SELECTION

Solid carbide drilling for general applications

from the CERATIZIT CoreLine

CERATIZIT is a high-technology engineering group specialised in cutting tools and hard material solutions.

Tooling a Sustainable Future

ceratizit.com

CERATIZIT GROUP

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Symbol explanation

Shank


Plain cylindrical shank


Cylindrical shank with lateral driving face „Weldon“


Cylindrical shank with lateral driving face
(similar to ISO 9766)

Version


Int. coolant supply


self-centering

● = **Main Application**

○ = Extended application

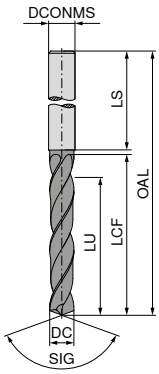
Overview Solid Carbide Drills

	Product name	Tool type	Boring depth	Diameter in mm Ø DC	Steel P	Stainless steel M	Cast iron K	Non-ferrous metals N	Heat-resistant S	Tempered steel H	Non metal materials O	coated ■	uncoated □	Page No.
High performance drills without thro' coolant														
	WPC	UNI	≤ 3xD	1 – 20	●		●					■		4–7
	WPC	VA	≤ 3xD	1 – 20	○	●		○	○		○	■		4–7
	WPC	UNI	≤ 5xD	3 – 20	●		●					■		12–14
High performance drills with thro' coolant														
	WPC	UNI	≤ 3xD	1 – 20	●	●	●	○				■		8–11
	WPC	VA	≤ 3xD	1 – 20	○	●		●	○		○	■		8–11
	WPC	UNI	≤ 5xD	1 – 20	●	●	●	○				■		15–18
	WPC	VA	≤ 5xD	1 – 20	○	●		●	○		○	■		15–18
	WPC	UNI	≤ 8xD	3 – 20	●	●	●					■		19–21
	WPC	UNI	≤ 12xD	3 – 20	●	●	●					■		22–24
Drill with replaceable cutting heads														
Replaceable cutting heads														
	WPC	Change UNI		14 – 30	●		●					■		25
Tool holder														
	WPC	Change		14 – 30								3xD / 5xD		26

WPC – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



UNI | TiAlN

SIG 140°
Solid carbide

11 706 ...

UNI | TiAlN

SIG 140°
Solid carbide

11 707 ...

VA | TiAlN

SIG 140°
Solid carbide

11 711 ...

VA | TiAlN

SIG 140°
Solid carbide

11 712 ...

DC $_{m7}$ mm	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	£ T1/9C		£ T1/9C		£ T1/9C		£ T1/9C	
1.00	4	45	7	5.5	28	29.17	**01000**			33.40	**01000**		
1.10	4	45	7	5.3	28	29.17	**01100**			33.40	**01100**		
1.20	4	45	7	5.2	28	29.17	**01200**			33.40	**01200**		
1.30	4	45	7	5.0	28	29.17	**01300**			33.40	**01300**		
1.40	4	45	7	4.9	28	29.17	**01400**			33.40	**01400**		
1.50	4	55	14	11.7	28	29.17	**01500**			33.40	**01500**		
1.60	4	55	14	11.6	28	29.17	**01600**			33.40	**01600**		
1.70	4	55	14	11.4	28	29.17	**01700**			33.40	**01700**		
1.80	4	55	14	11.3	28	29.17	**01800**			33.40	**01800**		
1.90	4	55	14	11.1	28	29.17	**01900**			33.40	**01900**		
2.00	4	55	20	17.0	28	26.64	**02000**			30.43	**02000**		
2.10	4	55	20	16.8	28	26.64	**02100**			30.43	**02100**		
2.20	4	55	20	16.7	28	26.64	**02200**			30.43	**02200**		
2.30	4	55	20	16.5	28	26.64	**02300**			30.43	**02300**		
2.40	4	55	20	16.4	28	26.64	**02400**			30.43	**02400**		
2.50	4	55	20	16.2	28	26.64	**02500**			30.43	**02500**		
2.60	4	55	20	16.1	28	26.64	**02600**			30.43	**02600**		
2.70	4	55	20	15.9	28	26.64	**02700**			30.43	**02700**		
2.80	4	55	20	15.8	28	26.64	**02800**			30.43	**02800**		
2.90	4	55	20	15.6	28	26.64	**02900**			30.43	**02900**		
3.00	6	62	20	14.0	36	25.38	**03000**	25.38	**03000**	29.50	**03000**	29.50	**03000**
3.10	6	62	20	14.0	36	25.38	**03100**	25.38	**03100**	29.50	**03100**	29.50	**03100**
3.20	6	62	20	14.0	36	25.38	**03200**	25.38	**03200**	29.50	**03200**	29.50	**03200**
3.25	6	62	20	14.0	36	25.38	**03250**	25.38	**03250**	29.50	**03250**	29.50	**03250**
3.30	6	62	20	14.0	36	25.38	**03300**	25.38	**03300**	29.50	**03300**	29.50	**03300**
3.40	6	62	20	14.0	36	25.38	**03400**	25.38	**03400**	29.50	**03400**	29.50	**03400**
3.50	6	62	20	14.0	36	25.38	**03500**	25.38	**03500**	29.50	**03500**	29.50	**03500**
3.60	6	62	20	14.0	36	25.38	**03600**	25.38	**03600**	29.50	**03600**	29.50	**03600**
3.70	6	62	20	14.0	36	25.38	**03700**	25.38	**03700**	29.50	**03700**	29.50	**03700**
3.80	6	66	24	17.0	36	25.38	**03800**	25.38	**03800**	29.50	**03800**	29.50	**03800**
3.90	6	66	24	17.0	36	25.38	**03900**	25.38	**03900**	29.50	**03900**	29.50	**03900**
4.00	6	66	24	17.0	36	25.38	**04000**	25.38	**04000**	29.50	**04000**	29.50	**04000**
4.10	6	66	24	17.0	36	25.38	**04100**	25.38	**04100**	29.50	**04100**	29.50	**04100**
4.20	6	66	24	17.0	36	25.38	**04200**	25.38	**04200**	29.50	**04200**	29.50	**04200**
4.30	6	66	24	17.0	36	25.38	**04300**	25.38	**04300**	29.50	**04300**	29.50	**04300**
4.40	6	66	24	17.0	36	25.38	**04400**	25.38	**04400**	29.50	**04400**	29.50	**04400**
4.50	6	66	24	17.0	36	25.38	**04500**	25.38	**04500**	29.50	**04500**	29.50	**04500**
4.60	6	66	24	17.0	36	25.38	**04600**	25.38	**04600**	29.50	**04600**	29.50	**04600**
4.65	6	66	24	17.0	36	25.38	**04650**	25.38	**04650**	29.50	**04650**	29.50	**04650**
4.70	6	66	24	17.0	36	25.38	**04700**	25.38	**04700**	29.50	**04700**	29.50	**04700**
4.80	6	66	28	20.0	36	25.38	**04800**	25.38	**04800**	29.50	**04800**	29.50	**04800**
4.90	6	66	28	20.0	36	25.38	**04900**	25.38	**04900**	29.50	**04900**	29.50	**04900**

