Delik delme yenilikleri

Değiştirilebilir başlıklar ve solid karbür matkaplar

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 - 14

PG1030 ve UL 8xD serisi
Kaynak yayın □ | Özgün PDF sayfaları: 108-119

Eylül 2025 / 2026 güncellemesi 15 - 38

ZTE değiştirilebilir başlıklı delme sistemi
Kaynak yayın □ | Özgün PDF sayfaları: 88-111

Mart 2025 39 - 50

UL solid karbür derin delik matkapları
Kaynak yayın □ | Özgün PDF sayfaları: 36-47

Eylül 2023 51 - 55

FD düz tabanlı delme serisi
Kaynak yayın □ | Özgün PDF sayfaları: 36-40

Mayıs 2022 56 - 66

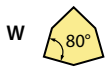
UD içten soğutmalı solid karbür matkaplar
Kaynak yayın □ | Özgün PDF sayfaları: 78-88

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

Indexable drills ISO code – inserts

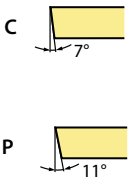
W	C	M	X	08	04	12	R	–	PG
1	2	3	4	5	6	7	8		9

Insert shape



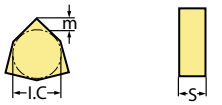
1

Clearance angle



2

Tolerance class



Code	I.C [mm]	m [mm]	S [mm]
G	±0,025	±0,025	±0,130
M	±0,05–0,13	±0,08–0,18	±0,130

3

Fastening features (metric)

Insert shape



T

X Special

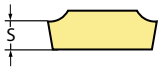
4

Cutting edge length l [mm]

I.C [mm]	Insert shape	
	 S	 W
3,8		**03**
4,3		**04**
5,4		**05**
6,35	**06**	
6,5		**06**
8,0		**08**
8,7	**08**	
9,252	**09**	
12,7	**12**	

5

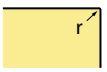
Insert thickness S [mm]



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

6

Nose radius r [mm]



Code	r
04	0,4
08	0,8
12	1,2

7

Rotation direction

Code	Description
R	Right
L	Left

8

Chip breaker overview (on page C3)

9

PG1030 grade

High-performance grade for drilling in steel

YOUR BENEFITS

– New grade with **double the tool life** when machining steel compared with older grades
– An outstanding combination of **high wear resistance**, **excellent toughness** and **high thermal resistance**
– For greater process reliability and **longer tool life**

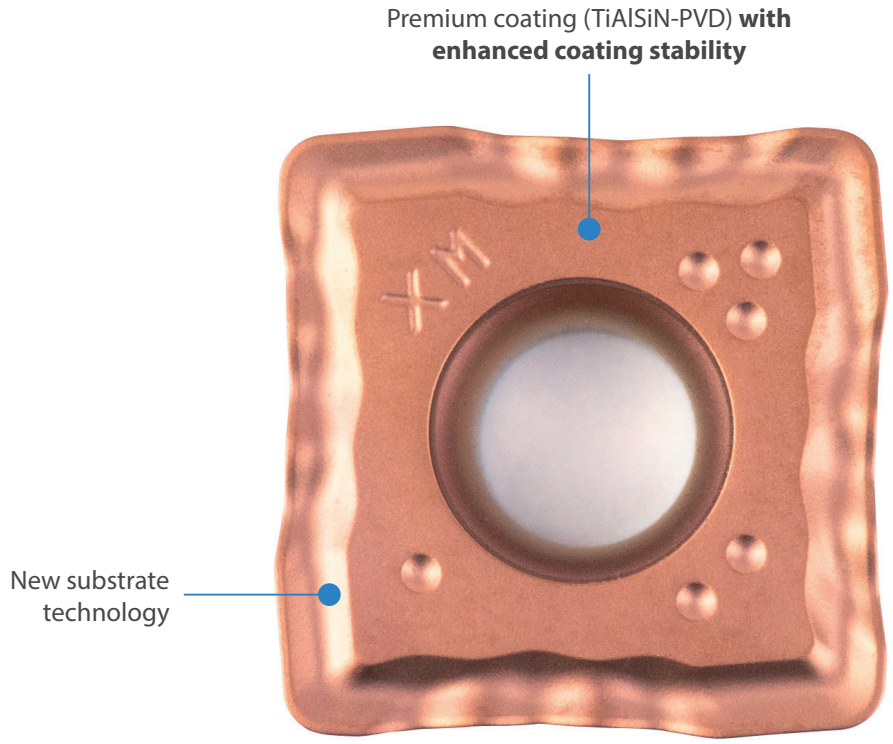
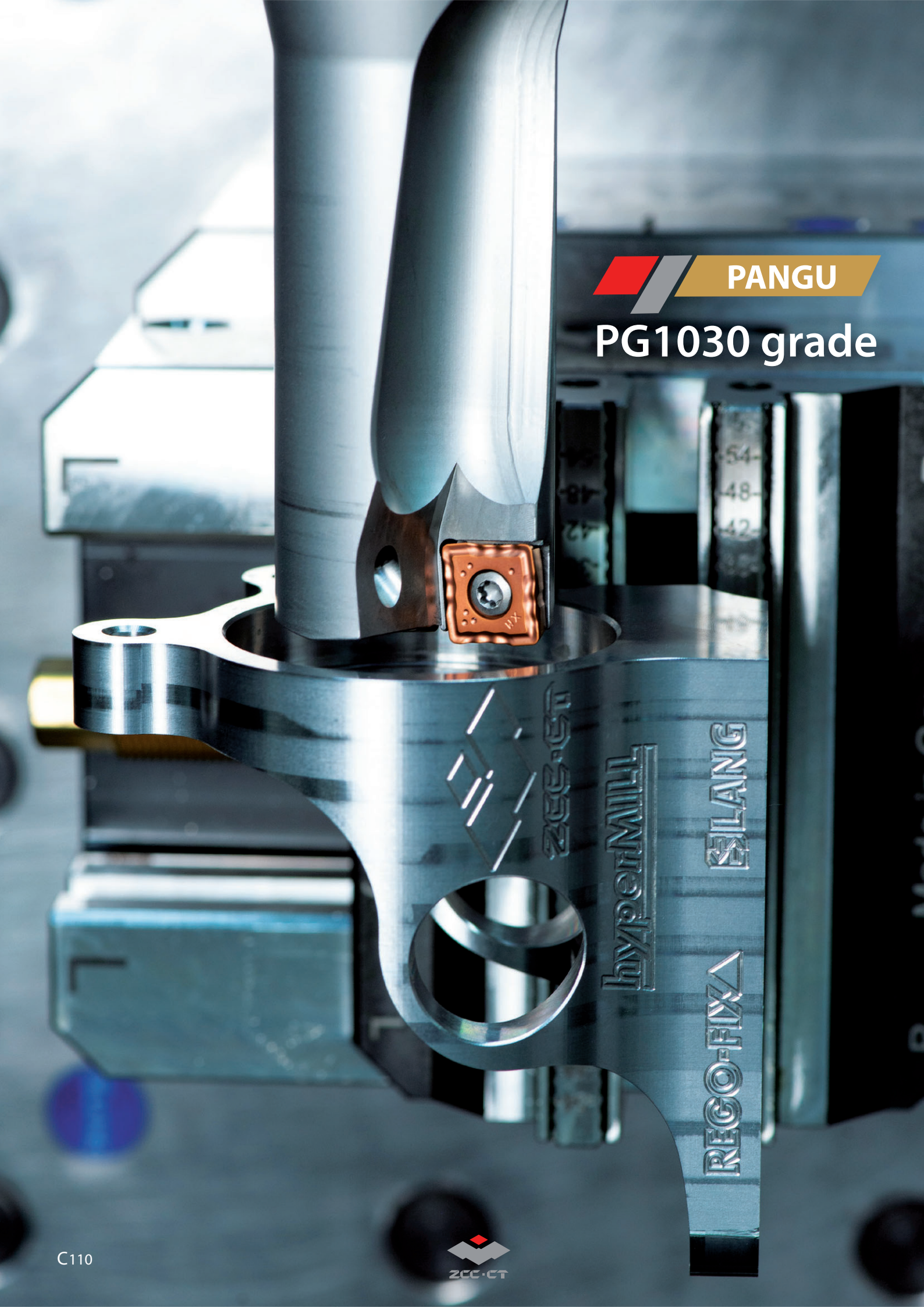


Fig.: SPMX140512-XM PG1030

Articles available with the new PG1030 grade:

Article	Stock	Drilling system
SPMX050204-XM PG1030	●	ZSD
SPMX060204-LM PG1030	●	ZSD
SPMX060204-XM PG1030	●	ZSD
SPMX07T308-XM PG1030	●	ZSD
SPMX090408-XM PG1030	●	ZSD
SPMX110408-XM PG1030	○	ZSD
SPMX140512-XM PG1030	○	ZSD

● Ex stock ○ On demand


PANGU
PG1030 grade
ZCC-CT
hyperMILL
REGO-FIX
ELANG

Solid carbide drills

System code – solid carbide drills **C112–C113**

UL series **C114–C119**

C

Solid carbide drills

System code – solid carbide drills

1	5	3	6	SU	05	(C)	–	0850	(S)
1	2	3	4	5	6	7		8	9

Type	
Code	Description
1	Drills

1

Shank type	
Code	Description
1	Straight shank
2	Square shank DIN 10
3	Double flattened straight shank DIN 1809
5	Straight shank DIN 6535 HA
6	Weldon shank DIN 6535 HB
7	Whistle Notch shank DIN 6535 HE
9	Morse taper shank

2

Drill type	
Code	Description
0	Twist drill
3	Universal twist drill
4	NC tapping device
5	Step drill
6	Three-lips drill
7	Straight flute drill
8	Deep hole drill

3

Tool length	
Code	Description
1	DIN 338
2	DIN 1897
3	QJ/ZZQ(TO)01.001.002
4	DIN 6537 K
5	DIN 6539
6	DIN 6537 L
7	Factory standard ZCC-C
8	Factory standard ZCC-D
9	Factory standard ZCC-E

4

Application	
Code	Description
UD	Twist drills for tough materials
UL	Deep hole drills for difficult-to-machine materials
GD	Twist drills for high feeds
SU	Twist drill for general machining
SL	Twist drill for deep hole drilling
SP	Pilot drill
SH	Twist drill for hardened materials
SC	Twist drill for non-ferrous metals and cast iron

5

L/D relation		Angle	
Drill		NC tapping device	
Code	Description	Code	Description
03	3 x D	**90**	90°
05	5 x D	**120**	120°
08	8 x D		
10	10 x D		
12	12 x D		
15	15 x D		
20	20 x D		
30	30 x D		

6

With inner cooling

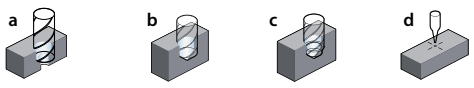
7

Bore diameter [mm]	
Code	Description
0200	2,0
0850	8,5
1800	18,0
...	

8

Shank diameter [mm]	
Code	Description
S	4,0

9



a Boring **b** Drilling **c** Profile drilling **d** Centering

UL series

Solid carbide deep hole drills for difficult-to-machine materials

Now also available with 8xD effective length New

YOUR BENEFITS

– **Reduced cutting forces** thanks to new cutting edge design
– Larger clearance angle **for higher productivity**
– Enhanced chip breaking for **optimal process reliability**
– **Enhanced tool guidance** thank to four support chamfers

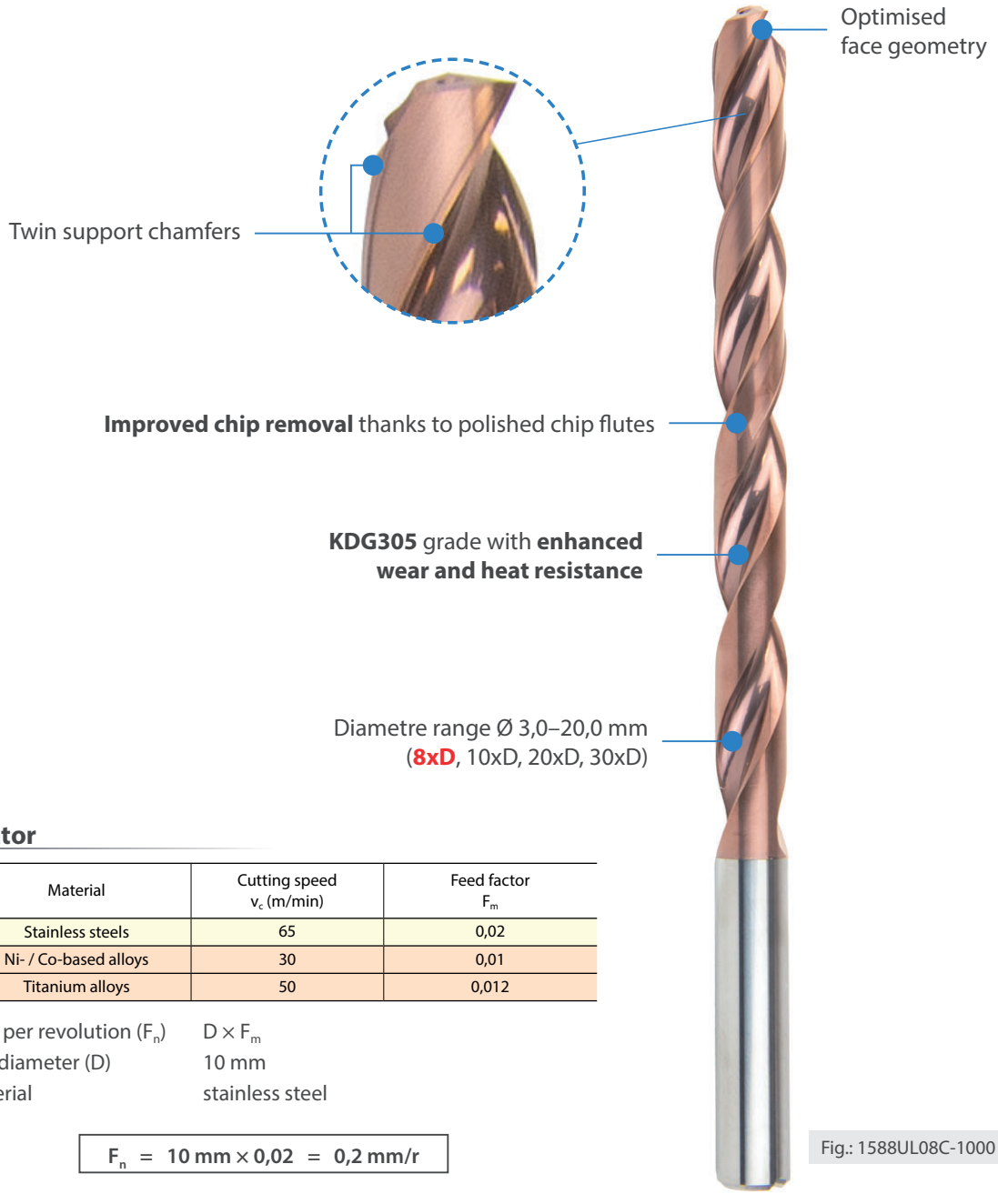


Fig.: 1588UL08C-1000 KDG305

Feed calculator

ISO group	Material	Cutting speed v_c (m/min)	Feed factor F_m
M	Stainless steels	65	0,02
S	Ni- / Co-based alloys	30	0,01
S	Titanium alloys	50	0,012

Formula: feed per revolution (F_n) $D \times F_m$
Example: drill diameter (D) 10 mm
material stainless steel

$F_n = 10\ mm \times 0{,}02 = 0{,}2\ mm/r$

UL drill 08xD

General machining

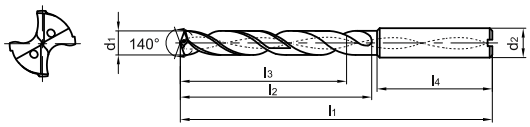
1538UL08C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1538UL08C-0300	✻	3	6	72	34	29	36	●
1538UL08C-0310	✻	3,1	6	72	34	29	36	○
1538UL08C-03175	✻	3,175	6	72	34	29	36	○
1538UL08C-0320	✻	3,2	6	72	34	29	36	●
1538UL08C-0330	✻	3,3	6	72	34	29	36	●
1538UL08C-0340	✻	3,4	6	72	34	29	36	●
1538UL08C-0350	✻	3,5	6	72	34	29	36	●
1538UL08C-0360	✻	3,6	6	72	34	29	36	○
1538UL08C-0370	✻	3,7	6	72	34	29	36	○
1538UL08C-0380	✻	3,8	6	81	43	36	36	○
1538UL08C-0390	✻	3,9	6	81	43	36	36	○
1538UL08C-0400	✻	4	6	81	43	36	36	●
1538UL08C-0410	✻	4,1	6	81	43	36	36	○
1538UL08C-0420	✻	4,2	6	81	43	36	36	●
1538UL08C-0430	✻	4,3	6	81	43	36	36	●
1538UL08C-0440	✻	4,4	6	81	43	36	36	○
1538UL08C-0450	✻	4,5	6	81	43	36	36	●
1538UL08C-0460	✻	4,6	6	81	43	36	36	○
1538UL08C-0470	✻	4,7	6	81	43	36	36	○
1538UL08C-0480	✻	4,8	6	95	57	48	36	●
1538UL08C-0490	✻	4,9	6	95	57	48	36	○
1538UL08C-0500	✻	5	6	95	57	48	36	●
1538UL08C-0510	✻	5,1	6	95	57	48	36	●
1538UL08C-0520	✻	5,2	6	95	57	48	36	●
1538UL08C-0530	✻	5,3	6	95	57	48	36	●
1538UL08C-0540	✻	5,4	6	95	57	48	36	○
1538UL08C-0550	✻	5,5	6	95	57	48	36	●
1538UL08C-0560	✻	5,6	6	95	57	48	36	○
1538UL08C-0570	✻	5,7	6	95	57	48	36	○
1538UL08C-0580	✻	5,8	6	95	57	48	36	●
1538UL08C-0590	✻	5,9	6	95	57	48	36	○
1538UL08C-0600	✻	6	6	95	57	48	36	●
1538UL08C-0610	✻	6,1	8	114	76	66	36	○
1538UL08C-0620	✻	6,2	8	114	76	66	36	○
1538UL08C-0630	✻	6,3	8	114	76	66	36	○
1538UL08C-0635	✻	6,35	8	114	76	66	36	○
1538UL08C-0640	✻	6,4	8	114	76	66	36	○

