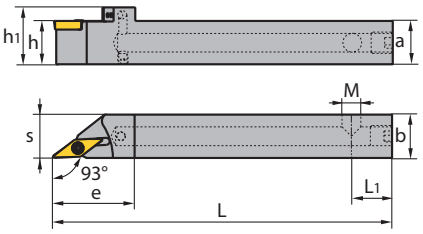
		
Finishing	**Medium Cut**	**PCBN/PCD**
A177	A180	A224

System code A348 Grade selection A46 Technical info A607 Cutting data A414

VC** holder S-Clamping

SVJCR/L-SC Kr: 93°





Article	✻	Stock R	Stock L	a	b	L	h	h_1	s	L_1	e	M	kg	Inserts
SVJCR/L0808H11-S		●	●	8	8	100	8	13	8	15	22	M8X1	0.044	VC**1103**
SVJCR/L1212H11-SC	✻	●	●	12	12	100	12	17	12	15	30	M8X1	0.095	VC**1103**
SVJCR/L1616K11-SC	✻	●	●	16	16	125	16	21	16	15	30	M8X1	0.2	VC**1103**
SVJCR/L3225P16-S		●		32	25	170	32	37	25	15	41	M8X1	0.97	VC**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VC**1103**	VC**1604**
	h	8-16	16-32
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)		SM5×8.65XA (4.0 Nm)
	Shim		V16BSC
	Wrench (screw)	WT07IP	WT15IP
	Wrench (shim)		WH35L

Insert

			
Finishing	**Medium Cut**	**Alum Machining**	**PCBN/PCD**
A186	A187	A184	A226

System code A348 Grade selection A46 Technical info A607 Cutting data A414

Notes

RW	P	L	F	N	L/R	19
1	2	3	4	5	6	7

1

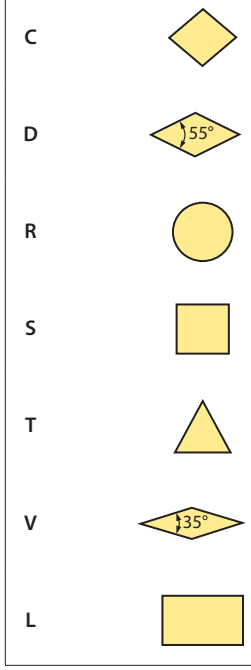
(RW = Rail Way)

Tool holders for rail applications

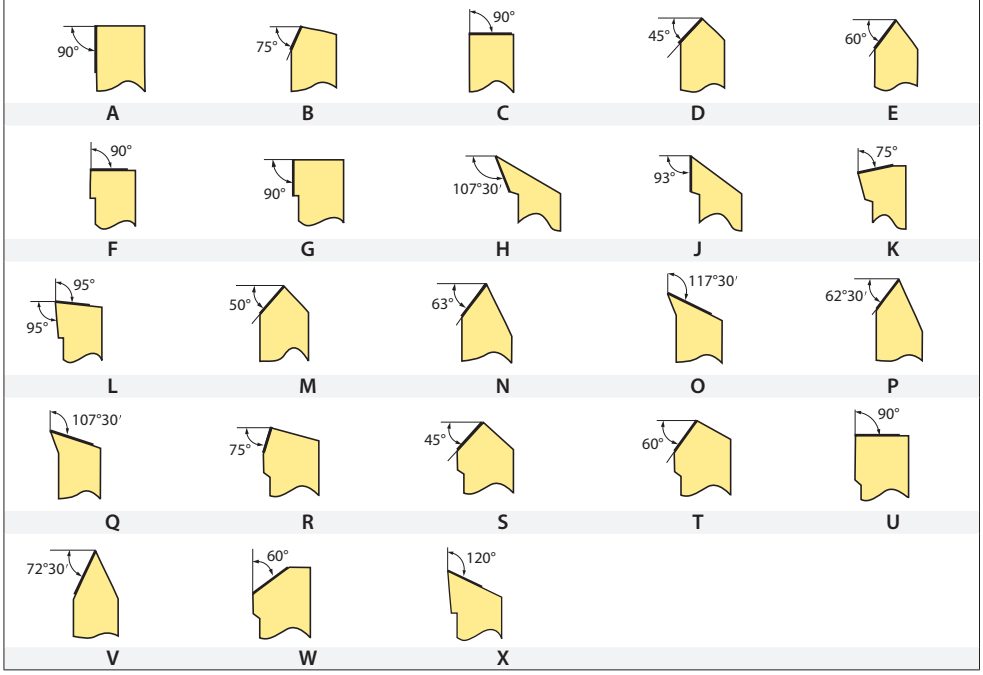
2 Clamping system

Code	Description	
P	Lever lock clamping	
M	Wedge/pin lock clamping	
S	Screw-on clamping	
C/J	Wedge clamping	
D	Dual wedge clamping	

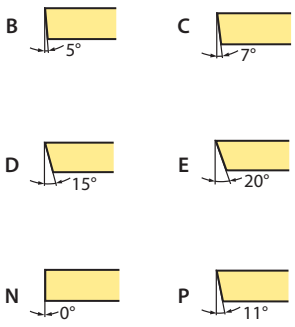
3 Insert shape

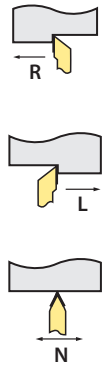


4 Tool holder type and entering angle



5 Clearance angle



Cutting direction


6

Cutting edge length l [mm]							
I.C [mm]	Insert shape						
	C	D	R	S	T	V	W
5,56					**09**		
6,35	**06**	**07**			**11**		
9,525	**09**	**11**	**09**	**09**	**16**	**16**	**06**
12,7	**12**	**15**	**12**	**12**	**22**	**22**	**08**
15,875	**16**	**19**	**15**	**15**	**27**		
19,05	**19**		**19**	**19**	**33**		
25,4	**25**		**25**	**25**	**44**		
32			**32**				

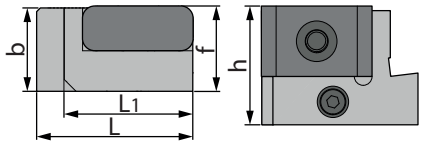
7

LN** holder (external) P-Clamping

RW-PLANR/L Kr: 90°



Right hand style



Article	✻	Stock		Dimensions [mm]					Inserts
		R	L	b	L	h	L_1	f	
RW-PLANR/L-19	✻	○	○	22.5	43	32	35	23	LNUX1919**
RW-PLANR/L-30	✻	○	○	22.5	43	32	35	23	LNUX3019**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	LNUX1919**	LNUX3019**
	h	25-32	25-32
	Knee lever	L5 RWL	L5 RWL
	Screw	LEM8×25 RWL (10.2 Nm)	LEM8×25 RWL (10.2 Nm)
	Wrench	WH30L	WH30L

Insert



Heavy Turning

A139

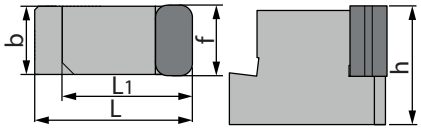
System code A360 Grade selection A46 Technical info A607 Cutting data A414

LN** holder (external) P-Clamping

RW-PLFNR/L Kr: 90°



Right hand style



Article	✲	Stock		Dimensions [mm]					Inserts
		R	L	b	L	h	L_1	f	
RW-PLFNR/L-19	✲	○	○	18.6	43	32	35	19.1	LNUX1919**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	LNUX1919**
	h	**25-32**
	Knee lever	L5 RWL
	Screw	LEM8×25 RWL (10.2 Nm)
	Wrench	WH30L

Insert

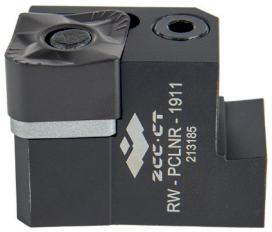
Heavy Turning

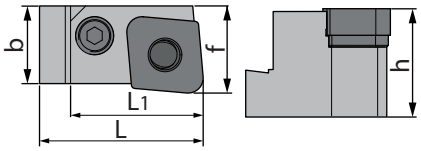
A139

System code A360 Grade selection A46 Technical info A607 Cutting data A414

CN** holder (external) P-Clamping

RW-PCLNR/L Kr: 95°





Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] b	L	h	L_1	f	Inserts
RW-PCLNR/L-1907	✻	○	○	24.8	43	32	35	19.1	CNMM1907**
RW-PCLNR/L-1911	✻	○	○	24.8	43	32	35	19.1	CNMM1911**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	CNMM1907**	CNMM1911**
	h	**25-32**	**25-32**
	Knee lever	L5 RWC	L5 RWC
	Screw	LEM8×25 RWC (10.2 Nm)	LEM8×25 RWC (10.2 Nm)
	Shim pin (shim)	SP5 RWC	SP5 RWC
	Shim	C19 RWC	C19 RWC
	Wrench	WH30L	WH30L

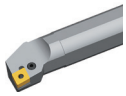
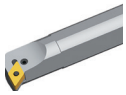
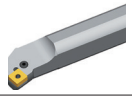
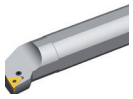
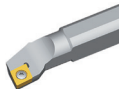
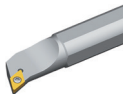
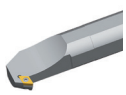
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Finishing	**Roughing**
A138	A138

System code A360 Grade selection A46 Technical info A607 Cutting data A414

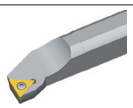
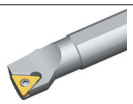
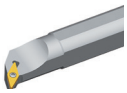
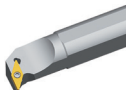
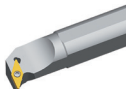
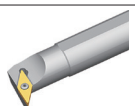
Notes

Boring bars

	Boring bar	Application					Workpiece		Page
		Longitudinal turning	Facing	Undercut	Contouring	Profiling	Stable	Unstable	
P	PDSNR/L 62°30' 	●		●	●	●	●		A372
P	PCLNR/L 95° 	●	●				●	●	A370
P	PDUNR/L 93° 	●			●	●	●	●	A373
P	PSKNR/L 75° 	●					●		A375
P	PTFNR/L 91° 	●					●		A376
P	PWLNR/L 95° 	●	●				●		A378
S	SCFCR/L 90° 	●					●	●	A398
S	SCLCR/L 95° 	●	●				●		A379
S	SCLPR/L 95° 	●	●				●	●	A394
S	SDQCR/L 107°30' 	●			●	●	●	●	A381
S	SDQPR/L 107°30' 	●			●	●	●	●	A395
S	SDUCR/L 93° 	●			●	●	●	●	A382
S	SDUPR/L 93° 	●			●		●	●	A396
S	SDZCR/L 95° 			●			●		A383

● Recommended

Boring bars

	Boring bar		Application					Workpiece		Page
			Longitudinal turning	Facing	Undercut	Contouring	Profiling	Stable	Unstable	
S	SSKCR/L 75°		●					●		A384
	STFCR/L 91°		●							A386
	STUPR/L 93°		●							A397
	SVQBR/L 107°30'		●			●	●			A391
	SVXBR/L 93°				●			●		A393
	SVQCR/L 107°30'		●							A389
	SVUBR/L 93°		●			●	●			A392
	SVUCR/L 93°		●			●	●			A390
	SZLNR/L 95°		●	●				●		A411
Antivibration	SCLPR/L 95°		●	●						A400
	SDQPR/L 107°30'		●			●	●			A402
	SDUPR/L 93°		●							A404
	STUPR/L 93°		●							A406
	SVQCR/L 107°30'		●			●	●			A409
	SVUCR/L 93°		●			●	●			A410

● Recommended

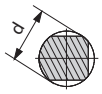
S	16	R	–	S	D	U	C	R	07	–	KR93
1	2	3		4	5	6	7	8	9		10

Shank type

Code	Description
A	Steel shank (IC)
C	Solid carbide shank
E	Solid carbide shank (IC)
S	Steel shank
X	Special application

1

Shank diameter d [mm]



Code	d
16	16
20	20
25	25
32	32
40	40
50	50

2

Clamping system



Code	L
H	100
K	125
M	150
N	160
P	170
Q	180
R	200
S	250
T	300
U	350
V	400
W	450

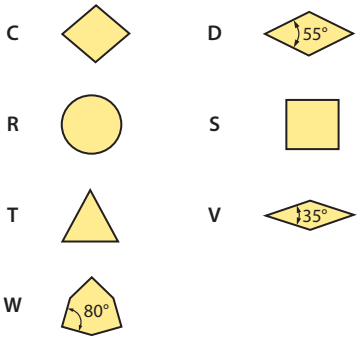
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Clamping system

Code	Description	
P	Knee lever clamping	
S	Screw clamping	

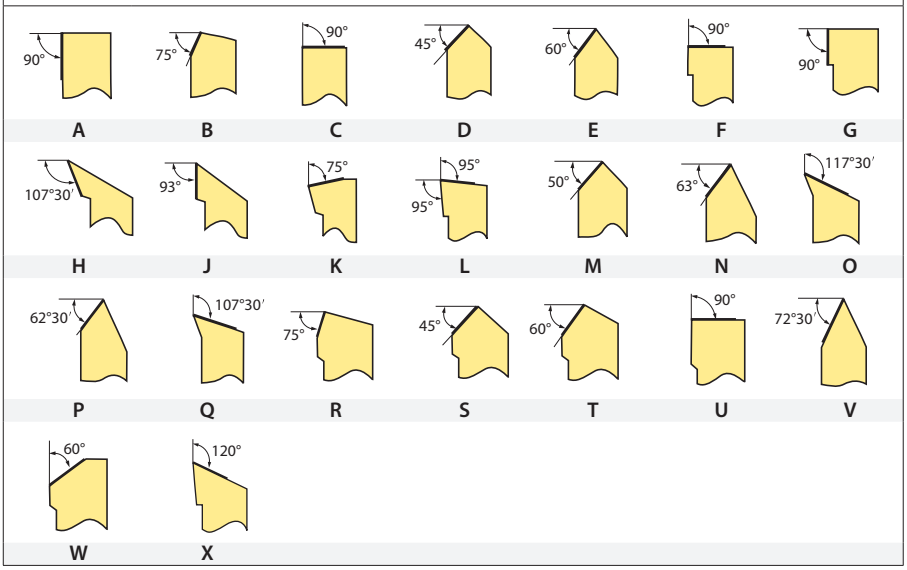
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Insert shape



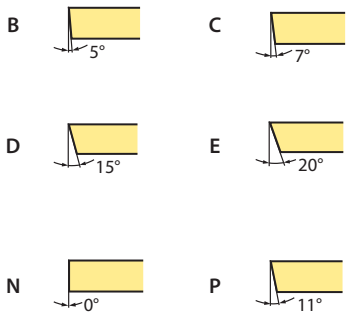
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Tool holder type and entering angle



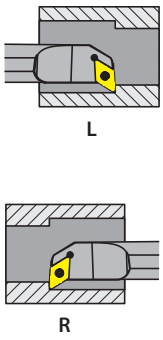
6

Clearance angle



7

Cutting direction



8

Cutting edge length l [mm]

I.C [mm]	Insert shape						
	C	D	R	S	T	V	W
5,56					**09**		
6,35	**06**	**07**			**11**		
9,525	**09**	**11**	**09**	**09**	**16**	**16**	**06**
12,7	**12**	**15**	**12**	**12**	**22**	**22**	**08**
15,875	**16**	**19**	**15**	**15**	**27**		
19,05	**19**		**19**	**19**	**33**		
25,4	**25**		**25**	**25**	**44**		
32			**32**				

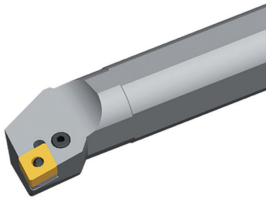
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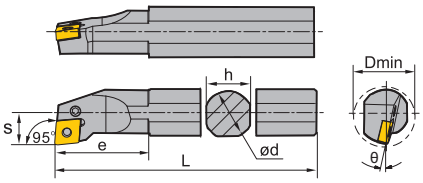
Entering angle

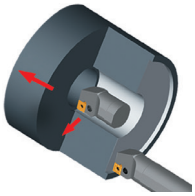
10

CN** steel boring bar P-Clamping

PCLNR/L Kr: 95°







Right hand style

Article	✲	Stock R	Stock L	Dimensions [mm] ød	L	h	S	e	D_{min}	θ	Inserts
S16M-PCLNR/L09		●	●	16	150	15	11	28	20	-12	CN**0903**
S16R-PCLNR/L09		●	●	16	200	15	11	28	20	-12	CN**0903**
S20Q-PCLNR/L09		●	●	20	180	18	13	31	25	-11	CN**0903**
S20S-PCLNR/L09		●	●	20	250	18	13	31	25	-11	CN**0903**
S25Q-PCLNR/L09		○	○	25	180	23	17	35	32	-10	CN**0903**
S25T-PCLNR/L09		●	○	25	300	23	17	35	32	-10	CN**0903**
A16M-PCLNR/L09	✲	○		16	150	14	11		20	-12	CN**0903**
S25Q-PCLNR/L12		○	○	25	180	23	17	40	32	-12	CN**1204**
S25T-PCLNR/L12		●	●	25	300	23	17	40	32	-12	CN**1204**
S32R-PCLNR/L12		●	●	32	200	30	22	50	44	-10	CN**1204**
S32U-PCLNR/L12		●	●	32	350	30	22	50	44	-10	CN**1204**
S40S-PCLNR/L12		○	●	40	250	37	27	55	54	-10	CN**1204**
S40V-PCLNR/L12		●	●	40	400	37	27	55	54	-10	CN**1204**
S50S-PCLNR/L12		○	○	50	250	47	35	56	63	-10	CN**1204**
S50W-PCLNR/L12		●	●	50	450	47	35	56	63	-10	CN**1204**
A25R-PCLNR/L12	✲	●	●	25	200	24	17	40	32	-12	CN**1204**
A32U-PCLNR/L12	✲	○	○	32	350	30	22	50	44	-10	CN**1204**
A32S-PCLNR/L12	✲	●	●	32	250	31	22	50	44	-10	CN**1204**
A40V-PCLNR/L12	✲	○	○	40	400	37	27	55	54	-10	CN**1204**
A50W-PCLNR/L12	✲	●	○	50	450	47	35	56	63	-10	CN**1204**
S50S-PCLNR/L19		○	○	50	250	47	35	63	63	-10	CN**1906**
S50W-PCLNR/L19		●	○	50	450	47	35	63	63	-10	CN**1906**

