Tornalama yenilikleri

Kesici uçlar, talaş kırıcılar, CBN ve PCD kaliteleri

ZCC Cutting Tools Europe resmî yenilik yayınlarından operasyona göre seçilmiş teknik sayfalar.

Dönemler en yeniden eskiye sıralanmıştır. Üreticinin ölçü tabloları, ürün kodları ve teknik çizimleri özgün biçimleriyle korunmuştur.

Bu belge Toksan tarafından hazırlanmış bir derlemedir; üreticinin tek bir döneme ait resmî ana kataloğu değildir. Eski yayınlar güncel stok veya ürünün devam ettiğine ilişkin taahhüt sayılmaz.

NASIL KULLANILIR?

Sonraki sayfadan dönemi seçin. PDF yer imleriyle bölümler arasında geçiş yapabilirsiniz. Teknik içerik İngilizcedir.

İhtiyacınız olan döneme geçin

Sayfa numaraları bu derlemeye aittir. “Kaynak yayın” bağlantısı üreticinin özgün PDF dosyasını açar.

Eylül 2026 3 - 60

PG9005, YCB8, YCB226, YZB227 ve YCD821
Kaynak yayın □ | Özgün PDF sayfaları: 6-63

Eylül 2025 / 2026 güncellemesi 61 - 69

PG8005 / PG8030 / PG1110, LH ve F-QF / YNT251D
Kaynak yayın □ | Özgün PDF sayfaları: 8-9, 12-16, 24-25

Eylül 2024 70 - 75

QF finiş tornalama talaş kırıcı
Kaynak yayın □ | Özgün PDF sayfaları: 8-13

Eylül 2023 76 - 94

XLR, ONMX ve PNMX tornalama sistemleri
Kaynak yayın □ | Özgün PDF sayfaları: 6-24

Mart 2023 95 - 100

YBG205H tornalama kalitesi
Kaynak yayın □ | Özgün PDF sayfaları: 8-13

Eylül 2022 101 - 101

XMH yarı finiş tornalama talaş kırıcı
Kaynak yayın □ | Özgün PDF sayfaları: 8

Mayıs 2022 102 - 102

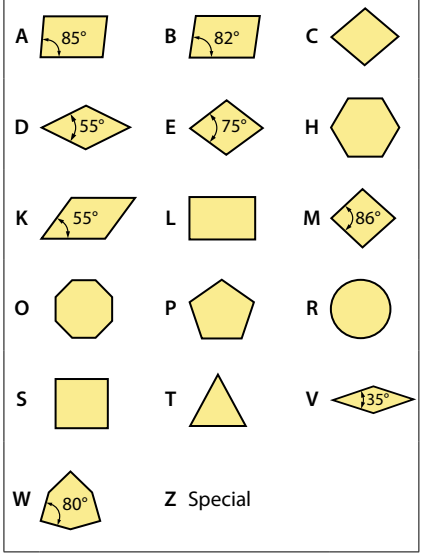
miniTURN için YPG202 kalitesi
Kaynak yayın □ | Özgün PDF sayfaları: 8

Teknik seçim, tutucu uyumu ve güncel bulunabilirlik için Toksan ile görüşün. Üretici telif ve iletişim sayfaları derlemenin sonundadır.

ISO standard

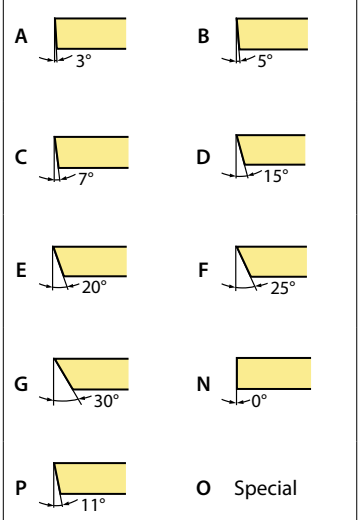
T	N	M	G	22	04	08	(N)	–	DM
1	2	3	4	5	6	7	8		9

Insert shape



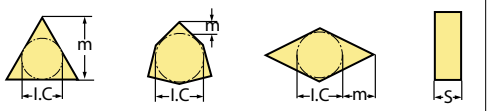
1

Clearance angle



2

Tolerance class

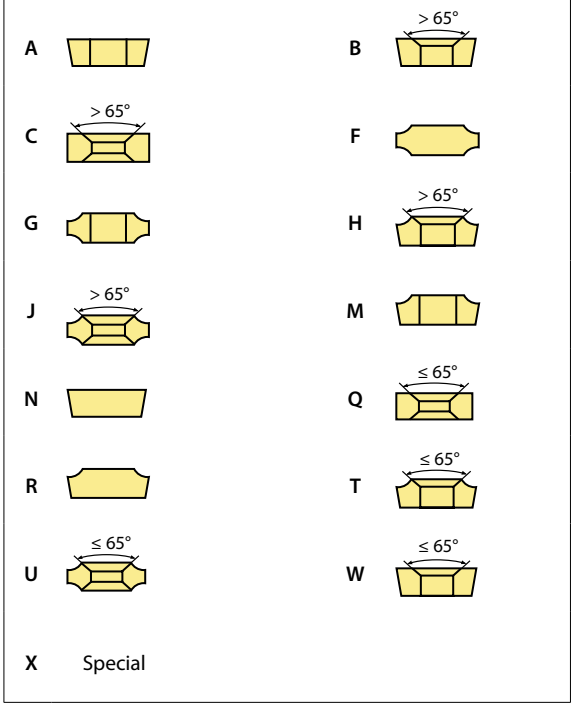


Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20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

3

Fastening features (metric)

Insert shape

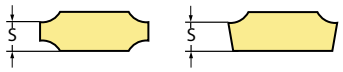


4

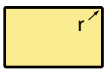
Cutting edge length l [mm]

I.C [mm]	Insert shape C	D	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					

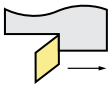
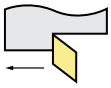
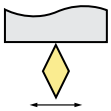
5

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

6

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

7

PG9005 grade

Premium PVD grade for hardened and difficult-to-machine materials

YOUR BENEFITS

– Delivers **sufficient tool life** in the hardness range of 50 to 62 HRC and **significantly reduces the cost per component**
– Ideal for use in combination with difficult-to-machine materials
– Maximum heat resistance for the **longest tool life possible**

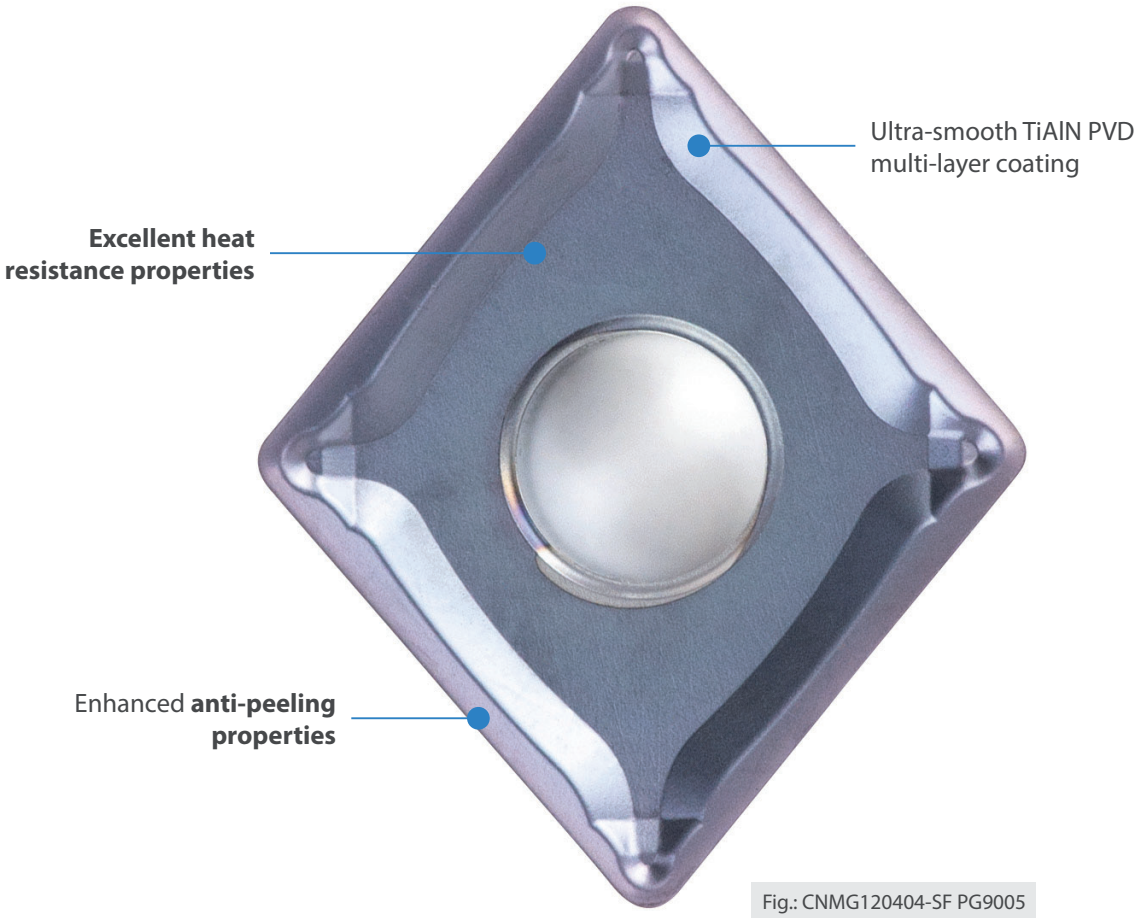
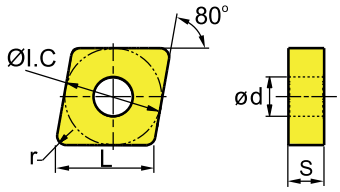


Fig.: CNMG120404-SF PG9005

Turning inserts

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

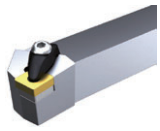
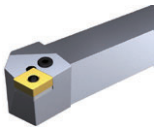
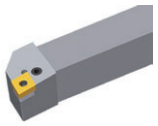
CNMG	L	I.C	S	d
12 04	12,9	12,7	4,76	5,16

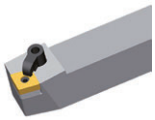
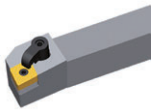
CN** negative insert						HC¹ (CVD)	HC¹ (PVD)	HT	HC²	HW
					P					
					M					
					K					
					N					
					S		○			
					H		○			
ISO		r	a_p	f			PG9005			
SF  Finishing	**CNMG120404-SF**	0,4	0.1-1.5	0.05-0.30			●			
	CNMG120408-SF	0,8	0.1-1.5	0.10-0.35			●			
	CNMG120412-SF	1,2	0.1-1.5	0.15-0.35			○			

● Ex stock ○ On demand

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

Tool holders

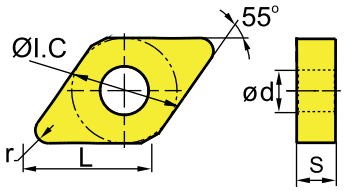
DCKNR/L	DCLNR/L	PCBNR/L	PCBNR/LC	PCKNR/L	PCLNR/LC	PCLNR/L
Kr: 75°	Kr: 95°	Kr: 75°	Kr: 75°	Kr: 75°	Kr: 95°	Kr: 95°
						

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

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

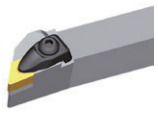
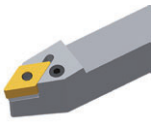
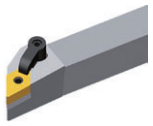
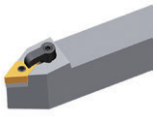
DNMG	L	I.C	S	d
15 06	15,5	12,7	6,35	5,16

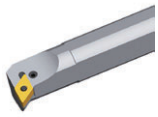
DN** negative insert						HC¹ (CVD)	HC¹ (PVD)	HT	HC²	HW
					P					
					M					
					K					
					N					
					S		○			
					H		○			
ISO		r	a_p	f			PG9005			
SF	**DNMG150604-SF**	0,4	0.05-0.50	0.05-0.25			●			
	**DNMG150608-SF**	0,8	0.05-0.50	0.10-0.35			●			
Finishing										

● Ex stock ○ On demand

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

Tool holders

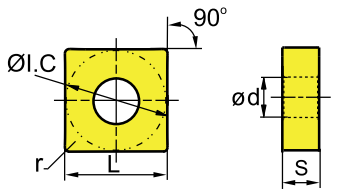
DDJNR/L	PDJNR/LC	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L
Kr: 93°	Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'
						

A***-PDUNR/L
Kr: 93°


Turning inserts

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

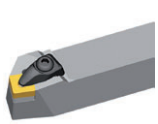
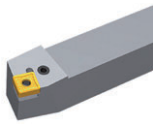
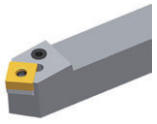
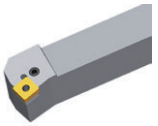
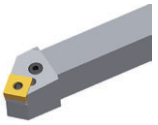
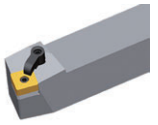
SNMG	L	I.C	S	d
12 04	12,7	12,7	4,76	5,16

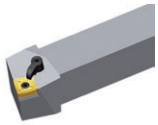
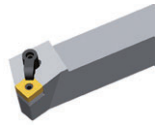
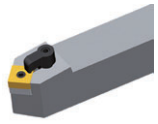
SN** negative insert					HC[1] (CVD)	HC[1] (PVD)	HT	HC[2]	HW
				P					
				M					
				K					
				N					
				S		○			
				H		○			
ISO		r	a_p	f		PG9005			
SF	**SNMG120404-SF**	0,4	0.05-0.50	0.05-0.20		●			
	**SNMG120408-SF**	0,8	0.05-0.50	0.10-0.35		●			
Finishing									

● Ex stock ○ On demand

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

Tool holders

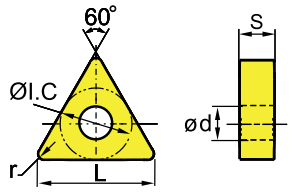
DSBNR/L	PSBNR/LC	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L
Kr: 75°	Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
						

MSRNR/L	MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°
			

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

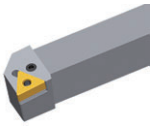
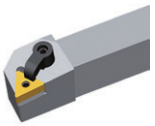
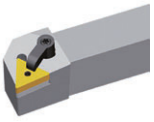
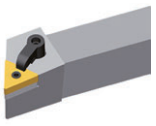
TN**	L	I.C	S	d
16 04	16,5	9,525	4,76	3,81

TN** negative insert						HC¹ (CVD)	HC¹ (PVD)	HT	HC²	HW
					P					
					M					
					K					
					N					
					S		○			
					H		○			
	ISO		r	a_p	f		PG9005			
SF	**TNMG160404-SF**		0,4	0.05-1.00	0.05-0.30		○			
	**TNMG160408-SF**		0,8	0.05-1.00	0.10-0.35		●			
Finishing										

● Ex stock ○ On demand

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

Tool holders

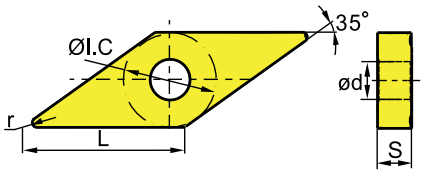
DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						

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

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

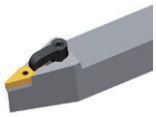
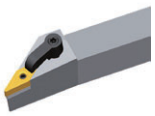


VN** negative insert						HC¹ (CVD)	HC¹ (PVD)	HT	HC²	HW
					P					
					M					
					K					
					N					
					S		○			
					H		○			
ISO		r	a_p	f			PG9005			
SF	**VNMG160404-SF**	0,4	0.05-3.00	0.05-0.20			●			
	VNMG160408-SF	0,8	0.05-3.00	0.10-0.30			●			
Finishing										

● Ex stock ○ On demand

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

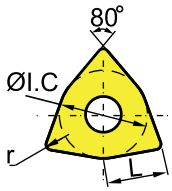
Tool holders

DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			

Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

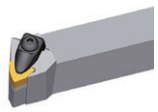
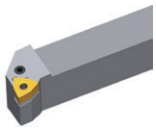
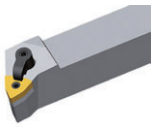
WN**	L	I.C	S	d
08 04	8,7	12,7	4,76	5,16

WN** negative insert						HC¹ (CVD)	HC¹ (PVD)	HT	HC²	HW
					P					
					M					
					K					
					N					
					S		○			
					H		○			
ISO		r	a_p	f			PG9005			
SF  Finishing	**WNMG080404-SF**	0,4	0.1-1.5	0.05-0.30			●			
	WNMG080408-SF	0,8	0.1-1.5	0.10-0.35			●			
	WNMG080408-SF	1,2	0.1-1.5	0.15-0.35			○			

● Ex stock ○ On demand

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

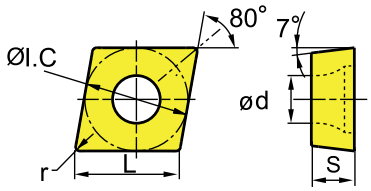
Tool holders

DWLNR/L	PWLNR/LC	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
				

Turning inserts

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

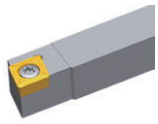
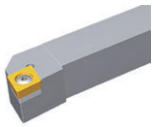
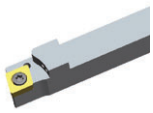
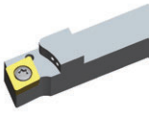
CCGT	L	I.C	S	d
06 02	6,4	6,35	2,38	2,8
09 T3	9,7	9,525	3,97	4,4

CC** positive insert					HC[1] (CVD)	HC[1] (PVD)	HT	HC[2]	HW
									
					P				
					M				
					K				
					N				
					S	○			
					H	○			
	ISO		r	a_p	f	PG9005			
SF	**CCGT060204-SF**		0,4	0.05-2.00	0.05-0.35	●			
	CCGT09T304-SF		0,4	0.05-2.00	0.05-0.35	●			
Finishing									

● Ex stock ○ On demand

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

Tool holders

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°
						

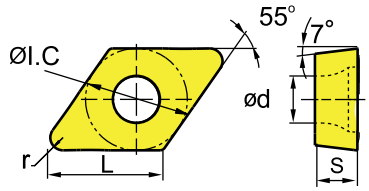
E***-SCLCR/L
Kr: 95°


Turning inserts

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

DCGT	L	I.C	S	d
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		○			

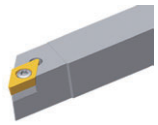
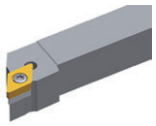
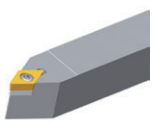
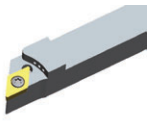
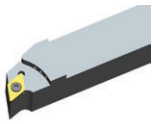
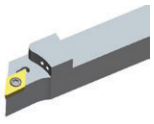
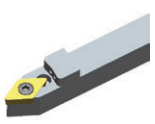
	ISO	r	a_p	f	HC¹ (CVD)	HC¹ (PVD)	HT	HC²	HW
SF	**DCGT11T304-SF**	0,4	0.05-2.00	0.05-0.20		●			
	DCGT11T308-SF	0,8	0.05-2.00	0.05-0.30		●			
Finishing									

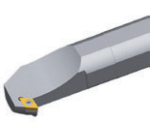


● Ex stock ○ On demand

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

Tool holders

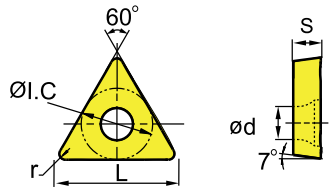
SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						

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'
				

Turning inserts

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

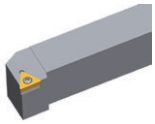
TCGT	L	I.C	S	d
11 03	11	6,35	3,18	2,8

TC** positive insert					HC[1] (CVD)	HC[1] (PVD)	HT	HC[2]	HW
				P					
				M					
				K					
				N					
				S		○			
				H		○			
ISO		r	a_p	f					
SF	**TCGT110304-SF**	0,4	0.05-2.00	0.1-0.30		○			
	**TCGT110308-SF**	0,8	0.05-2.00	0.1-0.35		●			
Finishing									