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable

UL drill 08xD

General machining

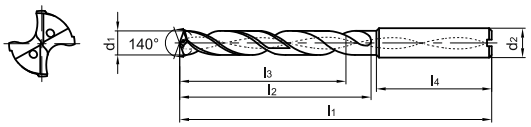
1538UL08C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1538UL08C-0650		6,5	8	114	76	66	36	●
1538UL08C-0660		6,6	8	114	76	66	36	○
1538UL08C-0670		6,7	8	114	76	66	36	○
1538UL08C-0680		6,8	8	114	76	66	36	●
1538UL08C-0690		6,9	8	114	76	66	36	●
1538UL08C-0700		7	8	116	76	66	36	●
1538UL08C-0710		7,1	8	116	76	66	36	○
1538UL08C-0720		7,2	8	116	76	66	36	○
1538UL08C-0730		7,3	8	116	76	66	36	○
1538UL08C-0740		7,4	8	116	76	66	36	○
1538UL08C-0750		7,5	8	116	76	66	36	●
1538UL08C-0760		7,6	8	116	76	66	36	○
1538UL08C-0770		7,7	8	116	76	66	36	○
1538UL08C-0780		7,8	8	116	76	66	36	●
1538UL08C-0790		7,9	8	116	76	66	36	○
1538UL08C-0800		8	8	116	76	66	36	●
1538UL08C-0810		8,1	10	142	95	83	40	●
1538UL08C-0820		8,2	10	142	95	83	40	○
1538UL08C-0830		8,3	10	142	95	83	40	○
1538UL08C-0840		8,4	10	142	95	83	40	○
1538UL08C-0850		8,5	10	142	95	83	40	●
1538UL08C-0860		8,6	10	142	95	83	40	○
1538UL08C-0870		8,7	10	142	95	83	40	○
1538UL08C-0880		8,8	10	142	95	83	40	●
1538UL08C-0890		8,9	10	142	95	83	40	○
1538UL08C-0900		9	10	142	95	83	40	●
1538UL08C-0910		9,1	10	142	95	83	40	○
1538UL08C-0920		9,2	10	142	95	83	40	○
1538UL08C-0930		9,3	10	142	95	83	40	○
1538UL08C-0940		9,4	10	142	95	83	40	○
1538UL08C-0950		9,5	10	142	95	83	40	●
1538UL08C-0960		9,6	10	142	95	83	40	○
1538UL08C-0970		9,7	10	142	95	83	40	○
1538UL08C-0980		9,8	10	142	95	83	40	○
1538UL08C-0990		9,9	10	142	95	83	40	○
1538UL08C-1000		10	10	142	95	83	40	●
1538UL08C-1010		10,1	12	162	114	99	45	○

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable

UL drill 08xD

General machining

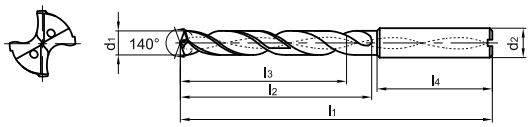
1538UL08C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1538UL08C-1020		10,2	12	162	114	99	45	●
1538UL08C-1030		10,3	12	162	114	99	45	○
1538UL08C-1040		10,4	12	162	114	99	45	○
1538UL08C-1050		10,5	12	162	114	99	45	●
1538UL08C-1060		10,6	12	162	114	99	45	○
1538UL08C-1070		10,7	12	162	114	99	45	○
1538UL08C-1080		10,8	12	162	114	99	45	○
1538UL08C-1090		10,9	12	162	114	99	45	○
1538UL08C-1100		11	12	162	114	99	45	●
1538UL08C-1110		11,1	12	162	114	99	45	○
1538UL08C-1120		11,2	12	162	114	99	45	○
1538UL08C-1130		11,3	12	162	114	99	45	○
1538UL08C-1140		11,4	12	162	114	99	45	○
1538UL08C-1150		11,5	12	162	114	99	45	●
1538UL08C-1160		11,6	12	162	114	99	45	○
1538UL08C-1170		11,7	12	162	114	99	45	○
1538UL08C-1180		11,8	12	162	114	99	45	○
1538UL08C-1190		11,9	12	162	114	99	45	○
1538UL08C-1200		12	12	162	114	99	45	●
1538UL08C-1250		12,5	14	178	133	116	45	○
1538UL08C-1300		13	14	178	133	116	45	●
1538UL08C-1350		13,5	14	178	133	116	45	○
1538UL08C-1400		14	14	178	133	116	45	●
1538UL08C-1450		14,5	16	204	152	132	48	○
1538UL08C-1500		15	16	204	152	132	48	●
1538UL08C-1550		15,5	16	204	152	132	48	○
1538UL08C-1600		16	16	204	152	132	48	●
1538UL08C-1650		16,5	18	223	171	149	48	○
1538UL08C-1700		17	18	223	171	149	48	○
1538UL08C-1750		17,5	18	223	171	149	48	○
1538UL08C-1800		18	18	223	171	149	48	○
1538UL08C-1850		18,5	20	244	190	160	50	○
1538UL08C-1900		19	20	244	190	160	50	○
1538UL08C-1950		19,5	20	244	190	160	50	○
1538UL08C-2000		20	20	244	190	160	50	○

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable


UL series
hyperMILL
REGO-FIX
LANG
R
Made in Germany
R

Notes

Indexable head drilling System code – drilling bodies

ZTE	03	–	ED160	–	XP	20	C
1	2		3		4	5	6

Type	
Code	Description
ZTE	Indexable head drills

1

L/D relation	
Code	Description
015	1,5 x D
03	3 x D
05	5 x D
08	8 x D

2

Diameter [mm]	
Code	Description
ED160	16–16,9
...	

3

Shank type	
Code	Description
G	Straight shank
XP	Weldon shank

4

Coupling size [mm]

5

Cooling	
Code	Description
C	Internal cooling, normal spiral
HC	Internal cooling, low spiral

4

EDR 1600 – 065 – UD

1	2	3	4

Type	
Code	Description
EDR	Drill heads

1

Diameter [mm]	
Code	Description
1600	16

2

Coupling size [mm]	
Code	Description
065	65
...	

3

Code	Description
UD	Steel, difficult-to-machine materials
KD	Cast Iron
PD	Pilot drill

4

ZTE indexable head drilling system

Consistent drilling results coupled with high material removal rates

YOUR BENEFITS

– **Maximum productivity** at high feed rates and speeds
– **Low cutting forces** and **stable drilling processes** in steel and cast iron thanks to optimised geometries and grades
– **Less time** and **effort required to replace drill heads**; high change-over accuracy
– No pilot holes required up to 5×D with zero impact on **performance** and **tool life**
– Innovative interface with higher clamping force for **reliable clamping during drilling operations**



Fig.: ZTE03-ED-180-XP25C

Chip breaker

-UD	-KD	Coming soon -PD
		
General machining	Cast iron machining	Pilot hole

Deep-hole drilling with ZTE08 (8xD)

From a drilling depth of **8xD** we recommend drilling a **pilot hole**.

Example: Drilling a 8xD deep hole with a diameter of 18.0 mm in steel

Pilot hole drilling
- ZTE015-ED180-XP25C + EDR1800-075-PD (Ø18.03/point angle: 150°)
- Refer to table for cutting parameters (see C96–C97), drilling depth: 1.0–1.5xD
- Make sure there are no chips in the hole after removing the pilot drill.

Deep-hole drilling
- ZTE08-ED180-XP25C + EDR1800-075-UD
- Enter the drill into the pilot hole at a lower feed rate and cutting speed.
- Stop feeding approx. 2–3 mm before you reach the bottom of the entry hole and activate internal cooling.
- Increase the cutting speed (see table) and then start at the specified feed rate.
- If necessary, reduce the feed rate if drilling cross-holes.
- After reaching the drilling depth, reduce the cutting speed and feed rate. exit the drill from the hole.
- When drilling through holes, only allow half of the drill head to exit the hole. This is to avoid damaging the drill when retracting.

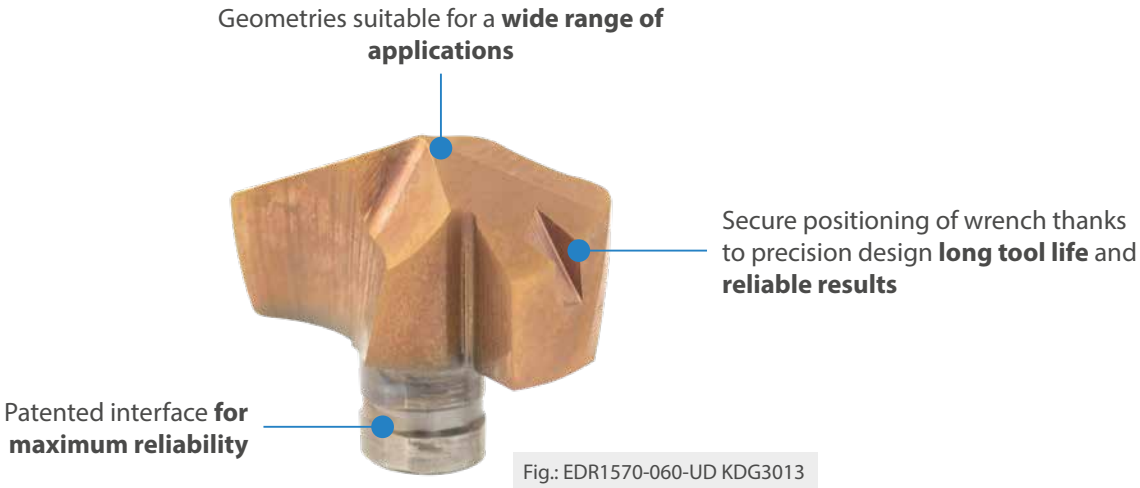


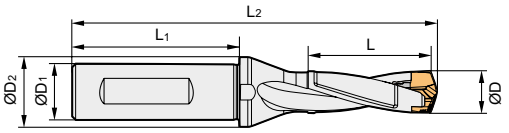
Fig.: EDR1570-060-UD KDG3013

Indexable head drills

ZTE015







Article	✻	Stock	Dimensions [mm]						Wrench	Drill head
			ØD	ØD1	ØD2	L1	L2	L		
ZTE015-ED120-XP16C	✻	•	12-12.9	16	20	48	84,50	18,0	ZTK12-15.9	EDR12**
ZTE015-ED130-XP16C	✻	•	13-13.9	16	20	48	86,00	19,5	ZTK12-15.9	EDR13**
ZTE015-ED140-XP20C	✻	•	14-14.9	16	25	48	92,50	21,0	ZTK12-15.9	EDR14**
ZTE015-ED150-XP20C	✻	•	15-15.9	20	25	50	94,00	22,5	ZTK12-15.9	EDR15**
ZTE015-ED160-XP20C	✻	•	16-16.9	20	25	50	95,50	24,0	ZTK16-20.9	EDR16**
ZTE015-ED170-XP20C	✻	•	17-17.9	20	25	50	97,00	25,5	ZTK16-20.9	EDR17**
ZTE015-ED180-XP25C	✻	•	18-18.9	25	32	56	106,50	27,0	ZTK16-20.9	EDR18**
ZTE015-ED190-XP25C	✻	•	19-19.9	25	32	56	108,00	28,5	ZTK16-20.9	EDR19**
ZTE015-ED200-XP25C	✻	•	20-20.9	25	32	56	109,50	30,0	ZTK16-20.9	EDR20**
ZTE015-ED210-XP25C	✻	•	21-21.9	25	32	56	111,00	31,5	ZTK21-25.9	EDR21**
ZTE015-ED220-XP25C	✻	•	22-22.9	25	32	56	112,50	33,0	ZTK21-25.9	EDR22**
ZTE015-ED230-XP32C	✻	•	23.23.9	32	42	60	126,00	34,5	ZTK21-25.9	EDR23**
ZTE015-ED240-XP32C	✻	•	24-24.9	32	42	60	127,50	36,0	ZTK21-25.9	EDR24**
ZTE015-ED250-XP32C	✻	•	25-25.9	32	42	60	129,00	37,5	ZTK21-25.9	EDR25**

• Ex stock ○ On demand

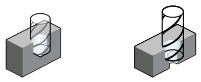
✻ Internal cooling

Spare parts

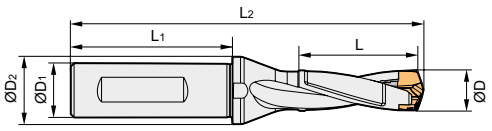
	Drill head	EDR1200-1590	EDR1600-2090	EDR2100-2590
	Wrench	ZTK12-15,9	ZTK16-20,9	ZTK21-25,9

Indexable head drills

ZTE03







Article	✻	Stock	Dimensions [mm]						Wrench	Drill head
			ØD	ØD1	ØD2	L1	L2	L		
ZTE03-ED120-XP16C	✻	•	12-12.9	16	20	48	104,0	36,0	ZTK12-15.9	EDR12**
ZTE03-ED125-XP16C	✻	•	12.5-12.9	16	20	48	105,5	37,0	ZTK12-15.9	EDR12**
ZTE03-ED130-XP16C	✻	•	13-13.9	16	20	48	107,0	39,0	ZTK12-15.9	EDR13**
ZTE03-ED135-XP16C	✻	•	13.5-13.9	16	20	48	108,5	41,0	ZTK12-15.9	EDR13**
ZTE03-ED140-XP20C	✻	•	14-14.9	16	20	50	115,0	42,0	ZTK12-15.9	EDR14**
ZTE03-ED145-XP20C	✻	•	14.5-14.9	16	20	50	116,5	44,0	ZTK12-15.9	EDR14**
ZTE03-ED150-XP20C	✻	•	15-15.9	20	25	50	118,0	45,0	ZTK12-15.9	EDR15**
ZTE03-ED160-XP20C	✻	•	16-16.9	20	25	50	121,0	48,0	ZTK16-20.9	EDR16**
ZTE03-ED170-XP20C	✻	•	17-17.9	20	25	50	124,0	51,0	ZTK16-20.9	EDR17**
ZTE03-ED180-XP25C	✻	•	18-18.9	25	32	56	135,0	54,0	ZTK16-20.9	EDR18**
ZTE03-ED190-XP25C	✻	•	19-19.9	25	32	56	138,0	57,0	ZTK16-20.9	EDR19**
ZTE03-ED200-XP25C	✻	•	20-20.9	25	32	56	141,0	60,0	ZTK16-20.9	EDR20**
ZTE03-ED210-XP25C	✻	•	21-21.9	25	32	56	144,0	63,0	ZTK21-25.9	EDR21**
ZTE03-ED220-XP25C	✻	•	22-22.9	25	32	56	147,0	66,0	ZTK21-25.9	EDR22**
ZTE03-ED230-XP32C	✻	•	23.23.9	32	42	60	162,0	69,0	ZTK21-25.9	EDR23**
ZTE03-ED240-XP32C	✻	•	24-24.9	32	42	60	165,0	72,0	ZTK21-25.9	EDR24**
ZTE03-ED250-XP32C	✻	•	25-25.9	32	42	60	168,0	75,0	ZTK21-25.9	EDR25**

• Ex stock ○ On demand

✻ Internal cooling

Spare parts

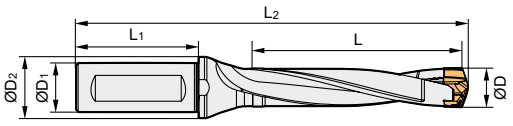
	Drill head	EDR1200-1590	EDR1600-2090	EDR2100-2590
	Wrench	ZTK12-15,9	ZTK16-20,9	ZTK21-25,9