● Ex stock ○ On demand

✲ With internal cooling

System code A368 Grade selection A46 Technical info A607 Cutting data A414

CN** steel boring bar

Spare parts

	Insert	CN**0903**	CN**1204**	CN**1204**	CN**1906**
	ød	16-25	25	32-50	50
	Knee lever	L3C	L4A	L4A	L6
	Screw	LEM5×9B (4.0 Nm)			
	Screw			LEM8×21 (10.2 Nm)	LEM10×27 (16.6 Nm)
	Screw		LEM6×13.4A (7.0 Nm)		
	Shim pin (shim)			SP4	SP6
	Shim				C19AP
	Shim			C12APB	
	Wrench		WH25L	WH25L	WH40L
	Wrench	WT09IP			

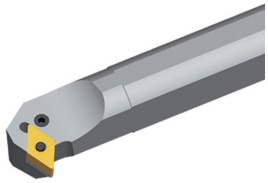
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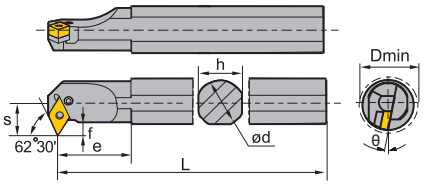
						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A55	A57	A59	A65	A74	A73	A210

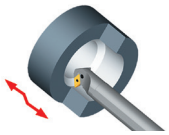
System code A368 Grade selection A46 Technical info A607 Cutting data A414

DN** steel boring bar P-Clamping

PDSNR/L Kr: 62°30'







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	f	D_{min}	θ	Inserts
S32R-PDSNR/L15-3		○	○	32	200	30	22	45	8.5	40	-11	DN**1504**
S40V-PDSNR/L15-3		●		40	400	37	27	43	9.4	50	-11	DN**1504**
A32S-PDSNR/L15-3	✻	○	○	32	250	31	22	45	8.5	40	-11	DN**1504**
S32R-PDSNR/L15		●	●	32	200	30	22	45	8.5	40	-11	DN**1506**
S32U-PDSNR/L15		●	●	32	350	30	22	45	8.5	40	-11	DN**1506**
S40S-PDSNR/L15		○	○	40	250	37	27	43	9.4	50	-11	DN**1506**
S40V-PDSNR/L15		○	○	40	400	37	27	43	9.4	50	-11	DN**1506**
A25S-PDSNR/L15	✻	○		25	250	23	22	45	10.5	32	-11	DN**1506**
A32S-PDSNR/L15	✻		●	32	250	31	22	45	8.5	40	-11	DN**1506**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DN**1504**	DN**1506**	DN**1506**
	ød	**32-40**	**25-50**	**32-50**
	Knee lever	L4	L4B	L4B
	Screw	LEM8×21 (10.2 Nm)	LEM8×21 (10.2 Nm)	LEM8×21 (10.2 Nm)
	Shim pin (shim)	SP4	SP4	SP4
	Shim	D15AP	D15AP	D15AP
	Wrench	WH30L	WH30L	WH30L

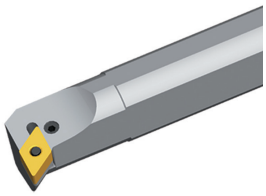
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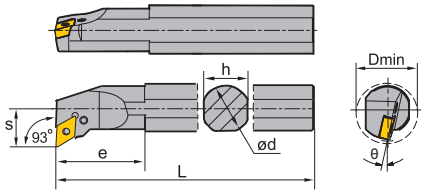
					
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Cast Iron**	**PCBN/PCD**
A75	A77	A77	A87	A88	A211

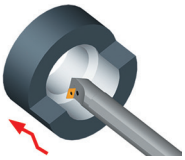
System code A368 Grade selection A46 Technical info A607 Cutting data A414

DN** steel boring bar P-Clamping

PDUNR/L Kr: 93°







Right hand style

Article	✲	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S20Q-PDUNR/L11		●	○	20	180	18	13	30	25	-16	DN**1104**
S20S-PDUNR/L11		●	●	20	250	18	13	30	25	-16	DN**1104**
S25Q-PDUNR/L11		●	●	25	180	23	17	35	32	-13	DN**1104**
S25T-PDUNR/L11		●	●	25	300	23	17	35	32	-13	DN**1104**
S32R-PDUNR/L11		○	○	32	200	30	22	40	40	-16	DN**1104**
S32U-PDUNR/L11		●	●	32	350	30	22	40	40	-16	DN**1104**
A25R-PDUNR/L11	✲	●		25	200	24	17	35	32	-13	DN**1104**
S32R-PDUNR/L15-3		○	○	32	200	30	22	50	40	-16	DN**1504**
S32U-PDUNR/L15-3		●	●	32	350	30	22	50	40	-16	DN**1504**
S40S-PDUNR/L15-3		○	○	40	250	37	27	50	50	-11	DN**1504**
S40V-PDUNR/L15-3		●	●	40	400	37	27	50	50	-11	DN**1504**
A32S-PDUNR/L15-3	✲	●	●	32	250	31	22	50	40	-16	DN**1504**
S32R-PDUNR/L15		○	○	32	200	30	22	50	40	-16	DN**1506**
S32U-PDUNR/L15		●	●	32	350	30	22	50	40	-16	DN**1506**
S40S-PDUNR/L15		○	○	40	250	37	27	50	50	-11	DN**1506**
S40V-PDUNR/L15		●	●	40	400	37	27	50	50	-11	DN**1506**
S50V-PDUNR/L15		○	○	50	400	47	32	50	60	-11	DN**1506**
A32U-PDUNR/L15	✲	○	○	32	350	30	22	50	40	-16	DN**1506**
A32S-PDUNR/L15	✲	●	●	32	250	31	22	50	40	-16	DN**1506**
A40V-PDUNR/L15	✲	○	○	40	400	37	27	50	50	-11	DN**1506**

● Ex stock ○ On demand

✲ With internal cooling

System code A368 Grade selection A46 Technical info A607 Cutting data A414

DN** steel boring bar

Spare parts

	Insert	DN**1104**	DN**1104**	DN**1504**	DN**1506**	DN**1506**
	ød	20-25	32	32-40	32-50	32-40
	Knee lever	L3D	L3	L4	L4B	L4B
	Screw	LEM5×12B (4.0 Nm)	LEM6×17 (7.0 Nm)			
	Screw			LEM8×21 (10.2 Nm)	LEM8×21 (10.2 Nm)	LEM8×21 (10.2 Nm)
	Shim pin (shim)		SP3	SP4	SP4	SP4
	Shim		D11AP	D15AP	D15AP	D15AP
	Wrench		WH25L	WH30L	WH30L	WH30L
	Wrench	WT09IP				

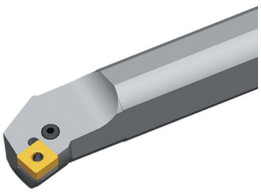
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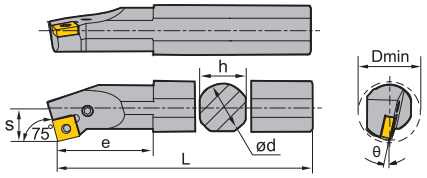
					
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Cast Iron**	**PCBN/PCD**
A75	A77	A77	A87	A88	A211

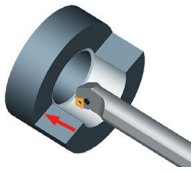
System code A368 | Grade selection A46 | Technical info A607 | Cutting data A414

SN** steel boring bar P-Clamping

PSKNR/L Kr: 75°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S25Q-PSKNR/L12		○	●	25	180	23	17	42	32	-12	SN**1204**
S25T-PSKNR/L12		●	○	25	300	23	17	42	32	-12	SN**1204**
S32R-PSKNR/L12		○	○	32	200	30	22	45	44	-10	SN**1204**
S32U-PSKNR/L12		●	●	32	350	30	22	45	44	-10	SN**1204**
S40S-PSKNR/L12		○	○	40	250	37	27	50	54	-10	SN**1204**
S40V-PSKNR/L12		●	○	40	400	37	27	50	54	-10	SN**1204**
A25R-PSKNR/L12	✻	●	●	25	200	24	17	42	32	-12	SN**1204**
A32S-PSKNR/L12	✻	●	●	32	250	31	22	50	44	-12	SN**1204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SN**1204**	SN**1204**
	ød	**25**	**32-40**
	Knee lever	L4A	L4
	Screw		LEM8×21 (10.2 Nm)
	Screw	LEM6×13.4A (7.0 Nm)	
	Shim pin (shim)		SP4
	Shim		S12APB
	Wrench	WH25L	WH30L

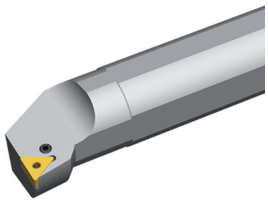
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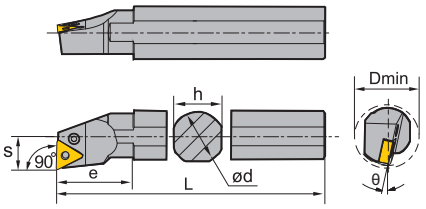
					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A94	A94	A99	A109	A106	A193

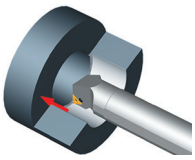
System code A368 Grade selection A46 Technical info A607 Cutting data A414

TN** steel boring bar P-Clamping

PTFNR/L Kr: 90°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S16M-PTFNR/L11		○	○	16	150	15	11	28	20	-14	TN**1103**
S16R-PTFNR/L11		●	●	16	200	15	11	28	20	-14	TN**1103**
S20Q-PTFNR/L11		●	●	20	180	18	13	31	25	-12	TN**1103**
S20S-PTFNR/L11		●	●	20	250	18	13	31	25	-12	TN**1103**
S25Q-PTFNR/L11		○	○	25	180	23	17	35	32	-10	TN**1103**
S25T-PTFNR/L11		○		25	300	23	17	35	32	-10	TN**1103**
S25Q-PTFNR/L16		○	○	25	180	23	17	42	32	-12	TN**1604**
S25T-PTFNR/L16		●	●	25	300	23	17	42	32	-12	TN**1604**
S32R-PTFNR/L16		○	○	32	200	30	22	50	44	-10	TN**1604**
S32U-PTFNR/L16		●	●	32	350	30	22	50	44	-10	TN**1604**
S40S-PTFNR/L16		○	○	40	250	37	27	55	54	-10	TN**1604**
S40V-PTFNR/L16		●	●	40	400	37	27	55	54	-10	TN**1604**
A25R-PTFNR/L16	✻	●	○	25	200	24	17	40	32	-12	TN**1604**
A32S-PTFNR/L16	✻	●	●	32	250	31	22	50	44	-10	TN**1604**
S40V-PTFNR/L22		●	○	40	400	37	27	55	54	-10	TN**2204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TN**1103**	TN**1604**	TN**1604**	TN**2204**
	ød	16-25	25	32-40	40
	Knee lever	L2	L3B	L3	L4
	Screw	LEM5×9B (4.0 Nm)	LEM5×12B (4.0 Nm)	LEM6×17 (7.0 Nm)	
	Screw				LEM8×21 (10.2 Nm)
	Shim pin (shim)			SP3	SP4
	Shim				T22AP
	Shim			T16APB	
	Wrench		WH20L	WH25L	WH30L
	Wrench	WT09IP			

System code A368 Grade selection A46 Technical info A607 Cutting data A414

TN** steel boring bar

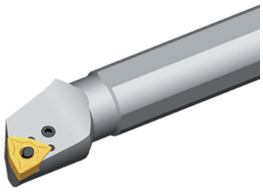
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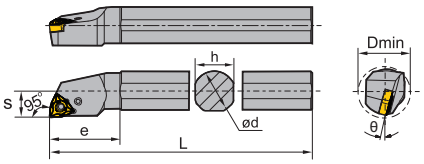
					
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Cast Iron**	**PCBN/PCD**
A110	A112	A113	A115	A121	A194

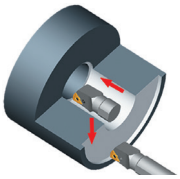
System code A368 Grade selection A46 Technical info A607 Cutting data A414

WN** steel boring bar P-Clamping

PWLNR/L Kr: 95°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S16M-PWLNR/L06		●	●	16	150	15	11	25	20	-13	WN**0604**
S16R-PWLNR/L06		○	○	16	200	15	11	25	20	-13	WN**0604**
S20Q-PWLNR/L06		●	●	20	180	18	13	35	25	-13	WN**0604**
S20S-PWLNR/L06		●	○	20	250	18	13	35	25	-13	WN**0604**
S25Q-PWLNR/L06		○	○	25	180	23	17	35	32	-13	WN**0604**
S25R-PWLNR/L06		●		25	200	23	17	35	32	-13	WN**0604**
S25T-PWLNR/L06		○		25	300	23	17	35	32	-13	WN**0604**
A16M-PWLNR/L06	✻	○	○	16	150	15	11	25	20	-13	WN**0604**
A25R-PWLNR/L06	✻	○		25	200	23	17	45	32	-13	WN**0604**
S20Q-PWLNR/L08		●	●	20	180	18	13	32	25	-13	WN**0804**
S20S-PWLNR/L08		●		20	250	18	13	32	25	-13	WN**0804**
S25Q-PWLNR/L08		●	○	25	180	23	17	45	32	-13	WN**0804**
S25R-PWLNR/L08		●	●	25	200	23	17	27	32	-13	WN**0804**
S25T-PWLNR/L08		●	●	25	300	23	17	45	32	-13	WN**0804**
S32R-PWLNR/L08		●	●	32	200	30	22	50	40	-15	WN**0804**
S32U-PWLNR/L08		●	●	32	350	30	22	50	40	-15	WN**0804**
S40U-PWLNR/L08		○	○	40	350	37	27	60	50	-15	WN**0804**
S50U-PWLNR/L08		○		50	350	47	35	50	63	-15	WN**0804**
S50W-PWLNR/L08		○	○	50	450	47	35	50	63	-15	WN**0804**
A25R-PWLNR/L08	✻	○	●	25	200	23	17	45	32	-13	WN**0804**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	WSP	WN**0604**	WN**0804**	WN**0804**
	ød	16-25	20-25	32-50
	Knee lever	L3B	L4A	L4
	Screw	LEM5×12B (4,0 Nm)	LEM6×13,4A (7,0 Nm)	LEM8×21 (10,2 Nm)
	Shim pin (shim)			SP4
	Shim			W08AP
	Wrench		WH25L	WH30L
	Wrench	WT09IP		

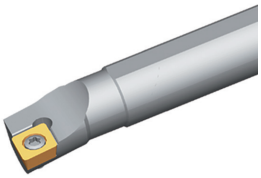
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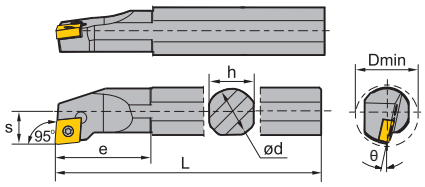
						
Wiper	**Finishing**	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A128	A129	A129	A131	A134	A133	A196

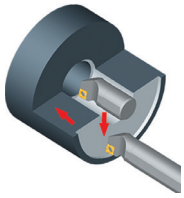
System code A368 Grade selection A46 Technical info A607 Cutting data A414

CC** steel boring bar S-Clamping

SCLCR/L Kr: 95°







Right hand style

Article	✲	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S06H-SCLCR/L06		○		8	100	7.3	4.5	25	9	-15	CC**0602**
S08H-SCLCR/L06			○	8	100	7	5	14	10	-15	CC**0602**
S08K-SCLCR/L06		●	●	8	125	7	5	14	10	-15	CC**0602**
S10K-SCLCR/L06		●	●	10	125	7	5	14	10	-15	CC**0602**
S10M-SCLCR/L06		●	●	10	150	9	6	14	12	-13	CC**0602**
S12M-SCLCR/L06		●	●	12	150	11	9	25	16	-10	CC**0602**
A08F-SCLCR/L06	✲	●	●	8	80	7.5	5	14	10	-15	CC**0602**
A10H-SCLCR/L06	✲	●	●	10	100	9.5	6	14	12	-13	CC**0602**
A12K-SCLCR/L06	✲	●	●	12	125	11.5	9	25	16	-10	CC**0602**
A16R-SCLCR/L06	✲	○		16	200	15.5	10	26	18	-8	CC**0602**
S12M-SCLCR/L09		●	●	12	150	11	9	25	16	-10	CC**09T3**
S16M-SCLCR/L09		●	○	16	150	15	11	32.5	20	-12	CC**09T3**
S16Q-SCLCR/L09		●	●	16	180	15	11	32.5	20	-12	CC**09T3**
S16R-SCLCR/L09		●	●	16	200	15	11	32.5	20	-12	CC**09T3**
S20Q-SCLCR/L09		●	●	20	180	18	13	38	25	-8	CC**09T3**
S20R-SCLCR/L09		●		20	200	18	13	38	25	-8	CC**09T3**
S20S-SCLCR/L09		●	●	20	250	18	13	38	25	-8	CC**09T3**
S25Q-SCLCR/L09		●	○	25	180	23	17	45	32	-6	CC**09T3**
S25T-SCLCR/L09		●	●	25	300	23	17	45	32	-6	CC**09T3**
A12K-SCLCR/L09	✲	●	●	12	125	11.5	9	25	16	-10	CC**09T3**
A16M-SCLCR/L09	✲	●	●	16	150	15.5	11	32.5	20	-12	CC**09T3**
A20Q-SCLCR/L09	✲	●	●	20	180	19	13	38	25	-8	CC**09T3**
A25R-SCLCR/L09	✲	●	●	25	200	24	17	45	32	-6	CC**09T3**
S25Q-SCLCR/L12		●	○	25	180	23	17	45	32	-6	CC**1204**
S25T-SCLCR/L12		●	●	25	300	23	17	45	32	-6	CC**1204**
S32R-SCLCR/L12		●	●	32	200	30	22	50	40	-10	CC**1204**
S32U-SCLCR/L12		●	●	32	350	30	22	50	40	-10	CC**1204**
S40S-SCLCR/L12		○		40	250	37	27	60	50	-8	CC**1204**
S40V-SCLCR/L12		●	●	40	400	37	27	60	50	-8	CC**1204**
A25R-SCLCR/L12	✲	●	●	25	200	24	17	45	32	-6	CC**1204**
A32T-SCLCR/L12	✲	○		32	300	30	22		40	-10	CC**1204**
A32S-SCLCR/L12	✲	●	●	32	250	31	22	50	40	-10	CC**1204**