● Ex stock ○ On demand

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

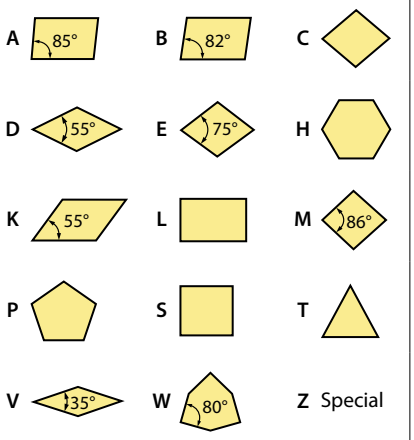
Tool holders

STGCR/L	E***-STFCR/L
Kr: 91°	Kr: 90°
	

General turning ISO code – PCBN & PCD inserts

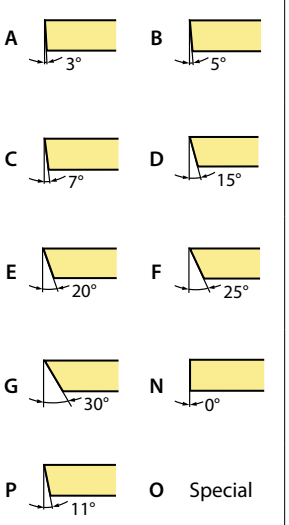
C	N	G	A	12	04	08	T	020	20	–	2	(W)
1	2	3	4	5	6	7	8	9	10		11	12

Insert shape



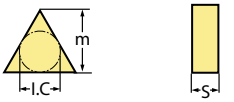
1

Clearance angle



2

Tolerance class

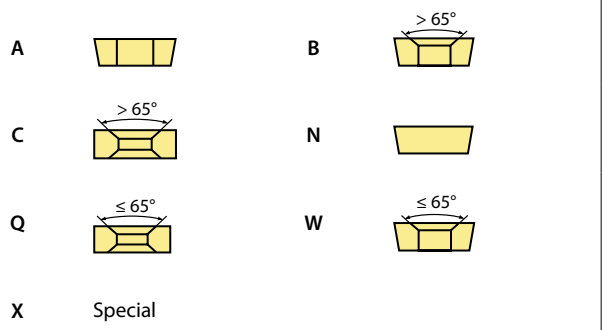


Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20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

3

Fastening features (metric)

Insert shape



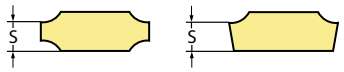
4

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

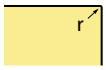
Insert thickness S [mm]



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

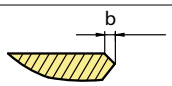
7

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
CM	Chip breaker (CBN)
CL	Chip breaker (CBN)
CS	Chip breaker (CBN)
MED	Chip breaker, fine – medium (PCD)
L (L/R)	Full-edge tipped (PCD)

12

YCB8 grades

Coated CBN series for hardened steel

YOUR BENEFITS

– The latest CBN materials and coating processes for **long tool life**
– High-precision manufacturing for **stable and reliable processes**
– A wide range of cost-effective inserts
– Ideal for **mass production**
– **Versatile hard turning applications**

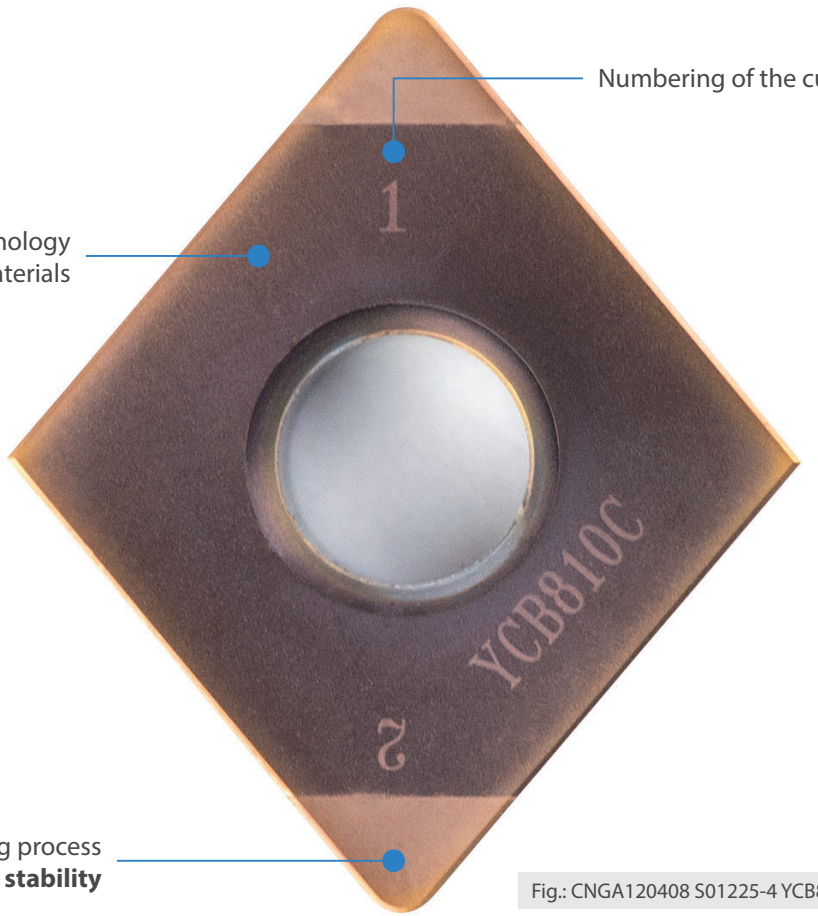
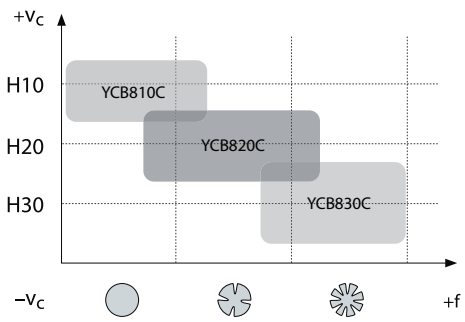


Fig.: CNGA120408 S01225-4 YCB810C

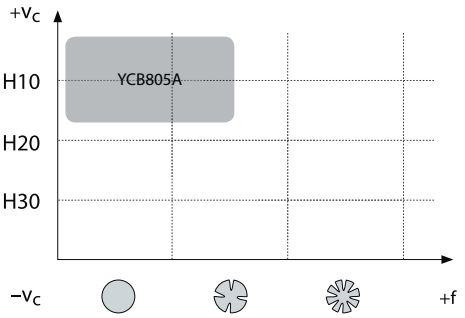
Grades



YCB810C (wear-resistant)
– High-speed machining
– Smooth cut to slightly interrupted cut

YCB820C (all-rounder)
– Smooth cut to medium-length interrupted cut
– For a wide range of applications

YCB830C (robust)
– For unstable conditions and heavily interrupted cuts
– A good balance between wear resistance and toughness



YCB805A (specialist)
– High-precision grade for smooth cutting
– For good surface quality and tolerances

Chamfer designs

The design of the cutting edge is crucial to the Tool life and performance of the cutting insert. Our 'standard version' covers a wide range of applications. In all other cases, we can offer an optimised edge design to achieve the best possible result.

Standard

S01225

S01225
– A range of products for a wide variety of applications

Optional

E

E
– Rounded cutting edges for minimised cutting forces and vibrations
– Good tolerance and surface quality

S00515

S00515
– Minimal edge preparation for low cutting forces (to prevent burr formation)
– Also ideal for internal machining

S01835

S01835
– Large-edge preparation for heavily interrupted cuts or unstable conditions

Chip breakers

-CM



– General machining of surface layers (hard-soft machining)
– Reliable chip breaking prevents chip build-up

Feed rate f = 0.1–0.3 mm
Depth of cut a_p = 0.15–0.4 mm

-CL



– Easy machining in hardened edge zones with a cutting depth of less than 0.3 mm
– For medium allowances

Feed rate f = 0.1–0.25 mm
Depth of cut a_p = 0.1–0.3 mm

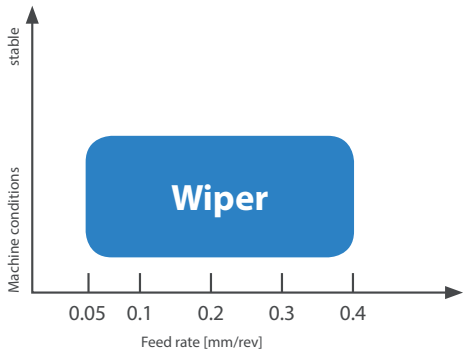
-CS



– Fine machining with low cutting forces and to minimise vibrations when machining hard and soft materials
– For minimal allowances

Feed rate f = 0.06–0.2 mm
Depth of cut a_p = 0.06–0.2 mm

CBN with wiper chamfer



Two ways to optimise the machining process:

– Achieving a **better surface quality** at the same feed rate as with conventional indexable inserts
– Increased efficiency thanks to **higher feed rates** whilst maintaining the same surface quality as with conventional indexable inserts.

Suitable for use under stable machine conditions and for machining without contouring.

YCB226 grade

Uncoated CBN grade for cast iron and sintered alloys

YOUR BENEFITS

– The latest-generation grade with a high CBN content for long tool life
– Grade with **high wear resistance** for abrasive materials
– A wide range of cost-effective inserts



Fig.: CNGA120408 T01215-4 YCB226

YZB227 grade

Uncoated solid CBN grade for rough machining of castings

YOUR BENEFITS

– Solid CBN grade for rough machining at **high cutting speeds**
– Grade with **high wear resistance** for abrasive materials
– **Economical** under unstable conditions for **high removal rates** and **interrupted cutting**
– For **high process reliability** in high-speed machining at speeds of up to v_c 1400 m/min

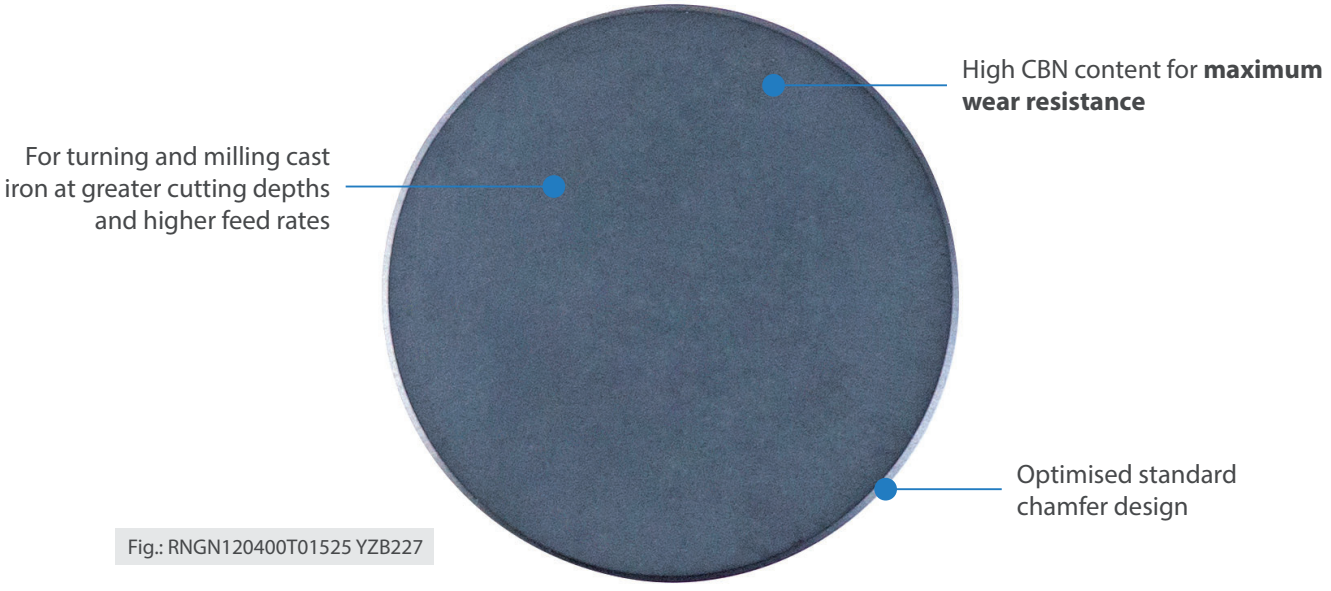
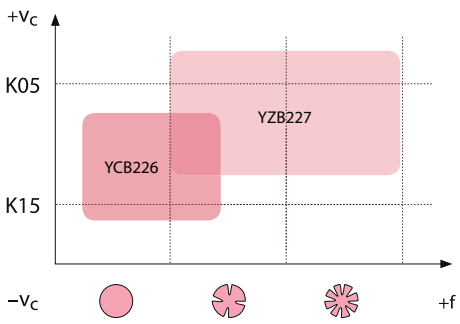


Fig.: RNGN120400T01525 YZB227

Grades



YCB226 (soldered, uncoated)
– Fine to semi-finishing of cast materials
– Good wear resistance and thermal conductivity

YZB227 (uncoated)
– Semi-finishing of grey cast iron, ductile cast iron and Ni/Cr-based alloys, including with a slightly interrupted cut
– Good wear resistance and thermal conductivity

Chamfer designs

The design of the cutting edge is crucial to the Tool life and performance of the cutting insert. Our 'standard version' covers a wide range of applications. In all other cases, we can offer an optimised edge design to achieve the best possible result.

Standard

T01525

T01525
– For YZB227 inserts
– A range of products for a wide variety of applications

T01215

T01215
– For YCB226 inserts
– A range of products for a wide variety of applications

Optional

Other cutting edge designs, such as E-chamfers for easier cutting and improved surface finish, or S-chamfer variants for greater stability, are available on demand.



Clamping groove

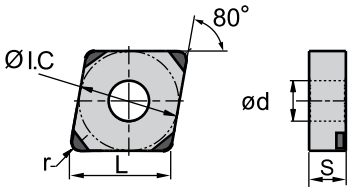
Optionally available with a clamping groove for greater stability at very high cutting speeds. Other shapes are available on demand.

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

CNGA	L	I.C	S	d
12 04	12,9	12,7	4,76	5,5

Turning inserts (CBN)

CN** negative insert

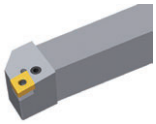
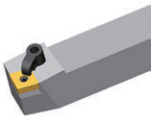
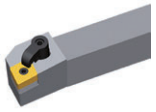


		ISO	r	a_p	f	BC (CBN) YCB805A	YCB810C	YCB820C	YCB830C	BH (CBN) YCB226
P										
M										
K										○
N										
S										
H						○	○	◍	◍	
		CNGA120402S01225-4	0,2	0,05-0,2	0,02-0,1	○	○			
		CNGA120404S01225-4	0,4	0,05-0,3	0,04-0,2	○	●	○		
		CNGA120408S01225-4	0,8	0,1-0,5	0,08-0,4	●	●	●	●	
		CNGA120412S01225-4	1,2	0,12-0,6	0,12-0,6	●	●	●	●	
		**CNGA120416S01225-4**	1,6	0,15-0,7	0,12-0,7	○	○	○	○	
		CNGA120408T01215-4	0,8	0,1-0,5	0,08-0,4					●
		CNGA120412T01215-4	1,2	0,12-0,6	0,12-0,6					●
		CNGA120416T01215-4	1,6	0,15-0,7	0,12-0,7					○
		CNGA120408S01215-4W	0,8	0,06-0,3	0,08-0,4	○	○	○	○	
		CNGA120412S01215-4W	1,2	0,08-0,35	0,08-0,4	○	○	○	○	
		**CNGA120404S00535-4 CL**	0,4	0,1-0,25	0,1-0,3		○	○		
		CNGA120408S00535-4 CL	0,8	0,1-0,25	0,1-0,3		○	○		
		**CNGA120404S01235-4 CM**	0,4	0,15-0,4	0,1-0,3		○	○		
		CNGA120408S01235-4 CM	0,8	0,15-0,4	0,1-0,3		○	○		

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

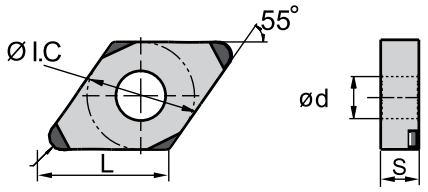
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
					

Turning inserts (CBN)

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

DNGA	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

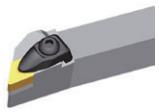
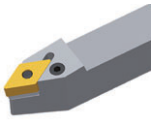
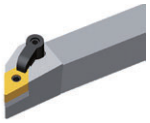
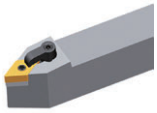
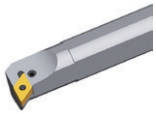


	ISO	r	a_p	f	BC (CBN) YCB805A	YCB810C	YCB820C	YCB830C	BH (CBN) YCB226
P									
M									
K									○
N									
S									
H					○	○	◎	◉	
	**DNGA110404S01225-4**	0,4	0,05-0,3	0,04-0,2		○	○		
	DNGA110408S01225-4	0,8	0,1-0,5	0,08-0,4	○	○	○		
	DNGA150604S01225-4	0,4	0,05-0,3	0,04-0,2	○	○	○		
	DNGA150608S01225-4	0,8	0,1-0,5	0,08-0,4	●	●	●	●	
	DNGA150612S01225-4	1,2	0,12-0,6	0,12-0,6	○	●	●	●	
	DNGA150608T01215-4	0,8	0,1-0,5	0,08-0,4					●
	DNGA150612T01215-4	1,2	0,12-0,6	0,12-0,6					●
	DNGA150608S01215-4W	0,8	0,06-0,3	0,08-0,4	○	○	○		
	DNGA150612S01215-4W	1,2	0,08-0,35	0,08-0,4	○	○	○		
	**DNGA150604S00535-4 CL**	0,4	0,1-0,25	0,1-0,3		○	○		
	DNGA150608S00535-4 CL	0,8	0,1-0,25	0,1-0,3		○	○		
	**DNGA150604S01235-4 CM**	0,4	0,15-0,4	0,1-0,3		○	○		
	DNGA150608S01235-4 CM	0,8	0,15-0,4	0,1-0,3		○	○		

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

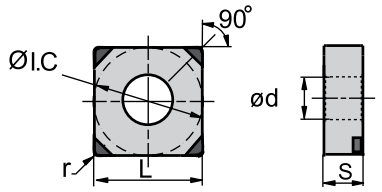
DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	S***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
						

- 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

Turning inserts (CBN)

SN** negative insert



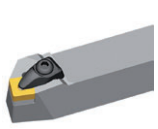
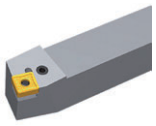
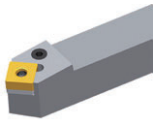
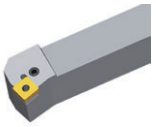
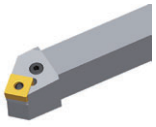
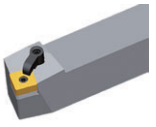
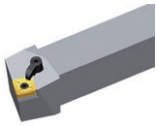
	BC (CBN)	BH (CBN)
P		
M		
K		●
N		
S		
H	○ ○ ⊛ ⊛	

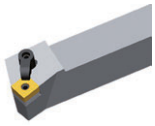
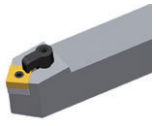
	ISO	r	a_p	f	YCB805A	YCB810C	YCB820C	YCB830C	YCB226
	**SNGA120408S01225-4**	0,8	0,1-0,5	0,08-0,4		○	○	○	
	SNGA120412S01225-4	1,2	0,12-0,6	0,12-0,6		○	○	○	
	SNGA120408T01215-4	0,8	0,1-0,5	0,08-0,4					○
	SNGA120412T01215-4	1,2	0,12-0,6	0,12-0,6					○

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

DSBNR/L	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°
						

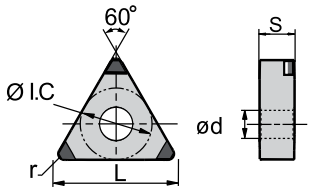
MSKNR/L	MSDNN	S***-PSKNR/L
Kr: 75°	Kr: 45°	Kr: 75°
		