Indexable head drills

ZTE05







Article	✻	Stock	Dimensions [mm]						Wrench	Drill head
			ØD	ØD1	ØD2	L1	L2	L		
ZTE05-ED120-XP16HC	✻	•	12-12.9	16	20	48	130,0	60,0	ZTK12-15.9	EDR12**
ZTE05-ED125-XP16HC	✻	•	12.5-12.9	16	20	48	132,5	62,0	ZTK12-15.9	EDR12**
ZTE05-ED130-XP16HC	✻	•	13-13.9	16	20	48	135,0	65,0	ZTK12-15.9	EDR13**
ZTE05-ED135-XP16HC	✻	•	13.5-13.9	16	20	48	137,5	68,0	ZTK12-15.9	EDR13**
ZTE05-ED140-XP20HC	✻	•	14-14.9	20	25	50	145,0	70,0	ZTK12-15.9	EDR14**
ZTE05-ED145-XP20HC	✻	•	14.5-14.9	20	25	50	147,5	73,0	ZTK12-15.9	EDR14**
ZTE05-ED150-XP20HC	✻	•	15-15.9	20	25	50	150,0	75,0	ZTK12-15.9	EDR15**
ZTE05-ED160-XP20HC	✻	•	16-16.9	20	25	50	155,0	80,0	ZTK16-20.9	EDR16**
ZTE05-ED170-XP20HC	✻	•	17-17.9	20	25	50	160,0	85,0	ZTK16-20.9	EDR17**
ZTE05-ED180-XP25HC	✻	•	18-18.9	25	32	56	173,0	90,0	ZTK16-20.9	EDR18**
ZTE05-ED190-XP25HC	✻	•	19-19.9	25	32	56	178,0	95,0	ZTK16-20.9	EDR19**
ZTE05-ED200-XP25HC	✻	•	20-20.9	25	32	56	183,0	100,0	ZTK16-20.9	EDR20**
ZTE05-ED210-XP25HC	✻	•	21-21.9	25	32	56	188,0	105,0	ZTK21-25.9	EDR21**
ZTE05-ED220-XP25HC	✻	•	22-22.9	25	32	56	193,0	110,0	ZTK21-25.9	EDR22**
ZTE05-ED230-XP32HC	✻	•	23.23.9	32	42	60	210,0	115,0	ZTK21-25.9	EDR23**
ZTE05-ED240-XP32HC	✻	•	24-24.9	32	42	60	215,0	120,0	ZTK21-25.9	EDR24**
ZTE05-ED250-XP32HC	✻	•	25-25.9	32	42	60	220,0	125,0	ZTK21-25.9	EDR25**

• Ex stock ○ On demand

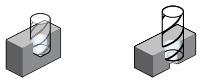
✻ Internal cooling

Spare parts

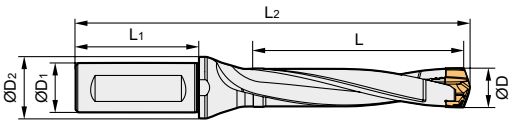
	Drill head	EDR1200-1590	EDR1600-2090	EDR2100-2590
	Wrench	ZTK12-15,9	ZTK16-20,9	ZTK21-25,9

Indexable head drills

ZTE08







Article	✻	Stock	Dimensions [mm]						Wrench	Drill head
			ØD	ØD1	ØD2	L1	L2	L		
ZTE08-ED120-XP16HC	✻	○	12-12.9	16	20	48	169,0	96,0	ZTK12-15.9	EDR12**
ZTE08-ED125-XP16HC	✻	○	12.5-12.9	16	20	48	173,0	99,5	ZTK12-15.9	EDR12**
ZTE08-ED130-XP16HC	✻	○	13-13.9	16	20	48	177,0	104,0	ZTK12-15.9	EDR13**
ZTE08-ED135-XP16HC	✻	○	13.5-13.9	16	20	48	181,0	108,5	ZTK12-15.9	EDR13**
ZTE08-ED140-XP20HC	✻	○	14-14.9	20	25	50	190,0	112,0	ZTK12-15.9	EDR14**
ZTE08-ED145-XP20HC	✻	○	14.5-14.9	20	25	50	194,0	116,5	ZTK12-15.9	EDR14**
ZTE08-ED150-XP20HC	✻	○	15-15.9	20	25	50	198,0	120,0	ZTK12-15.9	EDR15**
ZTE08-ED160-XP20HC	✻	○	16-16.9	20	25	50	206,0	128,0	ZTK16-20.9	EDR16**
ZTE08-ED170-XP20HC	✻	○	17-17.9	20	25	50	214,0	136,0	ZTK16-20.9	EDR17**
ZTE08-ED180-XP25HC	✻	○	18-18.9	25	32	56	230,0	144,0	ZTK16-20.9	EDR18**
ZTE08-ED190-XP25HC	✻	○	19-19.9	25	32	56	238,0	152,0	ZTK16-20.9	EDR19**
ZTE08-ED200-XP25HC	✻	○	20-20.9	25	32	56	246,0	160,0	ZTK16-20.9	EDR20**
ZTE08-ED210-XP25HC	✻	○	21-21.9	25	32	56	254,0	168,0	ZTK21-25.9	EDR21**
ZTE08-ED220-XP25HC	✻	○	22-22.9	25	32	56	262,0	176,0	ZTK21-25.9	EDR22**
ZTE08-ED230-XP32HC	✻	○	23.23.9	32	42	60	282,0	184,0	ZTK21-25.9	EDR23**
ZTE08-ED240-XP32HC	✻	○	24-24.9	32	42	60	290,0	192,0	ZTK21-25.9	EDR24**
ZTE08-ED250-XP32HC	✻	○	25-25.9	32	42	60	298,0	200,0	ZTK21-25.9	EDR25**

• Ex stock ○ On demand

✻ Internal cooling

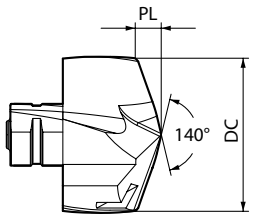
Spare parts

	Drill head	EDR1200-1590	EDR1600-2090	EDR2100-2590
	Wrench	ZTK12-15,9	ZTK16-20,9	ZTK21-25,9

Drill heads

EDR-UD





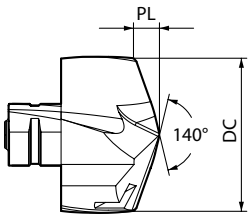
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	PL	Dc	KDG3013		
EDR1200-045-UD	2,18	12,00	●	ZTE015-ED120-** ZTE03-ED120-** ZTE05-ED120-** ZTE08-ED120-**	ZTK12-15.9
EDR1210-045-UD	2,20	12,10	○		
EDR1220-045-UD	2,22	12,20	○		
EDR1230-045-UD	2,24	12,30	○		
EDR1240-045-UD	2,26	12,40	○		
EDR1250-045-UD	2,27	12,50	●	ZTE015-ED125-** ZTE03-ED125-** ZTE05-ED125-** ZTE08-ED125-**	
EDR1260-045-UD	2,29	12,60	○		
EDR1270-045-UD	2,31	12,70	○		
EDR1280-045-UD	2,33	12,80	●		
EDR1290-045-UD	2,35	12,90	○		
EDR1300-050-UD	2,36	13,00	●	ZTE015-ED130-** ZTE03-ED130-** ZTE05-ED130-** ZTE08-ED130-**	
EDR1310-050-UD	2,38	13,10	●		
EDR1320-050-UD	2,40	13,20	○		
EDR1330-050-UD	2,42	13,30	○		
EDR1340-050-UD	2,44	13,40	●		
EDR1350-050-UD	2,46	13,50	●	ZTE015-ED130-** ZTE03-ED135-** ZTE05-ED135-** ZTE08-ED135-**	
EDR1360-050-UD	2,47	13,60	○		
EDR1370-050-UD	2,49	13,70	○		
EDR1380-050-UD	2,51	13,80	○		
EDR1390-050-UD	2,53	13,90	○		
EDR1400-055-UD	2,55	14,00	●	ZTE015-ED140-** ZTE03-ED140-** ZTE05-ED140-** ZTE08-ED140-**	
EDR1410-055-UD	2,56	14,10	○		
EDR1420-055-UD	2,58	14,20	○		
EDR1430-055-UD	2,60	14,30	○		
EDR1440-055-UD	2,62	14,40	○		
EDR1450-055-UD	2,64	14,50	●	ZTE015-ED140-** ZTE03-ED145-** ZTE05-ED145-** ZTE08-ED145-**	
EDR1460-055-UD	2,66	14,60	○		
EDR1470-055-UD	2,67	14,70	○		
EDR1480-055-UD	2,69	14,80	○		
EDR1490-055-UD	2,71	14,90	○		
EDR1500-060-UD	2,73	15,00	●	ZTE015-ED150-** ZTE03-ED150-** ZTE05-ED150-** ZTE08-ED150-**	
EDR1510-060-UD	2,75	15,10	●		
EDR1520-060-UD	2,76	15,20	○		
EDR1530-060-UD	2,78	15,30	●		
EDR1540-060-UD	2,80	15,40	○		
EDR1550-060-UD	2,82	15,50	●		
EDR1560-060-UD	2,84	15,60	○		
EDR1570-060-UD	2,86	15,70	●		
EDR1580-060-UD	2,87	15,80	○		
EDR1590-060-UD	2,89	15,90	○		

● Ex stock ○ On demand

Drill heads

EDR-UD





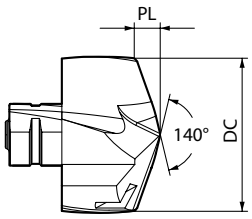
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	PL	Dc	KDG3013		
EDR1600-065-UD	2,91	16,00	●	ZTE015-ED160-** ZTE03-ED160-** ZTE05-ED160-** ZTE08-ED160-**	ZTK16-20.9
EDR1610-065-UD	2,93	16,10	○		
EDR1620-065-UD	2,95	16,20	○		
EDR1630-065-UD	2,96	16,30	●		
EDR1640-065-UD	2,98	16,40	○		
EDR1650-065-UD	3,00	16,50	●		
EDR1660-065-UD	3,02	16,60	○		
EDR1670-065-UD	3,04	16,70	○		
EDR1680-065-UD	3,06	16,80	○		
EDR1690-065-UD	3,07	16,90	●		
EDR1700-070-UD	3,09	17,00	●	ZTE015-ED170-** ZTE03-ED170-** ZTE05-ED170-** ZTE08-ED170-**	
EDR1710-070-UD	3,11	17,10	○		
EDR1720-070-UD	3,13	17,20	○		
EDR1730-070-UD	3,15	17,30	●		
EDR1740-070-UD	3,16	17,40	○		
EDR1750-070-UD	3,18	17,50	●		
EDR1760-070-UD	3,20	17,60	○		
EDR1770-070-UD	3,22	17,70	○		
EDR1780-070-UD	3,24	17,80	○		
EDR1790-070-UD	3,26	17,90	○		
EDR1800-075-UD	3,27	18,00	●	ZTE015-ED180-** ZTE03-ED180-** ZTE05-ED180-** ZTE08-ED180-**	
EDR1810-075-UD	3,29	18,10	○		
EDR1820-075-UD	3,31	18,20	○		
EDR1830-075-UD	3,33	18,30	○		
EDR1840-075-UD	3,35	18,40	○		
EDR1850-075-UD	3,36	18,50	●		
EDR1860-075-UD	3,38	18,60	○		
EDR1870-075-UD	3,40	18,70	○		
EDR1880-075-UD	3,42	18,80	○		
EDR1890-075-UD	3,44	18,90	●		
EDR1900-080-UD	3,46	19,00	●	ZTE015-ED190-** ZTE03-ED190-** ZTE05-ED190-** ZTE08-ED190-**	
EDR1910-080-UD	3,47	19,10	○		
EDR1920-080-UD	3,49	19,20	○		
EDR1930-080-UD	3,51	19,30	●		
EDR1940-080-UD	3,53	19,40	○		
EDR1950-080-UD	3,55	19,50	●		
EDR1960-080-UD	3,56	19,60	○		
EDR1970-080-UD	3,58	19,70	○		
EDR1980-080-UD	3,60	19,80	○		
EDR1990-080-UD	3,62	19,90	○		

● Ex stock ○ On demand

Drill heads

EDR-UD





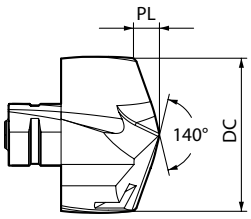
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	PL	Dc	KDG3013		
EDR2000-085-UD	3,64	20,00	●	ZTE015-ED200-** ZTE03-ED200-** ZTE05-ED200-** ZTK08-ED200-**	ZTK16-20.9
EDR2010-085-UD	3,66	20,10	○		
EDR2020-085-UD	3,67	20,20	○		
EDR2030-085-UD	3,69	20,30	○		
EDR2040-085-UD	3,71	20,40	○		
EDR2050-085-UD	3,73	20,50	●		
EDR2060-085-UD	3,75	20,60	○		
EDR2070-085-UD	3,77	20,70	○		
EDR2080-085-UD	3,78	20,80	○		
EDR2090-085-UD	3,80	20,90	○		
EDR2100-090-UD	3,82	21,00	●	ZTE015-ED210-** ZTE03-ED210-** ZTE05-ED210-** ZTE08-ED210-**	ZTK21-25.9
EDR2110-090-UD	3,84	21,10	○		
EDR2120-090-UD	3,86	21,20	○		
EDR2130-090-UD	3,88	21,30	●		
EDR2140-090-UD	3,89	21,40	○		
EDR2150-090-UD	3,91	21,50	●		
EDR2160-090-UD	3,93	21,60	○		
EDR2170-090-UD	3,95	21,70	○		
EDR2800-090-UD	3,97	21,80	○		
EDR2190-090-UD	3,98	21,90	○		
EDR2200-095-UD	4,00	22,00	●	ZTE015-ED220-** ZTE03-ED220-** ZTE05-ED220-** ZTE08-ED220-**	
EDR2210-095-UD	4,02	22,10	○		
EDR2220-095-UD	4,04	22,20	○		
EDR2230-095-UD	4,06	22,30	○		
EDR2240-095-UD	4,08	22,40	○		
EDR2250-095-UD	4,09	22,50	●		
EDR2260-095-UD	4,11	22,60	○		
EDR2270-095-UD	4,13	22,70	○		
EDR2280-095-UD	4,15	22,80	○		
EDR2290-095-UD	4,17	22,90	○		
EDR2300-100-UD	4,18	23,00	●	ZTE015-ED230-** ZTE03-ED230-** ZTE05-ED230-** ZTE08-ED230-**	
EDR2310-100-UD	4,20	23,10	○		
EDR2320-100-UD	4,22	23,20	○		
EDR2330-100-UD	4,24	23,30	●		
EDR2340-100-UD	4,26	23,40	○		
EDR2350-100-UD	4,27	23,50	●		
EDR2360-100-UD	4,29	23,60	○		
EDR2370-100-UD	4,31	23,70	○		
EDR2380-100-UD	4,33	23,80	○		
EDR2390-100-UD	4,35	23,90	○		

● Ex stock ○ On demand

Drill heads

EDR-UD





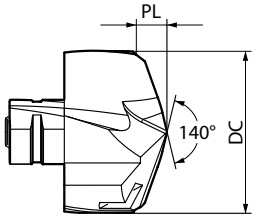
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	Pl	Dc	KDG3013		
EDR2400-110-UD	4,37	24,00	●	ZTE015-ED240-** ZTE03-ED240-** ZTE05-ED240-** ZTE08-ED240-**	ZTK21-25.9
EDR2410-110-UD	4,38	24,10	○		
EDR2420-110-UD	4,40	24,20	○		
EDR2430-110-UD	4,42	24,30	○		
EDR2440-110-UD	4,44	24,40	○		
EDR2450-110-UD	4,46	24,50	●		
EDR2460-110-UD	4,48	24,60	○		
EDR2470-110-UD	4,49	24,70	○		
EDR2480-110-UD	4,51	24,80	○		
EDR2490-110-UD	4,53	24,90	○		
EDR2500-115-UD	4,55	25,00	●	ZTE015-ED250-** ZTE03-ED250-** ZTE05-ED250-** ZTE08-ED250-**	
EDR2510-115-UD	4,57	25,10	○		
EDR2520-115-UD	4,58	25,20	○		
EDR2530-115-UD	4,60	25,30	○		
EDR2540-115-UD	4,62	25,40	○		
EDR2550-115-UD	4,64	25,50	●		
EDR2560-115-UD	4,66	25,60	○		
EDR2570-115-UD	4,68	25,70	○		
EDR2580-115-UD	4,69	25,80	○		
EDR2590-115-UD	4,70	25,90	○		