● Ex stock ○ On demand

✲ With internal cooling

System code A368 | Grade selection A46 | Technical info A607 | Cutting data A414

CC** steel boring bar

Spare parts

	Insert	CC**0602**	CC**0602**	CC**09T3**	CC**09T3**	CC**09T3**	CC**1204**	CC**1204**
	ød	8-16	6-16	12-20	16-25	25	25	32-40
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M2.5×5.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)	I60M3.5×10 (2.7 Nm)	I60M3.5×10 (2.7 Nm)		
	Screw						I60M4×11X (3.4 Nm)	I60M4×11X (3.4 Nm)
	Screw (shim)							SM6×10XA
	Shim							C12BS
	Wrench (screw)	WT07IP	WT07IP	WT15IP	WT15IP	WT15IP	WT15IP	WT15IP
	Wrench (shim)							WH40L

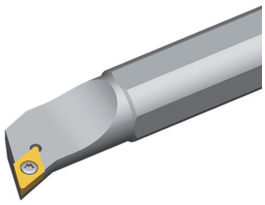
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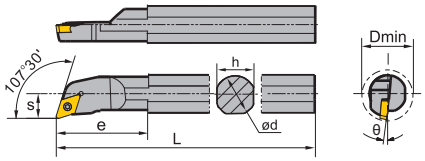
					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A142	A146	A148	A149	A148	A213

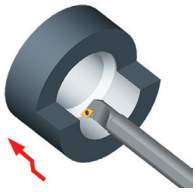
System code > A368 Grade selection > A46 Technical info > A607 Cutting data > A414

DC** steel boring bar S-Clamping

SDQCR/L Kr: 107°30'







Right hand style

Article	✲	Stock		Dimensions [mm]							Inserts
		R	L	ød	L	h	s	e	D_{min}	θ	
S10K-SDQCR/L07		○	○	10	125	9	7	20	13	-8	DC**0702**
S10M-SDQCR/L07		●	●	10	150	9	7	20	13	-8	DC**0702**
S12M-SDQCR/L07		●	●	12	150	11	9	22	16	-8	DC**0702**
S16M-SDQCR/L07		○	●	16	150	15	11	27	20	-6	DC**0702**
S16Q-SDQCR/L07		●	●	16	180	15	11	27	20	-6	DC**0702**
S16R-SDQCR/L07		●	●	16	200	15	11	27	20	-6	DC**0702**
A10H-SDQCR/L07	✲	●	●	10	100	9.5	7	20	13	-8	DC**0702**
A12K-SDQCR/L07	✲	●	●	12	125	11.5	9	22	16	-8	DC**0702**
A16R-SDQCR/L07	✲	○		16	200	15	11	27	20	-6	DC**0702**
S16Q-SDQCR/L11		●	●	16	180	15	11	27	20	-6	DC**11T3**
S20Q-SDQCR/L11		●	○	20	180	18	13	32	25	-6	DC**11T3**
S20S-SDQCR/L11		●	●	20	250	18	13	32	25	-6	DC**11T3**
S25Q-SDQCR/L11		●	○	25	180	23	17	32	32	-6	DC**11T3**
S25T-SDQCR/L11		●	●	25	300	23	17	32	32	-6	DC**11T3**
S32T-SDQCR/L11			○	32	300	30	22	60	40	-6	DC**11T3**
A16M-SDQCR/L11	✲	●	●	16	150	15.5	11	27	20	-6	DC**11T3**
A20Q-SDQCR/L11	✲	●	●	20	180	19	13	32	25	-6	DC**11T3**
A25R-SDQCR/L11	✲	●	●	25	200	24	17	32	32	-6	DC**11T3**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	DC**0702**	DC**0702**	DC**11T3**	DC**11T3**	DC**11T3**
	ød	**10**	**12-16**	**16-20**	**20**	**25-32**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)	I60M3.5×8 (2.7 Nm)	I60M3.5×10 (2.7 Nm)
	Wrench (screw)	WT07IP	WT07IP	WT15IP	WT15IP	WT15IP

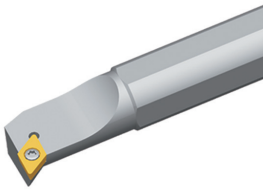
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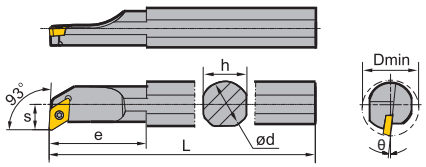
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A155	A156	A158	A158	A158	A217

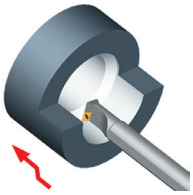
System code A368 Grade selection A46 Technical info A607 Cutting data A414

DC** steel boring bar S-Clamping

SDUCR/L Kr: 93°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S10K-SDUCR/L07		●	●	10	125	9	7	11.76	13	-6	DC**0702**
S10M-SDUCR/L07		●	●	10	150	9	7	-	13	-8	DC**0702**
S12M-SDUCR/L07		●	●	12	150	11	9	22	16	-8	DC**0702**
S16M-SDUCR/L07		●	●	16	150	15	11	27	20	-6	DC**0702**
S16Q-SDUCR/L07		○	○	16	180	15	11	27.5	20	-6	DC**0702**
S16R-SDUCR/L07		●	●	16	200	15	11	27	20	-6	DC**0702**
S20R-SDUCR/L07		○		20	200	18	9	40	25	-6	DC**0702**
A10H-SDUCR/L07	✻	●	●	10	100	9.5	7	-	13	-8	DC**0702**
A12K-SDUCR/L07	✻	●	●	12	125	11.5	9	22	16	-8	DC**0702**
A16M-SDUCR/L07	✻	●	●	16	150	15.5	11	27	20	-6	DC**0702**
S20Q-SDUCR/L11		●	●	20	180	18	13	40	25	-6	DC**11T3**
S20S-SDUCR/L11		●	●	20	250	18	13	40	25	-6	DC**11T3**
S25Q-SDUCR/L11		●	○	25	180	23	17	46	32	-6	DC**11T3**
S25T-SDUCR/L11		●	●	25	300	23	17	46	32	-6	DC**11T3**
A16R-SDUCR/L11	✻	○		16	200	15	14.5	27	23	-6	DC**11T3**
A20Q-SDUCR/L11	✻	●	●	20	180	19	13	40	25	-6	DC**11T3**
A25R-SDUCR/L11	✻	●	●	25	200	24	17	46	32	-6	DC**11T3**
A32S-SDUCR/L11	✻	○	○	32	250	30	22	50.5	40	-6	DC**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DC**0702**	DC**11T3**
	ød	**10-20**	**16-32**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)
	Wrench	WT07IP	WT15IP

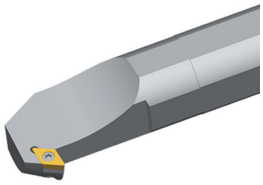
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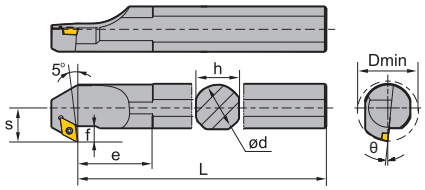
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A155	A156	A158	A158	A158	A217

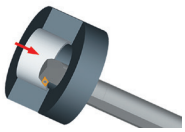
System code A368 Grade selection A46 Technical info A607 Cutting data A414

DC** steel boring bar S-Clamping

SDZCR/L Kr: 85°







Right hand style

Article	✻	Stock		Dimensions [mm]								Inserts
		R	L	ød	L	h	s	e	f	D_{min}	θ	
S25Q-SDZCR/L11		●	●	25	180	23	17	30	6.9	32	-6	DC**11T3**
S25T-SDZCR/L11		●	●	25	300	23	17	30	6.9	32	-6	DC**11T3**
S32R-SDZCR/L11		○		32	200	30	22	39	8.4	40	-6	DC**11T3**
S32U-SDZCR/L11		●	●	32	350	30	22	39	8.4	40	-6	DC**11T3**
S40S-SDZCR/L11		○	●	40	250	37	27	47	9.4	50	-4	DC**11T3**
S40V-SDZCR/L11		●	●	40	400	37	27	47	9.4	50	-4	DC**11T3**
A25R-SDZCR/L11	✻	●	●	25	200	24	17	30	4.5	32	-6	DC**11T3**
A32S-SDZCR/L11	✻	●	●	32	250	31	22	39	6	40	-6	DC**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DC**11T3**	DC**11T3**
	ød	**25**	**32-40**
	Screw	I60M3.5×10 (2.7 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)		SM5×8.65XA
	Shim		D11BS
	Wrench (screw)	WT15IP	WT15IP
	Wrench (shim)		WH35L

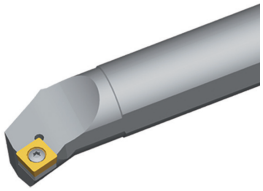
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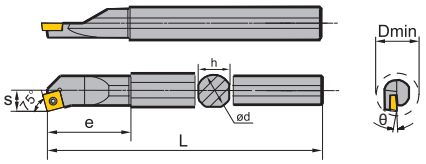
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A155	A156	A158	A158	A158	A217

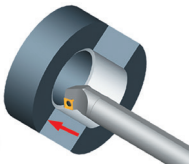
System code A368 Grade selection A46 Technical info A607 Cutting data A414

SC** steel boring bar S-Clamping

SSKCR/L Kr: 75°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S12M-SSKCR/L09		●		12	150	11	9	26	16	-10	SC**09T3**
S16M-SSKCR/L09		○	○	16	150	15	11	32.5	20	-11	SC**09T3**
S16R-SSKCR/L09		○	○	16	200	15	11	32.5	20	-11	SC**09T3**
S20Q-SSKCR/L09		○		20	180	18	13	34.5	25	-6	SC**09T3**
S20S-SSKCR/L09		●		20	250	18	13	34.5	25	-6	SC**09T3**
A12K-SSKCR/L09	✻	●	○	12	125	11	9	26	16	-10	SC**09T3**
A16M-SSKCR/L09	✻	●		16	150	15	11	32.5	20	-11	SC**09T3**
A20Q-SSKCR/L09	✻	●	○	20	180	19	13	34.5	25	-6	SC**09T3**
S25Q-SSKCR/L12		○		25	180	23	17	36.3	32	-8	SC**1204**
S25T-SSKCR/L12		●		25	300	23	17	36.3	32	-8	SC**1204**
S32R-SSKCR/L12			○	32	200	30	22	43.5	40	-10	SC**1204**
S32U-SSKCR/L12		●		32	350	30	22	43.5	40	-10	SC**1204**
A25R-SSKCR/L12	✻	●		25	200	24	17	41.3	32	-8	SC**1204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	SC**09T3**	SC**1204**	SC**1204**
	ød	12-20	25	32
	Screw	I60M3.5×8 (2.7 Nm)		
	Screw		I60M4×11X (3.4 Nm)	I60M4×11X (3.4 Nm)
	Screw (shim)			SM6×10XA
	Shim			S12BS
	Wrench (screw)	WT15IP	WT15IP	WT15IP
	Wrench (shim)			WH40L

System code A368 Grade selection A46 Technical info A607 Cutting data A414

SC** steel boring bar

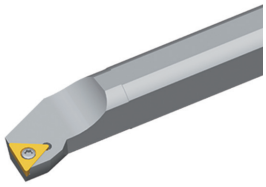
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Finishing	**Medium Cut**	**Roughing**	**Alum Machining**
A163	A164	A165	A165

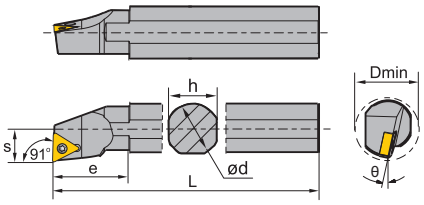
System code A368 Grade selection A46 Technical info A607 Cutting data A414

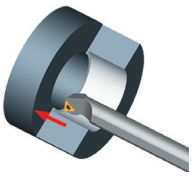
TC** steel boring bar S-Clamping

STFCR/L Kr: 91°



Right hand style





Article	✻	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S12M-STFCR/L11		●	●	12	150	11	9	30	16	-10	TC**1102**
S16M-STFCR/L11		○	●	16	150	15	11	35	20	-6	TC**1102**
S16R-STFCR/L11		●	●	16	200	15	11	35	20	-6	TC**1102**
S20Q-STFCR/L11		○		20	180	18	13	36	25	-3	TC**1102**
S20S-STFCR/L11		●	●	20	250	18	13	36	25	-3	TC**1102**
A12K-STFCR/L11	✻	●	●	12	125	11.5	9	26	16	-10	TC**1102**
A16M-STFCR/L11	✻	●	●	16	150	15.5	11	30	20	-6	TC**1102**
A20Q-STFCR/L11	✻	●	●	20	180	19	13	36	25	-3	TC**1102**
S25Q-STFCR/L16		●	○	25	180	23	17	49	32	-6	TC**16T3**
S25T-STFCR/L16		●	●	25	300	23	17	49	32	-6	TC**16T3**
S32R-STFCR/L16		●	●	32	200	30	22	50	40	-10	TC**16T3**
S32U-STFCR/L16		●	●	32	350	30	22	50	40	-10	TC**16T3**
S40S-STFCR/L16		○	○	40	250	37	27	60	50	-8	TC**16T3**
S40V-STFCR/L16		●	●	40	400	37	27	60	50	-8	TC**16T3**
A25R-STFCR/L16	✻	●	●	25	200	24	17	45	32	-6	TC**16T3**
A32S-STFCR/L16	✻	●	○	32	250	31	22	49	40	-10	TC**16T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TC**1102**	TC**16T3**	TC**16T3**
	ød	12-20	25	32-40
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×10 (2.7 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)			SM5×8.65XA
	Shim			T16BS
	Wrench (screw)	WT07IP	WT15IP	WT15IP
	Wrench (shim)			WH35L

System code A368 Grade selection A46 Technical info A607 Cutting data A414

TC** steel boring bar

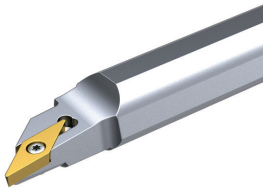
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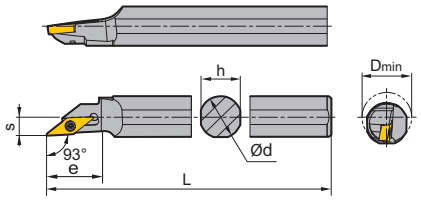
					
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A170	A171	A172	A174	A172	A220

System code A368 Grade selection A46 Technical info A607 Cutting data A414

VC** steel boring bar S-Clamping

SVJCR/L Kr: 93°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] ød	h	s	e	D_{min}	θ	Inserts
S16R-SVJCR/L11		●	●	16	15	14.5	25	19	-4	VC**1103**
S20K-SVJCR/L11		○	○	20	18	20.5	37	25	-3	VC**1103**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	**VC**1103****
	ød	**16-20**
	Screw	I60M2.5×6.5 (1.0 Nm)
	Wrench	WT07IP

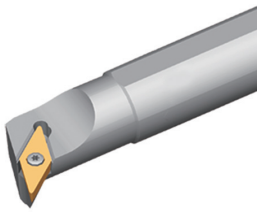
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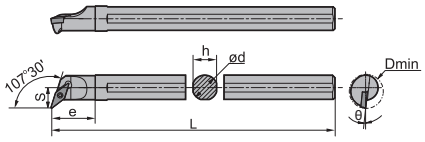
 **Finishing**	 **Alum Machining**	 **PCBN/PCD**
A186	A184	A227

System code A368 Grade selection A46 Technical info A607 Cutting data A414

VC** steel boring bar S-Clamping

SVQCR/L Kr: 107°30'







Right hand style

Article	✲	Stock		Dimensions [mm]							Inserts
		R	L	ød	L	h	s	e	D_{min}	θ	
S16Q-SVQCR/L11		●	●	16	180	15	13	28	22	-6	VC**1103**
S20R-SVQCR/L11		●	○	20	200	18	15	32	26	-4	VC**1103**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	**VC**1103****
	ød	**16-20**
	Screw	I60M2.5×6.5 (1.0 Nm)
	Wrench (screw)	WT07IP

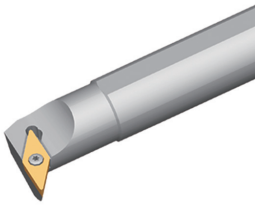
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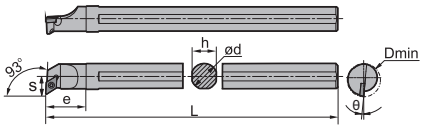
		
Finishing	**Alum Machining**	**PCBN/PCD**
A186	A184	A226

System code A368 Grade selection A46 Technical info A607 Cutting data A414

VC** steel boring bar S-Clamping

SVUCR/L Kr: 93°







Right hand style

Article	*	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S16Q-SVUCR/L11		●	○	16	180	15	15	25	24	-6	VC**1103**
S20R-SVUCR/L11		●	●	20	200	18	17	30	28	-4	VC**1103**
S25S-SVUCR/L16		○		25	250	23	19	50	32	-6	VC**1604**
S40U-SVUCR/L16			○	40	350	37	27	56	50	-8	VC**1604**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	VC**1103**	VC**1604**	VC**1604**
	ød	16-20	25	40
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)			SM5×8.65XA (4.0 Nm)
	Shim			V16BSC
	Wrench (screw)	WT07IP	WT15IP	WT15IP
	Wrench (shim)			WH35L

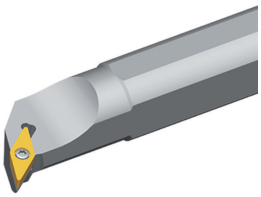
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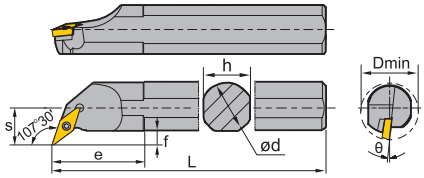
			
Finishing	**Medium Cut**	**Alum Machining**	**PCBN/PCD**
A186	A187	A184	A226

System code A368 Grade selection A46 Technical info A607 Cutting data A414

VB** steel boring bar S-Clamping

SVQBR/L Kr: 107°30'