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

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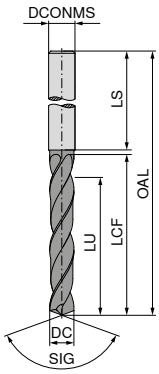
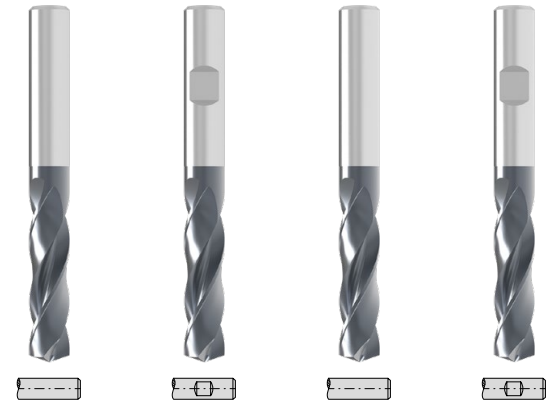
WPC – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



UNI	UNI	VA	VA
TiAlN	TiAlN	TiAlN	TiAlN



SIG 140°
Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 706 ... £ T1/9C		11 707 ... £ T1/9C		11 711 ... £ T1/9C		11 712 ... £ T1/9C	
5.00	6	66	28	20.0	36	25.38	05000	25.38	05000	29.50	05000	29.50	05000
5.10	6	66	28	20.0	36	25.38	05100	25.38	05100	29.50	05100	29.50	05100
5.20	6	66	28	20.0	36	25.38	05200	25.38	05200	29.50	05200	29.50	05200
5.30	6	66	28	20.0	36	25.38	05300	25.38	05300	29.50	05300	29.50	05300
5.40	6	66	28	20.0	36	25.38	05400	25.38	05400	29.50	05400	29.50	05400
5.50	6	66	28	20.0	36	25.38	05500	25.38	05500	29.50	05500	29.50	05500
5.55	6	66	28	20.0	36	25.38	05550	25.38	05550	29.50	05550	29.50	05550
5.60	6	66	28	20.0	36	25.38	05600	25.38	05600	29.50	05600	29.50	05600
5.65	6	66	28	20.0	36	25.38	05650	25.38	05650				
5.70	6	66	28	20.0	36	25.38	05700	25.38	05700	29.50	05700	29.50	05700
5.80	6	66	28	20.0	36	25.38	05800	25.38	05800	29.50	05800	29.50	05800
5.90	6	66	28	20.0	36	25.38	05900	25.38	05900	29.50	05900	29.50	05900
6.00	6	66	28	20.0	36	25.38	06000	25.38	06000	29.50	06000	29.50	06000
6.10	8	79	34	24.0	36	25.38	06100	25.38	06100	29.60	06100	29.60	06100
6.20	8	79	34	24.0	36	25.38	06200	25.38	06200	29.60	06200	29.60	06200
6.30	8	79	34	24.0	36	25.38	06300	25.38	06300	29.60	06300	29.60	06300
6.40	8	79	34	24.0	36	25.38	06400	25.38	06400	29.60	06400	29.60	06400
6.50	8	79	34	24.0	36	25.38	06500	25.38	06500	29.60	06500	29.60	06500
6.60	8	79	34	24.0	36	25.38	06600	25.38	06600	29.60	06600	29.60	06600
6.70	8	79	34	24.0	36	25.38	06700	25.38	06700	29.60	06700	29.60	06700
6.80	8	79	34	24.0	36	25.38	06800	25.38	06800	29.60	06800	29.60	06800
6.90	8	79	34	24.0	36	25.38	06900	25.38	06900	29.60	06900	29.60	06900
7.00	8	79	34	24.0	36	25.38	07000	25.38	07000	29.60	07000	29.60	07000
7.10	8	79	41	29.0	36	25.38	07100	25.38	07100	29.60	07100	29.60	07100
7.20	8	79	41	29.0	36	25.38	07200	25.38	07200	29.60	07200	29.60	07200
7.30	8	79	41	29.0	36	25.38	07300	25.38	07300	29.60	07300	29.60	07300
7.40	8	79	41	29.0	36	25.38	07400	25.38	07400	29.60	07400	29.60	07400
7.50	8	79	41	29.0	36	25.38	07500	25.38	07500	29.60	07500	29.60	07500
7.55	8	79	41	29.0	36	25.38	07550	25.38	07550				
7.60	8	79	41	29.0	36	25.38	07600	25.38	07600	29.60	07600	29.60	07600
7.65	8	79	41	29.0	36	25.38	07650	25.38	07650				
7.70	8	79	41	29.0	36	25.38	07700	25.38	07700	29.60	07700	29.60	07700
7.80	8	79	41	29.0	36	25.38	07800	25.38	07800	29.60	07800	29.60	07800
7.90	8	79	41	29.0	36	25.38	07900	25.38	07900	29.60	07900	29.60	07900
8.00	8	79	41	29.0	36	25.38	08000	25.38	08000	29.60	08000	29.60	08000
8.10	10	89	47	35.0	40	29.17	08100	29.17	08100	33.13	08100	33.13	08100
8.20	10	89	47	35.0	40	29.17	08200	29.17	08200	33.13	08200	33.13	08200
8.30	10	89	47	35.0	40	29.17	08300	29.17	08300	33.13	08300	33.13	08300
8.40	10	89	47	35.0	40	29.17	08400	29.17	08400	33.13	08400	33.13	08400
8.50	10	89	47	35.0	40	29.17	08500	29.17	08500	33.13	08500	33.13	08500
8.60	10	89	47	35.0	40	29.17	08600	29.17	08600	33.13	08600	33.13	08600
8.70	10	89	47	35.0	40	29.17	08700	29.17	08700	33.13	08700	33.13	08700