Turning inserts (CBN)

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

TNGA	L	I.C	S	d
16 04	16,5	12,7	4,76	5,5

TN** negative insert

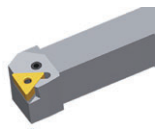
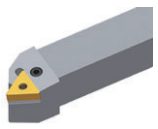
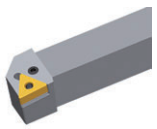
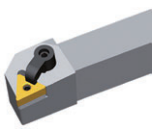
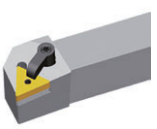
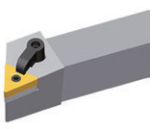


	ISO	r	a_p	f	BC (CBN) YCB805A	YCB810C	YCB820C	YCB830C	BH (CBN) YCB226
P									
M									
K									○
N									
S									
H					○	○	◌	◌	
	**TNGA160404S01225-3**	0,4	0,05-0,3	0,04-0,2		○	○		
	TNGA160408S01225-3	0,8	0,1-0,5	0,08-0,4	○	●	●	○	
	TNGA160412S01225-3	1,2	0,12-0,6	0,12-0,6	○	●	●	○	
	TNGA160408T01215-3	0,8	0,1-0,5	0,08-0,4					○
	TNGA160412T01215-3	1,2	0,12-0,6	0,12-0,6					○
	**TNGA160404S00535-3 CL**	0,4	0,1-0,25	0,1-0,3		○	○		
	TNGA160408S00535-3 CL	0,8	0,1-0,25	0,1-0,3		○	○		
	**TNGA160404S01235-3 CM**	0,4	0,15-0,4	0,1-0,3		○	○		
	TNGA160408S01235-3 CM	0,8	0,15-0,4	0,1-0,3		○	○		

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

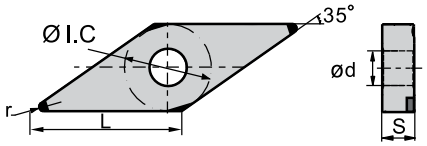
DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L-Z
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
						

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

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

VNGA	L	I.C	S	d
16 04	16,5	12,7	4,76	5,5

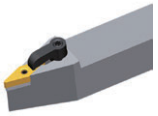
Turning inserts (CBN)

VN** negative insert						BC (CBN)				BH (CBN)
					P					
					M					
					K					●
					N					
					S					
					H	○	○	◌	◌	
	ISO		r	a_p	f	YCB805A	YCB810C	YCB820C	YCB830C	YCB226
	**VNGA160404S01225-4**		0,4	0,05-0,3	0,04-0,2		●	●		
	VNGA160408S01225-4		0,8	0,1-0,5	0,08-0,4	○	●	●	○	
	VNGA160412S01225-4		1,2	0,12-0,6	0,12-0,6		●	●	○	
	VNGA160408T01215-4		0,8	0,1-0,5	0,08-0,4					○
	VNGA160412T01215-4		1,2	0,12-0,6	0,12-0,6					○
	**VNGA160404S00535-4 CL**		0,4	0,1-0,25	0,1-0,3		○	○		
	VNGA160408S00535-4 CL		0,8	0,1-0,25	0,1-0,3		○	○		

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

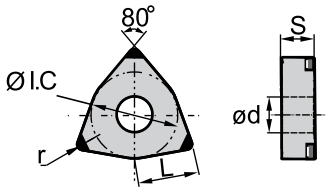
DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			

Turning inserts (CBN)

- 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



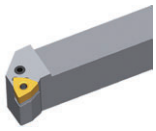
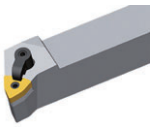
	BC (CBN)												BH (CBN)											
P																								
M																								
K													●											
N																								
S																								
H	○	○	◌	◌																				

	ISO	r	a_p	f	YCB805A	YCB810C	YCB820C	YCB830C	YCB226
	**WNGA080404S01225-3**	0,4	0,05-0,3	0,04-0,2		○	○		
	WNGA080408S01225-3	0,8	0,1-0,5	0,08-0,4	○	○	○	○	
	WNGA080412S01225-3	1,2	0,12-0,6	0,12-0,6	○	○	○	○	
	WNGA080416S01225-3	1,6	0,15-0,7	0,12-0,7	○	○	○	○	
	WNGA080408T01215-3	0,8	0,1-0,5	0,08-0,4					○
	WNGA080412T01215-3	1,2	0,12-0,6	0,12-0,6					○
	WNGA080416T01215-3	1,6	0,15-0,7	0,12-0,7					○

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

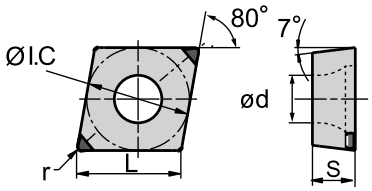
DWLNR/L	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
			

Turning inserts (CBN)

- 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** negative insert



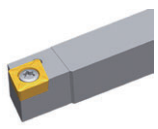
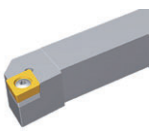
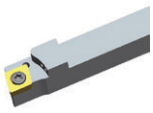
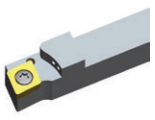
	BC (CBN)	BH (CBN)
P		
M		
K		○
N		
S		
H	○ ○ ◐ ◉	

	ISO	r	a_p	f	YCB805A	YCB810C	YCB820C	YCB830C	YCB226
	CCGW060202S01225-2	0,2	0,05-0,2	0,02-0,1		○			
	CCGW060204S01225-2	0,4	0,05-0,3	0,04-0,2		●	○		
	CCGW060208S01225-2	0,8	0,1-0,5	0,08-0,4		●	●		
	CCGW060204T01215-2	0,4	0,05-0,3	0,04-0,2					○
	CCGW060208T01215-2	0,8	0,1-0,5	0,08-0,4					○
	**CCGW09T302S01225-2**	0,2	0,05-0,2	0,02-0,1		○			
	CCGW09T304S01225-2	0,4	0,05-0,3	0,04-0,2	○	●	●		
	CCGW09T308S01225-2	0,8	0,1-0,5	0,08-0,4	○	●	●	○	
	CCGW09T304T01215-2	0,4	0,05-0,3	0,04-0,2					●
	CCGW09T308T01215-2	0,8	0,1-0,5	0,08-0,4					●
	CCGW09T304S01215-2W	0,4	0,05-0,3	0,07-0,35		○	○		
	CCGW09T308S01215-2W	0,8	0,06-0,3	0,08-0,4	○	○	○		
	**CCGW09T304E-2 CS**	0,4	0,08-0,2	0,08-0,2		○			
	CCGW09T308E-2 CS	0,8	0,08-0,2	0,08-0,2		○			
	**CCGW09T304S00535-2 CL**	0,4	0,1-0,25	0,1-0,3		○	○		
	CCGW09T308S00535-2 CL	0,8	0,1-0,25	0,1-0,3		○	○		

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

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°
						

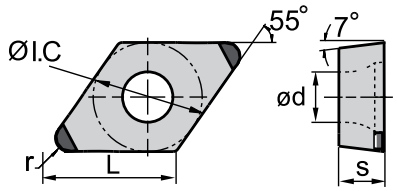
E***-SCLCR/L
Kr: 95°


Turning inserts (CBN)

- 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** negative insert



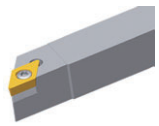
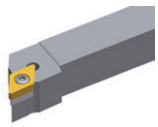
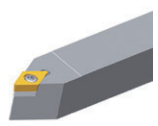
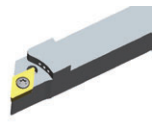
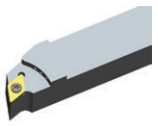
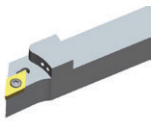
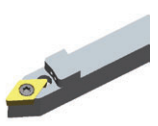
	BC (CBN)												BH (CBN)											
P																								
M																								
K													○											
N																								
S																								
H	○	○	◌	◌																				

	ISO	r	a_p	f	YCB805A	YCB810C	YCB820C	YCB830C	YCB226
	DCGW070202S01225-2	0,2	0,05-0,2	0,02-0,10		○			
	DCGW070204S01225-2	0,4	0,05-0,3	0,04-0,20	○	○	○		
	DCGW070208S01225-2	0,8	0,1-0,5	0,08-0,40	○	○	○		
	DCGW11T302S01225-2	0,2	0,05-0,2	0,02-0,10		○			
	DCGW11T304S01225-2	0,4	0,05-0,3	0,04-0,20	○	●	●	○	
	DCGW11T308S01225-2	0,8	0,1-0,5	0,08-0,40	○	●	●	○	
	DCGW11T312S01225-2	1,2	0,12-0,6	0,12-0,6	○	○	○	○	
	**DCGW11T304T01215-2**	0,4	0,05-0,3	0,04-0,20					○
	DCGW11T308T01215-2	0,8	0,1-0,5	0,08-0,40					●
	DCGW11T312T01215-2	1,2	0,12-0,6	0,12-0,6					●
	DCGW11T304S01215-2W	0,4	0,05-0,3	0,07-0,25	○	○	○		
	DCGW11T308S01215-2W	0,8	0,06-0,3	0,08-0,30	○	●	○		
	DCGW11T304E-2 CS	0,4	0,08-0,2	0,08-0,2		○			
	DCGW11T308E-2 CS	0,8	0,08-0,2	0,08-0,2		○			
	DCGW11T304S00535-2 CL	0,4	0,1-0,25	0,1-0,3					
	DCGW11T308S00535-2 CL	0,8	0,08-0,4	0,08-0,50	○	○	○		

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

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'
						

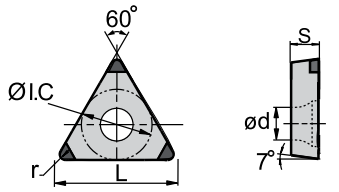
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'
			

Turning inserts (CBN)

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** negative insert



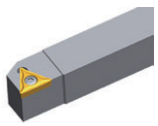
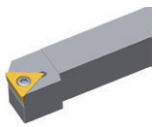
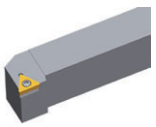
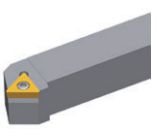
	BC (CBN)	BH (CBN)
P		
M		
K		●
N		
S		
H	○ ○ ⊛ ⊛	

	ISO	r	a_p	f	YCB805A	YCB810C	YCB820C	YCB830C	YCB226
	**TCGW110204S01225-3**	0,4	0,05-0,3	0,04-0,20		○	○		
	TCGW110208S01225-3	0,8	0,1-0,5	0,08-0,40		○	○		
	TCGW16T304S01225-3	0,4	0,05-0,3	0,04-0,20		○	○		
	TCGW16T308S01225-3	0,8	0,1-0,5	0,08-0,40		○	○	○	
	TCGW16T304T01215-3	0,4	0,05-0,3	0,04-0,20					○
	TCGW16T308T01215-3	0,8	0,1-0,5	0,08-0,40					○

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

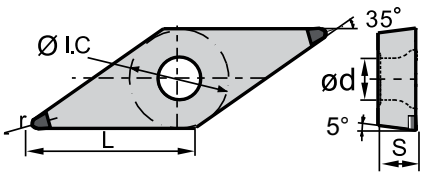
STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					

Turning inserts (CBN)

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

VBGW	L	I.C	S	d
16 04	16,6	9,525	4,76	4,4

VB** negative insert



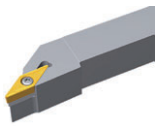
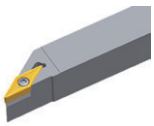
	BC (CBN)	BH (CBN)
P		
M		
K		○
N		
S		
H	○ ○ ◎ ◉	

	ISO	r	a_p	f	YCB805A	YCB810C	YCB820C	YCB830C	YCB226
	**VBGW160402S01225-2**	0,2	0,05-0,2	0,02-0,10	○	●	○		
	VBGW160404S01225-2	0,4	0,05-0,3	0,04-0,20	○	●	●		
	VBGW160408S01225-2	0,8	0,1-0,5	0,08-0,4	○	●	●		
	VBGW160404T01215-2	0,4	0,05-0,3	0,04-0,20					○
	VBGW160408T01215-2	0,8	0,1-0,5	0,08-0,4					○

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

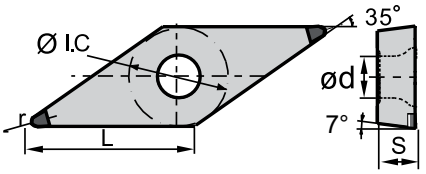
Tool holders

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°
					

Turning inserts (CBN)

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

VCGW	L	I.C	S	d
16 04	16,6	9,525	4,76	4,4

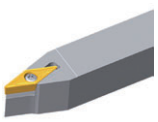
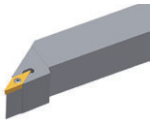
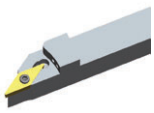
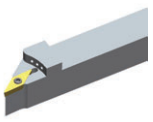


	ISO	r	a_p	f	YCB805A	YCB810C	YCB820C	YCB830C	YCB226
P									
M									
K									●
N									
S									
H					○	○	◌	◌	
	**VCGW160404S01225-2**	0,4	0,05-0,3	0,04-0,20		○	○		
	VCGW160408S01225-2	0,8	0,1-0,5	0,08-0,4		○	○		

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holders

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'
						

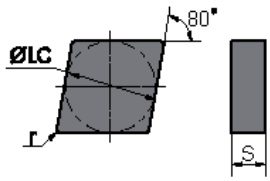
C***-SVUCR/L
Kr: 93°


Turning inserts (CBN)

- 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



	ISO	r	a_p	f	BC (CBN)	BH (CBN)
						YZB227
P						
M						
K						⊛
N						
S						
H						
	**CNGN090308T01525**	0,8	0,5-2,0	0,3-5,0		○
	CNGN090312T01525	1,2	0,5-2,0	0,3-5,0		○
	CNGN120408T01525	0,8	0,5-2,0	0,3-5,0		○
	CNGN120412T01525	1,2	0,5-2,0	0,3-5,0		●
	CNGN120416T01525	1,6	0,5-2,0	0,3-5,0		●
	**CNGA120408T01525-M**	0,8	0,5-2,0	0,3-5,0		○
	CNGA120412T01525-M	1,2	0,5-2,0	0,3-5,0		○
	CNGA120416T01525-M	1,6	0,5-2,0	0,3-5,0		○

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

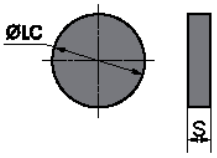
Tool holder
CCLNR/L
Kr: 95°



Turning inserts (CBN)

- 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				BC (CBN)	BH (CBN)
			P		
			M		
			K		⊛
			N		
			S		
			H		
ISO		a_p	f		YZB227
	**RNGN090300T01525**	0,5-2,0	0,3-5,0		○
	RNGN120400T01525	0,5-2,0	0,3-5,0		●
	**RNGN120400T01525-M**	0,5-2,0	0,3-5,0		●

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

Tool holder
CRDNN

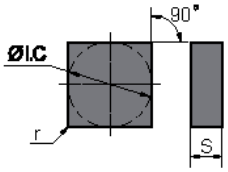


Turning inserts (CBN)

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

SNGN	L	I.C	S
09 04	9,525	9,525	3,18
12 04	12,7	12,7	4,76

SN** negative insert

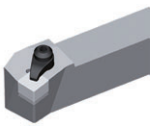
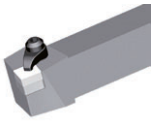
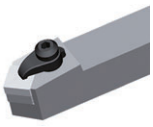


	ISO	r	a_p	f	BC (CBN) YZB227	BH (CBN)
P						
M						
K						⊛
N						
S						
H						
	**SNGN090412T01525**	1,2	0,5-2,0	0,3-5,0	○	
	SNGN090416T01525	1,6	0,5-2,0	0,3-5,0	○	
	SNGN120408T01525	0,8	0,5-2,0	0,3-5,0	○	
	SNGN120412T01525	1,2	0,5-2,0	0,3-5,0	○	
	SNGN120416T01525	1,6	0,5-2,0	0,3-5,0	○	
	**SNGN120412T01525-M**	1,2	0,5-2,0	0,3-5,0	○	
	SNGN120416T01525-M	1,6	0,5-2,0	0,3-5,0	●	

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content

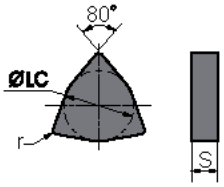
Tool holders

CSKNR/L	CSRNR/L	CSDNN
Kr: 75°	Kr: 75°	Kr: 45°
		

Ideal machining conditions
Normal machining conditions
Unfavourable machining conditions

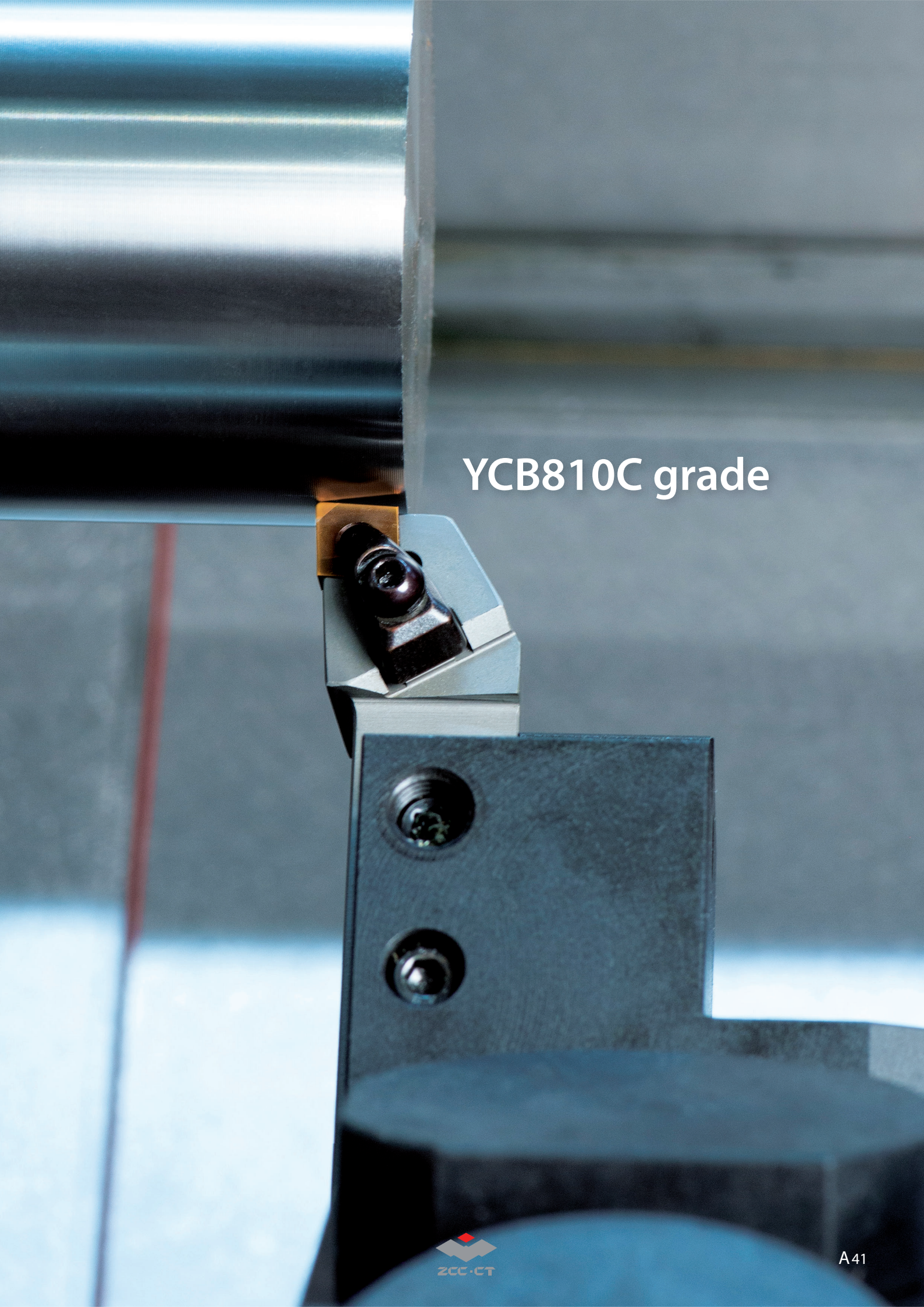
WNGN	L	I.C	S
08 04	8,69	12,7	4,76

Turning inserts (CBN)