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	f	D_{min}	θ	Inserts
S32R-SVQBR/L16		●	●	32	200	30	22	56	8.4	40	-8	VB**1604**
S32U-SVQBR/L16		●	●	32	350	30	22	56	8.4	40	-8	VB**1604**
S40V-SVQBR/L16		●	●	40	400	37	27	64	9.4	50	-8	VB**1604**
A32S-SVQBR/L16	✻	○	○	32	250	31	22	56	8.4	40	-8	VB**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VB**1604**
	ød	**32-40**
	Screw	I60M3.5×12 (2.7 Nm)
	Screw (shim)	SM5×8.65XA
	Shim	V16BS
	Wrench (screw)	WT15IP
	Wrench (shim)	WH35L

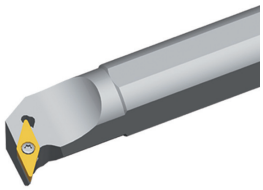
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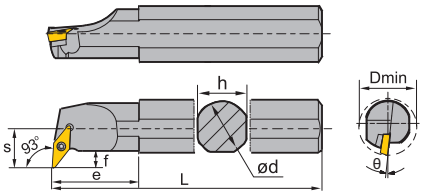
Finishing	Medium Cut	Roughing	PCBN/PCD
A177	A180	A181	A224

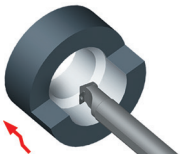
System code A368 Grade selection A46 Technical info A607 Cutting data A414

VB** steel boring bar S-Clamping

SVUBR/L Kr: 93°







Right hand style

Article	*	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	f	D_{min}	θ	Inserts
S20R-SVUBR/L1103		○	○	20	200	18	17	30	6	28	-6	VB**1103**
S25T-SVUBR/L16		○	○	25	300	24	18	30	6.5	33	-8	VB**1604**
S32R-SVUBR/L16		●	○	32	200	30	22	49	8.4	40	-8	VB**1604**
S32U-SVUBR/L16		●	●	32	350	30	22	49	8.4	40	-8	VB**1604**
S40S-SVUBR/L16		●	○	40	250	37	27	56.5	9.4	50	-8	VB**1604**
S40V-SVUBR/L16		●	●	40	400	37	27	56.5	9.4	50	-8	VB**1604**
A32S-SVUBR/L16	*	●	●	32	250	31	22	49	8.4	40	-8	VB**1604**
A40V-SVUBR/L16	*		●	40	400	37	27	56.5	9.4	50	-8	VB**1604**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	VB**1103**	VB**1604**
	ød	**16-20**	**20-50**
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)		SM5×8.65XA
	Shim		V16BS
	Wrench (screw)	WT07IP	WT15IP
	Wrench (shim)		WH35L

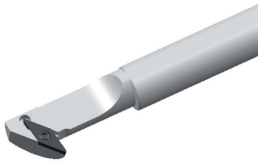
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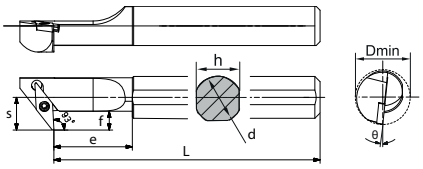
			
Finishing	**Medium Cut**	**Roughing**	**PCBN/PCD**
A177	A180	A181	A224

System code A368 Grade selection A46 Technical info A607 Cutting data A414

VB** steel boring bar S-Clamping

SVXBR/L Kr: 93°





Right hand style

Article	✻	Stock		Dimensions [mm]								Inserts
		R	L	ød	L	h	s	e	f	D_{min}	θ	
S16P-SVXBR/L1102-KR93		○	○	16	170	15	12.5	30	7.2	21	-8	VB**1102**
S16P-SVXBR/L11-KR93		○	○	16	170	15	12.5	30	7.2	21	-8	VB**1103**
S20R-SVXBR/L11-KR93		○	○	20	187	20	13	22	5.7	25	-8	VB**1103**
S25S-SVXBR/L16-KR93		○	○	25	235	25	19	26	10.2	32	-8	VB**1604**
S32T-SVXBR/L16-KR93		○	○	32	280	32	22	80	11.7	40	-8	VB**1604**
S40M-SVXBR/L16-KR93		○	○	40	130	40	27	40	14.3	50	-8	VB**1604**
S40U-SVXBR/L16-KR93			○	40	330	40	27	90	14.3	50	-8	VB**1604**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	VB**1102**	VB**1103**	VB**1604**
	ød	16-20	16-20	25-40
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M2.5×6.5 (1.0 Nm)	I60M3.5×12 (2.7 Nm)
	Screw (shim)			SM5×8.65XA (4.0 Nm)
	Shim			V16BS
	Wrench (screw)	WT07IP	WT07IP	WT15IP
	Wrench (shim)			WH35L

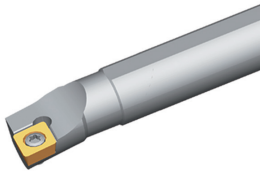
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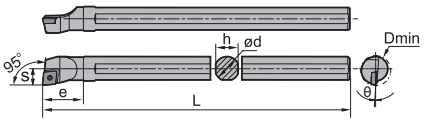
Finishing	Medium Cut	Roughing	PCBN/PCD
A177	A180	A181	A224

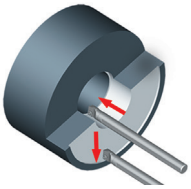
System code A368 Grade selection A46 Technical info A607 Cutting data A414

CP** steel boring bar S-Clamping

SCLPR/L Kr: 95°







Right hand style

Article	*	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S10K-SCLPR/L06		●	●	10	125	9	6	17	12	-7	CP**0602**
S12M-SCLPR/L06		●	●	12	150	11	8	20	16	-4	CP**0602**
S16Q-SCLPR/L09		●	●	16	180	15	10	29	20	-4	CP**09T3**
S20R-SCLPR/L09		○		20	200	18	13	35	25	-4	CP**09T3**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	CP**0602**	CP**09T3**
	ød	**10-12**	**20-25**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)
	Wrench (screw)	WT07IP	WT15IP

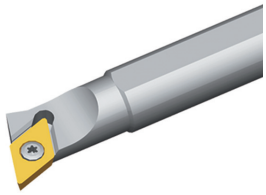
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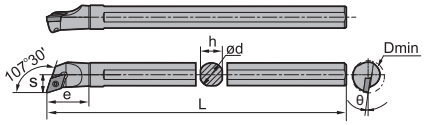
		
Finishing	**Medium Cut**	**Cast Iron**
A151	A151	A151

System code A368 Grade selection A46 Technical info A607 Cutting data A414

DP** steel boring bar S-Clamping

SDQPR/L Kr: 107°30'







Right hand style

Article	✻	Stock		Dimensions [mm]							Inserts
		R	L	ød	L	h	s	e	D_{min}	θ	
S10K-SDQPR/L07		●	●	10	125	9	7	20	13	-8	DP**0702**
S12M-SDQPR/L07		●	●	12	150	11	9	22	16	-8	DP**0702**
S16Q-SDQPR/L07		●		16	180	15	11	27	20	-6	DP**0702**
S16Q-SDQPR/L11		●	●	16	180	15	11	32	20	-6	DP**11T3**
S20R-SDQPR/L11		○	○	20	200	18	13	33	25	-6	DP**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DP**0702**	DP**0702**	DP**11T3**
	ød	10-12	16	16-20
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)
	Wrench (screw)	WT07IP	WT07IP	WT15IP

Insert

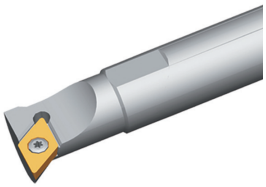


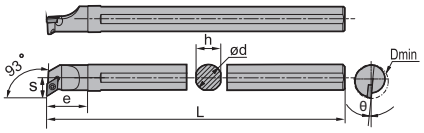
Finishing
A160

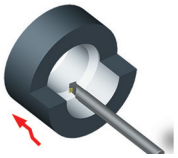
System code A368 | Grade selection A46 | Technical info A607 | Cutting data A414

DP** steel boring bar S-Clamping

SDUPR/L Kr: 93°







Right hand style

Article	*	Stock R	Stock L	Dimensions [mm] ød	L	h	s	e	D_{min}	θ	Inserts
S10K-SDUPR/L07		●	●	10	125	9	9	18	15	-8	DP**0702**
S12M-SDUPR/L07		●	●	12	150	11	9	19	16	-8	DP**0702**
S16Q-SDUPR/L07		●	●	16	180	15	11	25	20	-6	DP**0702**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	DP**0702**	DP**0702**
	ød	**10-12**	**16**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M2.5×6.5 (1.0 Nm)
	Wrench (screw)	WT07IP	WT07IP

Insert

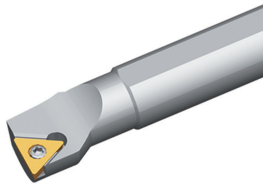


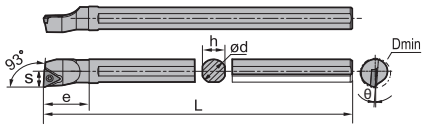
Finishing
A160

System code A368 Grade selection A46 Technical info A607 Cutting data A414

TP** steel boring bar S-Clamping

STUPR/L Kr: 93°







Right hand style

Article	✻	Stock		Dimensions [mm]							Inserts
		R	L	ød	L	h	s	e	D_{min}	θ	
S10K-STUPR/L09		●	●	10	125	9	6	20	12	-6	TP**0902**
S12M-STUPR/L09		●	●	12	150	11	8	22	16	-4	TP**0902**
S12M-STUPR/L11		●	●	12	150	11	8	25	16	-4	TP**1103**
S16Q-STUPR/L11		●	●	16	180	15	10	27	20	-3	TP**1103**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	**TP**0902****	**TP**1103****
	ød	**10-12**	**12-16**
	Screw	I60M2.2×5.5 (0.8 Nm)	I60M2.5×6.5 (1.0 Nm)
	Wrench	WT07IP	WT07IP

Insert

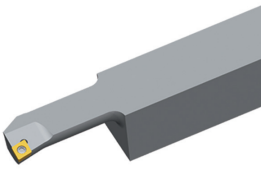
Finishing

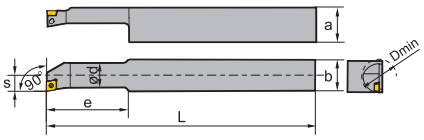
A176

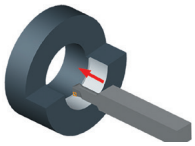
System code A368 | Grade selection A46 | Technical info A607 | Cutting data A414

CC** steel boring bar S-Clamping

SCFCR/L Kr: 90°







Article	✻	Stock R	Stock L	Dimensions [mm] ød	a	b	L	s	e	D_{min}	Inserts
S10M-SCFCR/L06S25		●		10	27	25	150	7	30	13	CC**0602**
S12P-SCFCR/L06S25		●		12	27	25	170	9	35	16	CC**0602**
S16Q-SCFCR/L09S25		●	○	16	27	25	180	11	40	20	CC**09T3**
S20R-SCFCR/L09S25		○		20	27	25	200	13	45	25	CC**09T3**
S25R-SCFCR/L12S25		●	●	25	27	25	200	17	50	32	CC**1204**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	CC**0602**	CC**09T3**	CC**1204**
	ød	**10-12**	**16-20**	**25**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)	I60M4×12 (3.4 Nm)
	Wrench	WT07IP	WT15IP	WT20IP

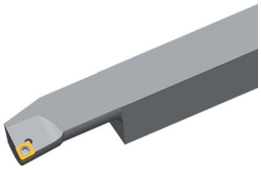
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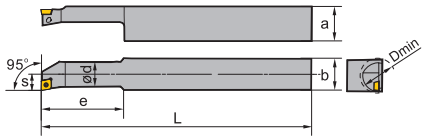
 Finishing	 Medium Cut	 Roughing	 Alum Machining	 Cast Iron	 PCBN/PCD
A142	A146	A148	A149	A148	A213

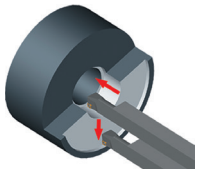
System code A368 Grade selection A46 Technical info A607 Cutting data A414

CC** steel boring bar S-Clamping

SCLCR Kr: 95°







Article	✻	Stock	Dimensions [mm]							Inserts
			ød	a	b	L	s	e	D_{min}	
S10M-SCLCR06S20		○	10	22	20	150	7	30	13	CC**0602**
S12P-SCLCR06S20		○	12	22	20	170	9	35	16	CC**0602**
S16Q-SCLCR09S20		●	16	22	20	180	11	40	20	CC**09T3**
S20R-SCLCR09S20		●	20	22	20	200	13	60	25	CC**09T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	**CC**0602****	**CC**09T3****
	ød	**10-12**	**16-20**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)
	Wrench	WT07IP	WT15IP

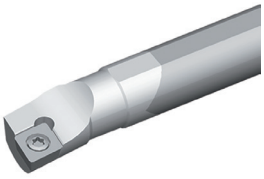
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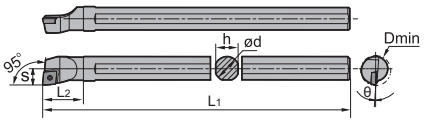
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A142	A146	A148	A149	A148	A213

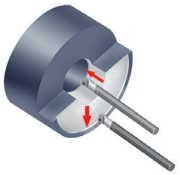
System code A368 Grade selection A46 Technical info A607 Cutting data A414

CP** solid carbide boring bar S-Clamping

SCLPR/L Kr: 95°







Right hand style

Article	✻	Stock R	Stock L	Dimensions [mm] D_{min}	ød	h	s	L_1	L_2	θ	Inserts
C10M-SCLPR/L06		●	●	12	10	9	6	150	17	7	CP**0602**
C12Q-SCLPR/L06		●	○	16	12	11	8	180	20	4	CP**0602**
C16R-SCLPR/L09		●	●	20	16	15	10	200	29	4	CP**09T3**
E16R-SCLPR/L09	✻	○	○	19	16	15.5	10	200	-	-2	CP**09T3**
C20S-SCLPR/L09		●	○	25	20	18	13	250	35	4	CP**09T3**
E20S-SCLPR/L09	✻	○		24	20	19.5	13	250	-	-2	CP**09T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	**CP**0602****	**CP**09T3****
	ød	**10-12**	**16-20**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M3.5×10 (2.7 Nm)
	Wrench (screw)	WT07IP	WT15IP

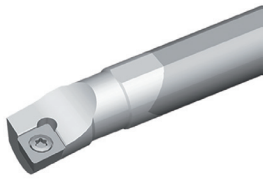
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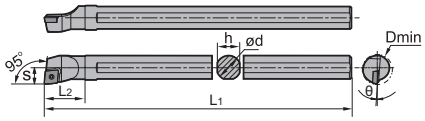
		
Finishing	**Medium Cut**	**Cast Iron**
A151	A151	A151

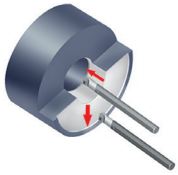
System code A368 Grade selection A46 Technical info A607 Cutting data A414

CC** solid carbide boring bar S-Clamping

SCLCR/L Kr: 95°







Right hand style

Article	✻	Stock R	Stock L	D_{min}	ød	h	s	L_1	L_2	θ	Inserts
E08K-SCLCR/L06-09	✻	●	●	9	8	7.5	5	125	-	-12	CC**0602**
E08K-SCLCR/L06-10	✻	●	●	10	8	7.5	6	125	-	-12	CC**0602**
C10M-SCLCR/L06		●	●	12	10	9	6	150	17	-13	CC**0602**
E10M-SCLCR/L06	✻	●	●	12	10	9.5	7	150	-	-10	CC**0602**
C12Q-SCLCR/L06		●		16	12	11	9	180	20	-10	CC**0602**
E12Q-SCLCR/L06	✻	●	●	15	12	11.5	9	180	-	-10	CC**0602**
E16R-SCLCR/L06	✻	●	●	18	16	15.5	10	200	-	-8	CC**0602**
E12Q-SCLCR/L09	✻	●	●	15	12	11.5	9	180	-	-9	CC**09T3**
E16R-SCLCR/L09	✻	●	●	18	16	15.5	10	200	-	-10	CC**09T3**
E20S-SCLCR/L09	✻	●	●	24	20	19.5	13	250	-	-8	CC**09T3**
E25T-SCLCR/L09	✻	●	●	31	25	24	17	300	-	-6	CC**09T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	CC**0602**	CC**0602**	CC**09T3**	CC**09T3**
	ød	**8-16**	**6-16**	**12**	**16-25**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M2.5×5.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)	I60M3.5×10 (2.7 Nm)
	Wrench (screw)	WT07IP	WT07IP	WT15IP	WT15IP

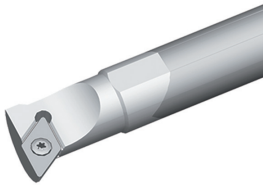
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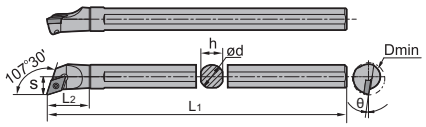
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A142	A146	A148	A149	A148	A213

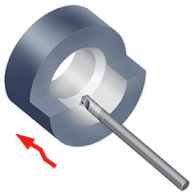
System code A368 | Grade selection A46 | Technical info A607 | Cutting data A414

DP** solid carbide boring bar S-Clamping

SDQPR/L Kr: 107°30'







Right hand style

Article	✻	Stock		Dimensions [mm]							Inserts
		R	L	D_{min}	ød	h	s	L_1	L_2	θ	
C10M-SDQPR/L07		●	●	13	10	9	7	150	20	8	DP**0702
C12Q-SDQPR/L07		○	●	16	12	11	9	180	22	8	DP**0702
C16R-SDQPR/L07		○	○	20	16	15	11	200	27	6	DP**0702
C16R-SDQPR/L11		○	○	20	16	15	11	200	32	6	DP**11T3**
C20S-SDQPR/L11		●	○	25	20	18	13	250	33	6	DP**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DP**0702	DP**0702	DP**11T3**
	ød	10-12	16	16-20
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M2.5×6.5 (1.0 Nm)	I60M3.5×8 (2.7 Nm)
	Wrench (screw)	WT07IP	WT07IP	WT15IP

Insert

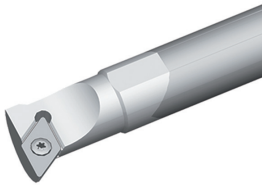


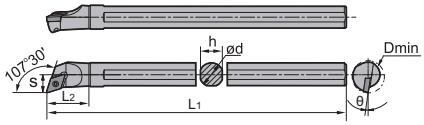
Finishing
A160

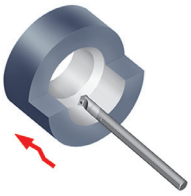
System code A368 Grade selection A46 Technical info A607 Cutting data A414