● Ex stock ○ On demand

Drill heads

EDR-KD





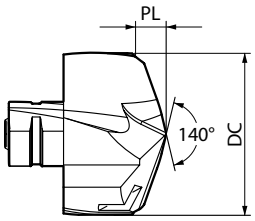
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	Pl	Dc	KDG303		
EDR1200-045-KD	2,18	12,00	●	ZTE015-ED120-** ZTE03-ED120-** ZTE05-ED120-** ZTE08-ED120-**	ZTK12-15.9
EDR1210-045-KD	2,20	12,10	○		
EDR1220-045-KD	2,22	12,20	○		
EDR1230-045-KD	2,24	12,30	○		
EDR1240-045-KD	2,26	12,40	○		
EDR1250-045-KD	2,27	12,50	●	ZTE015-ED125-** ZTE03-ED125-** ZTE05-ED125-** ZTE08-ED125-**	
EDR1260-045-KD	2,29	12,60	○		
EDR1270-045-KD	2.31	12,70	○		
EDR1280-045-KD	2,33	12,80	●		
EDR1290-045-KD	2,35	12,90	○		
EDR1300-050-KD	2,36	13,00	●	ZTE015-ED130-** ZTE03-ED130-** ZTE05-ED130-** ZTE08-ED130-**	
EDR1310-050-KD	2,38	13,10	●		
EDR1320-050-KD	2,40	13,20	○		
EDR1330-050-KD	2,42	13,30	○		
EDR1340-050-KD	2,44	13,40	●		
EDR1350-050-KD	2,46	13,50	●	ZTE015-ED130-** ZTE03-ED135-** ZTE05-ED135-** ZTE08-ED135-**	
EDR1360-050-KD	2,47	13,60	○		
EDR1370-050-KD	2,49	13,70	○		
EDR1380-050-KD	2,51	13,80	○		
EDR1390-050-KD	2,53	13,90	○		
EDR1400-055-KD	2,55	14,00	●	ZTE015-ED140-** ZTE03-ED140-** ZTE05-ED140-** ZTE08-ED140-**	
EDR1410-055-KD	2,56	14,10	○		
EDR1420-055-KD	2,58	14,20	○		
EDR1430-055-KD	2,60	14,30	○		
EDR1440-055-KD	2,62	14,40	○		
EDR1450-055-KD	2,64	14,50	●	ZTE015-ED140-** ZTE03-ED145-** ZTE05-ED145-** ZTE08-ED145-**	
EDR1460-055-KD	2,66	14,60	○		
EDR1470-055-KD	2,67	14,70	○		
EDR1480-055-KD	2,69	14,80	○		
EDR1490-055-KD	2,71	14,90	○		
EDR1500-060-KD	2,73	15,00	●	ZTE015-ED150-** ZTE03-ED150-** ZTE05-ED150-** ZTE08-ED150-**	
EDR1510-060-KD	2,75	15,10	●		
EDR1520-060-KD	2,76	15,20	○		
EDR1530-060-KD	2,78	15,30	●		
EDR1540-060-KD	2,80	15,40	○		
EDR1550-060-KD	2,82	15,50	●		
EDR1560-060-KD	2,84	15,60	○		
EDR1570-060-KD	2,86	15,70	●		
EDR1580-060-KD	2,87	15,80	○		
EDR1590-060-KD	2,89	15,90	○		

● Ex stock ○ On demand

Drill heads

EDR-KD





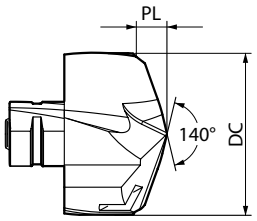
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	Pl	Dc	KDG303		
EDR1600-065-KD	2,91	16,00	●	ZTE015-ED160-** ZTE03-ED160-** ZTE05-ED160-** ZTE08-ED160-**	ZTK16-20.9
EDR1610-065-KD	2,93	16,10	○		
EDR1620-065-KD	2,95	16,20	○		
EDR1630-065-KD	2.96	16,30	●		
EDR1640-065-KD	2,98	16,40	○		
EDR1650-065-KD	3,00	16,50	●		
EDR1660-065-KD	3,02	16,60	○		
EDR1670-065-KD	3,04	16,70	○		
EDR1680-065-KD	3,06	16,80	○		
EDR1690-065-KD	3,07	16,90	●		
EDR1700-070-KD	3,09	17,00	●	ZTE015-ED170-** ZTE03-ED170-** ZTE05-ED170-** ZTE08-ED170-**	
EDR1710-070-KD	3,11	17,10	○		
EDR1720-070-KD	3,13	17,20	○		
EDR1730-070-KD	3,15	17,30	●		
EDR1740-070-KD	3,16	17,40	○		
EDR1750-070-KD	3,18	17,50	●		
EDR1760-070-KD	3,20	17,60	○		
EDR1770-070-KD	3,22	17,70	○		
EDR1780-070-KD	3,24	17,80	○		
EDR1790-070-KD	3,26	17,90	○		
EDR1800-075-KD	3,27	18,00	●	ZTE015-ED180-** ZTE03-ED180-** ZTE05-ED180-** ZTE08-ED180-**	
EDR1810-075-KD	3,29	18,10	○		
EDR1820-075-KD	3,31	18,20	○		
EDR1830-075-KD	3,33	18,30	○		
EDR1840-075-KD	3,35	18,40	○		
EDR1850-075-KD	3,36	18,50	●		
EDR1860-075-KD	3,38	18,60	○		
EDR1870-075-KD	3,40	18,70	○		
EDR1880-075-KD	3,42	18,80	○		
EDR1890-075-KD	3,44	18,90	●		
EDR1900-080-KD	3,46	19,00	●	ZTE015-ED190-** ZTE03-ED190-** ZTE05-ED190-** ZTE08-ED190-**	
EDR1910-080-KD	3,47	19,10	○		
EDR1920-080-KD	3,49	19,20	○		
EDR1930-080-KD	3,51	19,30	●		
EDR1940-080-KD	3,53	19,40	○		
EDR1950-080-KD	3,55	19,50	●		
EDR1960-080-KD	3,56	19,60	○		
EDR1970-080-KD	3,58	19,70	○		
EDR1980-080-KD	3,60	19,80	○		
EDR1990-080-KD	3,62	19,90	○		

● Ex stock ○ On demand

Drill heads

EDR-KD





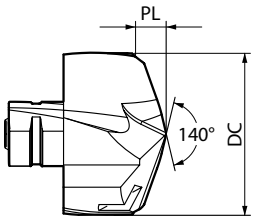
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	Pl	Dc	KDG303		
EDR2000-085-KD	3,64	20,00	●	ZTE015-ED200-** ZTE03-ED200-** ZTE05-ED200-** ZTK08-ED200-**	ZTK16-20.9
EDR2010-085-KD	3,66	20,10	○		
EDR2020-085-KD	3,67	20,20	○		
EDR2030-085-KD	3.69	20,30	○		
EDR2040-085-KD	3,71	20,40	○		
EDR2050-085-KD	3,73	20,50	●		
EDR2060-085-KD	3,75	20,60	○		
EDR2070-085-KD	3,77	20,70	○		
EDR2080-085-KD	3,78	20,80	○		
EDR2090-085-KD	3,80	20,90	○		
EDR2100-090-KD	3.82	21,00	●	ZTE015-ED210-** ZTE03-ED210-** ZTE05-ED210-** ZTE08-ED210-**	ZTK21-25.9
EDR2110-090-KD	3,84	21,10	○		
EDR2120-090-KD	3,86	21,20	○		
EDR2130-090-KD	3,88	21,30	●		
EDR2140-090-KD	3,89	21,40	○		
EDR2150-090-KD	3.91	21,50	●		
EDR2160-090-KD	3,93	21,60	○		
EDR2170-090-KD	3,95	21,70	○		
EDR2800-090-KD	3,97	21,80	○		
EDR2190-090-KD	3,98	21,90	○		
EDR2200-095-KD	4,00	22,00	●	ZTE015-ED220-** ZTE03-ED220-** ZTE05-ED220-** ZTE08-ED220-**	
EDR2210-095-KD	4,02	22,10	○		
EDR2220-095-KD	4,04	22,20	○		
EDR2230-095-KD	4,06	22,30	○		
EDR2240-095-KD	4,08	22,40	○		
EDR2250-095-KD	4,09	22,50	●		
EDR2260-095-KD	4,11	22,60	○		
EDR2270-095-KD	4,13	22,70	○		
EDR2280-095-KD	4,15	22,80	○		
EDR2290-095-KD	4,17	22,90	○		
EDR2300-100-KD	4,18	23,00	●	ZTE015-ED230-** ZTE03-ED230-** ZTE05-ED230-** ZTE08-ED230-**	
EDR2310-100-KD	4,20	23,10	○		
EDR2320-100-KD	4,22	23,20	○		
EDR2330-100-KD	4,24	23,30	●		
EDR2340-100-KD	4,26	23,40	○		
EDR2350-100-KD	4,27	23,50	●		
EDR2360-100-KD	4,29	23,60	○		
EDR2370-100-KD	4,31	23,70	○		
EDR2380-100-KD	4,33	23,80	○		
EDR2390-100-KD	4,35	23,90	○		

● Ex stock ○ On demand

Drill heads

EDR-KD





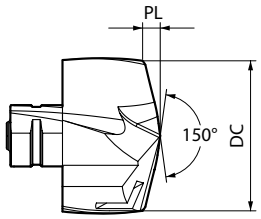
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	Pl	Dc	KDG303		
EDR2400-110-KD	4,37	24,00	●	ZTE015-ED240-** ZTE03-ED240-** ZTE05-ED240-** ZTE08-ED240-**	ZTK21-25.9
EDR2410-110-KD	4,38	24,10	○		
EDR2420-110-KD	4,40	24,20	○		
EDR2430-110-KD	4,42	24,30	○		
EDR2440-110-KD	4,44	24,40	○		
EDR2450-110-KD	4,46	24,50	●		
EDR2460-110-KD	4,48	24,60	○		
EDR2470-110-KD	4,49	24,70	○		
EDR2480-110-KD	4,51	24,80	○		
EDR2490-110-KD	4,53	24,90	○		
EDR2500-115-KD	4,55	25,00	●	ZTE015-ED250-** ZTE03-ED250-** ZTE05-ED250-** ZTE08-ED250-**	
EDR2510-115-KD	4,57	25,10	○		
EDR2520-115-KD	4,58	25,20	○		
EDR2530-115-KD	4,60	25,30	○		
EDR2540-115-KD	4,62	25,40	○		
EDR2550-115-KD	4,64	25,50	●		
EDR2560-115-KD	4,66	25,60	○		
EDR2570-115-KD	4,68	25,70	○		
EDR2580-115-KD	4,69	25,80	○		
EDR2590-115-KD	4,70	25,90	○		

● Ex stock ○ On demand

Drill heads

EDR-PD





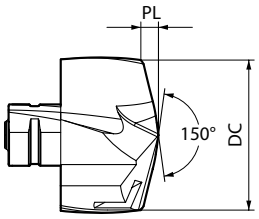
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	Pl	Dc	KDG3013		
EDR1200-045-PD	1,61	12,03	●	ZTE015-ED120-**	ZTK12-15.9
EDR1210-045-PD	1,63	12,13	○		
EDR1220-045-PD	1,64	12,23	○		
EDR1230-045-PD	1,65	12,33	○		
EDR1240-045-PD	1,67	12,43	○		
EDR1250-045-PD	1,68	12,53	●	ZTE015-ED120-**	
EDR1260-045-PD	1,69	12,63	○		
EDR1270-045-PD	1,71	12,73	○		
EDR1280-045-PD	1,72	12,83	○		
EDR1290-045-PD	1,73	12,93	○		
EDR1300-050-PD	1,75	13,03	●	ZTE015-ED130-**	
EDR1310-050-PD	1,76	13,13	○		
EDR1320-050-PD	1,77	13,23	○		
EDR1330-050-PD	1,79	13,33	○		
EDR1340-050-PD	1,80	13,43	○		
EDR1350-050-PD	1,81	13,53	●	ZTE015-ED130-**	
EDR1360-050-PD	1,83	13,63	○		
EDR1370-050-PD	1,84	13,73	○		
EDR1380-050-PD	1,85	13,83	○		
EDR1390-050-PD	1,87	13,93	○		
EDR1400-055-PD	1,88	14,03	●	ZTE015-ED140-**	
EDR1410-055-PD	1,89	14,13	○		
EDR1420-055-PD	1,91	14,23	○		
EDR1430-055-PD	1,92	14,33	○		
EDR1440-055-PD	1,93	14,43	○		
EDR1450-055-PD	1,95	14,53	●	ZTE015-ED140-**	
EDR1460-055-PD	1,96	14,63	○		
EDR1470-055-PD	1,97	14,73	○		
EDR1480-055-PD	1,99	14,83	○		
EDR1490-055-PD	2,00	14,93	○		
EDR1500-060-PD	2,01	15,03	●	ZTE015-ED150-**	
EDR1510-060-PD	2,03	15,13	○		
EDR1520-060-PD	2,04	15,23	○		
EDR1530-060-PD	2,05	15,33	○		
EDR1540-060-PD	2,07	15,43	○		
EDR1550-060-PD	2,08	15,53	●		
EDR1560-060-PD	2,09	15,63	○		
EDR1570-060-PD	2,11	15,73	○		
EDR1580-060-PD	2,12	15,83	○		
EDR1590-060-PD	2,13	15,93	○		

● Ex stock ○ On demand

Drill heads

EDR-PD





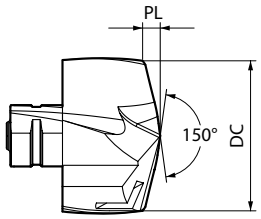
Article	Dimensions [mm]		Grade	Drilling body	Wrench
	Pl	Dc	KDG3013		
EDR1600-065-PD	2,15	16,03	●	ZTE015-ED160-**	ZTK16-20.9
EDR1610-065-PD	2,16	16,13	○		
EDR1620-065-PD	2,17	16,23	○		
EDR1630-065-PD	2,19	16,33	○		
EDR1640-065-PD	2,20	16,43	○		
EDR1650-065-PD	2,21	16,53	●		
EDR1660-065-PD	2,23	16,63	○		
EDR1670-065-PD	2,24	16,73	○		
EDR1680-065-PD	2,25	16,83	○		
EDR1690-065-PD	2,27	16,93	○		
EDR1700-070-PD	2,28	17,03	●	ZTE015-ED170-**	
EDR1710-070-PD	2,30	17,13	○		
EDR1720-070-PD	2,31	17,23	○		
EDR1730-070-PD	2,32	17,33	○		
EDR1740-070-PD	2,34	17,43	○		
EDR1750-070-PD	2,35	17,53	●		
EDR1760-070-PD	2,36	17,63	○		
EDR1770-070-PD	2,38	17,73	○		
EDR1780-070-PD	2,39	17,83	○		
EDR1790-070-PD	2,40	17,93	○		
EDR1800-075-PD	2,42	18,03	●	ZTE015-ED180-**	
EDR1810-075-PD	2,43	18,13	○		
EDR1820-075-PD	2,44	18,23	○		
EDR1830-075-PD	2,46	18,33	○		
EDR1840-075-PD	2,47	18,43	○		
EDR1850-075-PD	2,48	18,53	●		
EDR1860-075-PD	2,50	18,63	○		
EDR1870-075-PD	2,51	18,73	○		
EDR1880-075-PD	2,52	18,83	○		
EDR1890-075-PD	2,54	18,93	○		
EDR1900-080-PD	2,55	19,03	●	ZTE015-ED190-**	
EDR1910-080-PD	2,56	19,13	○		
EDR1920-080-PD	2,58	19,23	○		
DR1930-080-PD	2,59	19,33	●		
EDR1940-080-PD	2,60	19,43	○		
EDR1950-080-PD	2,62	19,53	●		
EDR1960-080-PD	2,63	19,63	○		
EDR1970-080-PD	2,64	19,73	○		
EDR1980-080-PD	2,66	19,83	○		
EDR1990-080-PD	2,67	19,93	○		

● Ex stock ○ On demand

Drill heads

EDR-PD





Article	Dimensions [mm]		Grade	Drilling body	Wrench
	Pl	Dc	KDG3013		
EDR2000-085-PD	2,68	20,03	●	ZTE015-ED200-**	ZTK16-20.9
EDR2010-085-PD	2,70	20,13	○		
EDR2020-085-PD	2,71	20,23	○		
EDR2030-085-PD	2,72	20,33	○		
EDR2040-085-PD	2,74	20,43	○		
EDR2050-085-PD	2,75	20,53	●		
EDR2060-085-PD	2,76	20,63	○		
EDR2070-085-PD	2,78	20,73	○		
EDR2080-085-PD	2,79	20,83	○		
EDR2090-085-PD	2,80	20,93	○		
EDR2100-090-PD	2,82	21,03	●	ZTE015-ED210-**	ZTK21-25.9
EDR2110-090-PD	2,83	21,13	○		
EDR2120-090-PD	2,84	21,23	○		
EDR2130-090-PD	2,86	21,33	○		
EDR2140-090-PD	2,87	21,43	○		
EDR2150-090-PD	2,88	21,53	●		
EDR2160-090-PD	2,90	21,63	○		
EDR2170-090-PD	2,91	21,73	○		
EDR2180-090-PD	2,92	21,83	○		
EDR2190-090-PD	2,94	21,93	○		
EDR2200-095-PD	2,95	22,03	●	ZTE015-ED220-**	
EDR2210-095-PD	2,96	22,13	○		
EDR2220-095-PD	2,98	22,23	○		
EDR2230-095-PD	2,99	22,33	○		
EDR2240-095-PD	3,01	22,43	○		
EDR2250-095-PD	3,02	22,53	●		
EDR2260-095-PD	3,03	22,63	○		
EDR2270-095-PD	3,05	22,73	○		
EDR2280-095-PD	3,06	22,83	○		
EDR2290-095-PD	3,07	22,93	○		
EDR2300-100-PD	3,09	23,03	●	ZTE015-ED230-**	
EDR2310-100-PD	3,10	23,13	●		
EDR2320-100-PD	3,11	23,23	○		
EDR2330-100-PD	3,13	23,33	●		
EDR2340-100-PD	3,14	23,43	○		
EDR2350-100-PD	3,15	23,53	●		
EDR2360-100-PD	3,17	23,63	○		
EDR2370-100-PD	3,18	23,73	●		
EDR2380-100-PD	3,19	23,83	○		
EDR2390-100-PD	3,21	23,93	○		

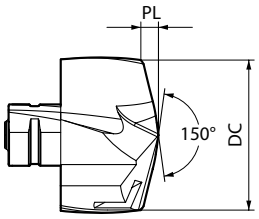
● Ex stock ○ On demand

For more information on using the **PD geometry** (recommended: pilot hole from 8xD), please refer to page C79.