WN** negative insert						BC (CBN)	BH (CBN)
					P		
					M		
					K		✲
					N		
					S		
					H		
	ISO	r	a_p	f			YZB227
	**WNGN080408T01525**	0,8	0,5-2,0	0,3-5,0			○
	WNGN080412T01525	1,2	0,5-2,0	0,3-5,0			○
	WNGN080416T01525	1,6	0,5-2,0	0,3-5,0			○
	**WNGN080416T01525-M**	1,6	0,5-2,0	0,3-5,0			○

● Ex stock ○ On demand

BC CBN with coating
BH CBN with a high CBN content


YCB810C grade

YCD821 grade

Uncoated PCD grade for non-ferrous metals

YOUR BENEFITS

– The latest generation of PCD materials for **long tool life**
– High-precision manufacturing for **stable processes** and **good surface finishes**
– Efficient and cost-effective high-speed machining
– State-of-the-art manufacturing technologies for **maximum precision**

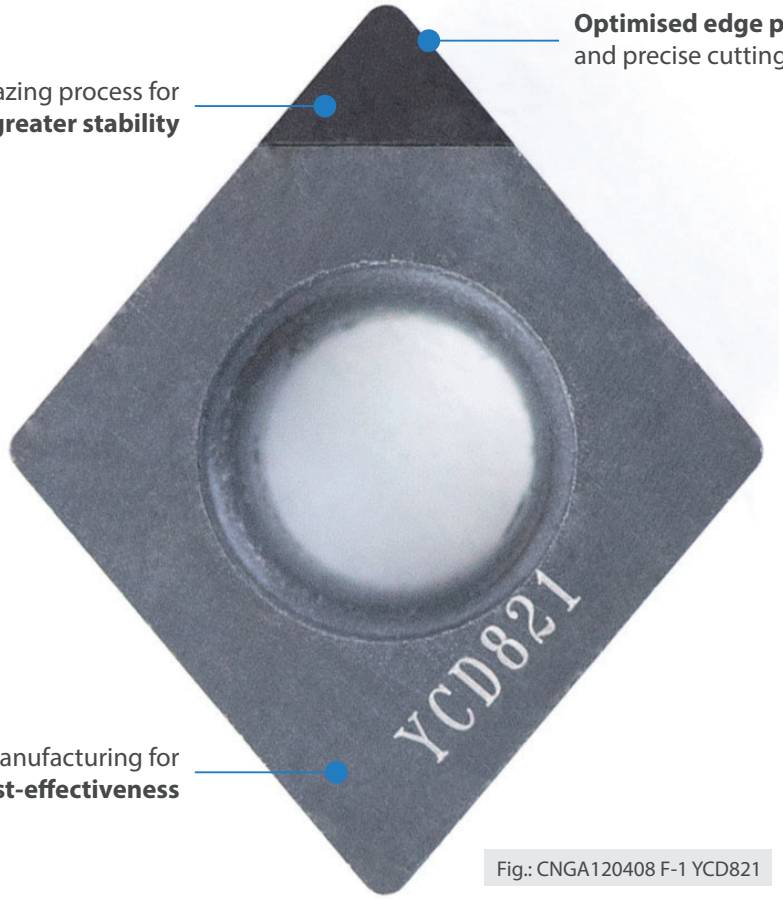
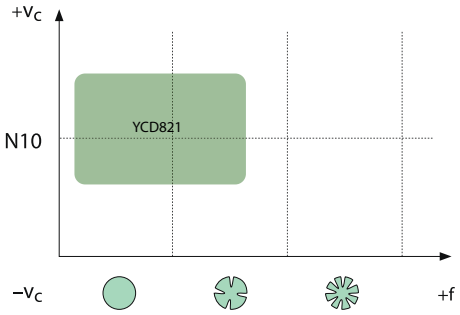


Fig.: CNGA120408 F-1 YCD821

Grades



YCD821 (all-rounder):
– For the super finishing of aluminium alloys containing less than 12 % Si, composite materials, copper and magnesium
– Good wear resistance across a wide range of applications
– Suitable for turning and milling operations

Chamfer designs

The design of the cutting edge is crucial to the Tool life and performance of the cutting insert. Our 'standard version' covers a wide range of applications. In all other cases, we can offer an optimised edge design to achieve the best possible result.

Standard

F

F
For PCD inserts with a sharp cutting edge

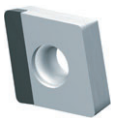
Insert variants

PKD Blank 0°



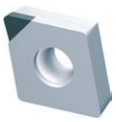
For general applications

PKD Blank 0°



Blade assembly for large cutting depths

PKD Blank 7°



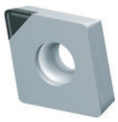
Reduced cutting pressure due to a positive rake angle

PKD Blank 7°



Blade assembly for large cutting depths and reduced cutting pressure

PKD Blank 0°



Laser-etched chip-forming step for high process reliability and effective chip formation

As well as the standard corner design, versions with a wiper chamfer or full-surface covering are also available on demand.



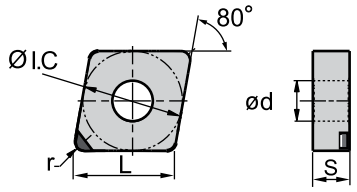
MED: Special process using a laser-cut chip-breaking step
The laser-cut chip-breaking step gives the standard 0° brazed PCD blank a positive rake angle. This reduces the cutting forces and has a positive effect on chip formation. At the same time, the basic stability is maintained. Recommended for use with aluminium alloys, copper alloys, magnesium alloys, plastics or fibre-reinforced composites.

Turning inserts (PCD)

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

CNGA	L	I.C	S	d
12 04	12,9	12,7	4,76	5,5

CN** negative insert



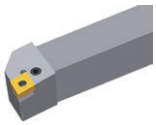
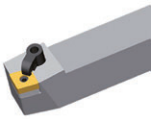
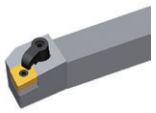
	P	M	K	N	S	H
DP				○		

	ISO	r	a_p	f	YCD821
	**CNGA120402F-1**	0,2	0,08-0,5	0,05-0,15	○
	CNGA120404F-1	0,4	0,08-0,5	0,05-0,2	○
	CNGA120408F-1	0,8	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

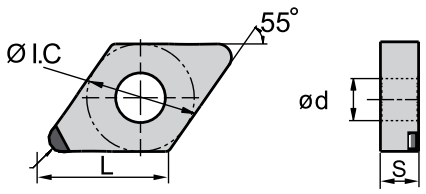
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
					

Turning inserts (PCD)

- 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



P	
M	
K	
N	○
S	
H	

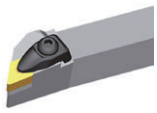
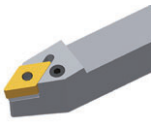
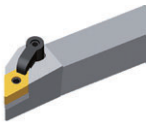
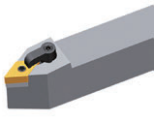
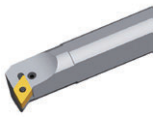
DP

	ISO	r	a_p	f	YCD821
	**DNGA150602 F-1**	0,2	0,08-0,5	0,05-0,15	○
	DNGA150604 F-1	0,4	0,08-0,5	0,05-0,2	○
	DNGA150608 F-1	0,8	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

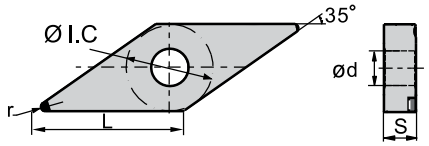
DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	S***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
						

Turning inserts (PCD)

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



DP

P
M
K
N
S
H

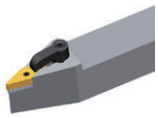
ISO	r	a_p	f	YCD821
VNGA160402F-1	0,2	0,08-0,5	0,05-0,15	○
VNGA160404F-1	0,4	0,08-0,5	0,05-0,2	○



● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

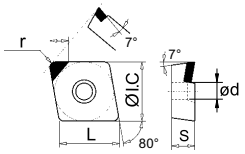
DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
			

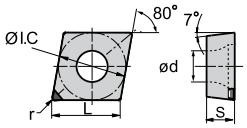
Turning inserts (PCD)

- 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	5,5

CC** positive insert





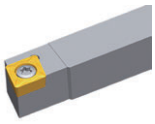
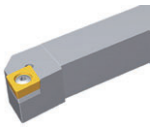
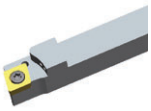
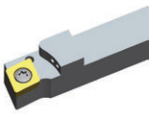
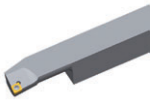
MED

	ISO	r	a_p	f	YCD821
	**CCGT060202F-1**	0,2	0,08-0,5	0,05-0,15	○
	CCGT060204F-1	0,4	0,08-0,5	0,05-0,2	○
	CCGT060208F-1	0,8	0,08-0,5	0,05-0,25	○
	CCGT09T302F-1	0,2	0,08-0,5	0,05-0,15	○
	CCGT09T304F-1	0,4	0,08-0,5	0,05-0,2	●
	CCGT09T308F-1	0,8	0,08-0,5	0,05-0,25	●
	CCGT120402F-1	0,2	0,08-0,5	0,05-0,15	○
	CCGT120404F-1	0,4	0,08-0,5	0,05-0,2	○
	CCGT120408F-1	0,8	0,08-0,5	0,05-0,25	○
	**CCGT060204F-1 MED**	0,4	0,08-0,5	0,05-0,2	○
	CCGT060208F-1 MED	0,8	0,08-0,5	0,05-0,25	○
	CCGT09T302F-1 MED	0,2	0,08-0,5	0,05-0,15	○
	CCGT09T304F-1 MED	0,4	0,08-0,5	0,05-0,2	○
	CCGT09T308F-1 MED	0,8	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

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°
						

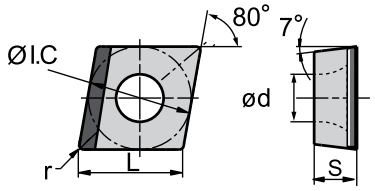
E***-SCLCR/L
Kr: 95°


Turning inserts (PCD)

- 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

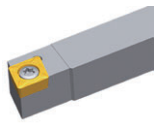
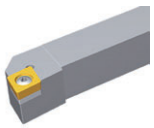
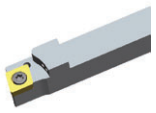
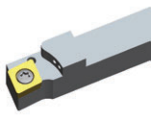
P
M
K
N
S
H

	ISO	r	a_p	f	YCD821
	**CCGT09T308LL**	0,8	0,1-8,0	0,05-0,3	○
	CCGT09T308LR	0,8	0,1-8,0	0,05-0,3	○
	CCGT120404LL	0,4	0,1-10,0	0,05-0,3	○
	CCGT120404LR	0,4	0,1-10,0	0,05-0,3	○
	CCGT120408LL	0,8	0,1-10,0	0,05-0,3	○
	CCGT120408LR	0,8	0,1-10,0	0,05-0,3	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

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°
						

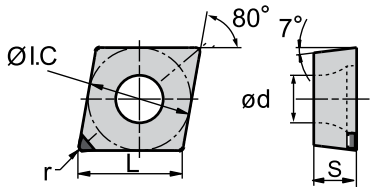
E***-SCLCR/L
Kr: 95°


Turning inserts (PCD)

- 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

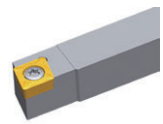
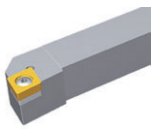
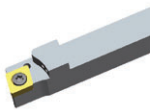
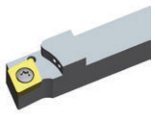
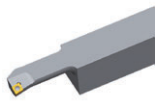


	ISO	r	a_p	f	YCD821
	**CCGW060202F-1**	0,2	0,08-0,5	0,05-0,15	○
	CCGW060204F-1	0,4	0,08-0,5	0,05-0,2	○
	CCGW060208F-1	0,8	0,08-0,5	0,05-0,25	○
	CCGW09T304F-1	0,4	0,08-0,5	0,05-0,2	●
	CCGW09T308F-1	0,8	0,08-0,5	0,05-0,25	●
	CCGW120404F-1	0,4	0,08-0,5	0,05-0,2	○
	CCGW120408F-1	0,8	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

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°
						

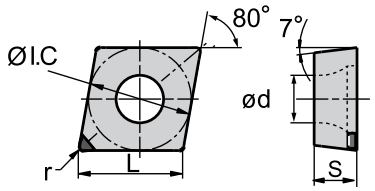
E***-SCLCR/L
Kr: 95°


Turning inserts (PCD)

- 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



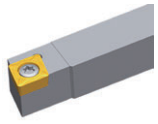
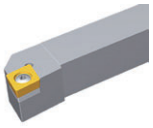
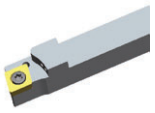
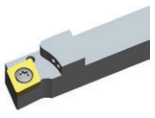
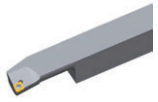
	DP
P	
M	
K	
N	○
S	
H	

	ISO	r	a_p	f	YCD821
	**CCGW09T304LL**	0,4	0,1-8,0	0,05-0,3	○
	CCGW09T304LR	0,4	0,1-8,0	0,05-0,3	○
	CCGW09T308LL	0,8	0,1-8,0	0,05-0,3	●
	CCGW09T308LR	0,8	0,1-8,0	0,05-0,3	●
	CCGW120404LL	0,4	0,1-10,0	0,05-0,3	○
	CCGW120404LR	0,4	0,1-10,0	0,05-0,3	○
	CCGW120408LL	0,8	0,1-10,0	0,05-0,3	○
	CCGW120408LR	0,8	0,1-10,0	0,05-0,3	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

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°
						

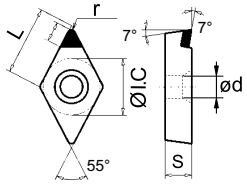
E***-SCLCR/L
Kr: 95°


Turning inserts (PCD)

- 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



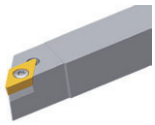
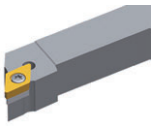
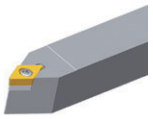
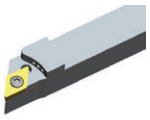
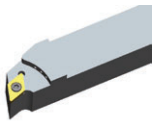
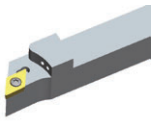
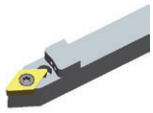
DP

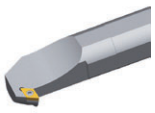
	ISO	r	a_p	f	YCD821
P					
M					
K					
N					○
S					
H					
	**DCGT070202F-1**	0,2	0,08-0,5	0,05-0,15	○
	DCGT070204F-1	0,4	0,08-0,5	0,05-0,2	○
	DCGT11T302F-1	0,2	0,08-0,5	0,05-0,15	●
	DCGT11T304F-1	0,4	0,08-0,5	0,05-0,2	●
	DCGT11T308F-1	0,8	0,08-0,5	0,05-0,25	●

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

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'
						

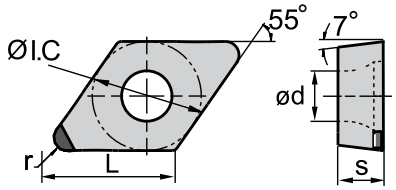
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'
			

Turning inserts (PCD)

- 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

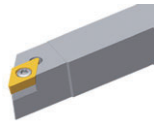
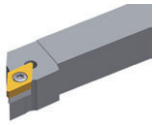
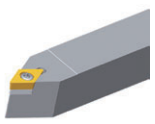
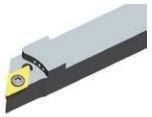
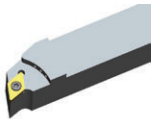
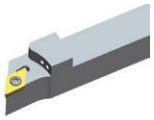
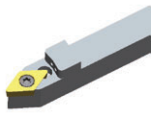


					DP
					YCD821
P					
M					
K					
N					○
S					
H					
	ISO	r	a_p	f	
	**DCGT070202F-1 MED**	0,2	0,08-0,5	0,05-0,15	○
	DCGT070204F-1 MED	0,4	0,08-0,5	0,05-0,2	○
	DCGT070208F-1 MED	0,8	0,08-0,5	0,05-0,25	○
	**DCGT11T302F-1 MED**	0,2	0,08-0,5	0,05-0,15	○
	DCGT11T304F-1 MED	0,4	0,08-0,5	0,05-0,2	○
	DCGT11T308F-1 MED	0,8	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

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'
						

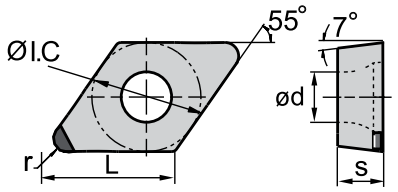
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'
			

Turning inserts (PCD)

- 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

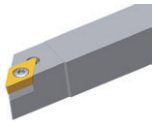
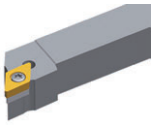
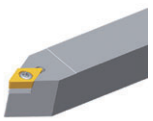
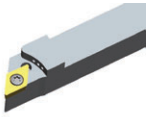
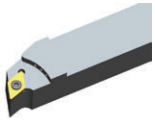
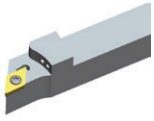
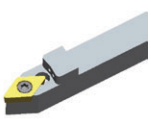


					DP
					YCD821
P					
M					
K					
N					○
S					
H					
	ISO	r	a_p	f	
	**DCGW070202F-1**	0,2	0,08-0,5	0,05-0,15	○
	DCGW070204F-1	0,4	0,08-0,5	0,05-0,2	●
	DCGW070208F-1	0,8	0,08-0,5	0,05-0,25	●
	DCGW11T302F-1	0,2	0,08-0,5	0,05-0,15	●
	DCGW11T304F-1	0,4	0,08-0,5	0,05-0,2	●
	DCGW11T308F-1	0,8	0,08-0,5	0,05-0,25	●

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

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'
						

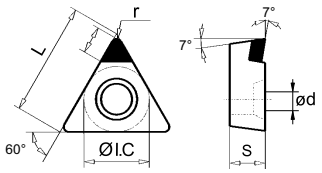
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'
			

Turning inserts (PCD)

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

TCGT	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



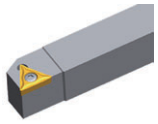
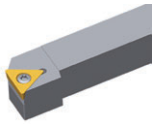
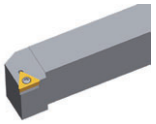
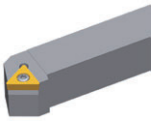
	DP
P	
M	
K	
N	○
S	
H	

	ISO	r	a_p	f	YCD821
	**TCGT110202F-1**	0,2	0,08-0,5	0,05-0,15	○
	TCGT110204F-1	0,4	0,08-0,5	0,05-0,2	○
	TCGT110208F-1	0,8	0,08-0,5	0,05-0,25	○
	TCGT16T302F-1	0,2	0,08-0,5	0,05-0,15	○
	TCGT16T304F-1	0,4	0,08-0,5	0,05-0,2	○
	TCGT16T308F-1	0,8	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

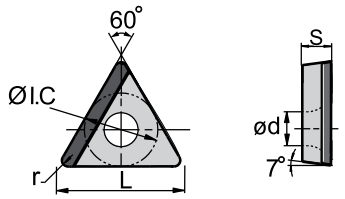
STACR/L	**STFCR/L**	**STGCR/L**	**STTCR/L**	**S***-STFCR/L**	**E***-STFCR/L**
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					

Turning inserts (PCD)

- 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

TC** positive insert



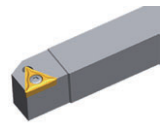
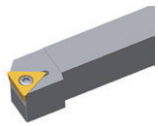
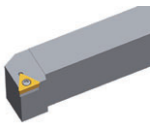
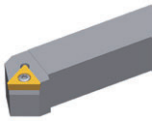
	DP
P	
M	
K	
N	○
S	
H	