DC** solid carbide boring bar S-Clamping

SDQCR/L Kr: 107°30'







Right hand style

Article	✻	Stock		Dimensions [mm]							Inserts
		R	L	D_{min}	ød	h	s	L_1	L_2	θ	
E08K-SDQCR/L07	✻	●	●	11	8	7.5	6.5	125	-	-12	DC**0702**
E10M-SDQCR/L07	✻	●	●	12	10	9.5	7	150	-21.5	-10	DC**0702**
E12Q-SDQCR/L07	✻	●	●	15	12	11.5	9	180	-	-10	DC**0702**
E16R-SDQCR/L07	✻	●	○	18	16	15.5	10	200	27-	-6	DC**0702**
E20S-SDQCR/L07	✻	●	○	24	20	19.5	13	250	-33	-4	DC**0702**
E16R-SDQCR/L11	✻	●	●	18	16	15.5	10	200	-	-8	DC**11T3**
E20S-SDQCR/L11	✻	●	○	24	20	19.5	13	250	-	-8	DC**11T3**
E25T-SDQCR/L11	✻	●	○	31	25	24	17	300	-	-6	DC**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DC**0702**	DC**11T3**
	ød	**8-20**	**16-25**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M3.5×10 (2.7 Nm)
	Wrench (screw)	WT07IP	WT15IP

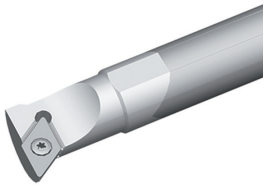
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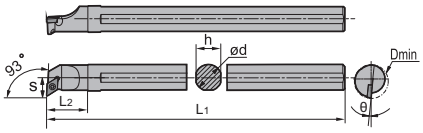
Finishing	Medium Cut	Roughing	Alum Machining	Cast Iron	PCBN/PCD
A155	A156	A158	A158	A158	A217

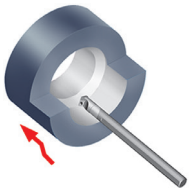
System code A368 Grade selection A46 Technical info A607 Cutting data A414

DP** solid carbide boring bar S-Clamping

SDUPR/L Kr: 93°







Right hand style

Article	*	Stock R	Stock L	Dimensions [mm] D_{min}	ød	h	s	L_1	L_2	θ	Inserts
C10M-SDUPR/L07		●	●	15	10	9	9	150	18	8	DP**0702**
C12Q-SDUPR/L07		●	○	16	12	11	9	180	19	8	DP**0702**
C16R-SDUPR/L07		○	○	20	16	15	11	200	25	6	DP**0702**

● Ex stock ○ On demand

* With internal cooling

Spare parts

	Insert	**DP**0702****
	ød	**15-20**
	Screw	I60M2.5×5.5 (1.0 Nm)
	Wrench	WT07IP

Insert

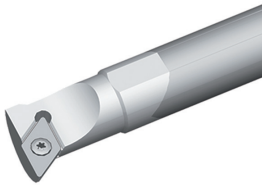


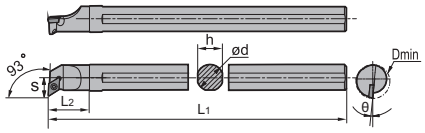
Finishing
A160

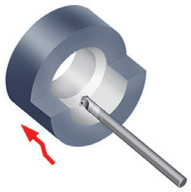
System code A368 Grade selection A46 Technical info A607 Cutting data A414

DC** solid carbide boring bar S-Clamping

SDUCR/L Kr: 93°







Right hand style

Article	✻	Stock		Dimensions [mm]							Inserts
		R	L	D_{min}	ød	h	s	L_1	L_2	θ	
E10M-SDUCR/L07	✻	●	○	12	10	9.5	7	150	-	-10	DC**0702**
C12Q-SDUCR/L07		●	●	16	12	11	9	180	22.5	-6	DC**0702**
E12Q-SDUCR/L07	✻	●	●	15	12	11.5	9	180	-	-10	DC**0702**
E16R-SDUCR/L07	✻	●	○	18	16	15.5	10	200	-	-6	DC**0702**
E20S-SDUCR/L07	✻	○	○	24	20	19.5	13	250	-	-4	DC**0702**
E16R-SDUCR/L11	✻	●	○	18	16	15.5	10	200	-	-8	DC**11T3**
E20S-SDUCR/L11	✻	●	●	24	20	19.5	13	250	-	-8	DC**11T3**
E25T-SDUCR/L11	✻	○	○	31	25	24	17	300	-	-6	DC**11T3**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	DC**0702**	DC**11T3**
	ød	**10-20**	**16-25**
	Screw	I60M2.5×5.5 (1.0 Nm)	I60M3.5×10 (2.7 Nm)
	Wrench (screw)	WT07IP	WT15IP

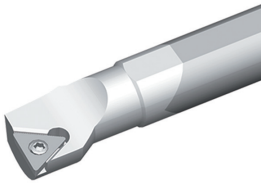
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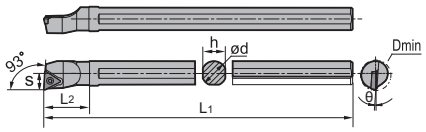
 Finishing	 Medium Cut	 Roughing	 Alum Machining	 Cast Iron	 PCBN/PCD
A155	A156	A158	A158	A158	A217

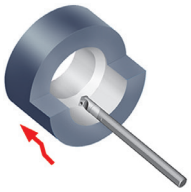
System code A368 Grade selection A46 Technical info A607 Cutting data A414

TP** solid carbide boring bar S-Clamping

STUPR/L Kr: 93°







Right hand style

Article	*	Stock		Dimensions [mm]							Inserts
		R	L	D_{min}	ød	h	s	L_1	L_2	θ	
C10M-STUPR/L09		○	○	12	10	9	6	150	20	6	TP**0902**
C12Q-STUPR/L09		●		16	12	11	8	180	22	4	TP**0902**
C12Q-STUPR/L11		●		16	12	11	8	180	25	4	TP**1103**
C16R-STUPR/L11		○	○	20	16	15	10	200	27	3	TP**1103**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	TP**0902**	TP**1103**
	ød	**10-12**	**12-16**
	Screw	I60M2.2×5.5 (0.8 Nm)	I60M2.5×6.5 (1.0 Nm)
	Wrench (screw)	WT07IP	WT07IP

Insert



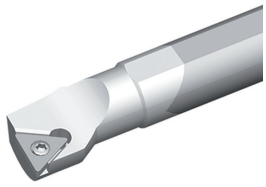
Finishing

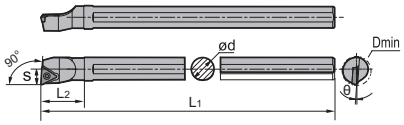
A176

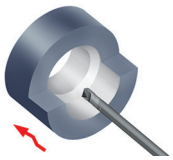
System code A368 Grade selection A46 Technical info A607 Cutting data A414

TC** solid carbide boring bar S-Clamping

STFCR/L Kr: 90°







Right hand style

Article	✲	Stock		Dimensions [mm]							Inserts
		R	L	D_{min}	ød	h	s	L_1	L_2	θ	
E08K-STFCR/L09	✲	○	●	11	8	7.5	6	125	-	-12	TC**0902**
E10M-STFCR/L09	✲	○	○	12	10	9.5	7	150	-	-10	TC**0902**
E12Q-STFCR/L11	✲	○	○	15	12	11.5	9	180	-	-10	TC**1102**
E16R-STFCR/L11	✲	○	○	18	16	15.5	10	200	-	-8	TC**1102**
E20S-STFCR/L11	✲	○	○	24	20	19.5	13	250	-	-8	TC**1102**
E20S-STFCR/L16	✲	○	○	24	20	19.5	13	250	-	-8	TC**16T3**
E25T-STFCR/L16	✲	○	○	31	25	24	17	300	-	-6	TC**16T3**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	**TC**0902****	**TC**1102****	**TC**16T3****
	ød	**8-10**	**12-20**	**20-25**
	Screw	I60M2.2×5.5 (0.8 Nm)	I60M2.5×5.5 (1.0 Nm)	I60M3.5×10 (2.7 Nm)
	Wrench (screw)	WT07IP	WT07IP	WT15IP

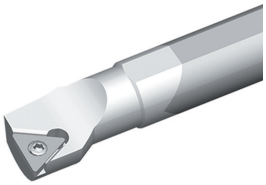
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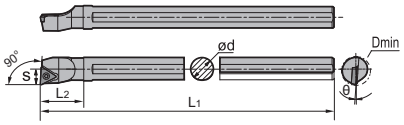
Finishing	**Medium Cut**	**Roughing**	**Alum Machining**	**Cast Iron**	**PCBN/PCD**
A170	A171	A172	A174	A172	A220

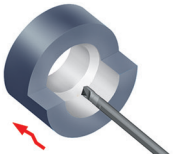
System code A368 Grade selection A46 Technical info A607 Cutting data A414

TC** solid carbide boring bar S-Clamping

STFPR/L Kr: 90°







Right hand style

Article	✻	Stock		Dimensions [mm]							Inserts
		R	L	D_{min}	ød	h	s	L_1	L_2	θ	
E10M-STFPR/L11	✻	○	○	12	10	9.5	6	150	-	-5	TP**1103**
E12Q-STFPR/L11	✻	○	○	15	12	11.5	8	180	-	-4	TP**1103**
E16R-STFPR/L11	✻	○	○	19	16	15.5	10	200	-	-2	TP**1103**
E20S-STFPR/L11	✻	○	○	24	20	19	13	250	-	-2	TP**1103**

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Insert	**TP**1103****
	ød	**10-20**
	Screw	I60M3.0×7.0 (1.8 Nm)
	Wrench (screw)	WT08IP

Insert



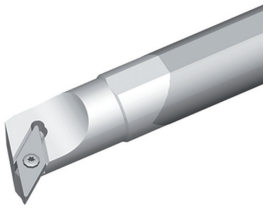
Finishing

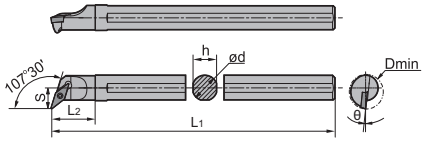
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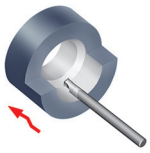
System code A368 Grade selection A46 Technical info A607 Cutting data A414

VC** solid carbide boring bar S-Clamping

SVQCR/L Kr: 107°30'







Right hand style

Article	✲	Stock		Dimensions [mm]							Inserts
		R	L	D_{min}	ød	h	s	L_1	L_2	θ	
C16R-SVQCR/L11		○	○	22	16	15	13	200	28	-6	VC**1103**
C20S-SVQCR/L11		○	○	26	20	18	15	250	32	-4	VC**1103**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	**VC**1103****
	ød	**16-20**
	Screw	I60M2.5×6.5 (1.0 Nm)
	Wrench (screw)	WT07IP

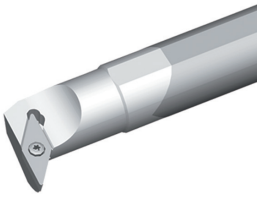
Insert

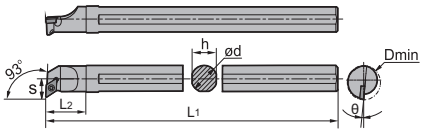
		
Finishing	**Alum Machining**	**PCBN/PCD**
A186	A184	A226

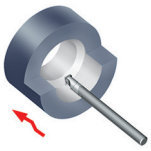
System code A368 Grade selection A46 Technical info A607 Cutting data A414

VC** solid carbide boring bar S-Clamping

SVUCR/L Kr: 93°







Right hand style

Article	✲	Stock		Dimensions [mm]							Inserts
		R	L	D_{min}	ød	h	s	L_1	L_2	θ	
C16R-SVUCR/L11			○	24	16	15	15	200	25	6	VC**1103**
E16R-SVUCR/L11	✲	○	○	22	16	15	13	200	-	-6.5	VC**1103**
C20S-SVUCR/L11		●	●	28	20	18	17	250	30	4	VC**1103**
E20S-SVUCR/L11	✲	○	○	27	20	18	13	250	-	-6.5	VC**1103**
E25T-SVUCR/L16	✲	○	○	35	25	23	20.5	300	-	-6.5	VC**1604**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	VC**1103**	VC**1604**
	ød	**16-20**	**25**
	Screw	I60M2.5×6.5 (1.0 Nm)	I60M3.5×10 (2.7 Nm)
	Wrench (screw)	WT07IP	WT15IP

Insert

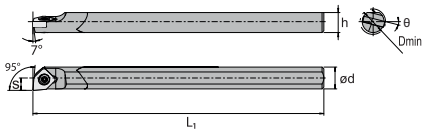
			
Finishing	**Medium Cut**	**Alum Machining**	**PCBN/PCD**
A186	A187	A184	A226

System code A368 Grade selection A46 Technical info A607 Cutting data A414

ZN** solid carbide boring bar S-Clamping

SZLNR/L Kr: 95°





Right hand style

Article	✲	Stock	Dimensions [mm]						Inserts
			ød	h	s	L_1	D_{min}	θ	
C06X-SZLNR04		○	6	5.5	3.5	80	7	-14	ZNEX0401**

● Ex stock ○ On demand

✲ With internal cooling

Spare parts

	Insert	**ZNEX0401****
	ød	**6**
	Screw	I60M2×3.7 (0.5 Nm)
	Wrench (screw)	WT06IP

Insert



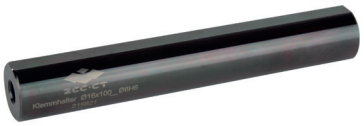
PCBN/PCD

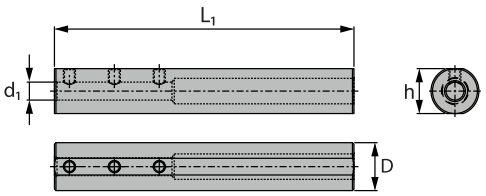
A197

System code A368 Grade selection A46 Technical info A607 Cutting data A414

C06X** holder

SZLNR Kr: 95°





Article	Stock	Dimensions [mm]			
		D	d_1	L_1	h
SHSZ1600.06.100	●	16	6	100	15

● Ex stock ○ On demand

✻ With internal cooling

Spare parts

	Screw	M4x5SH
	Wrench (Screw)	WH20L

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Notes

Turning insert, negative

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
						HC (CVD)								
						YBC103			YB6315			YBC152		
						Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
						0,1	0,2	0,6	0,1	0,2	0,6	0,1	0,2	0,6
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1	520	420	280	500	400	270	500	400	270
		approx. 0,45 % C	annealed	190	2	440	360	250	420	340	230	420	340	230
		approx. 0,45 % C	tempered	250	3	350	300	220	330	280	200	330	280	200
		approx. 0,75 % C	annealed	270	4	340	290	210	320	270	190	320	270	190
		approx. 0,75 % C	tempered	300	5	300	260	190	280	240	170	280	240	170
	Low-alloyed steel		annealed	180	6	420	320	200	400	300	180	400	300	180
			tempered	275	7	300	250	170	280	230	150	280	230	150
			tempered	300	8	280	240	170	260	220	150	260	220	150
			tempered	350	9	250	210	140	230	190	120	230	190	120
	High-alloyed steel and high-alloyed tool steel		annealed	200	10	380	310	210	360	290	190	360	290	190
			hardened and tempered	325	11	210	180	150	190	160	130	190	160	130
M	Stainless steel	ferritic/martensitic	annealed	200	12									
		martensitic	tempered	240	13									
		austenitic	quench hardened	180	14									
		austenitic-ferritic		230	15									
K	Grey cast iron	perlitic/ferritic		180	16									
		perlitic (martensitic)		260	17									
	Cast iron with spheroidal graphite	ferritic		160	18									
		perlitic		250	19									
	Malleable cast iron	ferritic		130	20									
		perlitic		230	21									
N	Aluminium wrought alloys	cannot be hardened		60	22									
		hardenable	hardened	100	23									
	Cast aluminium alloys	≤ 12 % Si, cannot be hardened		75	24									
		≤ 12 % Si, hardenable	hardened	90	25									
		> 12 % Si, cannot be hardened		130	26									
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27									
		CuZn, CuSnZn		90	28									
		CuSn, Pb-free copper, electrolytic copper		100	29									
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30									
			hardened	280	31									
		Ni or Co bass	annealed	250	32									
			hardened	350	33									
			cast	320	34									
	Titanium alloys	pure titanium		R_m 400	35									
		α and β alloys	hardened	R_m 1050	36									
H	Hardened steel		hardened and tempered	55 HRC	37									
			hardened and tempered	60 HRC	38									
	Hard cast iron		cast	400	39									
	Hardened cast iron		hardened and tempered	55 HRC	40									
X	Non-metallic materials	Thermoplastics			41									
		Thermosetting plastics			42									
		Plastic, glass-fibre reinforced GFRP			43									
		Plastic, carbon fibre reinforced CFRP			44									
		Graphite			45									
		Wood			46									

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.
For examples of material for cutting tool groups view page D11.