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

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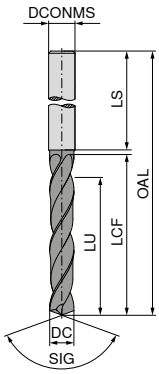
WPC – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



UNI | TiAlN

SIG 140°
Solid carbide

11 706 ...

UNI | TiAlN

SIG 140°
Solid carbide

11 707 ...

VA | TiAlN

SIG 140°
Solid carbide

11 711 ...

VA | TiAlN

SIG 140°
Solid carbide

11 712 ...

DC $_{m7}$ mm	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	£ T1/9C		£ T1/9C		£ T1/9C		£ T1/9C	
8.80	10	89	47	35.0	40	29.17	**08800**	29.17	**08800**	33.13	**08800**	33.13	**08800**
8.90	10	89	47	35.0	40	29.17	**08900**	29.17	**08900**	33.13	**08900**	33.13	**08900**
9.00	10	89	47	35.0	40	29.17	**09000**	29.17	**09000**	33.13	**09000**	33.13	**09000**
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9.20	10	89	47	35.0	40	29.17	**09200**	29.17	**09200**	33.13	**09200**	33.13	**09200**
9.30	10	89	47	35.0	40	29.17	**09300**	29.17	**09300**	33.13	**09300**	33.13	**09300**
9.40	10	89	47	35.0	40	29.17	**09400**	29.17	**09400**	33.13	**09400**	33.13	**09400**
9.50	10	89	47	35.0	40	29.17	**09500**	29.17	**09500**	33.13	**09500**	33.13	**09500**
9.60	10	89	47	35.0	40	29.17	**09600**	29.17	**09600**	33.13	**09600**	33.13	**09600**
9.70	10	89	47	35.0	40	29.17	**09700**	29.17	**09700**	33.13	**09700**	33.13	**09700**
9.80	10	89	47	35.0	40	29.17	**09800**	29.17	**09800**	33.13	**09800**	33.13	**09800**
9.90	10	89	47	35.0	40	29.17	**09900**	29.17	**09900**	33.13	**09900**	33.13	**09900**
10.00	10	89	47	35.0	40	29.17	**10000**	29.17	**10000**	33.13	**10000**	33.13	**10000**
10.10	12	102	55	40.0	45	44.40	**10100**	44.40	**10100**	49.97	**10100**	49.97	**10100**
10.20	12	102	55	40.0	45	44.40	**10200**	44.40	**10200**	49.97	**10200**	49.97	**10200**
10.30	12	102	55	40.0	45	44.40	**10300**	44.40	**10300**	49.97	**10300**	49.97	**10300**
10.40	12	102	55	40.0	45	44.40	**10400**	44.40	**10400**	49.97	**10400**	49.97	**10400**
10.50	12	102	55	40.0	45	44.40	**10500**	44.40	**10500**	49.97	**10500**	49.97	**10500**
10.60	12	102	55	40.0	45	44.40	**10600**	44.40	**10600**	49.97	**10600**	49.97	**10600**
10.70	12	102	55	40.0	45	44.40	**10700**	44.40	**10700**	49.97	**10700**	49.97	**10700**
10.80	12	102	55	40.0	45	44.40	**10800**	44.40	**10800**	49.97	**10800**	49.97	**10800**
10.90	12	102	55	40.0	45	44.40	**10900**	44.40	**10900**	49.97	**10900**	49.97	**10900**
11.00	12	102	55	40.0	45	44.40	**11000**	44.40	**11000**	49.97	**11000**	49.97	**11000**
11.10	12	102	55	40.0	45	44.40	**11100**	44.40	**11100**	49.97	**11100**	49.97	**11100**
11.20	12	102	55	40.0	45	44.40	**11200**	44.40	**11200**	49.97	**11200**	49.97	**11200**
11.30	12	102	55	40.0	45	44.40	**11300**	44.40	**11300**	49.97	**11300**	49.97	**11300**
11.40	12	102	55	40.0	45	44.40	**11400**	44.40	**11400**	49.97	**11400**	49.97	**11400**
11.50	12	102	55	40.0	45	44.40	**11500**	44.40	**11500**	49.97	**11500**	49.97	**11500**
11.60	12	102	55	40.0	45	44.40	**11600**	44.40	**11600**	49.97	**11600**	49.97	**11600**
11.70	12	102	55	40.0	45	44.40	**11700**	44.40	**11700**	49.97	**11700**	49.97	**11700**
11.80	12	102	55	40.0	45	44.40	**11800**	44.40	**11800**	49.97	**11800**	49.97	**11800**
11.90	12	102	55	40.0	45	44.40	**11900**	44.40	**11900**	49.97	**11900**	49.97	**11900**
12.00	12	102	55	40.0	45	44.40	**12000**	44.40	**12000**	49.97	**12000**	49.97	**12000**
12.20	14	107	60	43.0	45	59.63	**12200**	59.63	**12200**	66.95	**12200**	66.95	**12200**
12.50	14	107	60	43.0	45	59.63	**12500**	59.63	**12500**	66.95	**12500**	66.95	**12500**
12.70	14	107	60	43.0	45	65.57	**12700**	65.57	**12700**	66.95	**12700**	66.95	**12700**
12.80	14	107	60	43.0	45	59.63	**12800**	59.63	**12800**	66.95	**12800**	66.95	**12800**
13.00	14	107	60	43.0	45	59.63	**13000**	59.63	**13000**	66.95	**13000**	66.95	**13000**
13.10	14	107	60	43.0	45	59.63	**13100**	59.63	**13100**	66.95	**13100**	66.95	**13100**
13.50	14	107	60	43.0	45	59.63	**13500**	59.63	**13500**	66.95	**13500**	66.95	**13500**
13.70	14	107	60	43.0	45					66.95	**13700**	66.95	**13700**
13.80	14	107	60	43.0	45	59.63	**13800**	59.63	**13800**	66.95	**13800**	66.95	**13800**
P						●		●		○		○	
M										●		●	
K						●		●					
N										○		○	
S										○		○	
H													
O										○		○	