Drill heads

EDR-PD





Article	Dimensions [mm]		Grade	Drilling body	Wrench
	Pl	Dc	KDG3013		
EDR2400-110-PD	3,22	24,03	●	ZTE015-ED240-**	ZTK21-25.9
EDR2410-110-PD	3,23	24,13	○		
EDR2420-110-PD	3,25	24,23	○		
EDR2430-110-PD	3,26	24,33	○		
EDR2440-110-PD	3,27	24,43	○		
EDR2450-110-PD	3,29	24,53	●		
EDR2460-110-PD	3,30	24,63	○		
EDR2470-110-PD	3,31	24,73	○		
EDR2480-110-PD	3,33	24,83	○		
EDR2490-110-PD	3,34	24,93	○		
EDR2500-115-PD	3,35	25,03	●	ZTE015-ED250-**	
EDR2510-115-PD	3,37	25,13	○		
EDR2520-115-PD	3,38	25,23	○		
EDR2530-115-PD	3,39	25,33	○		
EDR2540-115-PD	3,41	25,43	○		
EDR2550-115-PD	3,42	25,53	●		
EDR2560-115-PD	3,43	25,63	○		
EDR2570-115-PD	3,45	25,73	○		
EDR2580-115-PD	3,46	25,83	○		
EDR2590-115-PD	3,47	25,93	○		

● Ex stock ○ On demand

For more information on using the **PD geometry** (recommended: pilot hole from 8xD), please refer to page C79.

Indexable head drilling Recommended cutting data

Indexable head drills

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]					
						Ø 12-25,9		Ø 12-25,9		Ø 12-25,9	
						1,5-3xD (GD)		5xD (GD)		8xD (GD)	
						KDG3013		KDG3013		KDG3013	
						Vc [m/min]	f-group	Vc [m/min]	f-group	Vc [m/min]	f-group
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1	130	18	100	17	80	16
		approx. 0,45 % C	annealed	190	2	110	18	90	17	70	16
		approx. 0,45 % C	tempered	250	3	100	18	80	17	60	16
		approx. 0,75 % C	annealed	270	4	85	18	70	17	50	16
		approx. 0,75 % C	tempered	300	5	75	18	60	17	45	16
	Low-alloyed steel		annealed	180	6	110	18	90	17	70	16
			tempered	275	7	85	18	70	17	50	16
			tempered	300	8	75	18	60	17	45	16
			tempered	350	9	65	18	50	17	40	16
	High-alloyed steel and high-alloyed tool steel		annealed	200	10	100	18	80	17	60	16
			hardened and tempered	325	11	75	18	60	17	45	16
M	Stainless steel	ferritic/martensitic	annealed	200	12	60	18	50	17	40	16
		martensitic	tempered	240	13	35	18	30	17	25	16
		austenitic	quench hardened	180	14	40	18	30	17	25	16
		austenitic-ferritic		230	15	35	18	30	17	25	16
K	Grey cast iron	perlitic/ferritic		180	16	125	18	100	17	75	16
		perlitic (martensitic)		260	17	100	18	80	17	60	16
	Cast iron with spheroidal graphite	ferritic		160	18	110	18	90	17	60	16
		perlitic		250	19	70	18	60	17	40	16
	Malleable cast iron	ferritic		130	20	120	18	100	17	70	16
		perlitic		230	21	70	18	60	17	40	16
N	Aluminium wrought alloys	cannot be hardened		60	22	180	18	140	17	110	16
		hardenable	hardened	100	23	180	18	140	17	110	16
	Cast aluminium alloys	≤ 12 % Si, cannot be hardened		75	24	180	18	145	17	110	16
		≤ 12 % Si, hardenable	hardened	90	25	180	18	145	17	110	16
		> 12 % Si, cannot be hardened		130	26	180	18	145	17	110	16
	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	60	16	50	16	40	16
			hardened and tempered	60 HRC	38	–	–	–	–	–	–
	Hard cast iron		cast	400	39	–	–	–	–	–	–
	Hardened cast iron		hardened and tempered	55 HRC	40	50	16	40	16	30	16
X	Non-metallic materials	Thermoplasts			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.
With hole depths of 5xD adjust the cutting data accordingly to the application.
f-group = feed rate recommendations on page C148.
For examples of material for cutting tool groups view page D11.

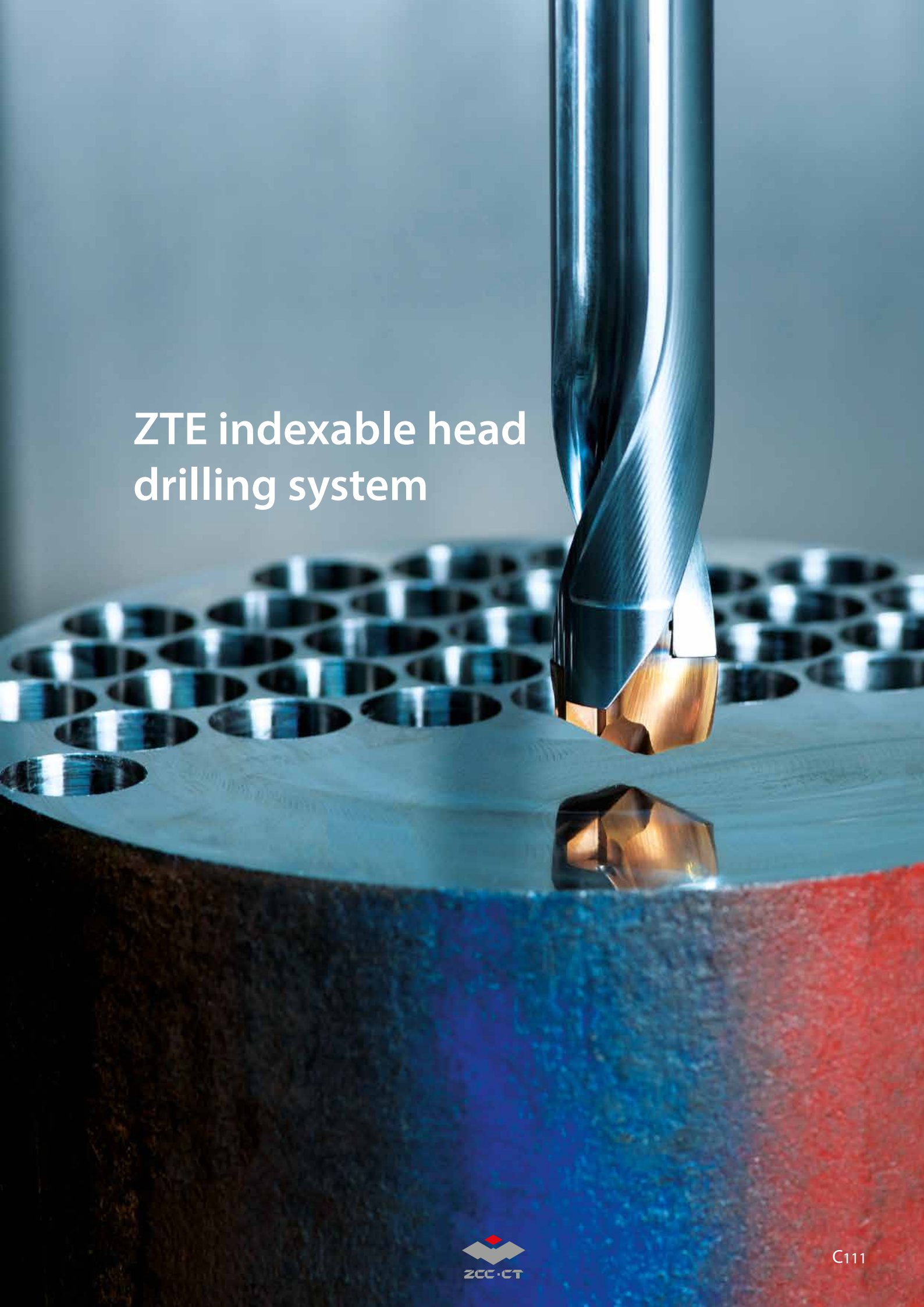
	Starting values for cutting speed v_c [m/min]															
	Ø 12-25,9		Ø 12-25,9		Ø 12-25,9		Ø 12-25,9									
	1,5-3xD (KD)		5xD (KD)		8xD (KD)		1,5-3xD (PD)									
	KDG303		KDG303		KDG303		KDG3013									
	Vc [m/min]	f-group	Vc [m/min]	f-group	Vc [m/min]	f-group	Vc [m/min]	f-group								
	130	18	100	17	80	16	130	18								
	110	18	90	17	70	16	110	18								
	100	18	80	17	60	16	100	18								
	85	18	70	17	50	16	85	18								
	75	18	60	17	45	16	75	18								
	110	18	90	17	70	16	110	18								
	85	18	70	17	50	16	85	18								
	75	18	60	17	45	16	75	18								
	65	18	50	17	40	16	65	18								
	100	18	80	17	60	16	100	18								
	75	18	60	17	45	16	75	18								
	–	–	–	–	–	–	60	18								
	–	–	–	–	–	–	35	18								
	–	–	–	–	–	–	40	18								
	–	–	–	–	–	–	35	18								
	125	18	100	17	75	16	125	18								
	100	18	80	17	60	16	100	18								
	110	18	90	17	60	16	110	18								
	70	18	60	17	40	16	70	18								
	120	18	100	17	70	16	120	18								
	70	18	60	17	40	16	70	18								
	–	–	–	–	–	–	180	18								
	–	–	–	–	–	–	180	18								
	–	–	–	–	–	–	180	18								
	–	–	–	–	–	–	180	18								
	–	–	–	–	–	–	180	18								
	–	–	–	–	–	–	–	–								
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	60	16	50	16	40	16	60	16								
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	–	–	–	–	–	–	–	–								
	50	16	40	16	30	16	50	16								
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	–	–	–	–	–	–	–	–								
	–	–	–	–	–	–	–	–								

Recommended feed rate

Indexable head drills

f-group	Feed rate [mm]													
	Ø12	**Ø13**	**Ø14**	**Ø15**	**Ø16**	**Ø17**	**Ø18**	**Ø19**	**Ø20**	**Ø21**	**Ø22**	**Ø23**	**Ø24**	**Ø25**
16	0,15	0,155	0,16	0,17	0,175	0,18	0,19	0,195	0,2	0,21	0,22	0,225	0,23	0,24
17	0,19	0,2	0,21	0,22	0,225	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,3	0,31
18	0,21	0,22	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,3	0,31	0,32	0,33	0,34

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.



ZTE indexable head drilling system

Solid carbide drills

System code – solid carbide drills

1	5	3	6	SU	05	(C)	–	0850	(S)
1	2	3	4	5	6	7		8	9

Type	
Code	Description
1	Forets

1

Shank type	
Code	Description
1	Straight shank
2	Square shank DIN 10
3	Double flattened straight shank DIN 1809
5	Straight shank DIN 6535 HA
6	Weldon shank DIN 6535 HB
7	Whistle Notch shank DIN 6535 HE
9	Morse taper shank

2

Drill type	
Code	Description
0	Twist drill
3	Universal twist drill
4	NC tapping device
5	Step drill
6	Three-lips drill
7	Straight flute drill
8	Deep hole drill

3

Tool length	
Code	Description
1	DIN 338
2	DIN 1897
3	QJ/ZZQ(TO)01.001.002
4	DIN 6537 K
5	DIN 6539
6	DIN 6537 L
7	Factory standard ZCC-C
8	Factory standard ZCC-D
9	Factory standard ZCC-E

4

Application	
Code	Description
UD	Twist drills for tough materials
UL	Deep hole drills for difficult-to-machine materials
GD	Twist drills for high feeds
SU	Twist drill for general machining
SL	Twist drill for deep hole drilling
SP	Pilot drill
SH	Twist drill for hardened materials
SC	Twist drill for non-ferrous metals and cast iron

5

L/D relation		Angle	
Drill		NC tapping device	
Code	Description	Code	Description
03	3 x D	**90**	90°
05	5 x D	**120**	120°
08	8 x D		
10	10 x D		
12	12 x D		
15	15 x D		
20	20 x D		
30	30 x D		

6

With inner cooling

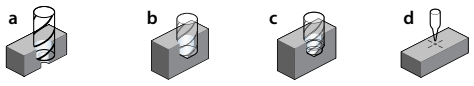
7

Bore diameter [mm]	
Code	Description
0200	2,0
0850	8,5
1800	18,0
...	

8

Shank diameter [mm]	
Code	Description
S	4,0

9



a Boring **b** Drilling **c** Profile drilling **d** Centering

UL series

Solid carbide deep hole drills for difficult-to-machine materials

YOUR BENEFITS

– **Reduced cutting forces** thanks to new cutting edge design
– Larger clearance angle **for higher productivity**
– Enhanced chip breaking for **optimal process reliability**
– **Enhanced tool guidance** thank to four support chamfers

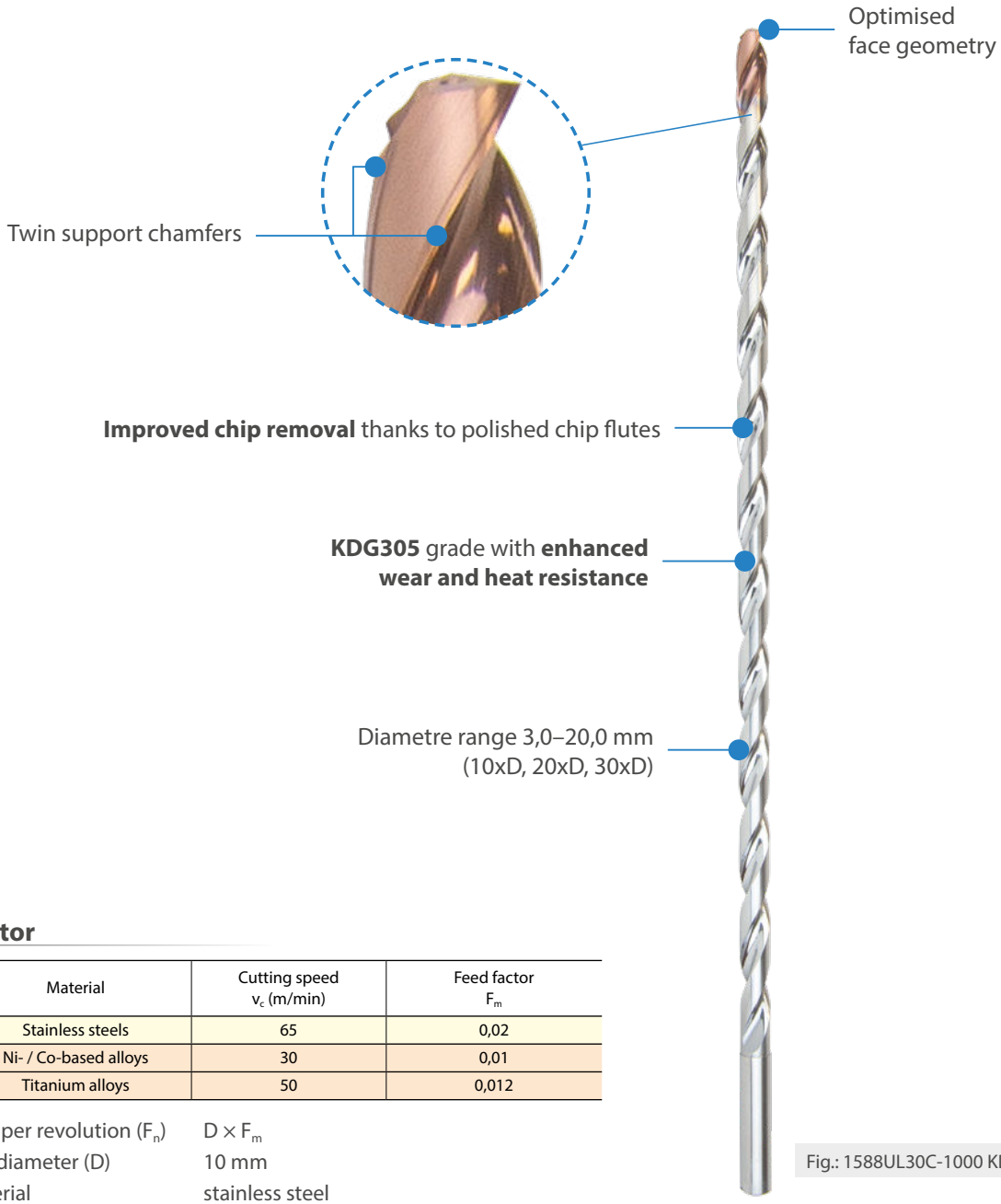


Fig.: 1588UL30C-1000 KDG305

Feed calculator

ISO group	Material	Cutting speed v_c (m/min)	Feed factor F_m
M	Stainless steels	65	0,02
S	Ni- / Co-based alloys	30	0,01
S	Titanium alloys	50	0,012