	ISO	r	a_p	f	YCD821
	**TCGT110202L**	0,2	0,08-0,50	0,05-0,15	○
	TCGT110204L	0,4	0,08-0,50	0,05-0,20	○
	TCGT110208L	0,8	0,08-0,50	0,05-0,25	○
	TCGT16T302L	0,2	0,08-0,50	0,05-0,15	○
	TCGT16T304L	0,4	0,08-0,50	0,05-0,20	○
	TCGT16T308L	0,8	0,08-0,50	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

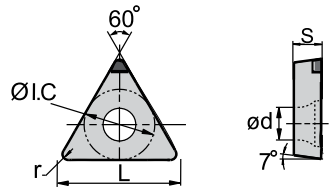
STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					

Turning inserts (PCD)

- 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



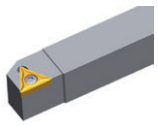
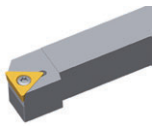
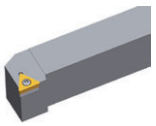
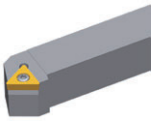
	DP
P	
M	
K	
N	○
S	
H	

	ISO	r	a_p	f	YCD821
	**TCGW110202F-1**	0,2	0,08-0,5	0,05-0,15	○
	TCGW110204F-1	0,4	0,08-0,5	0,05-0,2	○
	TCGW110208F-1	0,8	0,08-0,5	0,05-0,25	○
	TCGW16T304F-1	0,4	0,08-0,5	0,05-0,2	●
	TCGW16T308F-1	0,8	0,08-0,5	0,05-0,25	●
	TCGW16T312F-1	1,2	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

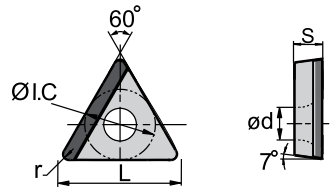
STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					

Turning inserts (PCD)

- 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



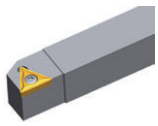
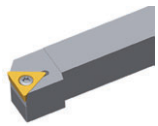
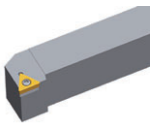
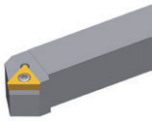
	DP
P	
M	
K	
N	○
S	
H	

	ISO	r	a_p	f	YCD821
	**TCGW110202L**	0,2	0,1-10,0	0,05-0,3	○
	TCGW110204L	0,4	0,1-10,0	0,05-0,3	○
	TCGW110208L	0,8	0,1-10,0	0,05-0,3	○
	TCGW16T302L	0,2	0,1-12,0	0,05-0,3	○
	TCGW16T304L	0,4	0,1-12,0	0,05-0,3	○
	TCGW16T308L	0,8	0,1-12,0	0,05-0,3	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

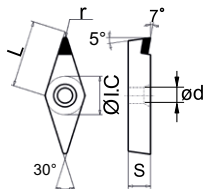
STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
					

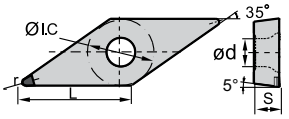
Turning inserts (PCD)

- 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





MED

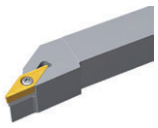
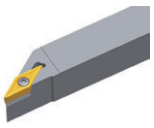
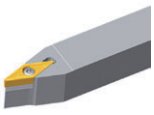
	DP
P	
M	
K	
N	○
S	
H	

	ISO	r	a_p	f	YCD821
	**VBGT110302F-1**	0,2	0,08-0,5	0,05-0,15	○
	VBGT110304F-1	0,4	0,08-0,5	0,05-0,2	○
	VBGT110308F-1	0,8	0,08-0,5	0,05-0,25	○
	VBGT160402F-1	0,2	0,08-0,5	0,05-0,15	○
	VBGT160404F-1	0,4	0,08-0,5	0,05-0,2	●
	VBGT160408F-1	0,8	0,08-0,5	0,05-0,25	●
	**VBGT160404F-1 MED**	0,4	0,08-0,5	0,05-0,2	○
	VBGT160408F-1 MED	0,8	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

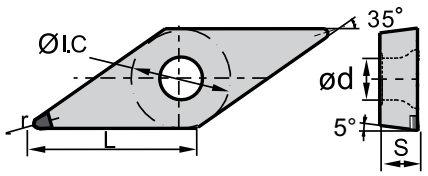
SVJBR/L	SVABR/L	SVVBN	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 107°30'	Kr: 93°	Kr: 93°
					

Turning inserts (PCD)

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

VBGW	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

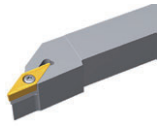
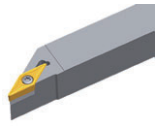
P
M
K
N ○
S
H

ISO		r	a_p	f	YCD821
	**VBGW110302F-1**	0,2	0,08-0,5	0,05-0,15	○
	VBGW110304F-1	0,4	0,08-0,5	0,05-0,2	○
	VBGW160402F-1	0,2	0,08-0,5	0,05-0,15	○
	VBGW160404F-1	0,4	0,08-0,5	0,05-0,2	○
	VBGW160408F-1	0,8	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

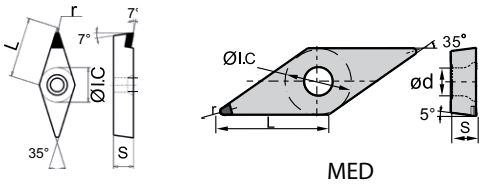
SVJBR/L	SVABR/L	SVVBN	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 107°30'	Kr: 93°	Kr: 93°
					

Turning inserts (PCD)

- 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

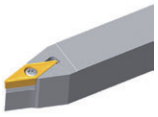
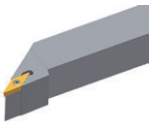
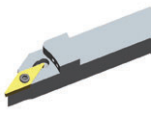
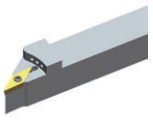


MED

	ISO	r	a_p	f	YCD821
	VCGT110302F-1	0,2	0,08-0,5	0,05-0,15	○
	VCGT110304F-1	0,4	0,08-0,5	0,05-0,2	○
	VCGT160402F-1	0,2	0,08-0,5	0,05-0,15	○
	VCGT160404F-1	0,4	0,08-0,5	0,05-0,2	●
	VCGT160408F-1	0,8	0,08-0,5	0,05-0,25	○
	VCGT110302F-1 MED	0,2	0,08-0,5	0,05-0,15	○
	VCGT110304F-1 MED	0,4	0,08-0,5	0,05-0,2	○
	VCGT160404F-1 MED	0,4	0,08-0,5	0,05-0,2	○
	VCGT160408F-1 MED	0,8	0,08-0,5	0,05-0,25	○

● Ex stock ○ On demand DP Polycrystalline diamond

Tool holders

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'
						

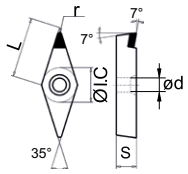
C***-SVUCR/L
Kr: 93°


Turning inserts (PCD)

- 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



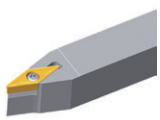
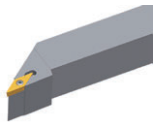
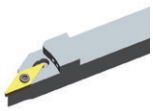
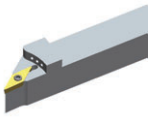
					DP
					P
					M
					K
					N ○
					S
					H

	ISO	r	a_p	f	YCD821
	**VCGW110302F-1**	0,2	0,08-0,5	0,05-0,15	○
	VCGW110304F-1	0,4	0,08-0,5	0,05-0,2	○
	VCGW110308F-1	0,8	0,08-0,5	0,05-0,25	○
	VCGW160404F-1	0,4	0,08-0,5	0,05-0,2	●
	VCGW160408F-1	0,8	0,08-0,5	0,05-0,25	●

● Ex stock ○ On demand

DP Polycrystalline diamond

Tool holders

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'
						

C***-SVUCR/L
Kr: 93°


Turning inserts

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
						BC								
						YCB805C			YCB810C			YCB820C		
						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									
		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	240	180	140	240	180	140	220	170	130
			hardened and tempered	60 HRC	38	220	180	140	220	180	140	200	160	120
	Hard cast iron		cast	400	39	250	150	100	250	150	100	200	150	100
	Hardened cast iron		hardened and tempered	55 HRC	40	200	150	100	200	150	100	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.

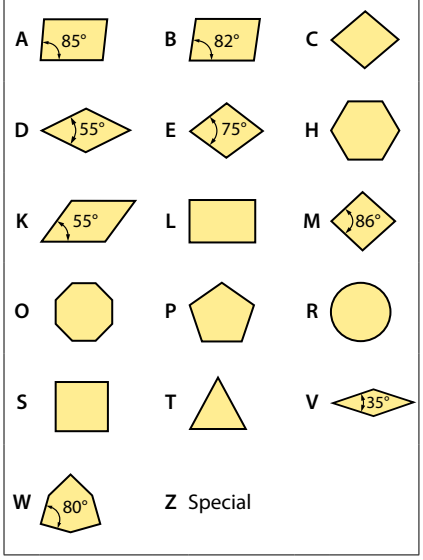
	Starting values for cutting speed v_c [m/min]																								
	BC			BH						DP			HC												
	YCB830C			YCB226			YZB227			YCD821			PG9005												
	Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]			Feed rate [mm]		
	0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,3	0,5	0,1	0,2	0,3	0,08	0,15	0,3	0,1	0,3	0,5	0,1	0,3	0,5	0,1	0,3	0,5
				1500	980	400	1500	950	400															
				1250	800	320	1250	780	320															
				–	–	–	–	–	–															
				300	200	100	500	300	100															
				–	–	–	–	–	–															
				300	200	100	500	300	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												
													80	60	–									
													70	50	–									
													70	50	–									
													65	45	–									
													65	45	–									
													120	60	–									
													100	60	–									
	160	120	100										80	70	–									
	150	120	100										70	60	–									
	180	120	100										–	–	–									
	150	120	100										80	70	–									

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

ISO standard

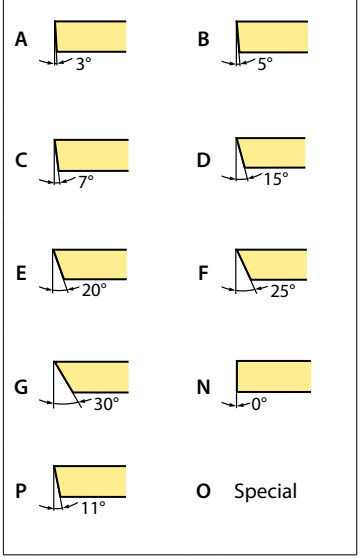
T	N	M	G	22	04	08	(N)	–	DM
1	2	3	4	5	6	7	8		9

Insert shape



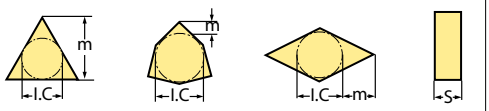
1

Clearance angle



2

Tolerance class

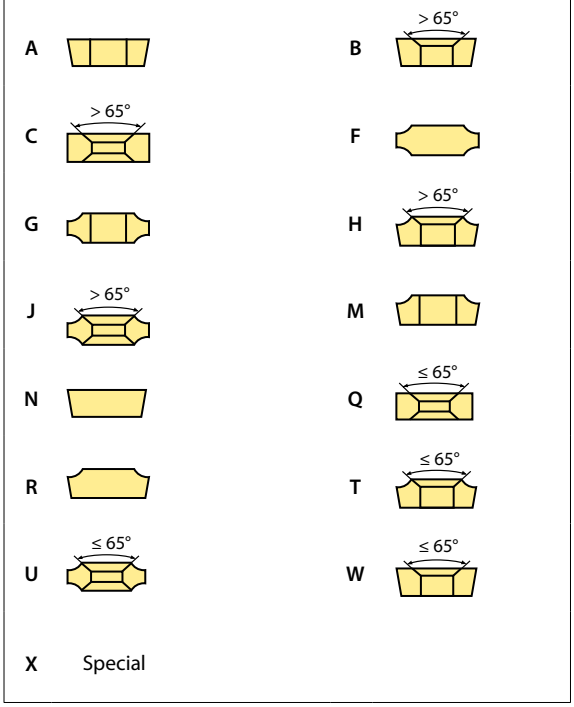


Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20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

3

Fastening features (metric)

Insert shape

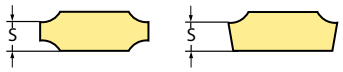


4

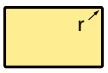
Cutting edge length l [mm]

I.C [mm]	Insert shape C	D	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					

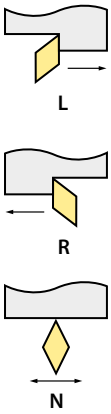
5

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 in the Main Catalogue)

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

6

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

7

PG8005 grade

Premium grade for maximum wear resistance

YOUR BENEFITS

– High-performance coating (AlTiCNO-CVD) with ultra-smooth polished surface that **minimises friction**
– Ideal choice for difficult-to-machine materials such as superalloys and heat-resistant cast steel
– Minimum wear for a **long tool life**



Fig.: DNMG150608-SNR PG8005

Update

Articles available with the new PG8005 grade:

Article	Stock
CNEG120404-NF PG8005	●
CNEG120408-NF PG8005	●
CNEG120408-SNR PG8005 ■	○
CNMG120408-SNR PG8005	○
CNMG120408-XLR PG8005	●
CNMG120412-XLR PG8005 ■	○
DNEG150604-NF PG8005	●
DNEG150608-NF PG8005	●
DNMG150608-SNR PG8005	○
VBET160404-NF PG8005	●
VBET160404-NGF PG8005	●
VBET160408-NF PG8005	●
VBET160408-NGF PG8005	●

● Ex stock ○ On demand

Article	Stock
VBMT160408-SNR PG8005	●
VCGT160404-NGF PG8005	●
VCGT160408-SNR PG8005	●
VNEG160404-NF PG8005	●
VNEG160408-NF PG8005	●
VNEG160408-NGF PG8005	●
VNMG160408-SNR PG8005	○
WNMG080408-SNR PG8005	○

● Ex stock ○ On demand

PG8030 grade

Premium universal CVD grade with heat-resistant properties

YOUR BENEFITS

– Optimised for turning difficult-to-machine materials such as superalloys and heat-resistant cast steel
– **Reduces wear** thanks to mechanically robust substrate and thermally stable coating
– Premium coating technology (AlTiCNO-CVD) for **low wear** thanks to polished coating surface
– Ideal for continuous and interrupted cuts

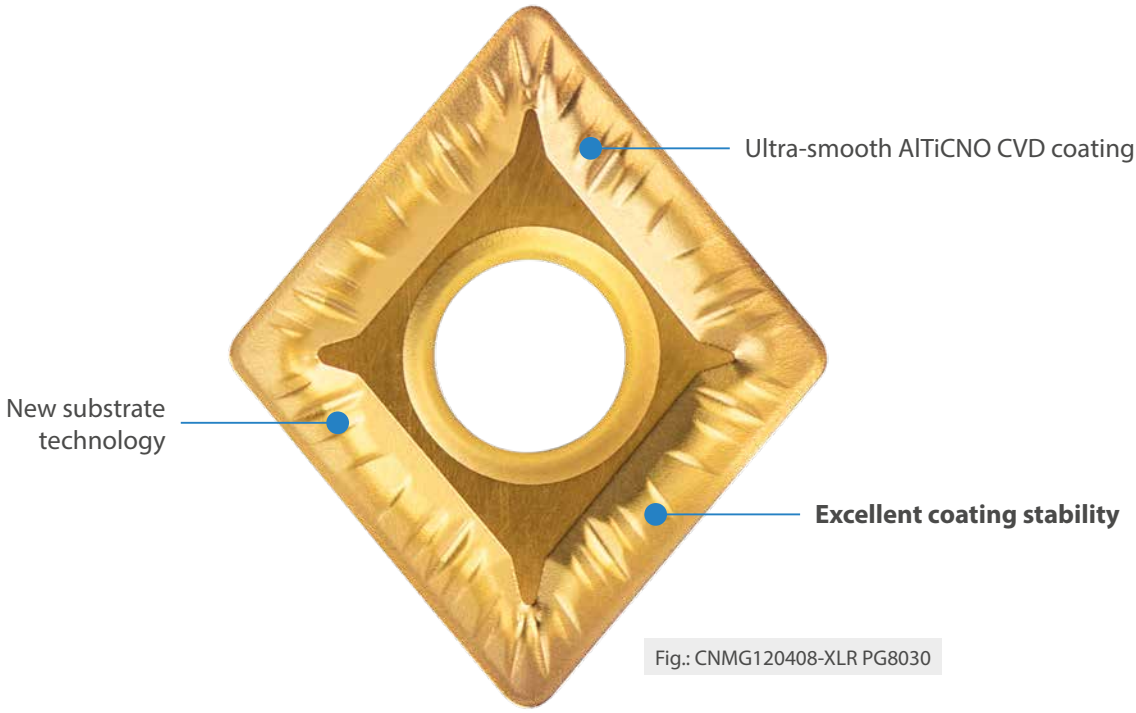


Fig.: CNMG120408-XLR PG8030

Update

Articles available with the new PG8030 grade:

Article	Stock
CNMG120408-XLR PG8030	●
CNMG120412-XLR PG8030	●
CNMG120416-XLR PG8030	●
CNMG160612-XLR PG8030	●
CNMG160616-XLR PG8030 ■	●
CNMG190612-XLR PG8030	●
CNMG190616-XLR PG8030	●
CNMG190624-XLR PG8030	●
CNMM160612-XLR PG8030	○
CNMM190616-XLR PG8030	○
CNMM190624-XLR PG8030	●
CNMM250924-XLR PG8030	○
DNMG150608-XLR PG8030	●

● Ex stock ○ On demand

Article	Stock
RCMT2507MO-GR PG8030	○
RCMT2507MO PG8030	○
RCMX3209MO-GR PG8030	○
SNMG190624-XLR PG8030	●
SNMM190616-XLR PG8030	○
SNMM190624-XLR PG8030	●
SNMM250924-XLR PG8030	○
TNMG160408-XLR PG8030	●

● Ex stock ○ On demand

PG1110 grade

Premium heat-resistant PVD grade for turning applications

YOUR BENEFITS

– Innovative coating concept (TiAlSiN-PVD) for **enhanced adhesion** and improved surface quality with a **low coefficient of friction**
– Ideal for use in combination with difficult-to-machine materials
– Maximum heat resistance for the **longest tool life possible**

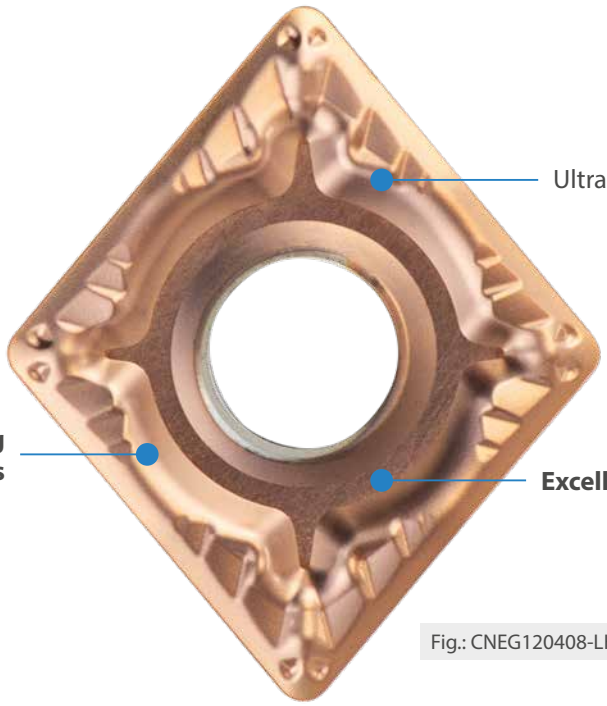


Fig.: CNEG120408-LH PG1110

Articles available with the new PG1110 grade:

Article	Stock
CNEG120404-LH PG1110	●
CNEG120408-LH PG1110	●
CNEG120412-LH PG1110	●
CNEG120416-LH PG1110	●
CNEG160608-LH PG1110	●
CNEG160612-LH PG1110	●
CNEG160616-LH PG1110	●
DNEG150604-LH PG1110	●
DNEG150608-LH PG1110	●
DNEG150612-LH PG1110	●
DNEG150616-LH PG1110	○
SNEG120408-LH PG1110	●
SNEG120412-LH PG1110	●
SNEG120416-LH PG1110	○

● Ex stock ○ On demand

Article	Stock
VNEG160408-LH PG1110	●
WNEG080404-LH PG1110	●
WNEG080408-LH PG1110	●
WNEG080412-LH PG1110	●

● Ex stock ○ On demand

LH chip breaker

Consistent results in the medium application range

YOUR BENEFITS

– Controlled machining in a **wide range of applications**
– Top performance in applications involving non-ferrous metals and superalloys
– Large rake angle: **enhanced chip removal**; reliable results across a range of feed rates
– **Significant decrease in the formation of built-up edge** thanks to a polished top face

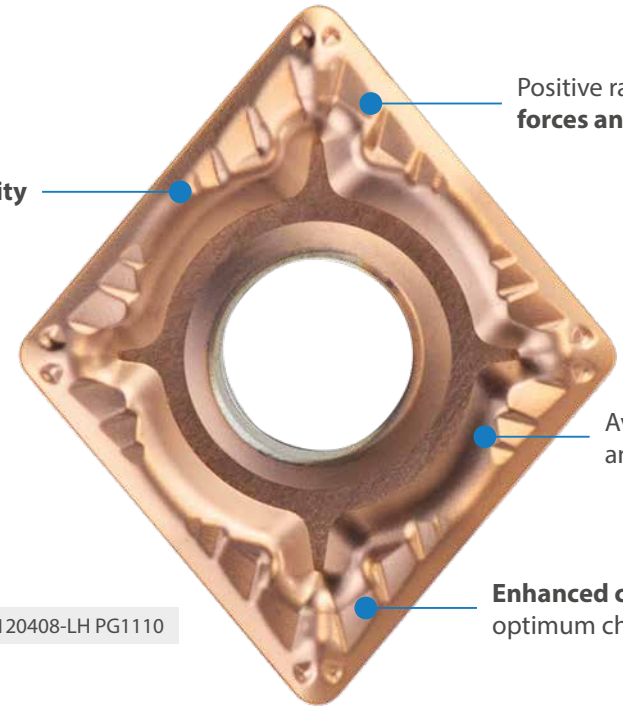


Fig.: CNEG120408-LH PG1110

Articles available with the new LH chip breaker:

Article	Stock
CNEG120404-LH PG1110	●
CNEG120408-LH PG1110	●
CNEG120412-LH PG1110	●
CNEG120416-LH PG1110	●
CNEG160608-LH PG1110	●
CNEG160612-LH PG1110	●
CNEG160616-LH PG1110	●
DNEG150604-LH PG1110	●
DNEG150608-LH PG1110	●
DNEG150612-LH PG1110	●
DNEG150616-LH PG1110	●
SNEG120408-LH PG1110	●
SNEG120412-LH PG1110	●
SNEG120416-LH PG1110	●

● Ex stock ○ On demand

Article	Stock
VNEG160408-LH PG1110	●
WNEG080404-LH PG1110	●
WNEG080408-LH PG1110	●
WNEG080412-LH PG1110	●

● Ex stock ○ On demand

F-QF chip breaker (YNT251D grade)

Premium tools for super-finishing applications

YOUR BENEFITS

– **Thinly coated** Cermet grade (TiAlN-PVD)
– Excellent Smooth surface properties for **optimum chip removal**
– For super-finishing applications with **high quality surface finish** involving low cutting depths and feed rates
– **Long tool life** in a wide range of applications

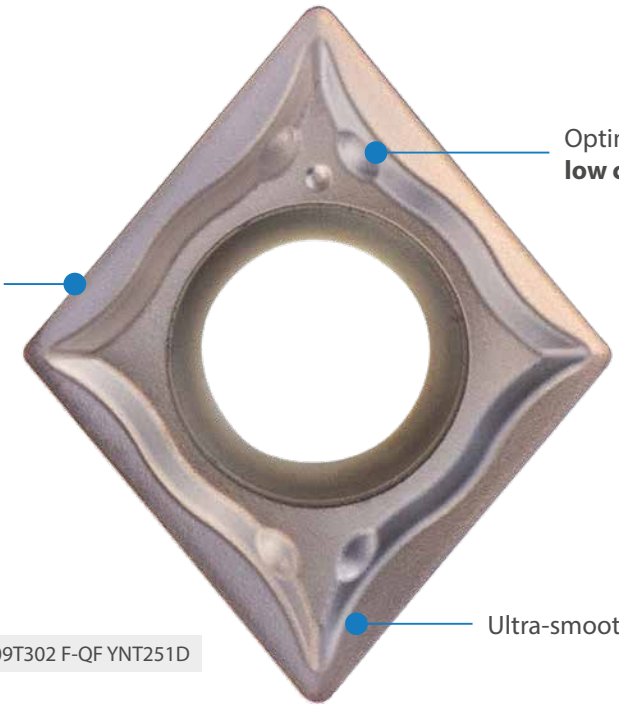


Fig.: CCGT09T302 F-QF YNT251D

Update

Articles available with the new F-QF (YNT251D grade) chip breaker:

Article	Stock
CCGT060201F-QF YNT251D	●
CCGT060202F-QF YNT251D	●
CCGT060204F-QF YNT251D	●
CCGT09T301F-QF YNT251D	●
CCGT09T302F-QF YNT251D	●
CCGT09T304F-QF YNT251D	●
DCGT070201F-QF YNT251D	●
DCGT070202F-QF YNT251D	●
DCGT070204F-QF YNT251D	●
DCGT11T301F-QF YNT251D	●
DCGT11T302F-QF YNT251D	●

● Ex stock ○ On demand

Article	Stock
DCGT11T304F-QF YNT251D	●
DPGT11T301F-QF YNT251D	○
DPGT11T302F-QF YNT251D	○
VBGT110202F-QF YNT251D ■	●
VBGT110204F-QF YNT251D ■	●
VBGT110301F-QF YNT251D	●
VBGT110302F-QF YNT251D	●
VBGT110304F-QF YNT251D	●
VCGT110301F-QF YNT251D	●
VCGT110302F-QF YNT251D	●
VCGT110304F-QF YNT251D	●

● Ex stock ○ On demand

Turning insert, negative, positive

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]								
						HC (CVD)								
						PG1110			PG8005			PG8020		
						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
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									
		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	70	55	–	80	60	–	60	40	–
			hardened	280	31	65	45	–	70	50	–	50	30	–
		Ni or Co bass	annealed	250	32	65	45	–	70	50	–	50	30	–
			hardened	350	33	60	40	–	65	45	–	45	25	–
			cast	320	34	60	40	–	65	45	–	45	25	–
	Titanium alloys	pure titanium		R_m 400	35	100	60	–	120	80	–	90	65	–
		α and β alloys	hardened	R_m 1050	36	80	40	–	100	60	–	80	45	–
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.

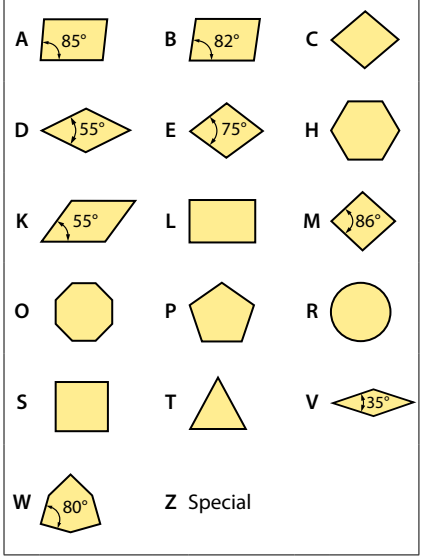
Starting values for cutting speed v_c [m/min]																									
HC (CVD)																									
PG8030 PANGU				YNT251D																					
Feed rate [mm]				Feed rate [mm]																					
0,1	0,3	0,6		0,05	0,1	0,15																			
				480	470	320																			
				410	400	250																			
				310	300	200																			
				300	290	180																			
				255	245	150																			
				380	370	220																			
				265	255	160																			
				210	200	140																			
				195	185	130																			
				295	285	180																			
				160	150	90																			
45	30	25		60	40	–																			
35	25	20		55	35	–																			
35	25	20		55	35	–																			
30	20	20		50	30	–																			
30	20	20		50	30	–																			
70	50	40		85	55	–																			
60	30	20		75	35	–																			

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

ISO standard

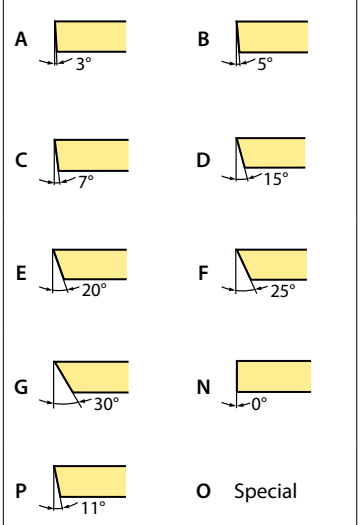
T	N	M	G	22	04	08	(N)	–	DM
1	2	3	4	5	6	7	8		9

Insert shape



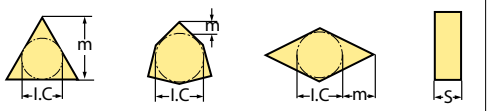
1

Clearance angle



2

Tolerance class

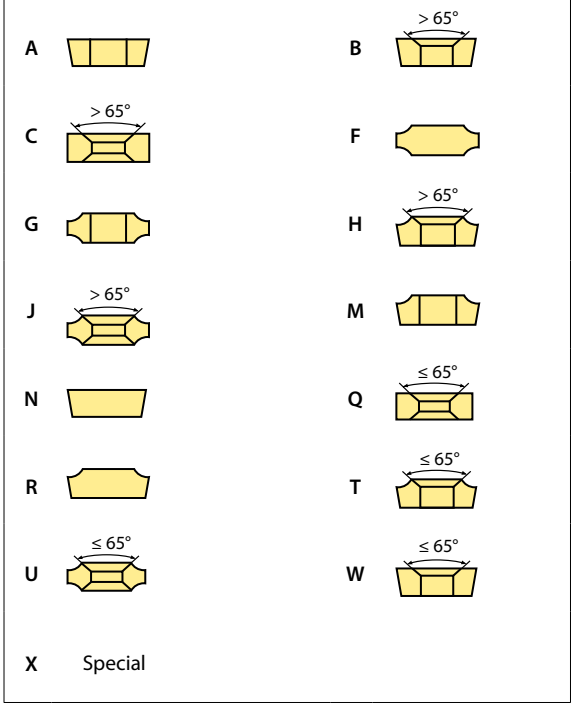


Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20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

3

Fastening features (metric)

Insert shape

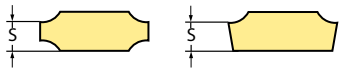


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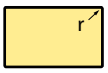
Cutting edge length l [mm]

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

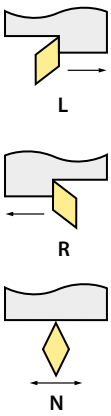
Insert thickness S [mm]			
			
Code	S	Code	S
00	0,79	**T5**	5,95
T0	0,99	**06**	6,35
01	1,59	**T6**	6,75
T1	1,98	**07**	7,94
02	2,38	**09**	9,52
T2	2,58	**T9**	9,72
03	3,18	**11**	11,11
T3	3,97	**12**	12,70
04	4,76		
T4	4,96		
05	5,56		

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



8

Chip breaker overview
(on page A16 in the Main Catalogue)

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

6

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

7

QF chip breaker

Maximum chip control in finishing operations

YOUR BENEFITS

– **Maximum chip control** and **top-notch surface quality** across a wide range of applications
– Optimally prepared cutting edges for **minimal vibration** when machining thin-walled components
– Peripherally ground cutting edges ensure a **high level of precision**

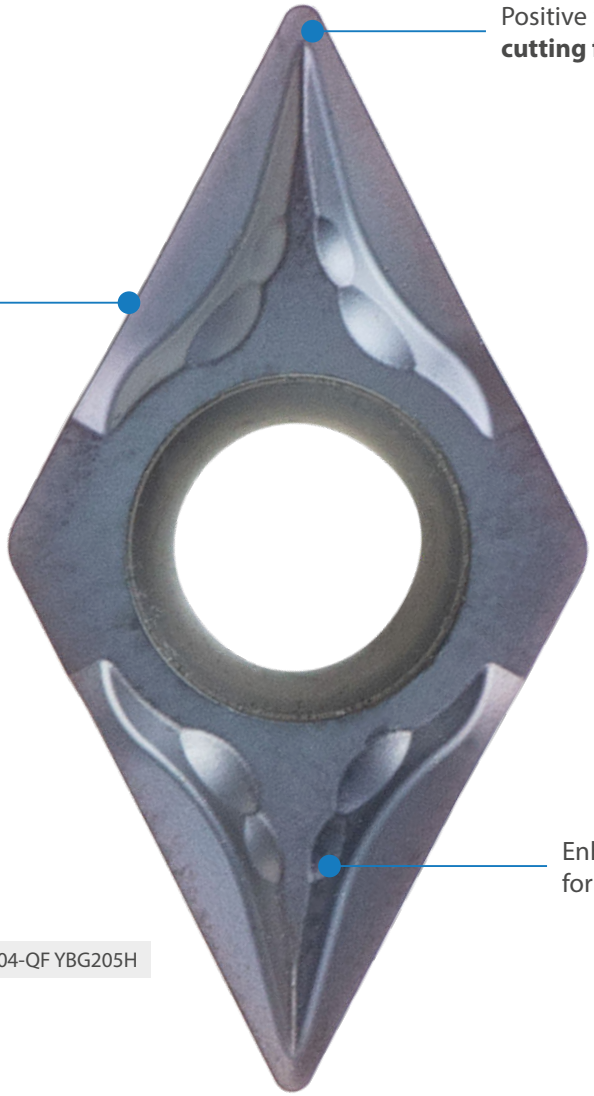


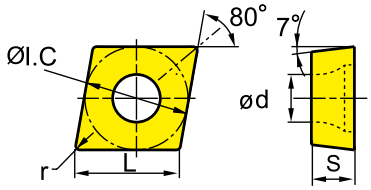
Fig.: DCGT11T304-QF YBG205H

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

CC** positive insert



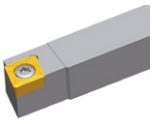
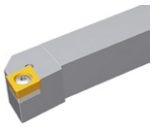
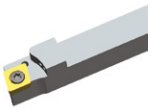
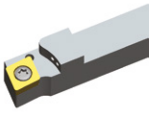
	HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205H	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
P	○	○	○	◉	◉	◉											◉			○	◉	○		
M								○	◉					○	○		◉	◉	○	○	◉	○		
K									○	◉	◉	◉												
N													○	○									◉	◉
S														○	○		◉	◉	○				◉	◉
H																								

	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205H	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
QF	**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																●								
	CCGT09T302-QF	0,2	0,1-0,5	0,05-0,2																						●		
	CCGT09T304-QF	0,4	0,4-1,0	0,1-0,3																●								
Finishing	**CCGT09T304-QF**	0,4	0,4-1,0	0,1-0,3																						●		
	CCGT09T308-QF	0,8	0,5-2,0	0,15-0,35																●								
	CCGT09T308-QF	0,8	0,5-2,0	0,15-0,35																						●		

● 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**	**S***-SCLCR/L**	**S***-SCFCR/L**	**S***-SCLCR**
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A269	A270	A306	A307	A334	A352	A353

E*-SCLCR/L**
Kr: 95°

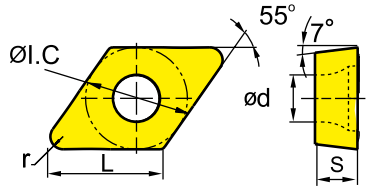
A355

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



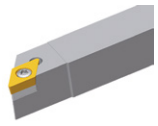
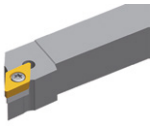
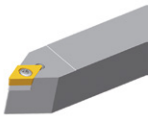
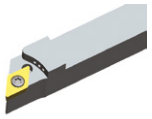
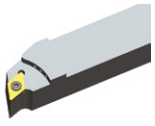
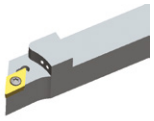
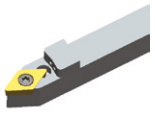
	HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
P	○	○	○	◎	◎	◎									◎	◎			○	◎	○		
M							○	◎					○	○	◎	◎	◎	○	○	◎	○		
K									●	◎	◎	◎											
N													●	●								●	◎
S													○	○	◎	◎	◎	○				○	◎
H																							

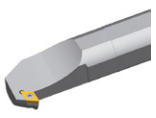
	ISO	r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205H	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
QF	**DCGT070201-QF**	0,1	0,05-0,2	0,03-0,1																●								
	DCGT070202-QF	0,2	0,1-0,5	005-0,2																●								
	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																●								
	DCGT11T302-QF	0,2	0,1-0,5	0,05-0,2																●								
	DCGT11T302-QF	0,2	0,1-0,5	0,05-0,2																	●							
Finishing	**DCGT11T304-QF**	0,4	0,4-1,0	0,1-0,3																●								
	DCGT11T304-QF	0,4	0,4-1,0	0,1-0,3																						●		
	DCGT11T304-QF	0,4	0,4-1,0	0,1-0,3																	●							
	DCGT11T308-QF	0,8	0,5-2,0	0,15-0,35																●								
	DCGT11T308-QF	0,8	0,5-2,0	0,15-0,35																						●		

● Ex stock ○ On demand

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

Tool holder

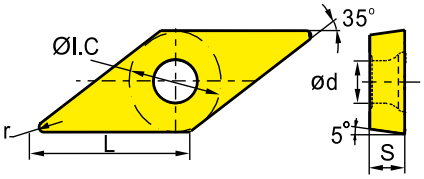
SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A271	A272	A273	A308	A309	A310	A311

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'
			
A336	A337	A338	A357

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



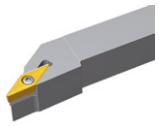
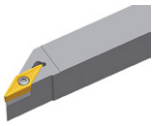
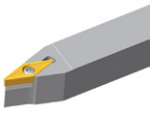
VB** positive insert		HC¹ (CVD)											HC¹ (PVD)							HT		HC²	HW	
P		○	○	○	◎	◎	◎									◎	◎			○	◎	○		
M								○	◎					○	○	◎	◎	◎	○	○	◎	○		
K										●	◎	◎	◎											
N														●	●								●	◎
S														●	○	◎	◎	◎	○				●	◎
H																								

ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205H	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
QF	**VBGT110301-QF**	0,1	0,05-0,2	0,03-0,1																○								
	VBGT110302-QF	0,2	0,1-0,4	0,05-0,2																○								
	VBGT110302-QF	0,2	0,1-0,4	0,05-0,2																						○		
Finishing	**VBGT110304-QF**	0,4	0,4-1	0,1-0,3																○								

● Ex stock ○ On demand

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

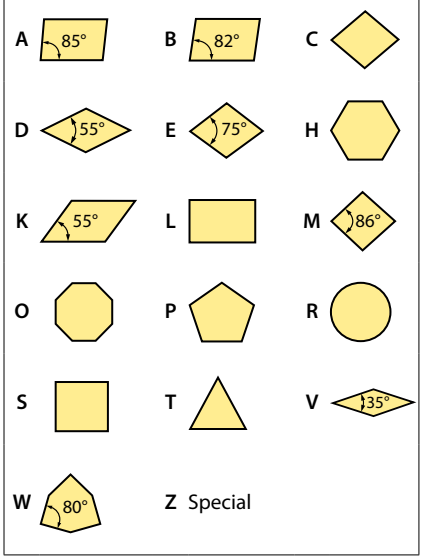
Tool holder

SVJBR/L	SVABR/L	SVVBN	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 93°
			
A274	A275	A276	A347

ISO standard

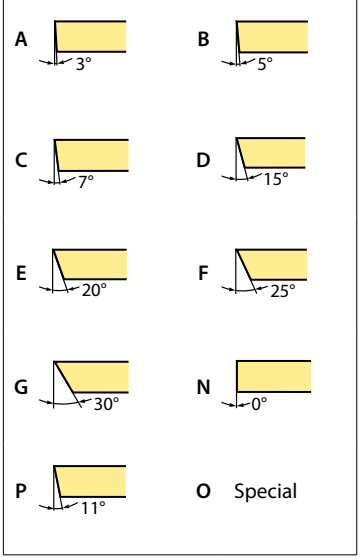
T	N	M	G	22	04	08	(N)	–	DM
1	2	3	4	5	6	7	8		9