Starting values for cutting speed v_c [m/min]																								
HC (CVD)																								
YBC203			YBC252			YBC352			YBM153			YBM253			YBD102			YB7315			YBD152		
Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
0,1	0,4	0,8	0,1	0,4	0,8	0,2	0,5	1,0	0,2	0,4	0,6	0,2	0,4	0,6	0,1	0,3	0,4	0,1	0,3	0,5	0,1	0,3	0,5
480	370	230	480	370	230	430	330	220															
400	310	190	400	310	190	350	270	180															
310	250	160	310	250	160	260	210	150															
300	240	150	300	240	150	250	200	140															
260	210	130	260	210	130	210	170	120															
380	290	170	380	290	170	320	240	150															
260	210	140	260	210	140	200	170	120															
240	200	140	240	200	140	180	160	120															
220	180	110	220	180	110	150	130	90															
310	250	170	310	250	170	220	180	130															
150	130	100	150	130	100	–	–	–															
									380	295	210	350	265	180									
									190	155	120	150	110	65									
									250	200	150	200	140	80									
									200	160	130	160	115	70									
															530	380	220	600	410	220	540	375	210
															240	200	150	330	240	150	280	210	140
															300	210	145	340	250	160	290	215	140
															220	150	105	260	190	120	210	155	100
															330	265	220	370	300	230	320	265	210
															230	155	100	280	200	120	230	165	100

HC Coated carbide
HT Uncoated carbide, primary component (TiC) or (TiN), cermet
HW Uncoated carbide, primary component (WC)
BL Cubic boron nitride with low BN content
BH Cubic boron nitride with high BN content
CN Si3N4 ceramic
CM Mixed ceramic
HC_1 Coated cermet
BC CBN with coating
CC Coated cutting ceramic
CR Cutting ceramic, primary component aluminium oxide (Al_2O_3), reinforced
DP Polycrystalline diamond

General turning Recommended cutting data

Turning insert, negative

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
						HC (CVD)			HC (PVD)					
						YBD152C			YBG101			YBG102		
						Feed rate [mm]			Feed rate [mm]					
						0,1	0,3	0,5	0,1	0,3	0,6	0,1	0,3	0,6
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1									
		approx. 0,45 % C	annealed	190	2									
		approx. 0,45 % C	tempered	250	3									
		approx. 0,75 % C	annealed	270	4									
		approx. 0,75 % C	tempered	300	5									
	Low-alloyed steel		annealed	180	6									
			tempered	275	7									
			tempered	300	8									
			tempered	350	9									
	High-alloyed steel and high-alloyed tool steel		annealed	200	10									
			hardened and tempered	325	11									
M	Stainless steel	ferritic/martensitic	annealed	200	12							360	290	200
		martensitic	tempered	240	13							180	150	110
		austenitic	quench hardened	180	14							240	190	140
		austenitic-ferritic		230	15							190	150	110
K	Grey cast iron	perlitic/ferritic		180	16	570	395	220						
		perlitic (martensitic)		260	17	310	230	150						
	Cast iron with spheroidal graphite	ferritic		160	18	310	230	150						
		perlitic		250	19	230	170	110						
	Malleable cast iron	ferritic		130	20	340	280	220						
		perlitic		230	21	250	180	110						
N	Aluminium wrought alloys	cannot be hardened		60	22				2000	1200	–	2000	1200	–
		hardenable	hardened	100	23				610	420	–	610	420	–
	Cast aluminium alloys	≤ 12 % Si, cannot be hardened		75	24				550	300	–	550	300	–
		≤ 12 % Si, hardenable	hardened	90	25				360	190	–	360	190	–
		> 12 % Si, cannot be hardened		130	26				320	170	–	320	170	–
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27				730	350	–	730	350	–
		CuZn, CuSnZn		90	28				370	330	–	370	330	–
		CuSn, Pb-free copper, electrolytic copper		100	29				270	200	–	270	200	–
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30							65	45	–
			hardened	280	31							60	40	–
		Ni or Co bass	annealed	250	32							60	40	–
			hardened	350	33							55	35	–
			cast	320	34							55	35	–
	Titanium alloys	pure titanium		R_m 400	35							100	60	–
		α and β alloys	hardened	R_m 1050	36							80	40	–
H	Hardened steel		hardened and tempered	55 HRC	37									
			hardened and tempered	60 HRC	38									
	Hard cast iron		cast	400	39									
	Hardened cast iron		hardened and tempered	55 HRC	40									
X	Non-metallic materials	Thermoplastics			41									
		Thermosetting plastics			42									
		Plastic, glass-fibre reinforced GFRP			43									
		Plastic, carbon fibre reinforced CFRP			44									
		Graphite			45									
		Wood			46									

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.
For examples of material for cutting tool groups view page D11.

Starting values for cutting speed v_c [m/min]																								
HC (PVD)																HC_1			HT					
YBS103			YBG105			YB9320			YBG205(H)			YPD201			YNG151C			YNG151			YNT251		
Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]					
0,1	0,3	0,6	0,1	0,3	0,6	0,1	0,3	0,6	0,1	0,3	0,6	0,1	0,3	0,6	0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,2	0,4
															510	350	–	510	350	–	510	350	–
															430	270	–	430	270	–	430	270	–
															330	220	–	330	220	–	330	220	–
															320	200	–	320	200	–	320	200	–
															280	170	–	280	170	–	280	170	–
															400	240	–	400	240	–	400	240	–
															290	180	–	290	180	–	290	180	–
															240	170	–	240	170	–	240	170	–
															220	150	–	220	150	–	220	150	–
															340	220	–	340	220	–	340	220	–
															180	110	–	180	110	–	180	110	–
360	290	200	360	290	200	360	290	200	320	250	160	360	290	200									
180	150	110	180	150	110	190	155	110	170	150	110	190	155	110									
240	190	140	240	190	140	250	210	150	230	190	140	250	210	150									
190	150	110	190	150	110	200	165	120	180	150	110	200	165	120									
															430	365	280	430	365	280	430	365	280
															390	340	270	390	340	270	390	340	270
															360	300	220	360	300	220	360	300	220
															340	295	230	340	295	230	340	295	230
															310	260	190	310	260	190	310	260	190
															250	210	150	250	210	150	250	210	150
80	65	45	65	45	–	55	35	–	55	–	–	–	65	45									
75	60	40	60	40	–	50	30	–	50	–	–	–	60	40									
70	60	40	60	40	–	50	30	–	50	–	–	–	60	40									
65	55	35	55	35	–	45	25	–	45	–	–	–	55	35									
65	55	35	55	35	–	45	25	–	45	–	–	–	55	35									
110	100	60	100	60	–	80	60	–	70	–	–	–	100	60									
90	80	40	80	40	–	60	40	–	50	–	–	–	80	40									

HC Coated carbide
HT Uncoated carbide, primary component (TiC) or (TiN), cermet
HW Uncoated carbide, primary component (WC)
BL Cubic boron nitride with low BN content
BH Cubic boron nitride with high BN content
CN Si3N4 ceramic
CM Mixed ceramic
HC_1 Coated cermet
BC CBN with coating
CC Coated cutting ceramic
CR Cutting ceramic, primary component aluminium oxide (Al_2O_3), reinforced
DP Polycrystalline diamond

General turning Recommended cutting data

Turning insert, negative

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
						HW						BL		
						YD101			YD201			YCB112		
						Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
						0,05	0,2	0,35	0,1	0,2	0,3	0,1	0,2	0,3
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1									
		approx. 0,45 % C	annealed	190	2									
		approx. 0,45 % C	tempered	250	3									
		approx. 0,75 % C	annealed	270	4									
		approx. 0,75 % C	tempered	300	5									
	Low-alloyed steel		annealed	180	6									
			tempered	275	7									
			tempered	300	8									
			tempered	350	9									
	High-alloyed steel and high-alloyed tool steel		annealed	200	10									
			hardened and tempered	325	11									
M	Stainless steel	ferritic/martensitic	annealed	200	12									
		martensitic	tempered	240	13									
		austenitic	quench hardened	180	14									
		austenitic-ferritic		230	15									
K	Grey cast iron	perlitic/ferritic		180	16									
		perlitic (martensitic)		260	17									
	Cast iron with spheroidal graphite	ferritic		160	18									
		perlitic		250	19									
	Malleable cast iron	ferritic		130	20									
		perlitic		230	21									
N	Aluminium wrought alloys	cannot be hardened		60	22	1750	1200	800	1750	1200	800			
		hardenable	hardened	100	23	510	380	250	510	380	250			
	Cast aluminium alloys	≤ 12 % Si, cannot be hardened		75	24	460	320	175	460	320	175			
		≤ 12 % Si, hardenable	hardened	90	25	300	205	110	300	205	110			
		> 12 % Si, cannot be hardened		130	26	270	185	100	270	185	100			
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27	610	410	205	610	410	205			
		CuZn, CuSnZn		90	28	310	250	195	310	250	195			
		CuSn, Pb-free copper, electrolytic copper		100	29	225	170	115	225	170	115			
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30									
			hardened	280	31									
		Ni or Co bass	annealed	250	32							180	160	140
			hardened	350	33							160	140	120
			cast	320	34							120	100	80
	Titanium alloys	pure titanium		R_m 400	35									
		α and β alloys	hardened	R_m 1050	36									
H	Hardened steel		hardened and tempered	55 HRC	37							220	170	130
			hardened and tempered	60 HRC	38							200	160	120
	Hard cast iron		cast	400	39							200	150	100
	Hardened cast iron		hardened and tempered	55 HRC	40							200	150	100
X	Non-metallic materials	Thermoplastics			41									
		Thermosetting plastics			42									
		Plastic, glass-fibre reinforced GFRP			43									
		Plastic, carbon fibre reinforced CFRP			44									
		Graphite			45									
		Wood			46									

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.
For examples of material for cutting tool groups view page D11.

Starting values for cutting speed v_c [m/min]																									
BL										BC									BH			BL			
YCB113			YCB121			YCB131			YCB113C			YCB121C			YCB131C			YCB215			YZB630			
Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			
0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,3	0,5	0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,3	0,5	0,1	0,3	0,5	0,1	0,3	0,5		
																			1500	980	400				
																			1250	800	320				
																			–	–	–				
																			300	200	100				
																			–	–	–				
																			300	200	100				
							160	140	120																
							140	120	100																
							120	100	80																
240	180	140	220	170	130	160	120	100	240	180	140	220	170	130	160	120	100				220	170	130		
220	180	140	200	160	120	150	120	100	220	180	140	200	160	120	150	120	100				200	160	120		
250	150	100	200	150	100	180	120	100	250	150	100	200	150	100	180	120	100				200	150	100		
200	150	100	200	150	100	150	120	100	200	150	100	200	150	100	150	120	100				200	150	100		

HC Coated carbide
HT Uncoated carbide, primary component (TiC) or (TiN), cermet
HW Uncoated carbide, primary component (WC)
BL Cubic boron nitride with low BN content
BH Cubic boron nitride with high BN content
CN Si3N4 ceramic
CM Mixed ceramic
HC_1 Coated cermet
BC CBN with coating
CC Coated cutting ceramic
CR Cutting ceramic, primary component aluminium oxide (Al_2O_3), reinforced
DP Polycrystalline diamond

General turning Recommended cutting data

Turning insert, negative

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
						BC			BH			CM		
						YZB630C			YZB233			CA1000		
						Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
						0,1	0,3	0,5	0,3	0,9	1,5	0,1	0,6	1,5
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1									
		approx. 0,45 % C	annealed	190	2									
		approx. 0,45 % C	tempered	250	3									
		approx. 0,75 % C	annealed	270	4									
		approx. 0,75 % C	tempered	300	5									
	Low-alloyed steel		annealed	180	6									
			tempered	275	7									
			tempered	300	8									
			tempered	350	9									
	High-alloyed steel and high-alloyed tool steel		annealed	200	10									
			hardened and tempered	325	11									
M	Stainless steel	ferritic/martensitic	annealed	200	12									
		martensitic	tempered	240	13									
		austenitic	quench hardened	180	14									
		austenitic-ferritic		230	15									
K	Grey cast iron	perlitic/ferritic		180	16				1500	950	400			
		perlitic (martensitic)		260	17				1250	780	320			
	Cast iron with spheroidal graphite	ferritic		160	18				–	–	–			
		perlitic		250	19				500	300	100			
	Malleable cast iron	ferritic		130	20				–	–	–			
		perlitic		230	21				500	300	100			
N	Aluminium wrought alloys	cannot be hardened		60	22									
		hardenable	hardened	100	23									
	Cast aluminium alloys	≤ 12 % Si, cannot be hardened		75	24									
		≤ 12 % Si, hardenable	hardened	90	25									
		> 12 % Si, cannot be hardened		130	26									
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27									
		CuZn, CuSnZn		90	28									
		CuSn, Pb-free copper, electrolytic copper		100	29									
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30									
			hardened	280	31									
		Ni or Co bass	annealed	250	32									
			hardened	350	33									
			cast	320	34									
	Titanium alloys	pure titanium		R_m 400	35									
		α and β alloys	hardened	R_m 1050	36									
H	Hardened steel		hardened and tempered	55 HRC	37	220	170	130				180	150	120
			hardened and tempered	60 HRC	38	200	160	120				140	120	80
	Hard cast iron		cast	400	39	200	150	100				80	60	40
	Hardened cast iron		hardened and tempered	55 HRC	40	200	150	100				–	–	–
X	Non-metallic materials	Thermoplastics			41									
		Thermosetting plastics			42									
		Plastic, glass-fibre reinforced GFRP			43									
		Plastic, carbon fibre reinforced CFRP			44									
		Graphite			45									
		Wood			46									

Note: The given cutting values are guide values, which were determined under ideal conditions.
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For examples of material for cutting tool groups view page D11.

Starting values for cutting speed v_c [m/min]																		
CC			CN									CR						
CM1000			CN1000			CS1000			CSX1000			CW1400			CW1800			
Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]						
0,1	0,6	1,5	0,1	0,6	1,5	0,1	0,6	1,5	0,1	0,6	1,5	0,1	0,6	1,5	0,1	0,6	1,5	
			800	700	600													
			750	625	500													
			600	530	450													
			500	420	350													
			800	700	600													
			700	600	500													
						–	–	–	–	–	–	–	–	–	–	–	–	
						–	–	–	–	–	–	–	–	–	–	–	–	
						450	400	350	450	400	350	400	350	300	400	350	300	
						300	250	200	300	250	200	300	250	200	300	250	200	
						250	180	150	250	180	150	180	160	140	180	160	140	
						–	–	–	–	–	–	–	–	–	–	–	–	
						–	–	–	–	–	–	–	–	–	–	–	–	
200	160	140																
150	130	100																
–	–	–																
–	–	–																

HC Coated carbide
HT Uncoated carbide, primary component (TiC) or (TiN), cermet
HW Uncoated carbide, primary component (WC)
BL Cubic boron nitride with low BN content
BH Cubic boron nitride with high BN content
CN Si3N4 ceramic
CM Mixed ceramic
HC_1 Coated cermet
BC CBN with coating
CC Coated cutting ceramic
CR Cutting ceramic, primary component aluminium oxide (Al_2O_3), reinforced
DP Polycrystalline diamond

Turning insert, positive

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
						HC (CVD)								
						YBC103			YB6315			YBC152		
						Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
						0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,2	0,4
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1	460	400	280	450	390	270	450	390	270
		approx. 0,45 % C	annealed	190	2	390	340	240	380	330	230	380	330	230
		approx. 0,45 % C	tempered	250	3	310	275	210	300	265	200	300	265	200
		approx. 0,75 % C	annealed	270	4	300	265	200	290	255	190	290	255	190
		approx. 0,75 % C	tempered	300	5	260	235	180	250	225	170	250	225	170
	Low-alloyed steel		annealed	180	6	370	310	190	360	300	180	360	300	180
			tempered	275	7	260	220	160	250	210	150	250	210	150
			tempered	300	8	240	210	160	230	200	150	230	200	150
			tempered	350	9	210	180	130	200	170	120	200	170	120
	High-alloyed steel and high-alloyed tool steel		annealed	200	10	330	285	200	320	275	190	320	275	190
			hardened and tempered	325	11	170	160	140	160	150	130	160	150	130
M	Stainless steel	ferritic/martensitic	annealed	200	12									
		martensitic	tempered	240	13									
		austenitic	quench hardened	180	14									
		austenitic-ferritic		230	15									
K	Grey cast iron	perlitic/ferritic		180	16									
		perlitic (martensitic)		260	17									
	Cast iron with spheroidal graphite	ferritic		160	18									
		perlitic		250	19									
	Malleable cast iron	ferritic		130	20									
		perlitic		230	21									
N	Aluminium wrought alloys	cannot be hardened		60	22									
		hardenable	hardened	100	23									
	Cast aluminium alloys	≤ 12 % Si, cannot be hardened		75	24									
		≤ 12 % Si, hardenable	hardened	90	25									
		> 12 % Si, cannot be hardened		130	26									
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27									
		CuZn, CuSnZn		90	28									
		CuSn, Pb-free copper, electrolytic copper		100	29									
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30									
			hardened	280	31									
		Ni or Co bass	annealed	250	32									
			hardened	350	33									
			cast	320	34									
	Titanium alloys	pure titanium		R_m 400	35									
		α and β alloys	hardened	R_m 1050	36									
H	Hardened steel		hardened and tempered	55 HRC	37									
			hardened and tempered	60 HRC	38									
	Hard cast iron		cast	400	39									
	Hardened cast iron		hardened and tempered	55 HRC	40									
X	Non-metallic materials	Thermoplastics			41									
		Thermosetting plastics			42									
		Plastic, glass-fibre reinforced GFRP			43									
		Plastic, carbon fibre reinforced CFRP			44									
		Graphite			45									
		Wood			46									

Note: The given cutting values are guide values, which were determined under ideal conditions.
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For examples of material for cutting tool groups view page D11.