Formula:	feed per revolution (F_n)	$D \times F_m$
Example:	drill diameter (D)	10 mm
	material	stainless steel

$$F_n = 10\ mm \times 0{,}02 = 0{,}2\ mm/r$$

UL drill 10xD

General machining

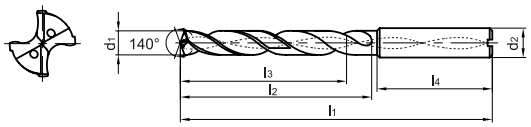
1588UL10C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1588UL10C-0300	✻	3	6	80	43	39	36	●
1588UL10C-0310	✻	3,1	6	80	43	39	36	●
1588UL10C-0320	✻	3,2	6	80	43	39	36	●
1588UL10C-0330	✻	3,3	6	80	43	39	36	●
1588UL10C-0340	✻	3,4	6	80	43	39	36	●
1588UL10C-0350	✻	3,5	6	80	43	39	36	●
1588UL10C-0360	✻	3,6	6	80	43	39	36	●
1588UL10C-0370	✻	3,7	6	80	43	39	36	●
1588UL10C-0380	✻	3,8	6	80	43	39	36	●
1588UL10C-0390	✻	3,9	6	80	43	39	36	●
1588UL10C-0400	✻	4	6	92	55	50	36	●
1588UL10C-0410	✻	4,1	6	92	55	50	36	●
1588UL10C-0420	✻	4,2	6	92	55	50	36	●
1588UL10C-0430	✻	4,3	6	92	55	50	36	●
1588UL10C-0440	✻	4,4	6	92	55	50	36	●
1588UL10C-0450	✻	4,5	6	92	55	50	36	●
1588UL10C-0460	✻	4,6	6	92	55	50	36	●
1588UL10C-0470	✻	4,7	6	92	55	50	36	●
1588UL10C-0480	✻	4,8	6	92	55	50	36	●
1588UL10C-0490	✻	4,9	6	92	55	50	36	●
1588UL10C-0500	✻	5	6	104	68	61	36	●
1588UL10C-0510	✻	5,1	6	104	68	61	36	●
1588UL10C-0520	✻	5,2	6	104	68	61	36	●
1588UL10C-0530	✻	5,3	6	104	68	61	36	●
1588UL10C-0540	✻	5,4	6	104	68	61	36	●
1588UL10C-0550	✻	5,5	6	104	68	61	36	●
1588UL10C-0560	✻	5,6	6	104	68	61	36	●
1588UL10C-0570	✻	5,7	6	104	68	61	36	●
1588UL10C-0580	✻	5,8	6	104	68	61	36	●
1588UL10C-0590	✻	5,9	6	104	68	61	36	●
1588UL10C-0600	✻	6	6	104	68	61	36	●
1588UL10C-0610	✻	6,1	8	117	80	71	36	●
1588UL10C-0620	✻	6,2	8	117	80	71	36	●
1588UL10C-0630	✻	6,3	8	117	80	71	36	●
1588UL10C-0640	✻	6,4	8	117	80	71	36	●
1588UL10C-0650	✻	6,5	8	117	80	71	36	●
1588UL10C-0660	✻	6,6	8	117	80	71	36	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable

UL drill 10xD

General machining

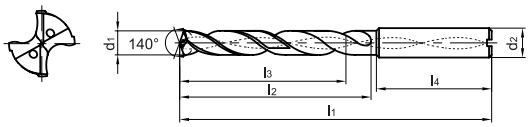
1588UL10C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✲	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1588UL10C-0670	✲	6,7	8	117	80	71	36	○
1588UL10C-0680	✲	6,8	8	117	80	71	36	●
1588UL10C-0690	✲	6,9	8	117	80	71	36	○
1588UL10C-0700	✲	7	8	117	80	71	36	●
1588UL10C-0710	✲	7,1	8	130	94	84	36	○
1588UL10C-0720	✲	7,2	8	130	94	84	36	○
1588UL10C-0730	✲	7,3	8	130	94	84	36	○
1588UL10C-0740	✲	7,4	8	130	94	84	36	○
1588UL10C-0750	✲	7,5	8	130	94	84	36	●
1588UL10C-0760	✲	7,6	8	130	94	84	36	○
1588UL10C-0770	✲	7,7	8	130	94	84	36	○
1588UL10C-0780	✲	7,8	8	130	94	84	36	○
1588UL10C-0790	✲	7,9	8	130	94	84	36	○
1588UL10C-0800	✲	8	8	130	94	84	36	●
1588UL10C-0810	✲	8,1	10	148	105	94	40	○
1588UL10C-0820	✲	8,2	10	148	105	94	40	○
1588UL10C-0830	✲	8,3	10	148	105	94	40	○
1588UL10C-0840	✲	8,4	10	148	105	94	40	○
1588UL10C-0850	✲	8,5	10	148	105	94	40	●
1588UL10C-0860	✲	8,6	10	148	105	94	40	○
1588UL10C-0870	✲	8,7	10	148	105	94	40	○
1588UL10C-0880	✲	8,8	10	148	105	94	40	○
1588UL10C-0890	✲	8,9	10	148	105	94	40	○
1588UL10C-0900	✲	9	10	148	105	94	40	●
1588UL10C-0910	✲	9,1	10	158	115	103	40	○
1588UL10C-0920	✲	9,2	10	158	115	103	40	○
1588UL10C-0930	✲	9,3	10	158	115	103	40	○
1588UL10C-0940	✲	9,4	10	158	115	103	40	○
1588UL10C-0950	✲	9,5	10	158	115	103	40	●
1588UL10C-0960	✲	9,6	10	158	115	103	40	○
1588UL10C-0970	✲	9,7	10	158	115	103	40	○
1588UL10C-0980	✲	9,8	10	158	115	103	40	○
1588UL10C-0990	✲	9,9	10	158	115	103	40	○
1588UL10C-1000	✲	10	10	158	115	103	40	●
1588UL10C-1050	✲	10,5	12	183	135	121	45	○
1588UL10C-1100	✲	11	12	183	135	121	45	○
1588UL10C-1150	✲	11,5	12	183	135	121	45	○

● Ex stock ○ On demand
✲ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable

UL drill 10xD

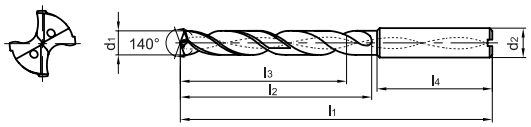
General machining

1588UL10C

– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1588UL10C-1200	✻	12	12	183	135	121	45	●
1588UL10C-1250	✻	12,5	14	209	160	144	45	○
1588UL10C-1300	✻	13	14	209	160	144	45	○
1588UL10C-1350	✻	13,5	14	209	160	144	45	○
1588UL10C-1400	✻	14	14	209	160	144	45	●
1588UL10C-1450	✻	14,5	16	234	184	145	48	○
1588UL10C-1500	✻	15	16	234	184	150	48	○
1588UL10C-1550	✻	15,5	16	234	184	155	48	○
1588UL10C-1600	✻	16	16	234	184	160	48	●
1588UL10C-1650	✻	16,5	18	258	208	165	48	○
1588UL10C-1700	✻	17	18	258	208	170	48	○
1588UL10C-1750	✻	17,5	18	258	208	175	48	○
1588UL10C-1800	✻	18	18	258	208	180	48	○
1588UL10C-1850	✻	18,5	20	284	232	185	50	○
1588UL10C-1900	✻	19	20	284	232	190	50	○
1588UL10C-1950	✻	19,5	20	284	232	195	50	○
1588UL10C-2000	✻	20	20	284	232	200	50	○

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable

UL drill 20xD

General machining

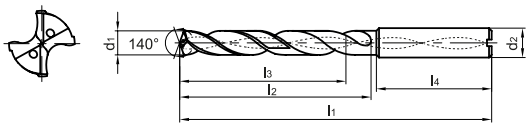
1588UL20C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1588UL20C-0300	✻	3	6	110	70	62	36	●
1588UL20C-0310	✻	3,1	6	123	83	72	36	●
1588UL20C-0320	✻	3,2	6	123	83	72	36	●
1588UL20C-0330	✻	3,3	6	123	83	72	36	●
1588UL20C-0340	✻	3,4	6	123	83	72	36	●
1588UL20C-0350	✻	3,5	6	123	83	72	36	●
1588UL20C-0360	✻	3,6	6	136	96	84	36	●
1588UL20C-0370	✻	3,7	6	136	96	84	36	●
1588UL20C-0380	✻	3,8	6	136	96	84	36	●
1588UL20C-0390	✻	3,9	6	136	96	84	36	●
1588UL20C-0400	✻	4	6	136	96	84	36	●
1588UL20C-0410	✻	4,1	6	148	108	96	36	●
1588UL20C-0420	✻	4,2	6	148	108	96	36	●
1588UL20C-0430	✻	4,3	6	148	108	96	36	●
1588UL20C-0440	✻	4,4	6	148	108	96	36	●
1588UL20C-0450	✻	4,5	6	148	108	96	36	●
1588UL20C-0460	✻	4,6	6	158	118	106	36	●
1588UL20C-0470	✻	4,7	6	158	118	106	36	○
1588UL20C-0480	✻	4,8	6	158	118	106	36	○
1588UL20C-0490	✻	4,9	6	158	118	106	36	●
1588UL20C-0500	✻	5	6	158	118	106	36	●
1588UL20C-0510	✻	5,1	6	168	128	116	36	●
1588UL20C-0520	✻	5,2	6	168	128	116	36	●
1588UL20C-0530	✻	5,3	6	168	128	116	36	●
1588UL20C-0540	✻	5,4	6	168	128	116	36	○
1588UL20C-0550	✻	5,5	6	168	128	116	36	●
1588UL20C-0560	✻	5,6	6	180	140	126	36	●
1588UL20C-0570	✻	5,7	6	180	140	126	36	●
1588UL20C-0580	✻	5,8	6	180	140	126	36	●
1588UL20C-0590	✻	5,9	6	180	140	126	36	○
1588UL20C-0600	✻	6	6	180	140	126	36	●
1588UL20C-0610	✻	6,1	8	192	150	132	36	●
1588UL20C-0620	✻	6,2	8	192	150	132	36	●
1588UL20C-0630	✻	6,3	8	192	150	132	36	●
1588UL20C-0640	✻	6,4	8	192	150	132	36	●
1588UL20C-0650	✻	6,5	8	192	150	132	36	●
1588UL20C-0660	✻	6,6	8	202	162	144	36	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable

UL drill 20xD

General machining

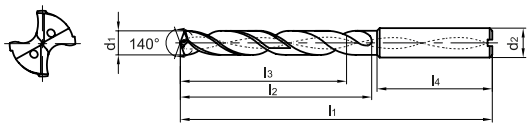
1588UL20C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1588UL20C-0670	✻	6,7	8	202	162	144	36	○
1588UL20C-0680	✻	6,8	8	202	162	144	36	●
1588UL20C-0690	✻	6,9	8	202	162	144	36	●
1588UL20C-0700	✻	7	8	202	162	144	36	●
1588UL20C-0710	✻	7,1	8	213	173	155	36	●
1588UL20C-0720	✻	7,2	8	213	173	155	36	○
1588UL20C-0730	✻	7,3	8	213	173	155	36	●
1588UL20C-0740	✻	7,4	8	213	173	155	36	○
1588UL20C-0750	✻	7,5	8	213	173	155	36	●
1588UL20C-0760	✻	7,6	8	223	183	165	36	○
1588UL20C-0770	✻	7,7	8	223	183	165	36	○
1588UL20C-0780	✻	7,8	8	223	183	165	36	●
1588UL20C-0790	✻	7,9	8	223	183	165	36	○
1588UL20C-0800	✻	8	8	223	183	165	36	●
1588UL20C-0810	✻	8,1	10	239	195	176	40	●
1588UL20C-0820	✻	8,2	10	239	195	176	40	●
1588UL20C-0830	✻	8,3	10	239	195	176	40	○
1588UL20C-0840	✻	8,4	10	239	195	176	40	○
1588UL20C-0850	✻	8,5	10	239	195	176	40	●
1588UL20C-0860	✻	8,6	10	249	205	186	40	○
1588UL20C-0870	✻	8,7	10	249	205	186	40	○
1588UL20C-0880	✻	8,8	10	249	205	186	40	○
1588UL20C-0890	✻	8,9	10	249	205	186	40	○
1588UL20C-0900	✻	9	10	249	205	186	40	●
1588UL20C-0910	✻	9,1	10	262	218	196	36	○
1588UL20C-0920	✻	9,2	10	262	218	196	36	○
1588UL20C-0930	✻	9,3	10	262	218	196	36	○
1588UL20C-0940	✻	9,4	10	262	218	196	36	○
1588UL20C-0950	✻	9,5	10	262	218	196	36	●
1588UL20C-0960	✻	9,6	10	272	228	206	40	○
1588UL20C-0970	✻	9,7	10	272	228	206	40	○
1588UL20C-0980	✻	9,8	10	272	228	206	40	○
1588UL20C-0990	✻	9,9	10	272	228	206	40	○
1588UL20C-1000	✻	10	10	272	228	206	40	●
1588UL20C-1050	✻	10,5	12	292	242	220	45	●
1588UL20C-1100	✻	11	12	300	250	228	45	●
1588UL20C-1150	✻	11,5	12	315	265	240	45	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable

UL drill 20xD

General machining

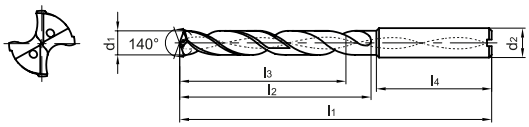
1588UL20C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✲	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1588UL20C-1200	✲	12	12	325	275	250	45	○
1588UL20C-1250	✲	12,5	14	325	275	250	45	○
1588UL20C-1300	✲	13	14	338	290	265	45	○
1588UL20C-1350	✲	13,5	14	338	290	265	45	○
1588UL20C-1400	✲	14	14	367	318	290	45	○

● Ex stock ○ On demand
✲ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable

UL drill 30xD

General machining

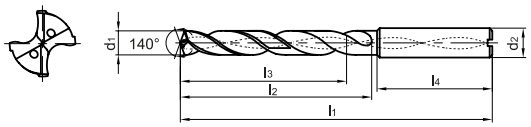
1588UL30C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1588UL30C-0300	✻	3	6	140	100	92	36	●
1588UL30C-0310	✻	3,1	6	160	120	108	36	○
1588UL30C-0320	✻	3,2	6	160	120	108	36	●
1588UL30C-0330	✻	3,3	6	160	120	108	36	●
1588UL30C-0340	✻	3,4	6	160	120	108	36	●
1588UL30C-0350	✻	3,5	6	160	120	108	36	●
1588UL30C-0360	✻	3,6	6	176	136	124	36	●
1588UL30C-0370	✻	3,7	6	176	136	124	36	○
1588UL30C-0380	✻	3,8	6	176	136	124	36	●
1588UL30C-0390	✻	3,9	6	176	136	124	36	●
1588UL30C-0400	✻	4	6	176	136	124	36	●
1588UL30C-0410	✻	4,1	6	192	152	140	36	○
1588UL30C-0420	✻	4,2	6	192	152	140	36	●
1588UL30C-0430	✻	4,3	6	192	152	140	36	○
1588UL30C-0440	✻	4,4	6	192	152	140	36	○
1588UL30C-0450	✻	4,5	6	192	152	140	36	●
1588UL30C-0460	✻	4,6	6	208	168	156	36	○
1588UL30C-0470	✻	4,7	6	208	168	156	36	○
1588UL30C-0480	✻	4,8	6	208	168	156	36	●
1588UL30C-0490	✻	4,9	6	208	168	156	36	●
1588UL30C-0500	✻	5	6	208	168	156	36	●
1588UL30C-0510	✻	5,1	6	228	188	170	36	●
1588UL30C-0520	✻	5,2	6	228	188	170	36	●
1588UL30C-0530	✻	5,3	6	228	188	170	36	○
1588UL30C-0540	✻	5,4	6	228	188	170	36	○
1588UL30C-0550	✻	5,5	6	228	188	170	36	●
1588UL30C-0560	✻	5,6	6	240	200	182	36	○
1588UL30C-0570	✻	5,7	6	240	200	182	36	○
1588UL30C-0580	✻	5,8	6	240	200	182	36	○
1588UL30C-0590	✻	5,9	6	240	200	182	36	○
1588UL30C-0600	✻	6	6	240	200	182	36	●
1588UL30C-0610	✻	6,1	8	260	220	202	36	○
1588UL30C-0620	✻	6,2	8	260	220	202	36	●
1588UL30C-0630	✻	6,3	8	260	220	202	36	●
1588UL30C-0640	✻	6,4	8	260	220	202	36	●
1588UL30C-0650	✻	6,5	8	260	220	202	36	●
1588UL30C-0660	✻	6,6	8	272	232	214	36	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable

UL drill 30xD

General machining

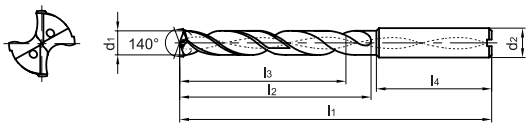
1588UL30C



– Type of shank: DIN 6535HA
– Coolant exit, axial concentric



Internal cooling



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1588UL30C-0670	✻	6,7	8	272	232	214	36	○
1588UL30C-0680	✻	6,8	8	272	232	214	36	●
1588UL30C-0690	✻	6,9	8	272	232	214	36	○
1588UL30C-0700	✻	7	8	272	232	214	36	●
1588UL30C-0710	✻	7,1	8	290	250	232	36	○
1588UL30C-0720	✻	7,2	8	290	250	232	36	○
1588UL30C-0730	✻	7,3	8	290	250	232	36	○
1588UL30C-0740	✻	7,4	8	290	250	232	36	○
1588UL30C-0750	✻	7,5	8	290	250	232	36	●
1588UL30C-0760	✻	7,6	8	305	265	246	36	○
1588UL30C-0770	✻	7,7	8	305	265	246	36	○
1588UL30C-0780	✻	7,8	8	305	265	246	36	○
1588UL30C-0790	✻	7,9	8	305	265	246	36	○
1588UL30C-0800	✻	8	8	305	265	246	36	●
1588UL30C-0810	✻	8,1	10	330	285	265	40	○
1588UL30C-0820	✻	8,2	10	330	285	265	40	○
1588UL30C-0830	✻	8,3	10	330	285	265	40	○
1588UL30C-0840	✻	8,4	10	330	285	265	40	○
1588UL30C-0850	✻	8,5	10	330	285	265	40	●
1588UL30C-0860	✻	8,6	10	340	295	275	40	●
1588UL30C-0870	✻	8,7	10	340	295	275	40	○
1588UL30C-0880	✻	8,8	10	340	295	275	40	○
1588UL30C-0890	✻	8,9	10	340	295	275	40	○
1588UL30C-0900	✻	9	10	340	295	275	40	●
1588UL30C-0910	✻	9,1	10	360	315	292	40	○
1588UL30C-0920	✻	9,2	10	360	315	292	40	○
1588UL30C-0930	✻	9,3	10	360	315	292	40	○
1588UL30C-0940	✻	9,4	10	360	315	292	40	○
1588UL30C-0950	✻	9,5	10	360	315	292	40	○
1588UL30C-0960	✻	9,6	10	372	328	305	40	○
1588UL30C-0970	✻	9,7	10	372	328	305	40	○
1588UL30C-0980	✻	9,8	10	372	328	305	40	○
1588UL30C-0990	✻	9,9	10	372	328	305	40	○
1588UL30C-1000	✻	10	10	372	328	305	40	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔			✔	