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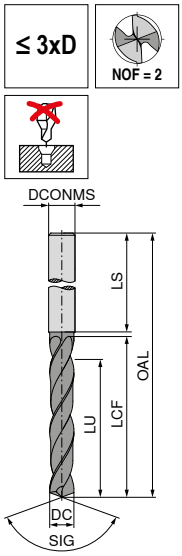
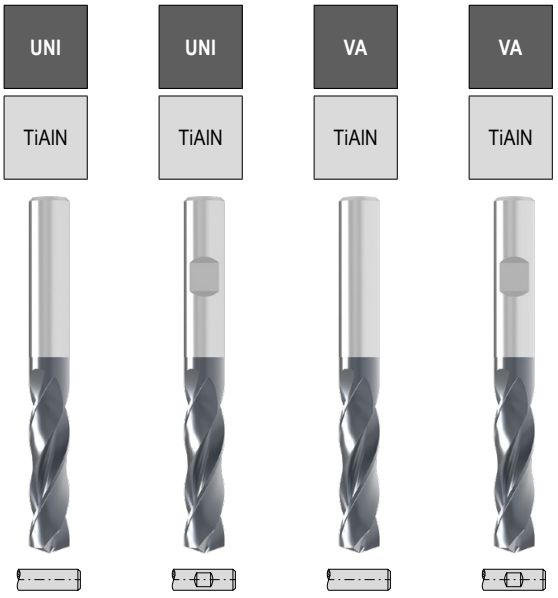
WPC – High Performance Drill, DIN 6537





SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide

DC $_{m7}$ mm	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	11 706 ... £ T1/9C		11 707 ... £ T1/9C		11 711 ... £ T1/9C		11 712 ... £ T1/9C	
14.00	14	107	60	43.0	45	59.63	**14000**	59.63	**14000**	66.95	**14000**	66.95	**14000**
14.20	16	115	65	45.0	48	76.13	**14200**	76.13	**14200**	87.01	**14200**	87.01	**14200**
14.40	16	115	65	45.0	48	76.13	**14400**	76.13	**14400**	87.01	**14400**	87.01	**14400**
14.50	16	115	65	45.0	48	76.13	**14500**	76.13	**14500**	87.01	**14500**	87.01	**14500**
14.70	16	115	65	45.0	48					87.01	**14700**	87.01	**14700**
14.80	16	115	65	45.0	48	76.13	**14800**	76.13	**14800**	87.01	**14800**	87.01	**14800**
15.00	16	115	65	45.0	48	76.13	**15000**	76.13	**15000**	87.01	**15000**	87.01	**15000**
15.10	16	115	65	45.0	48	76.13	**15100**	76.13	**15100**	87.01	**15100**	87.01	**15100**
15.20	16	115	65	45.0	48	76.13	**15200**	76.13	**15200**	87.01	**15200**	87.01	**15200**
15.50	16	115	65	45.0	48	76.13	**15500**	76.13	**15500**	87.01	**15500**	87.01	**15500**
15.70	16	115	65	45.0	48					87.01	**15700**	87.01	**15700**
15.80	16	115	65	45.0	48	76.13	**15800**	76.13	**15800**	87.01	**15800**	87.01	**15800**
16.00	16	115	65	45.0	48	76.13	**16000**	76.13	**16000**	87.01	**16000**	87.01	**16000**
16.50	18	123	73	51.0	48	130.67	**16500**	130.67	**16500**	147.50	**16500**	147.50	**16500**
17.00	18	123	73	51.0	48	130.67	**17000**	130.67	**17000**	147.50	**17000**	147.50	**17000**
17.50	18	123	73	51.0	48	130.67	**17500**	130.67	**17500**	147.50	**17500**	147.50	**17500**
18.00	18	123	73	51.0	48	130.67	**18000**	130.67	**18000**	147.50	**18000**	147.50	**18000**
18.50	20	131	79	55.0	50	143.36	**18500**	143.36	**18500**	161.38	**18500**	161.38	**18500**
18.90	20	131	79	55.0	50	143.36	**18900**	143.36	**18900**	161.38	**18900**	161.38	**18900**
19.00	20	131	79	55.0	50	143.36	**19000**	143.36	**19000**	161.38	**19000**	161.38	**19000**
19.50	20	131	79	55.0	50	143.36	**19500**	143.36	**19500**	161.38	**19500**	161.38	**19500**
20.00	20	131	79	55.0	50	143.36	**20000**	143.36	**20000**	161.38	**20000**	161.38	**20000**
P						●		●		○		○	
M										●		●	
K						●		●					
N										○		○	
S										○		○	
H													
O										○		○	