Starting values for cutting speed v_c [m/min]																								
HC (CVD)																								
YBC203			YBC252			YBC352			YBM153			YBM253			YBD102			YB7315			YBD152		
Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
0,1	0,3	0,6	0,1	0,3	0,6	0,2	0,4	0,6	0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,2	0,4
430	350	230	430	350	230	390	310	230															
360	295	190	360	295	190	315	250	190															
280	235	160	280	235	160	230	195	160															
270	225	150	270	225	150	220	185	150															
235	195	130	235	195	130	185	155	120															
340	270	170	340	270	170	290	225	150															
235	195	140	235	195	140	170	150	130															
220	180	140	220	180	140	150	140	130															
190	155	110	190	155	110	130	110	90															
280	230	170	280	230	170	180	160	140															
130	115	100	130	115	100	–	–	–															
									360	340	260	330	300	230									
									180	170	140	150	130	95									
									240	220	170	195	170	115									
									190	175	140	160	140	100									
															480	345	200	540	370	200	490	340	190
															220	180	135	300	220	135	250	190	130
															270	210	130	300	230	145	260	200	125
															200	150	95	230	180	110	190	140	90
															275	240	180	310	260	190	265	230	170
															190	145	85	230	170	100	190	140	90

HC Coated carbide
HT Uncoated carbide, primary component (TiC) or (TiN), cermet
HW Uncoated carbide, primary component (WC)
BL Cubic boron nitride with low BN content
BH Cubic boron nitride with high BN content
CN Si3N4 ceramic
CM Mixed ceramic
HC_1 Coated cermet
BC CBN with coating
CC Coated cutting ceramic
CR Cutting ceramic, primary component aluminium oxide (Al_2O_3), reinforced
DP Polycrystalline diamond

General turning Recommended cutting data

Turning insert, positive

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
						HC (CVD)			HC (PVD)					
						YBD152C			YBG101			YBG102		
						Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
						0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,2	0,4
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1									
		approx. 0,45 % C	annealed	190	2									
		approx. 0,45 % C	tempered	250	3									
		approx. 0,75 % C	annealed	270	4									
		approx. 0,75 % C	tempered	300	5									
	Low-alloyed steel		annealed	180	6									
			tempered	275	7									
			tempered	300	8									
			tempered	350	9									
	High-alloyed steel and high-alloyed tool steel		annealed	200	10									
			hardened and tempered	325	11									
M	Stainless steel	ferritic/martensitic	annealed	200	12							305	245	205
		martensitic	tempered	240	13							150	125	100
		austenitic	quench hardened	180	14							200	165	145
		austenitic-ferritic		230	15							160	130	115
K	Grey cast iron	perlitic/ferritic		180	16	520	360	200						
		perlitic (martensitic)		260	17	280	210	135						
	Cast iron with spheroidal graphite	ferritic		160	18	280	220	135						
		perlitic		250	19	210	160	100						
	Malleable cast iron	ferritic		130	20	280	245	180						
		perlitic		230	21	210	160	100						
N	Aluminium wrought alloys	cannot be hardened		60	22				1800	880	–	1800	880	–
		hardenable	hardened	100	23				540	380	–	540	380	–
	Cast aluminium alloys	≤ 12 % Si, cannot be hardened		75	24				500	270	–	500	270	–
		≤ 12 % Si, hardenable	hardened	90	25				320	170	–	320	170	–
		> 12 % Si, cannot be hardened		130	26				290	150	–	290	150	–
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27				660	320	–	660	320	–
		CuZn, CuSnZn		90	28				330	300	–	330	300	–
		CuSn, Pb-free copper, electrolytic copper		100	29				220	175	–	220	175	–
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30							60	45	–
			hardened	280	31							55	40	–
		Ni or Co bass	annealed	250	32							55	40	–
			hardened	350	33							50	35	–
			cast	320	34							50	35	–
	Titanium alloys	pure titanium		R_m 400	35							95	60	–
		α and β alloys	hardened	R_m 1050	36							75	40	–
H	Hardened steel		hardened and tempered	55 HRC	37									
			hardened and tempered	60 HRC	38									
	Hard cast iron		cast	400	39									
	Hardened cast iron		hardened and tempered	55 HRC	40									
X	Non-metallic materials	Thermoplastics			41									
		Thermosetting plastics			42									
		Plastic, glass-fibre reinforced GFRP			43									
		Plastic, carbon fibre reinforced CFRP			44									
		Graphite			45									
		Wood			46									

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.
For examples of material for cutting tool groups view page D11.

Starting values for cutting speed v_c [m/min]																								
HC (PVD)																HC_1			HT					
YBS103			YBG105			YB9320			YBG205(H)			YPD201			YNG151C			YNG151			YNT251		
Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,3	0,6	0,1	0,2	0,4	0,1	0,2	0,4	0,1	0,2	0,4
															470	320	–	470	320	–	470	320	–
															400	250	–	400	250	–	400	250	–
															300	200	–	300	200	–	300	200	–
															290	180	–	290	180	–	290	180	–
															245	150	–	245	150	–	245	150	–
															370	220	–	370	220	–	370	220	–
															255	160	–	255	160	–	255	160	–
															200	140	–	200	140	–	200	140	–
															185	130	–	185	130	–	185	130	–
															285	180	–	285	180	–	285	180	–
															150	90	–	150	90	–	150	90	–
305	245	205	305	245	205	305	245	206	270	205	165	360	290	200									
150	125	100	150	125	100	160	130	110	145	125	100	190	155	110									
200	165	145	200	165	145	210	180	155	195	165	145	250	210	150									
160	130	115	160	130	115	170	140	120	155	130	115	200	165	120									
															390	330	255	390	330	255	390	330	255
															355	310	245	355	310	245	355	310	245
															330	270	200	330	270	200	330	270	200
															310	270	210	310	270	210	310	270	210
															260	220	160	260	220	160	260	220	160
															210	170	120	210	170	120	210	170	120
70	50	–	60	45	–	50	35	–	50	–	–	–	50	35									
60	45	–	55	40	–	45	30	–	45	–	–	–	45	30									
60	45	–	55	40	–	45	30	–	45	–	–	–	45	30									
66	40	–	50	35	–	40	–	–	40	–	–	–	40	–									
66	40	–	50	35	–	40	–	–	40	–	–	–	40	–									
100	65	–	95	60	–	75	60	–	70	–	–	–	75	60									
75	50	–	75	40	–	55	40	–	45	–	–	–	55	40									

HC Coated carbide
HT Uncoated carbide, primary component (TiC) or (TiN), cermet
HW Uncoated carbide, primary component (WC)
BL Cubic boron nitride with low BN content
BH Cubic boron nitride with high BN content
CN Si3N4 ceramic
CM Mixed ceramic
HC_1 Coated cermet
BC CBN with coating
CC Coated cutting ceramic
CR Cutting ceramic, primary component aluminium oxide (Al_2O_3), reinforced
DP Polycrystalline diamond

General turning Recommended cutting data

Turning insert, positive

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
						HW						BL		
						YD101			YD201			YCB112		
						Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
						0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,2	0,3
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1									
		approx. 0,45 % C	annealed	190	2									
		approx. 0,45 % C	tempered	250	3									
		approx. 0,75 % C	annealed	270	4									
		approx. 0,75 % C	tempered	300	5									
	Low-alloyed steel		annealed	180	6									
			tempered	275	7									
			tempered	300	8									
			tempered	350	9									
	High-alloyed steel and high-alloyed tool steel		annealed	200	10									
			hardened and tempered	325	11									
M	Stainless steel	ferritic/martensitic	annealed	200	12									
		martensitic	tempered	240	13									
		austenitic	quench hardened	180	14									
		austenitic-ferritic		230	15									
K	Grey cast iron	perlitic/ferritic		180	16									
		perlitic (martensitic)		260	17									
	Cast iron with spheroidal graphite	ferritic		160	18									
		perlitic		250	19									
	Malleable cast iron	ferritic		130	20									
		perlitic		230	21									
N	Aluminium wrought alloys	cannot be hardened		60	22	1550	1050	700	1550	1050	700			
		hardenable	hardened	100	23	450	320	200	450	320	200			
	Cast aluminium alloys	≤ 12 % Si, cannot be hardened		75	24	400	270	150	400	270	150			
		≤ 12 % Si, hardenable	hardened	90	25	250	170	95	250	170	95			
		> 12 % Si, cannot be hardened		130	26	230	150	85	230	150	85			
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27	550	370	170	550	370	170			
		CuZn, CuSnZn		90	28	260	210	160	260	210	160			
		CuSn, Pb-free copper, electrolytic copper		100	29	190	145	95	190	145	95			
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30	55	30	–	55	30	–	–	–	–
			hardened	280	31	55	25	–	55	25	–	–	–	–
		Ni or Co bass	annealed	250	32	45	25	–	45	25	–	180	160	140
			hardened	350	33	35	20	–	35	20	–	160	140	120
			cast	320	34	40	20	–	40	20	–	120	100	80
	Titanium alloys	pure titanium		R_m 400	35	60	40	–	60	40	–	–	–	–
		α and β alloys	hardened	R_m 1050	36	30	–	–	30	–	–	–	–	–
H	Hardened steel		hardened and tempered	55 HRC	37							220	170	130
			hardened and tempered	60 HRC	38							200	160	120
	Hard cast iron		cast	400	39							200	150	100
	Hardened cast iron		hardened and tempered	55 HRC	40							200	150	100
X	Non-metallic materials	Thermoplastics			41									
		Thermosetting plastics			42									
		Plastic, glass-fibre reinforced GFRP			43									
		Plastic, carbon fibre reinforced CFRP			44									
		Graphite			45									
		Wood			46									

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.
For examples of material for cutting tool groups view page D11.

Starting values for cutting speed v_c [m/min]																								
BL										BC									BH			DP		
YCB113			YCB121			YCB131			YCB113C			YCB121C			YCB131C			YCB215			YCD421		
Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]					
0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,2	0,3	0,05	0,2	0,4
																			1500	980	400			
																			1250	800	320			
																			–	–	–			
																			300	200	100			
																			–	–	–			
																			300	200	100			
																						2500	2000	250
																						2500	2000	250
																						2500	2000	250
																						2500	2000	250
																						1000	800	100
																						650	530	70
																						650	530	70
																						400	330	40
						–	–	–																
						–	–	–																
						160	140	120																
						140	120	100																
						120	100	80																
						–	–	–																
						–	–	–																
240	180	140	220	170	130	160	120	100	240	180	140	220	170	130	160	120	100						
220	180	140	200	160	120	150	120	100	220	180	140	200	160	120	150	120	100						
250	150	100	200	150	100	180	120	100	250	150	100	200	150	100	180	120	100						
200	150	100	200	150	100	150	120	100	200	150	100	200	150	100	150	120	100						

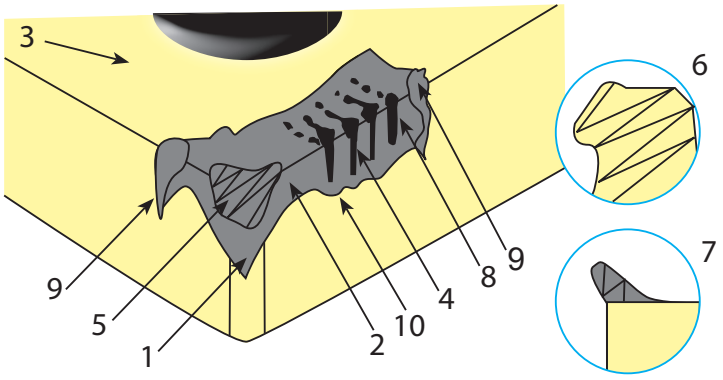
HC Coated carbide
HT Uncoated carbide, primary component (TiC) or (TiN), cermet
HW Uncoated carbide, primary component (WC)
BL Cubic boron nitride with low BN content
BH Cubic boron nitride with high BN content
CN Si3N4 ceramic
CM Mixed ceramic
HC_1 Coated cermet
BC CBN with coating
CC Coated cutting ceramic
CR Cutting ceramic, primary component aluminium oxide (Al_2O_3), reinforced
DP Polycrystalline diamond

Technical information

Trouble shooting - turning	**A608-A610**
Technical Information - turning	**A611-A618**
Special tools – turning	**A619**

Trouble shooting – general turning

Fig.	Type of wear	Effects	Reason	Countermeasure
1+2	Flank wear	– Bad surface quality and dimensional stability – Increase of cutting force	– Grade not wear-resistant enough – Cutting speed too high – Clearance angle too small – Feed rate too low	– Grade with higher wear-resistance – Reduce cutting speed – Increase clearance angle – Reduce feed rate
3	Crater wear	– Bad surface quality and chip control	– Grade not wear-resistant enough – Cutting speed too high – Feed rate too low	– Grade with higher wear-resistance – Reduce cutting speed – Reduce feed rate
4	Chipping	– Unstable tool life – Sudden breakage of cutting edge	– Grade too hard – Feed rate too high – Cutting edge not stable enough – Stability of the holder or tension insufficient	– Grade with higher toughness – Reduce feed rate – Change honing of cutting edge – Use a more stable tool holder
5	Breakage	– Increase of cutting force – Bad surface quality and dimensional stability	– Grade too hard – Feed rate too high – Cutting edge not stable enough – Stability of the holder or tension insufficient	– Grade with higher toughness – Reduce feed rate – Change honing of cutting edge – Use a more stable tool holder
6	Plastic deformation	– Bad dimensional stability – Damage to cutting edge	– Grade not wear-resistant enough – Cutting speed too high – Cutting depth and/or feed rate too high – Temperature on the cutting edge too high	– Grade with higher toughness – Reduce cutting speed – Reduce cutting depth and feed rate – Grade with higher heat-resistance
7	Welding	– Increase of cutting force – Bad surface quality	– Cutting speed too low – Cutting edge not sharp enough – Grade not suitable	– Increase cutting speed – Increase rake angle – Use a more suitable grade
8	Thermal cracks	– Breakage due to thermal interaction, often caused when cutting is interrupted (milling)	– Temperature fluctuation when machining – Grade too hard	– Dry machining – Grade with higher toughness
9	Notch wear	– Burr formation – Increase of cutting force	– Damage through chips (jagged edges) – Feed rate and cutting speed too high	– Grade with higher wear-resistance – Increase rake angle to get a sharper cutting edge – Reduce cutting speed
10	Flaking (coating)	– Often appears when machining hardened materials or caused by vibration	– Cutting edge adhesion and chipping – Bad chip removal	– Increase rake angle to get a sharper cutting edge – Chip breaker with bigger chip space



Trouble shooting – PCBN & PCD

Type of wear	Countermeasure	
	Geometry	Cutting condition
Flank wear	– Sharper cutting edge for reduced cutting force – Smaller negative chamfer – Use positive inserts	– Reduce cutting speed – Increase feed rate to reduce operation time
Notch wear	– Bigger radius	– Use "method of altering feed rate"
Crater wear/breakage due to crater wear	– Sharper cutting edge for reduced cutting force	– Reduce cutting speed – Increase feed rate to minimise operation time and to increase distance between cutting edge and crater
Chipping due to rough condition or vibration	– Bigger negative chamfer angle and/or honed chamfer	– Increase feed rate to reduce number of hits
Flaking	– Sharper cutting edge to reduce cutting force – Smaller negative chamfer – Use positive inserts	– Increase feed rate to reduce operation time
Thermal crack/breakage	– Sharper cutting edge for reduced cutting force – Smaller negative chamfer – Use positive inserts	– Reduce cutting speed, feed rate and depth of cut – Dry machining
Chipping	– Bigger negative chamfer	– Increase cutting speed to reduce cutting force

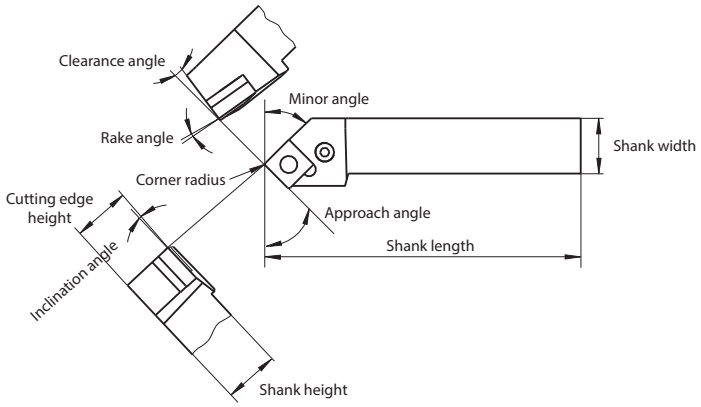
For investigation please send us the used inserts. If breakage is the problem please use inserts only 80–90 % of expected tool life because broken inserts almost have no information.

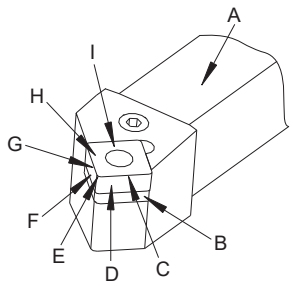
Trouble shooting – threading

Problème	Cause	Solution
Big flank wear	– Cutting speed too high	– Reduce cutting speed
	– Width of cut too small	– Reduce number of width of cut
	– Insert over/under centre line	– Adjust insert height
Asymmetric wear on left and right cutting edge	– Width of cut not optimal	– Adjust width of cut
	– Inclination angle and lead angle are not optimally aligned	– Change the shim to get the correct angle
Breakage	– Cutting speed too low	– Increase cutting speed
	– Cutting force too high	– Increase number of width of cut – Reduce width of cut
	– Unstable conditions	– Improve clamping and overhang to avoid vibrations
	– Bad chip control	– Increase coolant pressure for better chip removal
Déformation plastique	– Cutting speed and temperature too high	– Reduce cutting speed – Increase number of width of cut – Reduce width of cut
	– Insufficient coolant supply	– Improve coolant supply
Mauvais état de surface du filet	– Cutting speed too low	– Increase cutting speed
	– Insert over/under centre line	– Adjust insert height
	– Bad chip control	– Change feed rate and/or width of cut
Profil de filet incorrect	– Incorrect insert height	– Change insert height
	– Tool holder doesn't form a 90° angle	– Adjust tool holder
	– Pitch error in machine	– Adjust machine
Profil de filetage de profondeur insuffisante	– Incorrect insert height	– Change insert height
	– Breakage of cutting edge	– Change insert
	– Excessive wear	– Change insert
Formation d'arêtes rapportées	– Temperature on cutting edge is too low	– Increase cutting speed
	– Often occurs when machining of carbon steel and stainless steel	– Use grade with sufficient toughness (PVD coated)
Vibrations	– Incorrect cutting data	– Increase or highly decrease cutting speed
	– Incorrect insert height	– Change insert height
	– Insufficient clamping	– Improve clamping system and minimise overhang

General turning

Cutting tool geometry





A Holder
B Shim
C Main cutting edge
D Flank face
E Nose radius
G Minor cutting edge
H Rake face
I Insert

Rake angle

The rake angle is a cutting edge angle that has large effects on cutting resistance, chip disposal, cutting temperature and tool life. Increasing the rake angle in positive direction improves the sharpness of the cutting edge and the cutting force decreases but at the same time it lowers the strength. To increase the cutting resistance the rake angle must be increased in negative direction.

Rake angle	Applications
Small	Machining of fragile and hard materials, roughing and interrupted cut
Large	Machining of plastic materials and soft materials, precision machining

Clearance angle

The flank angle prevents friction between the flank face and work piece resulting in smooth feed. Increasing the flank angle decreases the cutting force and the surface roughness becomes better but on the other hand this lowers the cutting edge strength and decreases the flank wear occurrence.

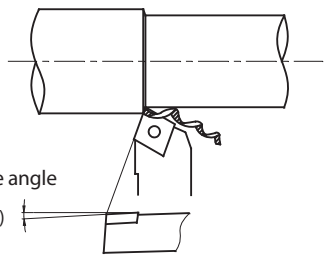
Clearance angle	Applications
Small	Machining of hard and demure materials, for roughing operation with stable cutting edge
Large	Precision machining with low cutting force, work pieces suffer from work hardening easily

Inclination angle

The positive and negative edge inclination angle determines the discharging direction of chips. In heavy cutting, the cutting edge receives extremely large shocks at the beginning of cutting. Cutting edge inclination keeps the cutting edge from receiving this shock and prevents fracturing. On the other hand the back force increases and occurs vibration. For a finishing operation a positive angle is more suitable.