Insert shape



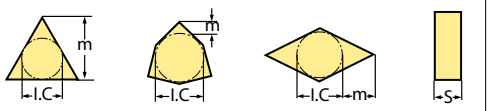
1

Clearance angle



2

Tolerance class

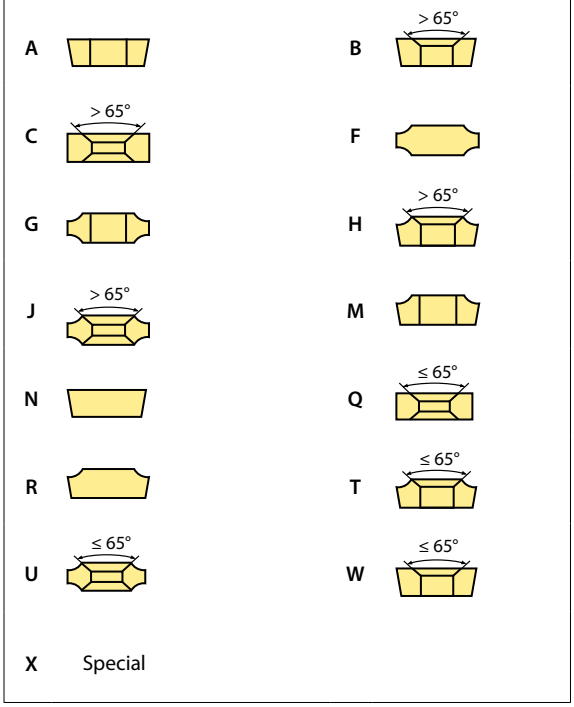


Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20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

3

Fastening features (metric)

Insert shape

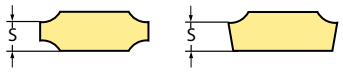


4

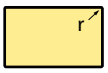
Cutting edge length l [mm]

I.C [mm]	Insert shape C	D	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

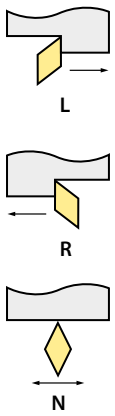
Insert thickness S [mm]			
			
Code	S	Code	S
00	0,79	**T5**	5,95
T0	0,99	**06**	6,35
01	1,59	**T6**	6,75
T1	1,98	**07**	7,94
02	2,38	**09**	9,52
T2	2,58	**T9**	9,72
03	3,18	**11**	11,11
T3	3,97	**12**	12,70
04	4,76		
T4	4,96		
05	5,56		

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



8

Chip breaker overview
(on page A16 in the Main Catalogue)

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

6

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

7

P	C	L	N	L	25	25	M	12
1	2	3	4	5	6	7	8	9

Clamping system

Code	Description	
P	Lever lock clamping	
M	Wedge/pin lock clamping	
S	Screw-on clamping	
C/J	Wedge clamping	
D	Duel wedge clamping	

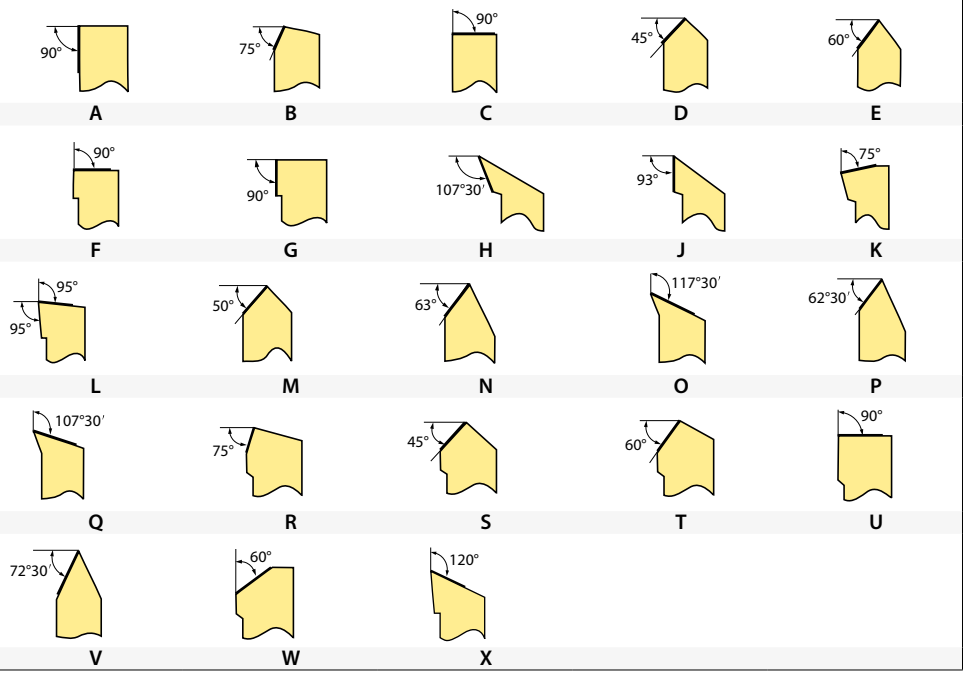
1

Insert shape

C	
D	
R	
S	
T	
V	
W	

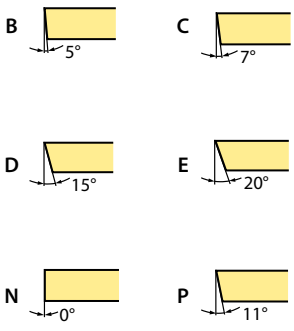
2

Tool holder type and entering angle



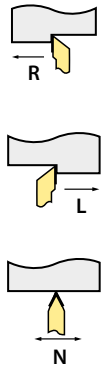
3

Clearance angle



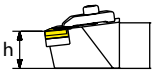
4

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

XLR chip breaker

Roughing made easy

YOUR BENEFITS

– Positive geometry **for low cutting forces at high feed rates** and cutting depths
– Recommended for low-power machines
– Excellent chip control even at maximum material removal rates thanks to optimum positioning of chip-forming elements

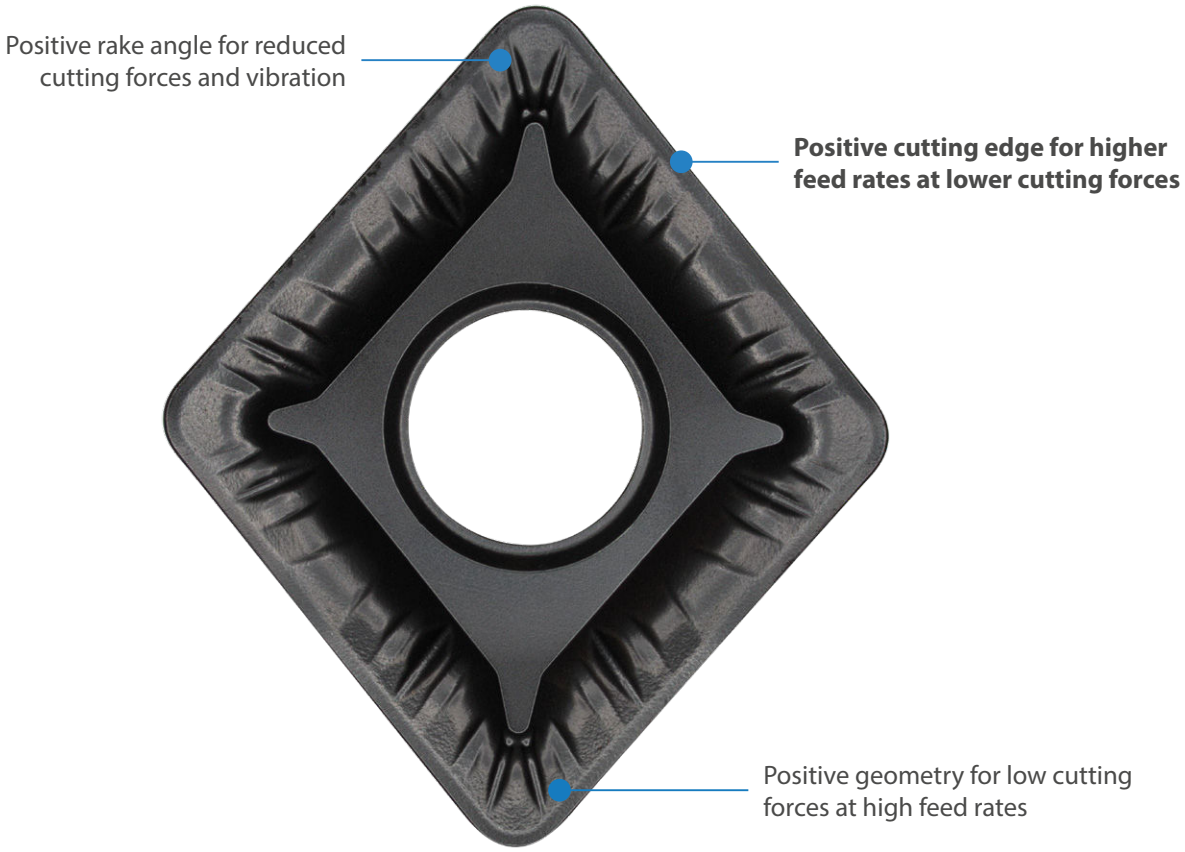


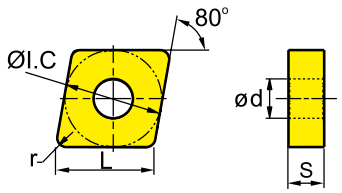
Fig.: CNMG120408-XLR YBC103

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	YB9320	YPD201	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	○			●																				
XLR  Roughing	**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	●			●																				
	CNMM160608-XLR	0.8	1.5-7.0	0.2-0.4	●			●																				
	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	●																							
	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	●			●																				

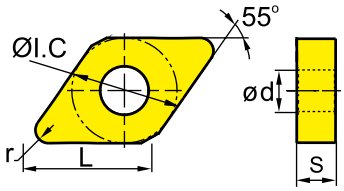
● Ex stock ○ On demand

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

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	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XLR	**DNMG150608-XLR**	0.8	1.5-4.8	0.2-0.48	●		●																				
	DNMG150612-XLR	1.2	1.5-4.8	0.2-0.45	●		●																				
	DNMG150616-XLR	1.6	1.5-4.8	0.2-0.50	●		●																				
Roughing																											

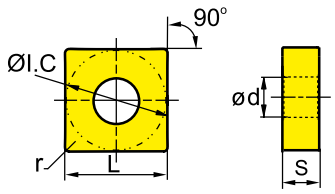
● Ex stock ○ On demand

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

Turning inserts

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

SNMM	L	I.C	S	d
25 09	25.4	25.4	9.525	9.12



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	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XLR	**SNMM250924-XLR**		2,4	2,0-7,8	0,2-0,65	○			○				○															
Roughing																												

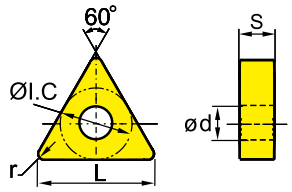
● Ex stock ○ On demand

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

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

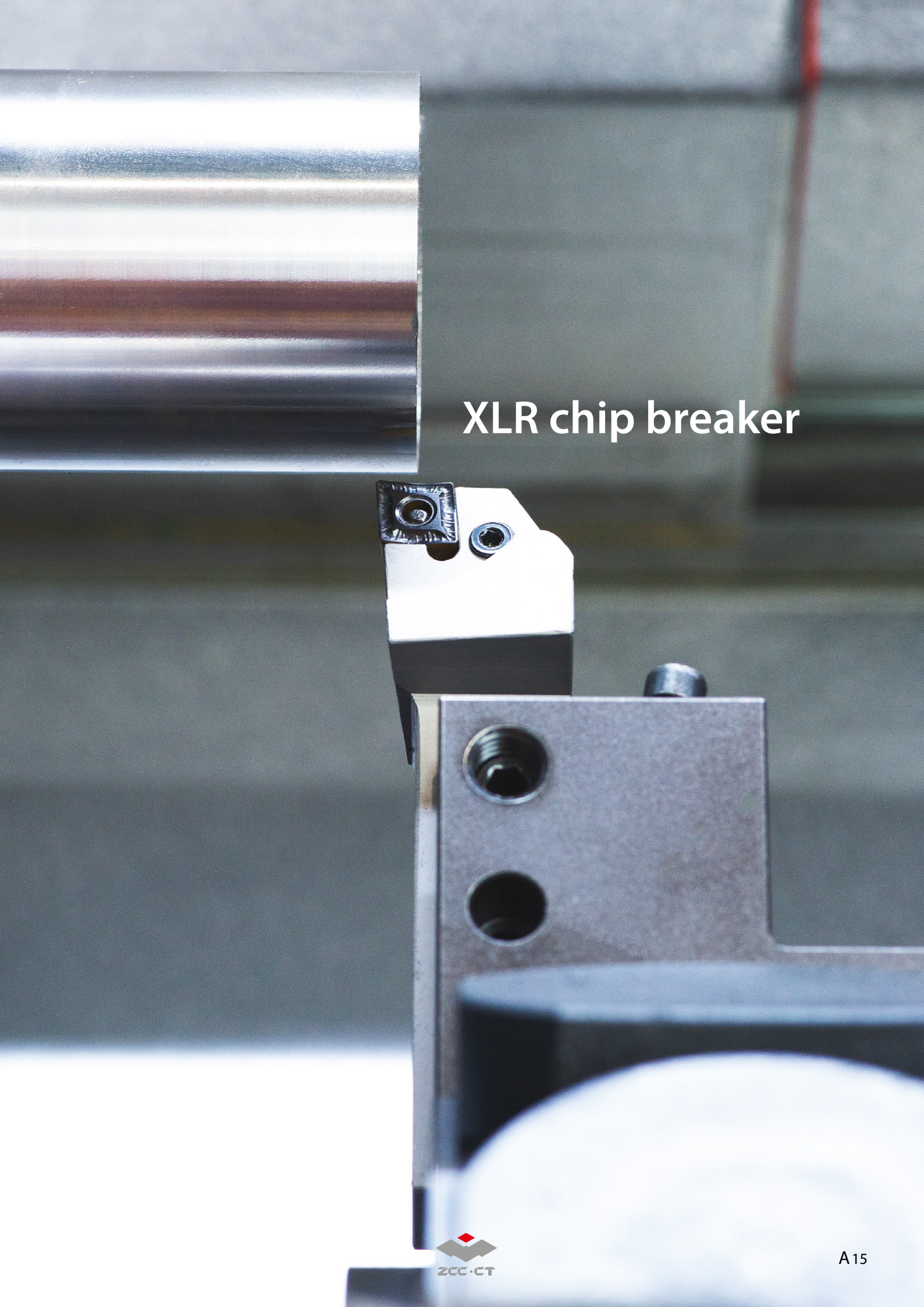


TN** negative insert					HC¹ (CVD)											HC¹ (PVD)						HT		HC²	HW	
				P	○	○	○	◔	◔	◔									◔	◔			○	◔	○		
				M							○	◔					○	○	◔	◔	◔	○	○	◔	○		
				K									○	◔	◔	◔											
				N													○	○								◔	◔
				S													○	○	◔	◔	◔	○				◔	◔
				H																							
	ISO		r	a_p	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
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

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

XLR chip breaker



ONMX high-feed turning system

New Octa insert and tool holder series for efficient turning applications

YOUR BENEFITS

– For applications ranging from highly efficient medium machining to roughing
– Extremely efficient, double-sided insert with **sixteen cutting edges**
– High feed leads to **shorter machining times**
– Target cooling for **improved chip removal** and a **long tool life**
– New, optimised **XH chip breaker** for **enhanced chip control**

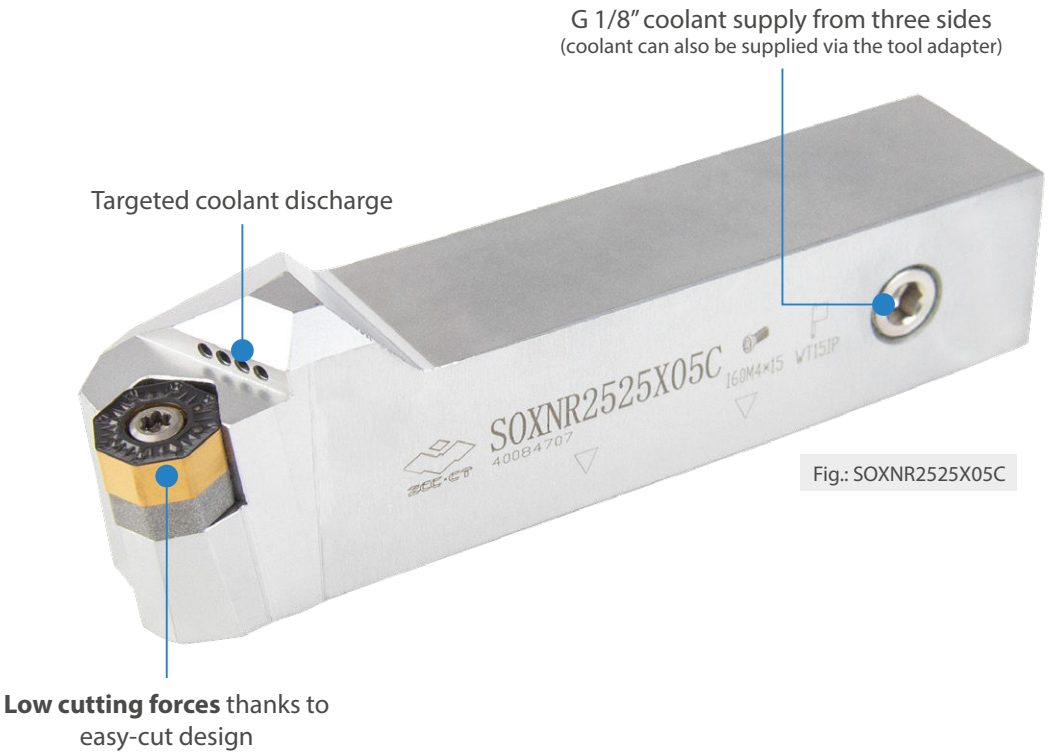


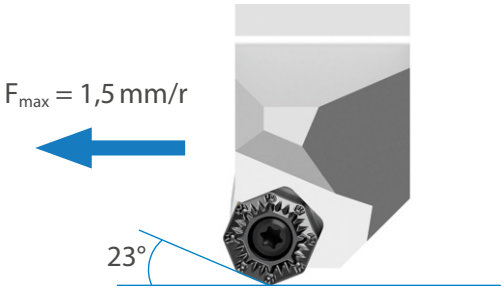
Fig.: SOXNR2525X05C

Insert grades

YBC103
CVD
P05 – P15
M10 – M20

YBC203
CVD
P15 – P25
M15 – M25

Application field



Chip breaker

-XH

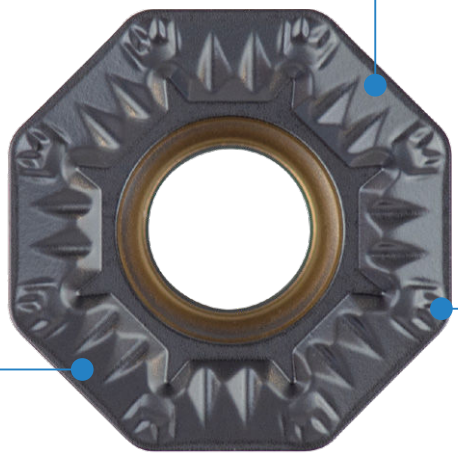


Finishing to medium machining

a_p [mm]	f [mm/r]
0,5–1,5	0,4–1,5

Controlled chip removal thanks to optimised chip-forming elements

In combination with our **YBC103 and YBC203 high-performance grades**



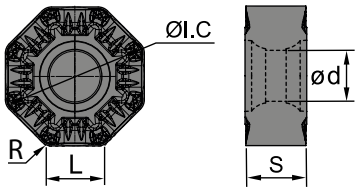
Highly economical thanks to **sixteen cutting edges**