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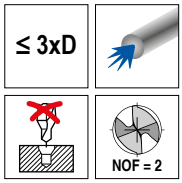
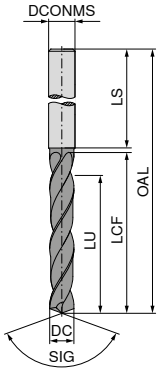
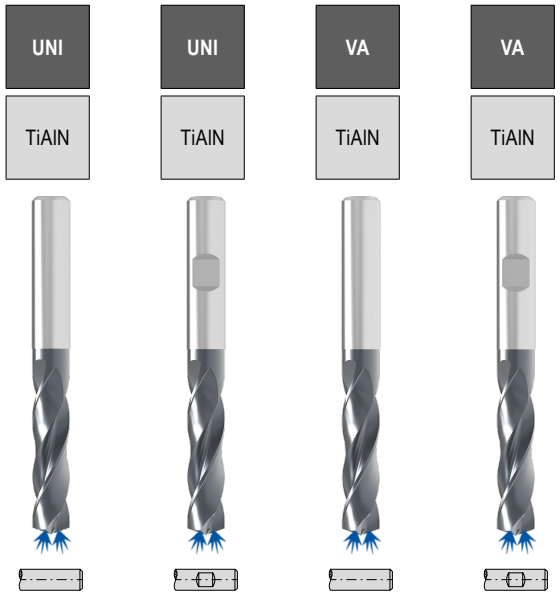
WPC – High Performance Drill, DIN 6537







SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	**11 700 ...** £ T1/9C		**11 701 ...** £ T1/9C		**11 713 ...** £ T1/9C		**11 714 ...** £ T1/9C	
1.00	4	45	7	5.5	28	32.99	**01000**			38.75	**01000**		
1.10	4	45	7	5.3	28	32.99	**01100**			38.75	**01100**		
1.20	4	45	7	5.2	28	32.99	**01200**			38.75	**01200**		
1.30	4	45	7	5.0	28	32.99	**01300**			38.75	**01300**		
1.40	4	45	7	4.9	28	32.99	**01400**			38.75	**01400**		
1.50	4	55	14	11.7	28	32.99	**01500**			38.75	**01500**		
1.60	4	55	14	11.6	28	32.99	**01600**			38.75	**01600**		
1.70	4	55	14	11.4	28	32.99	**01700**			38.75	**01700**		
1.80	4	55	14	11.3	28	32.99	**01800**			38.75	**01800**		
1.90	4	55	14	11.1	28	32.99	**01900**			38.75	**01900**		
2.00	4	55	20	17.0	28	32.99	**02000**			38.75	**02000**		
2.10	4	55	20	16.8	28	32.99	**02100**			38.75	**02100**		
2.20	4	55	20	16.7	28	32.99	**02200**			38.75	**02200**		
2.30	4	55	20	16.5	28	32.99	**02300**			38.75	**02300**		
2.40	4	55	20	16.4	28	32.99	**02400**			38.75	**02400**		
2.50	4	55	20	16.2	28	32.99	**02500**			38.75	**02500**		
2.60	4	55	20	16.1	28	32.99	**02600**			38.75	**02600**		
2.70	4	55	20	15.9	28	32.99	**02700**			38.75	**02700**		
2.80	4	55	20	15.8	28	32.99	**02800**			38.75	**02800**		
2.90	4	55	20	15.6	28	32.99	**02900**			38.75	**02900**		
3.00	6	62	20	14.0	36	27.90	**03000**	27.90	**03000**	33.69	**03000**	33.69	**03000**
3.10	6	62	20	14.0	36	27.90	**03100**	27.90	**03100**	33.69	**03100**	33.69	**03100**
3.20	6	62	20	14.0	36	27.90	**03200**	27.90	**03200**	33.69	**03200**	33.69	**03200**
3.25	6	62	20	14.0	36	27.90	**03250**	27.90	**03250**	33.69	**03250**	33.69	**03250**
3.30	6	62	20	14.0	36	27.90	**03300**	27.90	**03300**	33.69	**03300**	33.69	**03300**
3.40	6	62	20	14.0	36	27.90	**03400**	27.90	**03400**	33.69	**03400**	33.69	**03400**
3.50	6	62	20	14.0	36	27.90	**03500**	27.90	**03500**	33.69	**03500**	33.69	**03500**
3.60	6	62	20	14.0	36	27.90	**03600**	27.90	**03600**	33.69	**03600**	33.69	**03600**
3.70	6	62	20	14.0	36	27.90	**03700**	27.90	**03700**	33.69	**03700**	33.69	**03700**
3.80	6	66	24	17.0	36	27.90	**03800**	27.90	**03800**	33.69	**03800**	33.69	**03800**
3.90	6	66	24	17.0	36	27.90	**03900**	27.90	**03900**	33.69	**03900**	33.69	**03900**
4.00	6	66	24	17.0	36	27.90	**04000**	27.90	**04000**	33.69	**04000**	33.69	**04000**
4.10	6	66	24	17.0	36	27.90	**04100**	27.90	**04100**	33.69	**04100**	33.69	**04100**
4.20	6	66	24	17.0	36	27.90	**04200**	27.90	**04200**	33.69	**04200**	33.69	**04200**
4.30	6	66	24	17.0	36	27.90	**04300**	27.90	**04300**	33.69	**04300**	33.69	**04300**
4.40	6	66	24	17.0	36	27.90	**04400**	27.90	**04400**	33.69	**04400**	33.69	**04400**
4.50	6	66	24	17.0	36	27.90	**04500**	27.90	**04500**	33.69	**04500**	33.69	**04500**
4.60	6	66	24	17.0	36	27.90	**04600**	27.90	**04600**	33.69	**04600**	33.69	**04600**
4.65	6	66	24	17.0	36	27.90	**04650**	27.90	**04650**	33.69	**04650**	33.69	**04650**
4.70	6	66	24	17.0	36	27.90	**04700**	27.90	**04700**	33.69	**04700**	33.69	**04700**
4.80	6	66	28	20.0	36	27.90	**04800**	27.90	**04800**	33.69	**04800**	33.69	**04800**
4.90	6	66	28	20.0	36	27.90	**04900**	27.90	**04900**	33.69	**04900**	33.69	**04900**