✔ Very suitable
✔ Suitable



UL solid carbide deep hole drills

Solid carbide drills

System code – solid carbide drills

1	5	3	6	SU	05	(C)	–	0850	(S)
1	2	3	4	5	6	7		8	9

Type	
Code	Description
1	Forets

1

Shank type	
Code	Description
1	Straight shank
2	Square shank DIN 10
3	Double flattened straight shank DIN 1809
5	Straight shank DIN 6535 HA
6	Weldon shank DIN 6535 HB
7	Whistle Notch shank DIN 6535 HE
9	Morse taper shank

2

Drill type	
Code	Description
0	Twist drill
3	Universal twist drill
4	NC tapping device
5	Step drill
6	Three-lips drill
7	Straight flute drill
8	Deep hole drill

3

Tool length	
Code	Description
1	DIN 338
2	DIN 1897
3	QJ/ZZQ(TO)01.001.002
4	DIN 6537 K
5	DIN 6539
6	DIN 6537 L
7	Factory standard ZCC-C
8	Factory standard ZCC-D
9	Factory standard ZCC-E

4

Application	
Code	Description
FD	Flat drills with 180° for any application
UD	Twist drills for tough materials
GD	Twist drills for high feeds
SU	Twist drill for general machining
SUK	Twist drill for cast iron
SL	Twist drill for deep hole drilling
SLK	Deep hole drill for cast iron
SP	Pilot drill
SH	Twist drill for hardened materials
SC	Twist drill for non-ferrous metals and cast iron
PA	Three-lips drill for non-ferrous metals and cast iron
PC	Straight flute drill for non-ferrous metals and cast iron

5

L/D relation		Angle	
Drill		NC tapping device	
Code	Description	Code	Description
03	3 x D	**90**	90°
05	5 x D	**120**	120°
08	8 x D		
10	10 x D		
12	12 x D		
15	15 x D		
20	20 x D		
30	30 x D		

6

With inner cooling

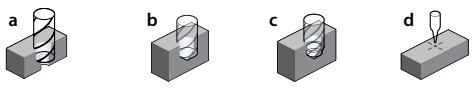
7

Bore diameter [mm]	
Code	Description
0200	2,0
0850	8,5
1800	18,0
...	

8

Shank diameter [mm]	
Code	Description
S	4,0

9



a Boring **b** Drilling **c** Profile drilling **d** Centering

FD flat drills

180° solid carbide drills for any application

YOUR BENEFITS

– Particularly well suited for creating spot faces efficiently
– Possible to drill holes in inclined surfaces up to 55° with no pre-milling
– **Reduced burr formation** in drilling applications involved thin components
– **Universal tool** for all materials

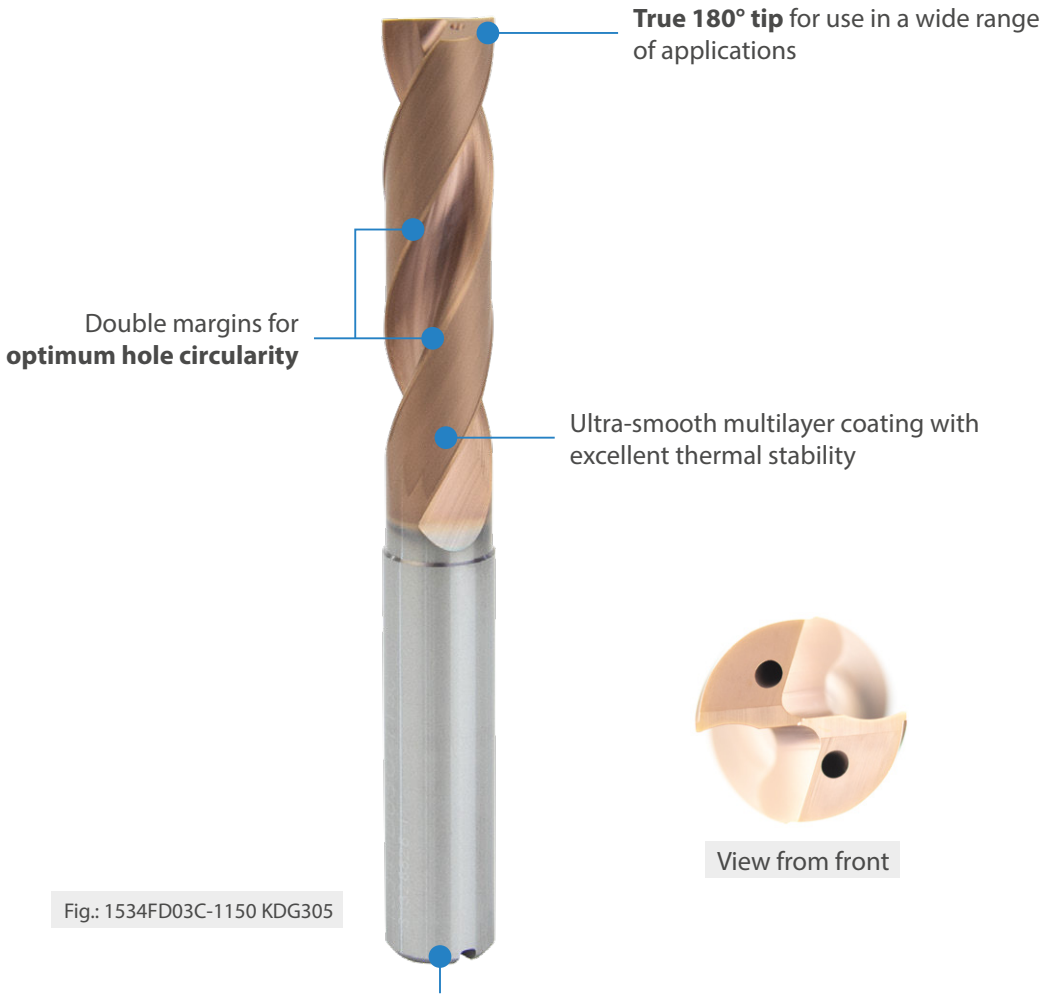


Fig.: 1534FD03C-1150 KDG305

Feed calculator

ISO group	Material	Cutting speed v_c (m/min)	Feed factor F_m
P	Low-alloy steel	80	0,015
P	High-alloy steel	60	0,012
K	Cast iron	80	0,015
K	Cast steel	60	0,015
M	Stainless steel	45	0,01
N	Aluminium	120	0,02

Formula: feed per revolution (F_n) $D \times F_m$
Example: drill diameter (D) 10 mm
material aluminium

$$F_n = 10\ mm \times 0{,}02 = 0{,}2\ mm/r$$

Reduce the feed rate by the following factor with inclined holes:

Angle	Feed rate multiplier
5°–30°	0,75
35°–50°	0,50

Formula: feed per revolution (F_n) $D \times F_m \times$ multiplier
Example: drill diameter (D) 10 mm
material aluminium
drilling angle 30°

$$F_n = 10\ mm \times 0{,}02 \times 0{,}75 = 0{,}15\ mm/r$$

Your notes

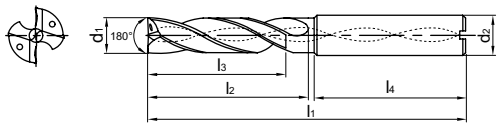
FD drill 3xD General machining



– Type of shank DIN 6535HA
– Coolant exit, axial concentric



Internal coolant



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1534FD03C-0300	✻	3	6	62	20	14	36	●
1534FD03C-0350	✻	3.5	6	62	20	14	36	○
1534FD03C-0400	✻	4	6	66	24	17	36	●
1534FD03C-0450	✻	4.5	6	66	24	17	36	○
1534FD03C-0500	✻	5	6	66	28	20	36	●
1534FD03C-0550	✻	5.5	6	66	28	20	36	○
1534FD03C-0600	✻	6	6	66	28	20	36	●
1534FD03C-0650	✻	6.5	8	79	34	24	36	●
1534FD03C-0700	✻	7	8	79	34	24	36	●
1534FD03C-0750	✻	7.5	8	79	41	29	36	○
1534FD03C-0800	✻	8	8	79	41	29	36	●
1534FD03C-0850	✻	8.5	10	89	47	35	40	○
1534FD03C-0900	✻	9	10	89	47	35	40	●
1534FD03C-0950	✻	9.5	10	89	47	35	40	○
1534FD03C-1000	✻	10	10	89	47	35	40	●
1534FD03C-1050	✻	10.5	12	102	55	40	45	○
1534FD03C-1100	✻	11	12	102	55	40	45	●
1534FD03C-1150	✻	11.5	12	102	55	40	45	○
1534FD03C-1200	✻	12	12	102	55	40	45	●
1534FD03C-1250	✻	12.5	14	107	60	43	45	○
1534FD03C-1300	✻	13	14	107	60	43	45	●
1534FD03C-1350	✻	13.5	14	107	60	43	45	○
1534FD03C-1400	✻	14	14	107	60	43	45	●
1534FD03C-1450	✻	14.5	16	115	65	45	48	○
1534FD03C-1500	✻	15	16	115	65	45	48	●
1534FD03C-1550	✻	15.5	16	115	65	45	48	○
1534FD03C-1600	✻	16	16	115	65	45	48	●
1534FD03C-1650	✻	16.5	18	123	73	51	48	○
1534FD03C-1700	✻	17	18	123	73	51	48	●
1534FD03C-1750	✻	17.5	18	123	73	51	48	○
1534FD03C-1800	✻	18	18	123	73	51	48	●
1534FD03C-1850	✻	18.5	20	131	79	55	50	○
1534FD03C-1900	✻	19	20	131	79	55	50	●
1534FD03C-1950	✻	19.5	20	131	79	55	50	○
1534FD03C-2000	✻	20	20	131	79	55	50	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔	✔	✔		

✔ Very suitable
✔ Suitable

Solid carbide drills

System code – solid carbide drills

1	5	3	6	SU	05	(C)	–	0850	(S)
1	2	3	4	5	6	7		8	9

Type	
Code	Description
1	Forets

1

Shank type	
Code	Description
1	Straight shank
2	Square shank DIN 10
3	Double flattened straight shank DIN 1809
5	Straight shank DIN 6535 HA
6	Weldon shank DIN 6535 HB
7	Whistle Notch shank DIN 6535 HE
9	Morse taper shank

2

Drill type	
Code	Description
0	Twist drill
3	Universal twist drill
4	NC tapping device
5	Step drill
6	Three-lips drill
7	Straight flute drill
8	Deep hole drill

3

Tool length	
Code	Description
1	DIN 338
2	DIN 1897
3	QJ/ZZQ(TO)01.001.002
4	DIN 6537 K
5	DIN 6539
6	DIN 6537 L
7	Factory standard ZCC-C
8	Factory standard ZCC-D
9	Factory standard ZCC-E

4

Application	
Code	Description
UD	Twist drills for tough materials
GD	Twist drills for high feeds
SU	Twist drill for general machining
SUK	Twist drill for cast iron
SL	Twist drill for deep hole drilling
SLK	Deep hole drill for cast iron
SP	Pilot drill
SH	Twist drill for hardened materials
SC	Twist drill for non-ferrous metals and cast iron
PA	Three-lips drill for non-ferrous metals and cast iron
PC	Straight flute drill for non-ferrous metals and cast iron

5

L/D relation		Angle	
Drill		NC tapping device	
Code	Description	Code	Description
03	3 x D	**90**	90°
05	5 x D	**120**	120°
08	8 x D		
10	10 x D		
12	12 x D		
15	15x D		
20	20 x D		
30	30 x D		

6

With inner cooling

7

Bore diameter [mm]	
Code	Description
0200	2,0
0850	8,5
1800	18,0
...	

8

Shank diameter [mm]	
Code	Description
S	4,0

9



a Boring **b** Drilling **c** Profile drilling **d** Centering

UD series

Solid carbide drills for difficult-to-machine materials

Now available in diameters of 1.0 mm and higher with internal cooling New

YOUR BENEFITS

– Minimal cutting forces thanks to new cutting edge design
– Larger clearance angle for higher productivity
– Enhanced chip breaking for optimal process reliability



Fig.: 1536UD05C-0230 KDG305

Diameter range: 1,0–20,0 mm (3xD, 5xD)

Feed calculator

ISO group	Material	Cutting speed v_c (m/min)	Feed factor F_m
M	Stainless steels	80	0,02
S	Ni- / Co-based alloys	40	0,01
S	Titanium alloys	60	0,012

Formula:	feed per revolution (F_n)	$D \times F_m$
Example:	drill diameter (D)	10 mm
	material	stainless steel

$$F_n = 10\ mm \times 0{,}02 = 0{,}2\ mm/r$$

UD drill 3xD

Stainless steel, heat-resistant alloys

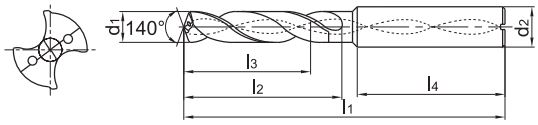
1534UD03C New



– Shank type: DIN 6535HA
– Coolant exit, axial concentric



Internal coolant



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1534UD03C-0100XS	✻	1	3	45	6	4	37	○
1534UD03C-0110XS	✻	1,1	3	45	6,5	4	36,5	○
1534UD03C-0120XS	✻	1,2	3	45	7	5	36	○
1534UD03C-0130XS	✻	1,3	3	45	8	5	35	○
1534UD03C-0140XS	✻	1,4	3	45	8,5	5	34,5	○
1534UD03C-0150XS	✻	1,5	3	50	9	6	39	○
1534UD03C-0160S	✻	1,6	4	50	9,5	6	38,5	●
1534UD03C-0170S	✻	1,7	4	50	10	6	38	●
1534UD03C-0180S	✻	1,8	4	50	11	7	37	●
1534UD03C-0190S	✻	1,9	4	50	11,5	7	36,5	●
1534UD03C-0200S	✻	2	4	50	12	8	36	●
1534UD03C-0210S	✻	2,1	4	55	12,5	8	40,5	●
1534UD03C-0220S	✻	2,2	4	55	13	9	40	●
1534UD03C-0230S	✻	2,3	4	55	14	9	39	●
1534UD03C-0240S	✻	2,4	4	55	14,5	10	38,5	●
1534UD03C-0250S	✻	2,5	4	55	15	10	38	●
1534UD03C-0260S	✻	2,6	4	55	15,5	10	37,5	●
1534UD03C-0270S	✻	2,7	4	55	16	11	37	●
1534UD03C-0280S	✻	2,8	4	55	17	11	36	●
1534UD03C-0290S	✻	2,9	4	55	17,5	12	35,5	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

Type	P	M	K	N	S	H
1534UD*	✔	✔			✔	

✔ Very suitable
✔ Suitable

UD drill 3xD

Stainless steel, heat-resistant alloys

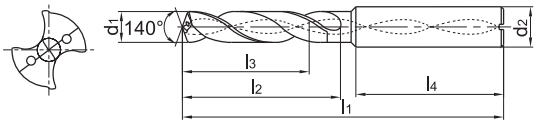
1534UD03C



– Shank type: DIN 6535HA
– Coolant exit, axial concentric



Internal coolant



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1534UD03C-0300	✻	3	6	62	20	14	36	●
1534UD03C-0310	✻	3,1	6	62	20	14	36	●
1534UD03C-0320	✻	3,2	6	62	20	14	36	●
1534UD03C-0330	✻	3,3	6	62	20	14	36	●
1534UD03C-0340	✻	3,4	6	62	20	14	36	●
1534UD03C-0350	✻	3,5	6	62	20	14	36	●
1534UD03C-0360	✻	3,6	6	62	20	14	36	●
1534UD03C-0370	✻	3,7	6	62	20	14	36	●
1534UD03C-0380	✻	3,8	6	66	24	17	36	●
1534UD03C-0390	✻	3,9	6	66	24	17	36	●
1534UD03C-0400	✻	4	6	66	24	17	36	●
1534UD03C-0410	✻	4,1	6	66	24	17	36	●
1534UD03C-0420	✻	4,2	6	66	24	17	36	●
1534UD03C-0430	✻	4,3	6	66	24	17	36	●
1534UD03C-0440	✻	4,4	6	66	24	17	36	●
1534UD03C-0450	✻	4,5	6	66	24	17	36	●
1534UD03C-0460	✻	4,6	6	66	24	17	36	●
1534UD03C-0465	✻	4,65	6	66	24	17	36	●
1534UD03C-0470	✻	4,7	6	66	24	17	36	●
1534UD03C-0480	✻	4,8	6	66	28	20	36	●
1534UD03C-0490	✻	4,9	6	66	28	20	36	●
1534UD03C-0500	✻	5	6	66	28	20	36	●
1534UD03C-0510	✻	5,1	6	66	28	20	36	●
1534UD03C-0520	✻	5,2	6	66	28	20	36	●
1534UD03C-0530	✻	5,3	6	66	28	20	36	●
1534UD03C-0540	✻	5,4	6	66	28	20	36	●
1534UD03C-0550	✻	5,5	6	66	28	20	36	●
1534UD03C-0560	✻	5,6	6	66	28	20	36	●
1534UD03C-0570	✻	5,7	6	66	28	20	36	●
1534UD03C-0580	✻	5,8	6	66	28	20	36	●
1534UD03C-0590	✻	5,9	6	66	28	20	36	●
1534UD03C-0600	✻	6	6	66	28	20	36	●
1534UD03C-0610	✻	6,1	8	79	34	24	36	●
1534UD03C-0620	✻	6,2	8	79	34	24	36	●
1534UD03C-0630	✻	6,3	8	79	34	24	36	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