Fig.: ONMX050512-XH YBC103

Turning inserts

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

ONMX	L	I.C	S	d
05 05	5,96	12,7	5,56	4,64

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	YB9320	YPD201	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°

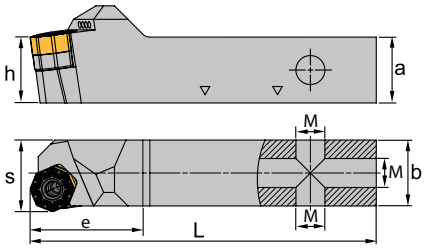


ON** holder (external) S-Clamping

SOXNR/L Kr: 23°



Right hand style



Article	✲	Stock		Dimensions [mm]							Inserts
		R	L	a	b	L	h	s	e	M	
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

PNMX high-feed turning system

New Penta insert and tool holder series for efficient turning applications

YOUR BENEFITS

– For applications ranging from highly efficient medium machining to roughing
– Efficient, double-sided insert with **ten cutting edges**
– High feed and removal rates lead to **shorter machining times**
– Target cooling for **improved chip removal** and a **long tool life**
– New, optimised **XH chip breaker** for **enhanced chip control**

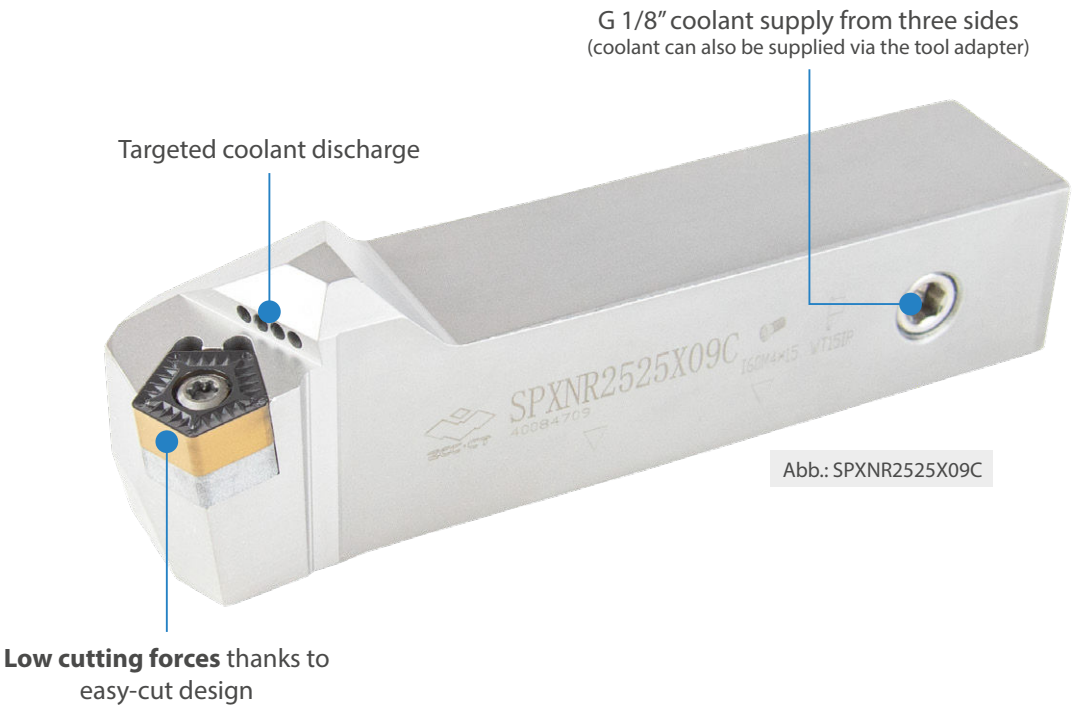


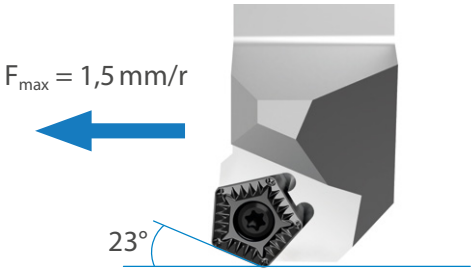
Abb.: SPXNR2525X09C

Insert grades

YBC103
CVD
P05 – P15
M10 – M20

YBC203
CVD
P15 – P25
M15 – M25

Application field



Chip breaker

-XH

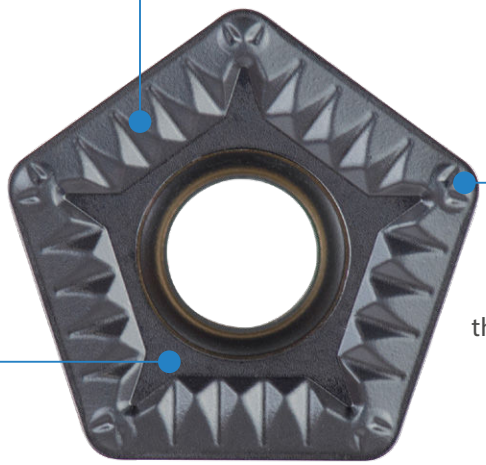


Medium machining to roughing

a_p [mm]	f [mm/r]
1,0–3,0	0,4–1,5

Controlled chip removal thanks to optimised chip-forming elements

In combination with our **YBC103 and YBC203 high-performance grades**



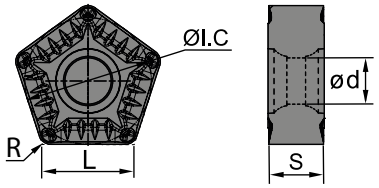
Highly economical thanks to **ten cutting edges**

Abb.: PNMX090512-XH YBC103

- 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

Turning inserts



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	YB9320	YPD201	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°

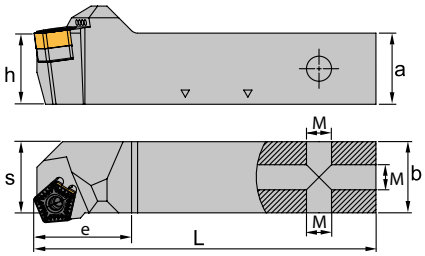


PN** holder (external) S-Clamping

SPXNR/L Kr: 23°



Right hand style



Article	✻	Stock		Dimensions [mm]							Inserts
		R	L	a	b	L	h	s	e	M	
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

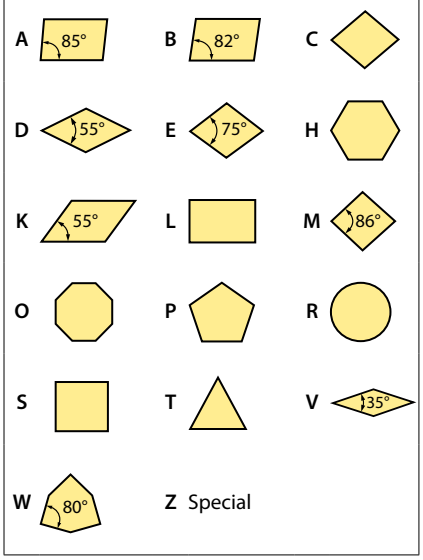
PNMX high-feed turning system



ISO standard

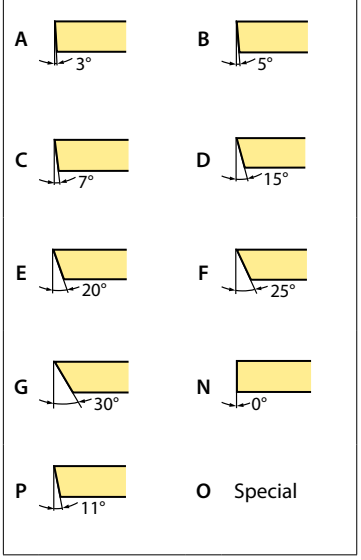
T	N	M	G	22	04	08	(N)	–	DM
1	2	3	4	5	6	7	8		9

Insert shape



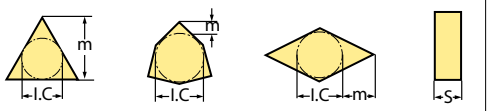
1

Clearance angle



2

Tolerance class

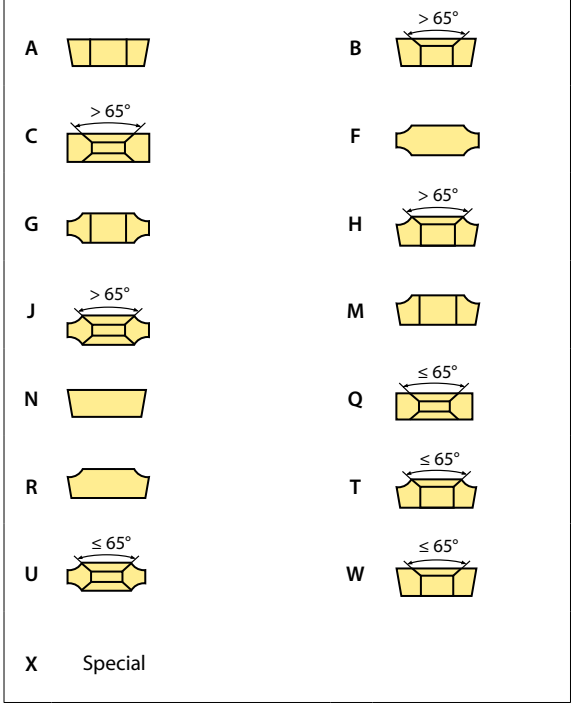


Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20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

3

Fastening features (metric)

Insert shape

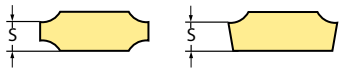


4

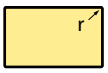
Cutting edge length l [mm]

I.C [mm]	Insert shape C	D	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					

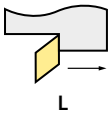
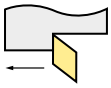
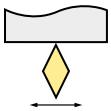
5

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
(from page A16 in the ZCC Cutting Tools Europe Main Catalogue 2023)

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

6

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

7

YBG205H grade

The perfect choice for high-temperature turning applications

YOUR BENEFITS

– Ultra-modern TiAlSiN PVD coating **with optimal stability for a long tool life**
– Well suited for machining steel and stainless steel
– Thin layer structure for **optimally defined and prepared cutting edges**

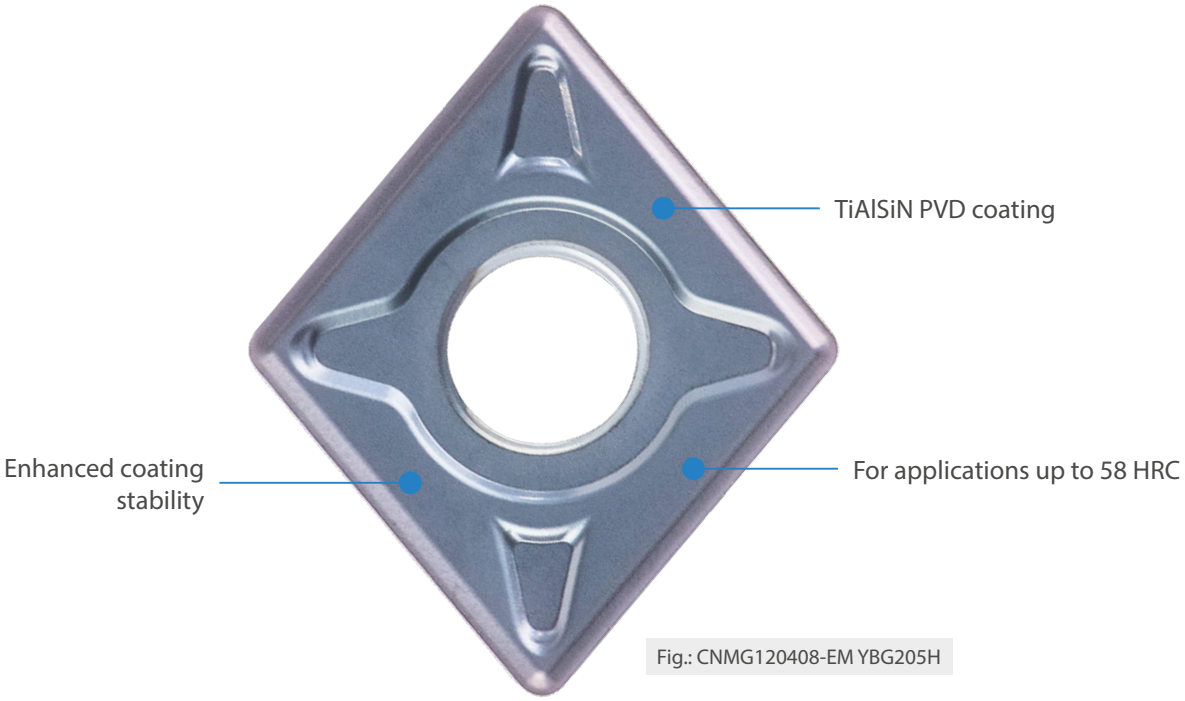


Fig.: CNMG120408-EM YBG205H

The following articles are currently available with the new YBG205H grade:

Article	Stock
CCMT060204-EF YBG205H	●
CCMT060204-EM YBG205H	●
CCMT060208-EM YBG205H	●
CCMT09T304-EF YBG205H	●
CCMT09T304-EM YBG205H	●
CCMT09T308-EM YBG205H	●
CNMG120404-EF YBG205H	●
CNMG120404-EM YBG205H	●
CNMG120408-EF YBG205H	●
CNMG120408-EM YBG205H	●
DCMT070204-EM YBG205H	●
DCMT11T304-EF YBG205H	●
DCMT11T304-EM YBG205H	●
DCMT11T308-EM YBG205H	●

● Ex stock ○ On demand

Article	Stock
TCMT090204-EM YBG205H	●
TCMT110204-EF YBG205H	●
TCMT110204-EM YBG205H	●
TCMT16T304-EM YBG205H	●
TCMT16T308-EM YBG205H	●
TNMG160404-EF YBG205H	●
TNMG160404-EM YBG205H	●
TNMG160408-EF YBG205H	●
TNMG160408-EM YBG205H	●
WNMG080404-EF YBG205H	●
WNMG080404-EM YBG205H	●
WNMG080408-EF YBG205H	●
WNMG080408-EM YBG205H	●

● Ex stock ○ On demand



YBG205H grade

The perfect choice for high-temperature turning applications

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

XMH chip breaker

Semi-finishing made easy

YOUR BENEFITS

– Positive geometry **for low cutting forces at high feed rates**
– Recommended for low-power machines
– Excellent chip control even at low cutting depths thanks to optimum positioning of chip-forming elements

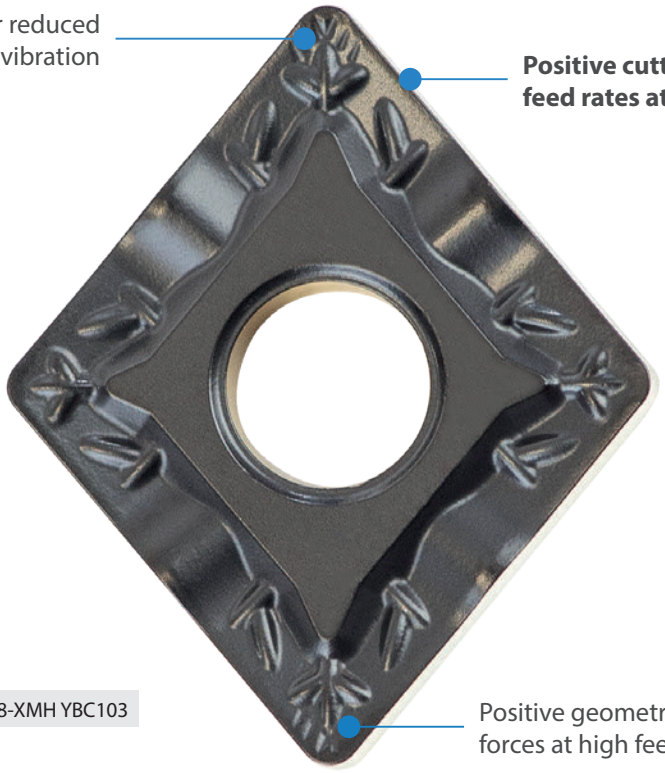


Fig.: CNMG120408-XMH YBC103

Articles available at launch of new XMH chip breaker:

Article	r [mm]	ap [mm]	f [mm/U]	YBC103	YBC203
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	●	●
CNMG160616-XMH	1,6	1,0–5,6	0,2–0,8	●	●
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	●	●
WNMG080416-XMH	1,6	1,0–2,8	0,2–0,8	●	○

● Ex stock ○ On demand

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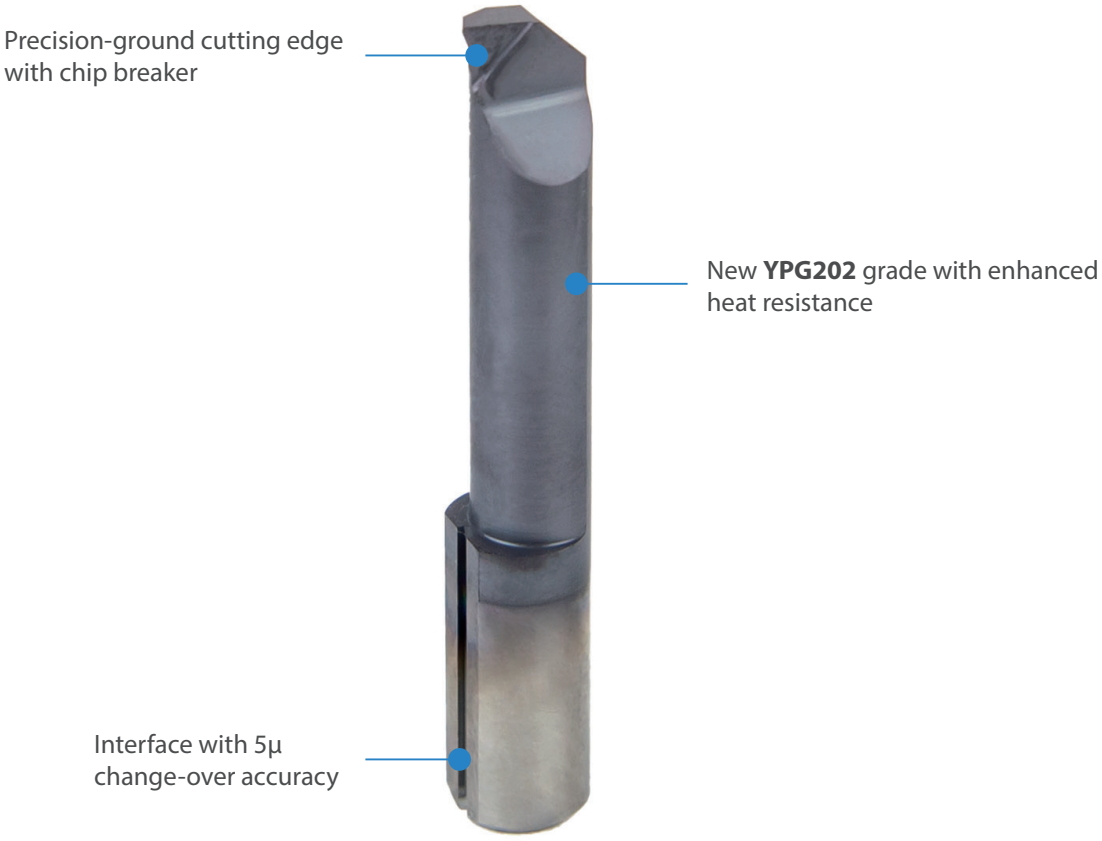


Fig.: T1.7.68.31.020R YPG202

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