P	●	●	○	○
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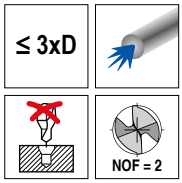
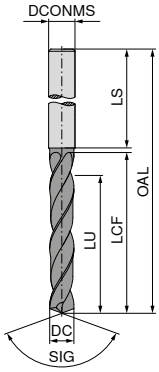
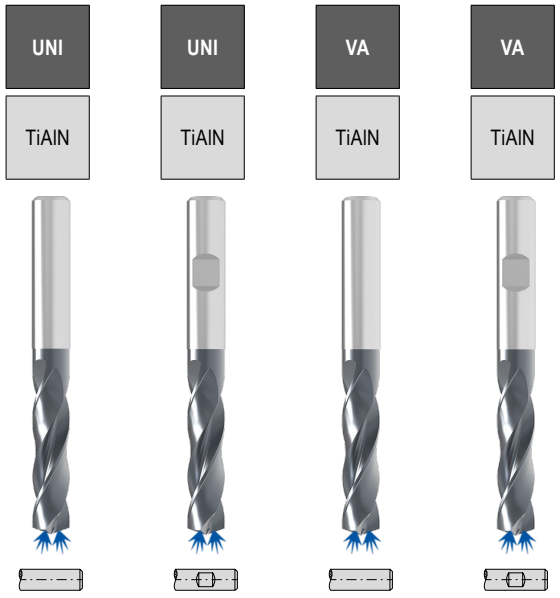
WPC – High Performance Drill, DIN 6537







SIG 140°
Solid carbide

SIG 140°
Solid carbide

SIG 140°
Solid carbide

SIG 140°
Solid carbide

DC $_{m7}$ mm	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	**11 700 ...** £ T1/9C		**11 701 ...** £ T1/9C		**11 713 ...** £ T1/9C		**11 714 ...** £ T1/9C	
5.00	6	66	28	20.0	36	27.90	**05000**	27.90	**05000**	33.69	**05000**	33.69	**05000**
5.10	6	66	28	20.0	36	27.90	**05100**	27.90	**05100**	33.69	**05100**	33.69	**05100**
5.20	6	66	28	20.0	36	27.90	**05200**	27.90	**05200**	33.69	**05200**	33.69	**05200**
5.30	6	66	28	20.0	36	27.90	**05300**	27.90	**05300**	33.69	**05300**	33.69	**05300**
5.40	6	66	28	20.0	36	27.90	**05400**	27.90	**05400**	33.69	**05400**	33.69	**05400**
5.50	6	66	28	20.0	36	27.90	**05500**	27.90	**05500**	33.69	**05500**	33.69	**05500**
5.55	6	66	28	20.0	36	27.90	**05550**	27.90	**05550**	33.69	**05550**	33.69	**05550**
5.60	6	66	28	20.0	36	27.90	**05600**	27.90	**05600**	33.69	**05600**	33.69	**05600**
5.65	6	66	28	20.0	36	27.90	**05650**	27.90	**05650**				
5.70	6	66	28	20.0	36	27.90	**05700**	27.90	**05700**	33.69	**05700**	33.69	**05700**
5.80	6	66	28	20.0	36	27.90	**05800**	27.90	**05800**	33.69	**05800**	33.69	**05800**
5.90	6	66	28	20.0	36	27.90	**05900**	27.90	**05900**	33.69	**05900**	33.69	**05900**
6.00	6	66	28	20.0	36	27.90	**06000**	27.90	**06000**	33.69	**06000**	33.69	**06000**
6.10	8	79	34	24.0	36	39.33	**06100**	39.33	**06100**	46.03	**06100**	46.03	**06100**
6.20	8	79	34	24.0	36	39.33	**06200**	39.33	**06200**	46.03	**06200**	46.03	**06200**
6.30	8	79	34	24.0	36	39.33	**06300**	39.33	**06300**	46.03	**06300**	46.03	**06300**
6.40	8	79	34	24.0	36	39.33	**06400**	39.33	**06400**	46.03	**06400**	46.03	**06400**
6.50	8	79	34	24.0	36	39.33	**06500**	39.33	**06500**	46.03	**06500**	46.03	**06500**
6.60	8	79	34	24.0	36	39.33	**06600**	39.33	**06600**	46.03	**06600**	46.03	**06600**
6.70	8	79	34	24.0	36	39.33	**06700**	39.33	**06700**	46.03	**06700**	46.03	**06700**
6.80	8	79	34	24.0	36	39.33	**06800**	39.33	**06800**	46.03	**06800**	46.03	**06800**
6.90	8	79	34	24.0	36	39.33	**06900**	39.33	**06900**	46.03	**06900**	46.03	**06900**
7.00	8	79	34	24.0	36	39.33	**07000**	39.33	**07000**	46.03	**07000**	46.03	**07000**
7.10	8	79	41	29.0	36	39.33	**07100**	39.33	**07100**	46.03	**07100**	46.03	**07100**
7.20	8	79	41	29.0	36	39.33	**07200**	39.33	**07200**	46.03	**07200**	46.03	**07200**
7.30	8	79	41	29.0	36	39.33	**07300**	39.33	**07300**	46.03	**07300**	46.03	**07300**
7.40	8	79	41	29.0	36	39.33	**07400**	39.33	**07400**	46.03	**07400**	46.03	**07400**
7.50	8	79	41	29.0	36	39.33	**07500**	39.33	**07500**	46.03	**07500**	46.03	**07500**
7.55	8	79	41	29.0	36	39.33	**07550**	39.33	**07550**				
7.60	8	79	41	29.0	36	39.33	**07600**	39.33	**07600**	46.03	**07600**	46.03	**07600**
7.65	8	79	41	29.0	36	39.33	**07650**	39.33	**07650**				
7.70	8	79	41	29.0	36	39.33	**07700**	39.33	**07700**	46.03	**07700**	46.03	**07700**
7.80	8	79	41	29.0	36	39.33	**07800**	39.33	**07800**	46.03	**07800**	46.03	**07800**
7.90	8	79	41	29.0	36	39.33	**07900**	39.33	**07900**	46.03	**07900**	46.03	**07900**
8.00	8	79	41	29.0	36	39.33	**08000**	39.33	**08000**	46.03	**08000**	46.03	**08000**
8.10	10	89	47	35.0	40	44.40	**08100**	44.40	**08100**	52.17	**08100**	52.17	**08100**
8.20	10	89	47	35.0	40	44.40	**08200**	44.40	**08200**	52.17	**08200**	52.17	**08200**
8.30	10	89	47	35.0	40	44.40	**08300**	44.40	**08300**	52.17	**08300**	52.17	**08300**
8.40	10	89	47	35.0	40	44.40	**08400**	44.40	**08400**	52.17	**08400**	52.17	**08400**
8.50	10	89	47	35.0	40	44.40	**08500**	44.40	**08500**	52.17	**08500**	52.17	**08500**
8.60	10	89	47	35.0	40	44.40	**08600**	44.40	**08600**	52.17	**08600**	52.17	**08600**
8.70	10	89	47	35.0	40	44.40	**08700**	44.40	**08700**	52.17	**08700**	52.17	**08700**