Type	P	M	K	N	S	H
1534UD*	✔	✔			✔	

✔ Very suitable
✔ Suitable

UD drill 3xD

Stainless steel, heat-resistant alloys

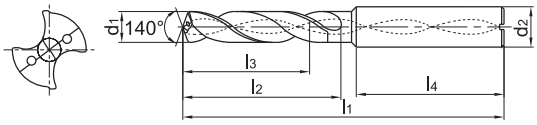
1534UD03C



– Shank type: DIN 6535HA
– Coolant exit, axial concentric



Internal coolant



Article	✻	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1534UD03C-0640	✻	6,4	8	79	34	24	36	●
1534UD03C-0650	✻	6,5	8	79	34	24	36	●
1534UD03C-0660	✻	6,6	8	79	34	24	36	●
1534UD03C-0670	✻	6,7	8	79	34	24	36	●
1534UD03C-0680	✻	6,8	8	79	34	24	36	●
1534UD03C-0690	✻	6,9	8	79	34	24	36	●
1534UD03C-0700	✻	7	8	79	34	24	36	●
1534UD03C-0710	✻	7,1	8	79	41	29	36	●
1534UD03C-0720	✻	7,2	8	79	41	29	36	●
1534UD03C-0730	✻	7,3	8	79	41	29	36	●
1534UD03C-0740	✻	7,4	8	79	41	29	36	●
1534UD03C-0750	✻	7,5	8	79	41	29	36	●
1534UD03C-0760	✻	7,6	8	79	41	29	36	●
1534UD03C-0770	✻	7,7	8	79	41	29	36	●
1534UD03C-0780	✻	7,8	8	79	41	29	36	●
1534UD03C-0790	✻	7,9	8	79	41	29	36	●
1534UD03C-0800	✻	8	8	79	41	29	36	●
1534UD03C-0810	✻	8,1	10	89	47	35	40	●
1534UD03C-0820	✻	8,2	10	89	47	35	40	●
1534UD03C-0830	✻	8,3	10	89	47	35	40	●
1534UD03C-0840	✻	8,4	10	89	47	35	40	●
1534UD03C-0850	✻	8,5	10	89	47	35	40	●
1534UD03C-0860	✻	8,6	10	89	47	35	40	●
1534UD03C-0870	✻	8,7	10	89	47	35	40	●
1534UD03C-0880	✻	8,8	10	89	47	35	40	●
1534UD03C-0890	✻	8,9	10	89	47	35	40	●
1534UD03C-0900	✻	9	10	89	47	35	40	●
1534UD03C-0910	✻	9,1	10	89	47	35	40	●
1534UD03C-0920	✻	9,2	10	89	47	35	40	●
1534UD03C-0930	✻	9,3	10	89	47	35	40	●
1534UD03C-0940	✻	9,4	10	89	47	35	40	●
1534UD03C-0950	✻	9,5	10	89	47	35	40	●
1534UD03C-0960	✻	9,6	10	89	47	35	40	●
1534UD03C-0970	✻	9,7	10	89	47	35	40	●
1534UD03C-0980	✻	9,8	10	89	47	35	40	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

Type	P	M	K	N	S	H
1534UD*	✔	✔			✔	

✔ Very suitable
✔ Suitable

UD drill 3xD

Stainless steel, heat-resistant alloys

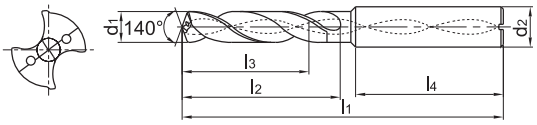
1534UD03C



– Shank type: DIN 6535HA
– Coolant exit, axial concentric



Internal coolant



Article	✲	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1534UD03C-0990	✲	9,9	10	89	47	35	40	●
1534UD03C-1000	✲	10	10	89	47	35	40	●
1534UD03C-1020	✲	10,2	12	102	55	40	45	●
1534UD03C-1050	✲	10,5	12	102	55	40	45	●
1534UD03C-1100	✲	11	12	102	55	40	45	●
1534UD03C-1150	✲	11,5	12	102	55	40	45	●
1534UD03C-1200	✲	12	12	102	55	40	45	●
1534UD03C-1250	✲	12,5	14	107	60	43	45	●
1534UD03C-1300	✲	13	14	107	60	43	45	●
1534UD03C-1350	✲	13,5	14	107	60	43	45	●
1534UD03C-1400	✲	14	14	107	60	43	45	●
1534UD03C-1450	✲	14,5	16	115	65	45	48	●
1534UD03C-1500	✲	15	16	115	65	45	48	●
1534UD03C-1550	✲	15,5	16	115	65	45	48	●
1534UD03C-1600	✲	16	16	115	65	45	48	●
1534UD03C-1650	✲	16,5	18	123	73	51	48	●
1534UD03C-1700	✲	17	18	123	73	51	48	●
1534UD03C-1750	✲	17,5	18	123	73	51	48	●
1534UD03C-1800	✲	18	18	123	73	51	48	●
1534UD03C-1850	✲	18,5	20	131	79	55	50	●
1534UD03C-1900	✲	19	20	131	79	55	50	●
1534UD03C-1950	✲	19,5	20	131	79	55	50	●
1534UD03C-2000	✲	20	20	131	79	55	50	●

● Ex stock ○ On demand
✲ With internal cooling

Application field

Type	P	M	K	N	S	H
1534UD*	✔	✔			✔	

✔ Very suitable
✔ Suitable

UD drill 3xD

Stainless steel, heat-resistant alloys

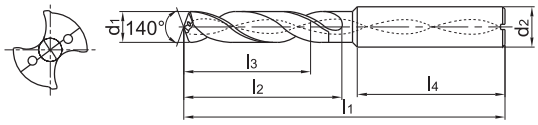
1536UD05C New



– Shank type: DIN 6535HA
– Coolant exit, axial concentric



Internal coolant



Article	✲	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1536UD05C-0100XS	✲	1	3	45	8	6	35	○
1536UD05C-0110XS	✲	1,1	3	45	9	7	34	○
1536UD05C-0120XS	✲	1,2	3	45	9,5	7	33,5	○
1536UD05C-0130XS	✲	1,3	3	45	10,5	8	32,5	○
1536UD05C-0140XS	✲	1,4	3	45	11	8	32	○
1536UD05C-0150XS	✲	1,5	3	50	12	9	36	○
1536UD05C-0160S	✲	1,6	4	50	13	10	35	●
1536UD05C-0170S	✲	1,7	4	50	13,5	10	34,5	●
1536UD05C-0180S	✲	1,8	4	50	14,5	11	33,5	●
1536UD05C-0190S	✲	1,9	4	50	15	11	33	●
1536UD05C-0200S	✲	2	4	50	16	12	32	●
1536UD05C-0210S	✲	2,1	4	55	17	13	36	●
1536UD05C-0220S	✲	2,2	4	55	17,5	13	35,5	●
1536UD05C-0230S	✲	2,3	4	55	18,5	14	34,5	●
1536UD05C-0240S	✲	2,4	4	55	19	14	34	●
1536UD05C-0250S	✲	2,5	4	55	20	15	33	●
1536UD05C-0260S	✲	2,6	4	55	21	16	32	●
1536UD05C-0270S	✲	2,7	4	55	21,5	16	31,5	●
1536UD05C-0280S	✲	2,8	4	55	22,5	17	30,5	●
1536UD05C-0290S	✲	2,9	4	55	23	17	30	●

● Ex stock ○ On demand
✲ With internal cooling

Application field

Type	P	M	K	N	S	H
1536UD*	✔	✔			✔	

✔ Very suitable
✔ Suitable

UD drill 3xD

Stainless steel, heat-resistant alloys

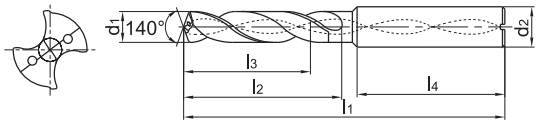
1536UD05C



– Shank type: DIN 6535HA
– Coolant exit, axial concentric



Internal coolant



Article	✲	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1536UD05C-0300	✲	3	6	66	28	23	36	●
1536UD05C-0310	✲	3,1	6	66	28	23	36	●
1536UD05C-0320	✲	3,2	6	66	28	23	36	●
1536UD05C-0330	✲	3,3	6	66	28	23	36	●
1536UD05C-0340	✲	3,4	6	66	28	23	36	●
1536UD05C-0350	✲	3,5	6	66	28	23	36	●
1536UD05C-0360	✲	3,6	6	66	28	23	36	●
1536UD05C-0370	✲	3,7	6	66	28	23	36	●
1536UD05C-0380	✲	3,8	6	74	36	29	36	●
1536UD05C-0390	✲	3,9	6	74	36	29	36	●
1536UD05C-0400	✲	4	6	74	36	29	36	●
1536UD05C-0410	✲	4,1	6	74	36	29	36	●
1536UD05C-0420	✲	4,2	6	74	36	29	36	●
1536UD05C-0430	✲	4,3	6	74	36	29	36	●
1536UD05C-0440	✲	4,4	6	74	36	29	36	●
1536UD05C-0450	✲	4,5	6	74	36	29	36	●
1536UD05C-0460	✲	4,6	6	74	36	29	36	●
1536UD05C-0465	✲	4,65	6	74	36	29	36	●
1536UD05C-0470	✲	4,7	6	74	36	29	36	●
1536UD05C-0480	✲	4,8	6	82	44	35	36	●
1536UD05C-0490	✲	4,9	6	82	44	35	36	●
1536UD05C-0500	✲	5	6	82	44	35	36	●
1536UD05C-0510	✲	5,1	6	82	44	35	36	●
1536UD05C-0520	✲	5,2	6	82	44	35	36	●
1536UD05C-0530	✲	5,3	6	82	44	35	36	●
1536UD05C-0540	✲	5,4	6	82	44	35	36	●
1536UD05C-0550	✲	5,5	6	82	44	35	36	●
1536UD05C-0560	✲	5,6	6	82	44	35	36	●
1536UD05C-0570	✲	5,7	6	82	44	35	36	●
1536UD05C-0580	✲	5,8	6	82	44	35	36	●
1536UD05C-0590	✲	5,9	6	82	44	35	36	●
1536UD05C-0600	✲	6	6	82	44	35	36	●
1536UD05C-0610	✲	6,1	8	91	53	43	36	●
1536UD05C-0620	✲	6,2	8	91	53	43	36	●
1536UD05C-0630	✲	6,3	8	91	53	43	36	●

● Ex stock ○ On demand
✲ With internal cooling

Application field

Type	P	M	K	N	S	H
1536UD*	✔	✔			✔	

✔ Very suitable
✔ Suitable

UD drill 3xD

Stainless steel, heat-resistant alloys

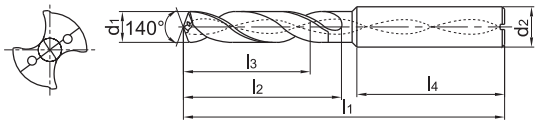
1536UD05C



– Shank type: DIN 6535HA
– Coolant exit, axial concentric



Internal coolant



Article	✲	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1536UD05C-0640	✲	6,4	8	91	53	43	36	●
1536UD05C-0650	✲	6,5	8	91	53	43	36	●
1536UD05C-0660	✲	6,6	8	91	53	43	36	●
1536UD05C-0670	✲	6,7	8	91	53	43	36	●
1536UD05C-0680	✲	6,8	8	91	53	43	36	●
1536UD05C-0690	✲	6,9	8	91	53	43	36	●
1536UD05C-0700	✲	7	8	91	53	43	36	●
1536UD05C-0710	✲	7,1	8	91	53	43	36	●
1536UD05C-0720	✲	7,2	8	91	53	43	36	●
1536UD05C-0730	✲	7,3	8	91	53	43	36	●
1536UD05C-0740	✲	7,4	8	91	53	43	36	●
1536UD05C-0750	✲	7,5	8	91	53	43	36	●
1536UD05C-0760	✲	7,6	8	91	53	43	36	●
1536UD05C-0770	✲	7,7	8	91	53	43	36	●
1536UD05C-0780	✲	7,8	8	91	53	43	36	●
1536UD05C-0790	✲	7,9	8	91	53	43	36	●
1536UD05C-0800	✲	8	8	91	53	43	36	●
1536UD05C-0810	✲	8,1	10	103	61	49	40	●
1536UD05C-0820	✲	8,2	10	103	61	49	40	●
1536UD05C-0830	✲	8,3	10	103	61	49	40	●
1536UD05C-0840	✲	8,4	10	103	61	49	40	●
1536UD05C-0850	✲	8,5	10	103	61	49	40	●
1536UD05C-0860	✲	8,6	10	103	61	49	40	●
1536UD05C-0870	✲	8,7	10	103	61	49	40	●
1536UD05C-0880	✲	8,8	10	103	61	49	40	●
1536UD05C-0890	✲	8,9	10	103	61	49	40	●
1536UD05C-0900	✲	9	10	103	61	49	40	●
1536UD05C-0910	✲	9,1	10	103	61	49	40	●
1536UD05C-0920	✲	9,2	10	103	61	49	40	●
1536UD05C-0930	✲	9,3	10	103	61	49	40	●
1536UD05C-0940	✲	9,4	10	103	61	49	40	●
1536UD05C-0950	✲	9,5	10	103	61	49	40	●
1536UD05C-0960	✲	9,6	10	103	61	49	40	●
1536UD05C-0970	✲	9,7	10	103	61	49	40	●
1536UD05C-0980	✲	9,8	10	103	61	49	40	●

● Ex stock ○ On demand
✲ With internal cooling

Application field

Type	P	M	K	N	S	H
1536UD*	✔	✔			✔	

✔ Very suitable
✔ Suitable

UD drill 3xD

Stainless steel, heat-resistant alloys

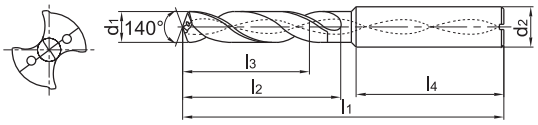
1536UD05C



– Shank type: DIN 6535HA
– Coolant exit, axial concentric



Internal coolant



Article	✲	Dimensions [mm]						Grade
		d_1 (m7)	d_2 (h6)	l_1	l_2	l_3	l_4	KDG305
1536UD05C-0990	✲	9,9	10	103	61	49	40	●
1536UD05C-1000	✲	10	10	103	61	49	40	●
1536UD05C-1020	✲	10,2	12	118	71	56	45	●
1536UD05C-1050	✲	10,5	12	118	71	56	45	●
1536UD05C-1100	✲	11	12	118	71	56	45	●
1536UD05C-1150	✲	11,5	12	118	71	56	45	●
1536UD05C-1200	✲	12	12	118	71	56	45	●
1536UD05C-1250	✲	12,5	14	124	77	60	45	●
1536UD05C-1300	✲	13	14	124	77	60	45	●
1536UD05C-1350	✲	13,5	14	124	77	60	45	●
1536UD05C-1400	✲	14	14	124	77	60	45	●
1536UD05C-1450	✲	14,5	16	133	83	63	48	●
1536UD05C-1500	✲	15	16	133	83	63	48	●
1536UD05C-1550	✲	15,5	16	133	83	63	48	●
1536UD05C-1600	✲	16	16	133	83	63	48	●
1536UD05C-1650	✲	16,5	18	143	93	71	48	●
1536UD05C-1700	✲	17	18	143	93	71	48	●
1536UD05C-1750	✲	17,5	18	143	93	71	48	●
1536UD05C-1800	✲	18	18	143	93	71	48	●
1536UD05C-1850	✲	18,5	20	153	101	77	50	●
1536UD05C-1900	✲	19	20	153	101	77	50	●
1536UD05C-1950	✲	19,5	20	153	101	77	50	●
1536UD05C-2000	✲	20	20	153	101	77	50	●

● Ex stock ○ On demand
✲ With internal cooling

Application field

Type	P	M	K	N	S	H
1536UD*	✔	✔			✔	

✔ Very suitable
✔ Suitable

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