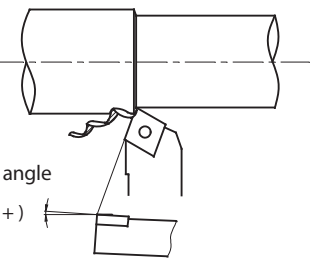
When the edge inclination angle is negative, i.e. the cutting edge is located at the lowest point relative to the bottom plane of the tool holder, the chips flow to the machined surface of workpiece.

Fig. (1)



As shown in Fig. (2), when the edge inclination angle is positive, i.e. the cutting edge is located at the highest point relative to the bottom plane of the tool holder, the chips flow to the un-machined surface of workpiece.

Fig. (2)

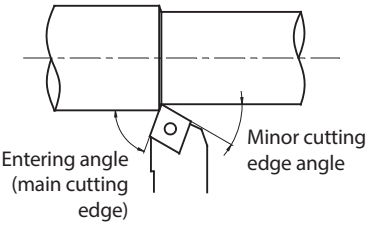


General turning

Entering angle (main cutting edge)

Reducing the lead angle increases the strength of the cutting edge. Because the lead angle is small, the cutting width is long, the force on the unit cutting edge length is small. At the same time, reducing the lead angle can increase the tool life. Normally, when turning thin long shaft and ladder shaft, the lead angle adapts 90°. The lead angle is increased, radial force is reduced, cutting is stable, cutting thickness is increased and chip breaking performance is good.

Entering angle	Applications
Small	For material with high tensile strength, high hardness or hardened layer on surface
Large	For machining with low rigidity



Minor cutting edge

The minor cutting edge angle is the main angle on influence surface roughness; its size is also influence strength of cutter. When the minor cutting edge angle is too small, the cutting force increases and results in chattering and vibration.
The selection principle for the minor cutting edge angle is under the condition of rough machining, or un-influencing friction and producing vibration, the smaller angle should be chosen; the bigger angle can be used for precision machining.

Nose radius

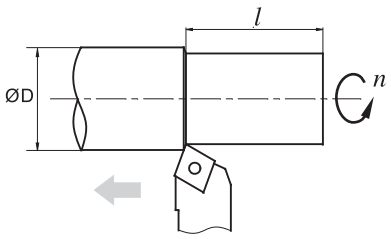
The nose radius effects the cutting edge strength and the finished surface. By increasing the nose radius the surface finish becomes better and the cutting edge strength improves. Flank and rake wear decreases. If the radius becomes too big, the cutting force increases and causes vibration which effects the chip control negative.

Radius	Applications
Small	Finishing with small cutting depth, machining thin long shaft, rigidity of machine is insufficient
Large	Rough machining, high cutting edge strength is required, rigidity of machine is good, machining hardened materials and interrupted cut

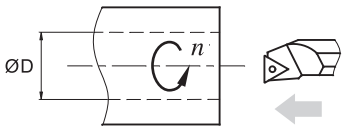
General turning

Cutting speed V_c

$$V_C = \frac{\pi \times D \times n}{1000} \text{ [m/min]}$$



External machining



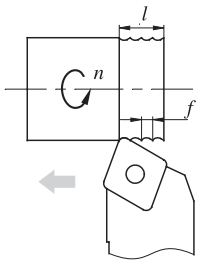
Internal machining

Vc: Cutting speed [m/min]
n: Revolution [1/min]
f: Feed rate [mm]

Example: n = 250 1/min, f = 0,2 mm, l = 150 mm
Result: [insert values in formula Vc]

Feed rate F

$$f = \frac{l}{n} \text{ [mm/rev]}$$



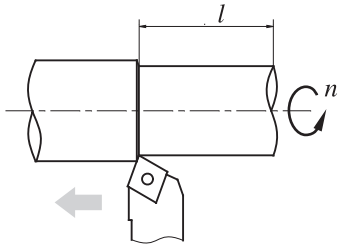
f: Feed rate [mm]
l: Cutting length [mm/min]
n: Revolution [1/min]

Example: n = 500 1/min, l = 100 mm/min
Result: [insert values in formula f]

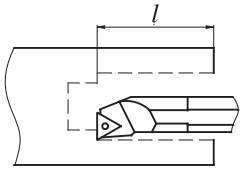
$$f = \frac{l}{n} = \frac{100}{500} = 0{,}2 \text{ mm}$$

Cutting time T_c

$$T_C = \frac{l}{f \times n} \text{ [min]}$$



External machining



Internal machining

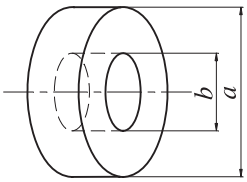
T_C: Cutting time [min]
l: Cutting length [mm/min]
f: Feed rate [mm]
n: Revolution [1/min]

Example: n = 250 1/min, f = 0,2 mm, l = 150 mm
Result: [insert values in formula T_C]

General turning

Cutting time T_c for face milling

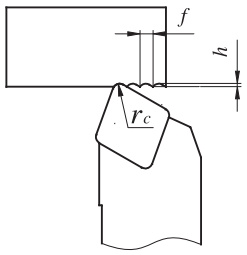
$$T_C = \frac{\pi \times (a^2 - b^2)}{4000 \times V_c \times f} \text{ [min]}$$



T_C: Cutting time [min]
V_C: Cutting speed [m/min]
f: Feed rate [mm]

Theoretical surface roughness R

$$R = \frac{f^2}{8r_c} \times 1000 \text{ [µm]}$$



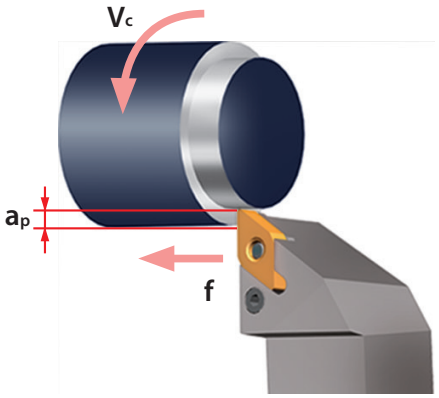
R: Surface roughness [µm]
f: Feed rate [mm]
r_C: Radius of insert [mm]

Example: f = 0,2 mm,
r_C = 0,4 mm

General turning

Three effects of cutting condition for turning

Today short machining time, long tool life and high machining accuracy is expected from modern tools. Based on the machine performance, material shape and hardness of the components the right choice of tool and cutting conditions are the premise for a successful machining process. Cutting speed, feed rate and depth of cut are what we call the "Three effects of cutting".



1. Cutting speed (V_c)

Cutting speed is defined as the rate (or speed) that the material moves past the cutting edge of the tool. The unit for V_c is meter per minute [m/min].

Cutting speed influence: Cutting speed is one of the three important effects of turning and has influence on tool life. Increasing the cutting speed also increases the cutting temperature and that decreases the tool life. Depending on the hardness and type of material the cutting speed varies. Therefore to choose a suitable grade for the cutting speed is necessary.
In general situation, when cutting speed is increased by 20% the tool life will be reduced ½; when the cutting speed is increased by 50% the tool life decreases ⅕. Lower cutting speed results in vibration which will shorten tool life.

2. Feed rate (f)

In turning application feed rate is the distance the tool holder moves per work piece revolution. That has influence to the surface quality. The unit for feed rate is millimetre per revolution [mm/rev]

Feed rate influence: Decreasing the feed rate will increase flank wear and tool life will be shortened. Increasing the feed rate increases the cutting temperature and also flank wear. On the other hand the efficiency will be improved.

3. Depth of cut (a_p)

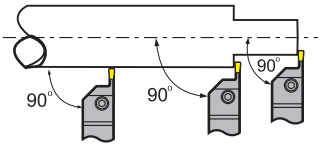
The depth of cut refers to the half different value between the diameter of the unmachined and machined work piece. The unit is millimetre [mm].

Depth of cut influence: Changing depth of cut has no big influence to the tool life. Machining hardened layer with small depth of cut results in friction and short tool life. Machining uncut surface or cast iron material, choose maximum depth of cut according to the machine power so that the cutting edge and corner radius is out of the hardened layer. That helps to prevent chipping and abnormal wear.

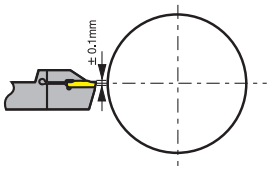
Parting & grooving

Adjusting the cutting edge height

– Mount the tool holder in a 90° angle to the central axis of the workpiece. This improves the surface quality and decreases the risk of vibrations.



– Height tolerance between the cutting edge of the insert and the centre of the work piece should be kept ± 0.1 mm, especially for parting of rods and grooving of materials with a small diameter. This extends the tool life and reduces the cutting forces as well as the formation of burrs.

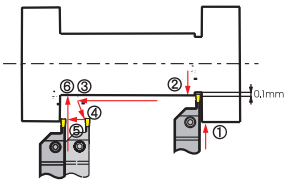


Parting off

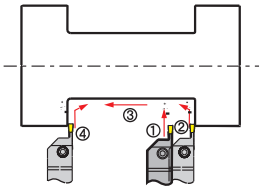
– When the cutting edge nears the central axis of the work piece, reducing the feed rate by 30 % can extend the tool life of the insert.
– Pick a tool holder with the smallest possible overhang to avoid vibrations and tool deflection.

Longitudinal turning and profile turning

– Machining sequence 0.5 mm:
1. Bring radial feed rate to required cutting depth (ap max. 0.75 × cutting edge width)
2. Radial relocating by 0.1 mm
3. Longitudinal turning to opposite shoulder
4. Diagonal relocating by 0.5 mm outward axial feed rate to the starting point
5. Radial feed rate to required cutting depth, etc.

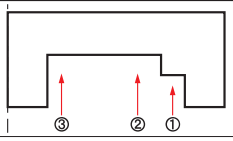


– When machining the chamfer or the base of the slot follow the steps as shown in figure. This reduces tool deflection and avoids cutting edge chipping.

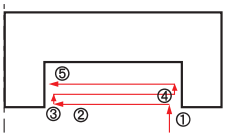


Surface grooving and turning

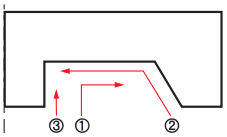
– Roughing:
Processing from largest diameter to the axis. When returning it's recommended to bend the tool slightly.



– Flute turning:
Depth of axial turning less than 0.75 × S (width of insert). When the pocket width is bigger than the depth follow the working steps as shown. When the pocket depth is bigger than the width, we recommend to go to the required diameter step by step.

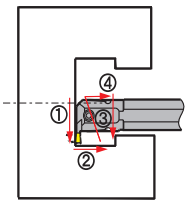


– Finishing:
When finishing begin with the outer diameter and the bottom. Then go on with the inner diameter to the required size.



Internal machining

– Procedure according to figure. For better chip removal in blind holes machine from the inside out.



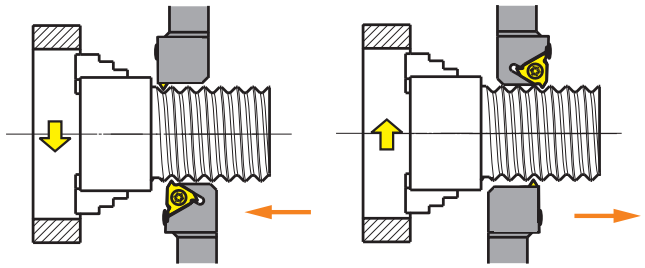
Threading

Steps for best results when thread-cutting

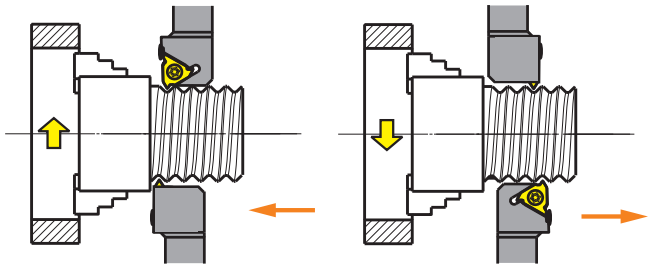
1. Choice of threading method
2. Choice of angle and shim
3. Choice of tool holder and inserts
4. Choice of cutting data
5. Choice of cutting direction

Thread turning method

External machining

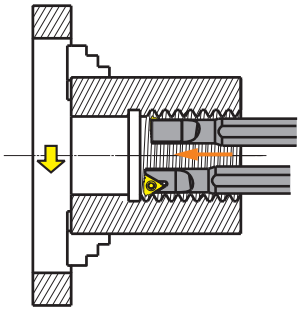


Right hand type

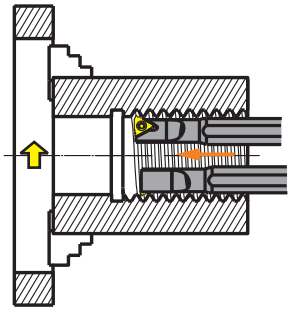


Left hand type

Internal machining



Right hand type



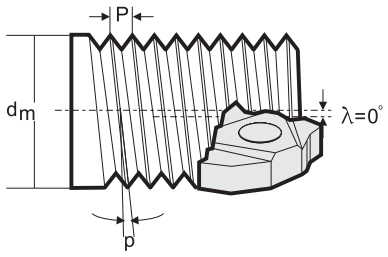
Left hand type

Choice of angle and shim

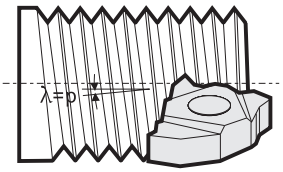
Choice of angle

The flank clearance angles of the thread profile depend on the helical angle of the thread. The helical angle of the thread must coincide with the insert's angle of inclination angle as far as possible to get the ideal profile, to avoid longer unfavourable wear on one of the flanks and thus to ensure tool life.

$$\lambda = \arctan \frac{p}{d_2 \times \pi}$$



Helix angle (p)



Pitch angle (λ)

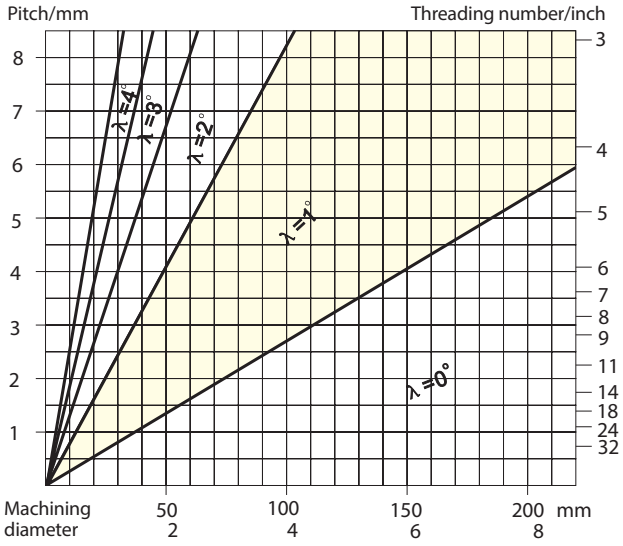
p Pitch
d_2 Flank diameter
λ Pitch angle

Choice of shim

Pitch range	Dimension	Pitch angle	Shim
0,5–3,0 mm	16 mm	0°	MT16-00M(N)
		1°	MT16-01M(N)
		2°	MT16-02M(N)
		3°	MT16-03M(N)
3,5–6,0 mm	22 mm	0°	MT22-00M(N)
		1°	MT22-01M(N)
		2°	MT22-02M(N)
		3°	MT22-03M(N)

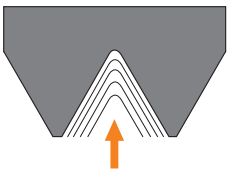
MT-**M** shims for RT and LT thread inserts (from page A581)
MT-**MN** shims for zType thread inserts (from page A559)

The shim λ = 1° is delivered with the tool holder.



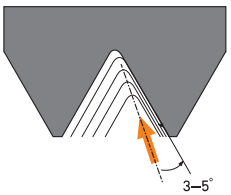
Infeed way of threading

The number of passes and widths of cut are the key points of threading operation. Please choose the cutting parameters with the recommended form according to experience data. In case of breakages or too much wear please have a look at page A447 (trouble shooting).



Radial width of cut

Radial width of cut requires low cutting depth, sharp cutting edge and tough grade. It is recommended when the pitch is smaller than 2 mm, not ideal for material with long chips.



Modified flank width of cut

Infeed at an angle of 3–5° to the flank of the teeth. It is easy for chips flow. Suitable for long chip material and internal threading.

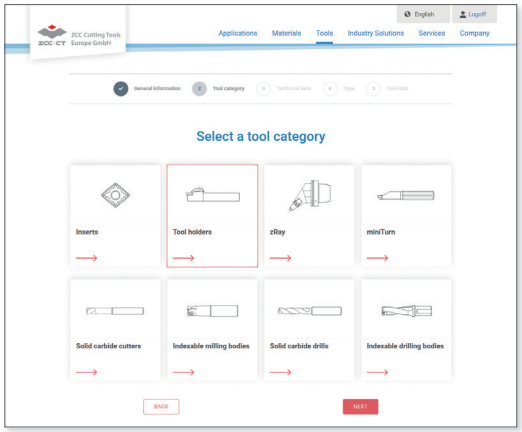


Alternating width of cut

Alternating width of cut is mainly used for large pitches and long chip materials. To get equal insert wear on both edges.

Go directly to the special tool tailored for your turning applications

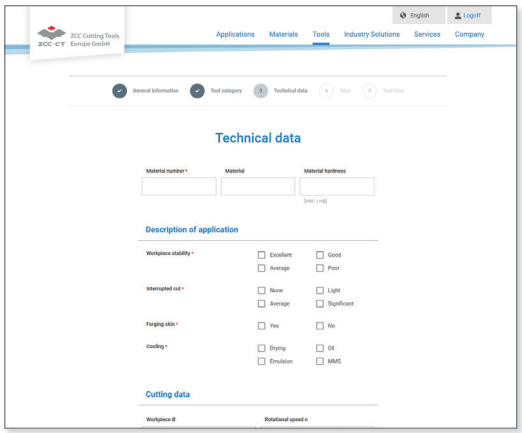
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'Online tool for special tools' launch page where you can select the tool category

Selecting the tool category

Scan the QR code on this page to go directly to the launch page of our online tool where you can request the special tool you need. You can begin by selecting the tool category you need. It's that easy.



Define the relevant tool parameters.

Defining the tool parameters

You are now guided step by step through the process. You can also securely upload your drawings, diagrams and 3D models (where available).

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