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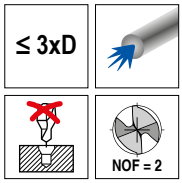
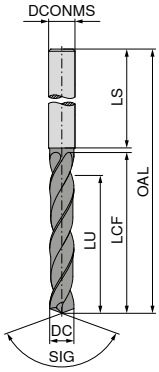
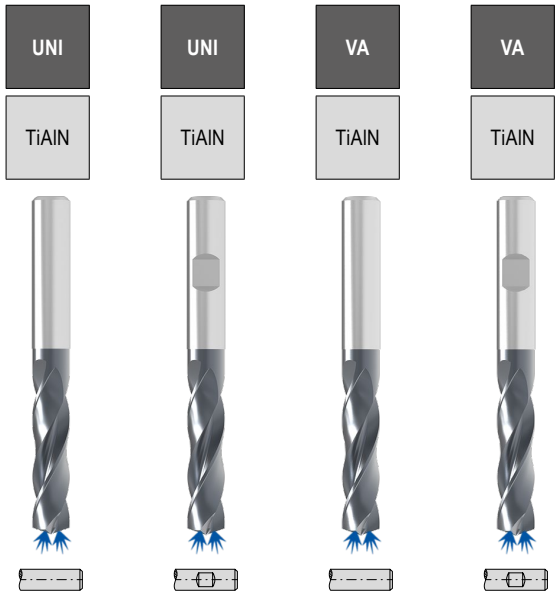
WPC – High Performance Drill, DIN 6537







SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide

DC $_{m7}$ mm	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	11 700 ... £ T1/9C		11 701 ... £ T1/9C		11 713 ... £ T1/9C		11 714 ... £ T1/9C	
8.80	10	89	47	35.0	40	44.40	**08800**	44.40	**08800**	52.17	**08800**	52.17	**08800**
8.90	10	89	47	35.0	40	44.40	**08900**	44.40	**08900**	52.17	**08900**	52.17	**08900**
9.00	10	89	47	35.0	40	44.40	**09000**	44.40	**09000**	52.17	**09000**	52.17	**09000**
9.10	10	89	47	35.0	40	44.40	**09100**	44.40	**09100**	52.17	**09100**	52.17	**09100**
9.20	10	89	47	35.0	40	44.40	**09200**	44.40	**09200**	52.17	**09200**	52.17	**09200**
9.30	10	89	47	35.0	40	44.40	**09300**	44.40	**09300**	52.17	**09300**	52.17	**09300**
9.40	10	89	47	35.0	40	44.40	**09400**	44.40	**09400**	52.17	**09400**	52.17	**09400**
9.50	10	89	47	35.0	40	44.40	**09500**	44.40	**09500**	52.17	**09500**	52.17	**09500**
9.60	10	89	47	35.0	40	44.40	**09600**	44.40	**09600**	52.17	**09600**	52.17	**09600**
9.70	10	89	47	35.0	40	44.40	**09700**	44.40	**09700**	52.17	**09700**	52.17	**09700**
9.80	10	89	47	35.0	40	44.40	**09800**	44.40	**09800**	52.17	**09800**	52.17	**09800**
9.90	10	89	47	35.0	40	44.40	**09900**	44.40	**09900**	52.17	**09900**	52.17	**09900**
10.00	10	89	47	35.0	40	44.40	**10000**	44.40	**10000**	52.17	**10000**	52.17	**10000**
10.10	12	102	55	40.0	45	63.43	**10100**	63.43	**10100**	75.17	**10100**	75.17	**10100**
10.20	12	102	55	40.0	45	63.43	**10200**	63.43	**10200**	75.17	**10200**	75.17	**10200**
10.30	12	102	55	40.0	45	63.43	**10300**	63.43	**10300**	75.17	**10300**	75.17	**10300**
10.40	12	102	55	40.0	45	63.43	**10400**	63.43	**10400**	75.17	**10400**	75.17	**10400**
10.50	12	102	55	40.0	45	63.43	**10500**	63.43	**10500**	75.17	**10500**	75.17	**10500**
10.60	12	102	55	40.0	45	63.43	**10600**	63.43	**10600**	75.17	**10600**	75.17	**10600**
10.70	12	102	55	40.0	45	63.43	**10700**	63.43	**10700**	75.17	**10700**	75.17	**10700**
10.80	12	102	55	40.0	45	63.43	**10800**	63.43	**10800**	75.17	**10800**	75.17	**10800**
10.90	12	102	55	40.0	45	63.43	**10900**	63.43	**10900**	75.17	**10900**	75.17	**10900**
11.00	12	102	55	40.0	45	63.43	**11000**	63.43	**11000**	75.17	**11000**	75.17	**11000**
11.10	12	102	55	40.0	45	63.43	**11100**	63.43	**11100**	75.17	**11100**	75.17	**11100**
11.20	12	102	55	40.0	45	63.43	**11200**	63.43	**11200**	75.17	**11200**	75.17	**11200**
11.30	12	102	55	40.0	45	63.43	**11300**	63.43	**11300**	75.17	**11300**	75.17	**11300**
11.40	12	102	55	40.0	45	63.43	**11400**	63.43	**11400**	75.17	**11400**	75.17	**11400**
11.50	12	102	55	40.0	45	63.43	**11500**	63.43	**11500**	75.17	**11500**	75.17	**11500**
11.60	12	102	55	40.0	45	63.43	**11600**	63.43	**11600**	75.17	**11600**	75.17	**11600**
11.70	12	102	55	40.0	45	63.43	**11700**	63.43	**11700**	75.17	**11700**	75.17	**11700**
11.80	12	102	55	40.0	45	63.43	**11800**	63.43	**11800**	75.17	**11800**	75.17	**11800**
11.90	12	102	55	40.0	45	63.43	**11900**	63.43	**11900**	75.17	**11900**	75.17	**11900**
12.00	12	102	55	40.0	45	63.43	**12000**	63.43	**12000**	75.17	**12000**	75.17	**12000**
12.20	14	107	60	43.0	45	85.00	**12200**	85.00	**12200**	100.71	**12200**	100.71	**12200**
12.30	14	107	60	43.0	45	85.00	**12300**	85.00	**12300**	100.71	**12300**	100.71	**12300**
12.50	14	107	60	43.0	45	85.00	**12500**	85.00	**12500**	100.71	**12500**	100.71	**12500**
12.70	14	107	60	43.0	45	85.00	**12700**	85.00	**12700**	100.71	**12700**	100.71	**12700**
12.80	14	107	60	43.0	45	85.00	**12800**	85.00	**12800**	100.71	**12800**	100.71	**12800**
12.90	14	107	60	43.0	45	85.00	**12900**	85.00	**12900**	100.71	**12900**	100.71	**12900**
13.00	14	107	60	43.0	45	85.00	**13000**	85.00	**13000**	100.71	**13000**	100.71	**13000**
13.50	14	107	60	43.0	45	85.00	**13500**	85.00	**13500**	100.71	**13500**	100.71	**13500**
13.70	14	107	60	43.0	45					100.71	**13700**	100.71	**13700**

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K	●	●		
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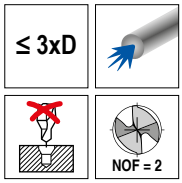

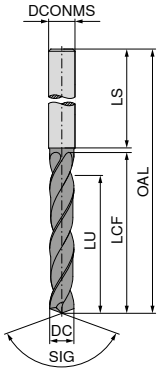

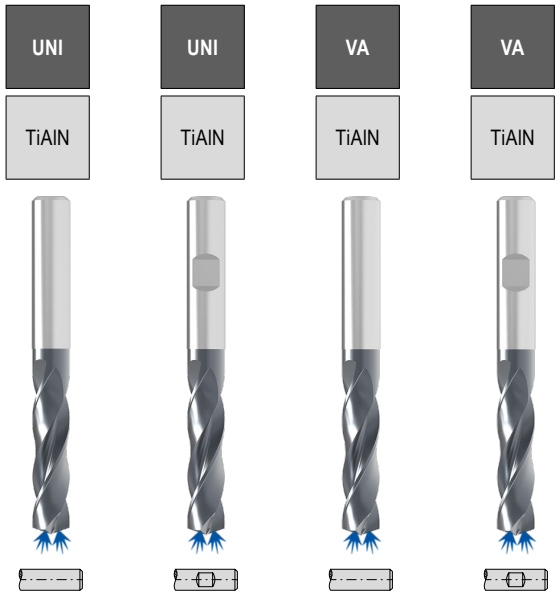

SIG 140°
Solid carbide

SIG 140°
Solid carbide

SIG 140°
Solid carbide

SIG 140°
Solid carbide

DC $_{m7}$ mm	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	**11 700 ...** £ T1/9C		**11 701 ...** £ T1/9C		**11 713 ...** £ T1/9C		**11 714 ...** £ T1/9C	
13.80	14	107	60	43.0	45	85.00	**13800**	85.00	**13800**	100.71	**13800**	100.71	**13800**
14.00	14	107	60	43.0	45	85.00	**14000**	85.00	**14000**	100.71	**14000**	100.71	**14000**
14.20	16	115	65	45.0	48	110.38	**14200**	110.38	**14200**	130.06	**14200**	130.06	**14200**
14.40	16	115	65	45.0	48	110.38	**14400**	110.38	**14400**	130.06	**14400**	130.06	**14400**
14.50	16	115	65	45.0	48	110.38	**14500**	110.38	**14500**	130.06	**14500**	130.06	**14500**
14.70	16	115	65	45.0	48					130.06	**14700**	130.06	**14700**
14.80	16	115	65	45.0	48	110.38	**14800**	110.38	**14800**	130.06	**14800**	130.06	**14800**
15.00	16	115	65	45.0	48	110.38	**15000**	110.38	**15000**	130.06	**15000**	130.06	**15000**
15.10	16	115	65	45.0	48	110.38	**15100**	110.38	**15100**	130.06	**15100**	130.06	**15100**
15.20	16	115	65	45.0	48	110.38	**15200**	110.38	**15200**	130.06	**15200**	130.06	**15200**
15.50	16	115	65	45.0	48	110.38	**15500**	110.38	**15500**	130.06	**15500**	130.06	**15500**
15.70	16	115	65	45.0	48					130.06	**15700**	130.06	**15700**
15.80	16	115	65	45.0	48	110.38	**15800**	110.38	**15800**	130.06	**15800**	130.06	**15800**
16.00	16	115	65	45.0	48	110.38	**16000**	110.38	**16000**	130.06	**16000**	130.06	**16000**
16.50	18	123	73	51.0	48	166.19	**16500**	166.19	**16500**	197.32	**16500**	197.32	**16500**
17.00	18	123	73	51.0	48	166.19	**17000**	166.19	**17000**	197.32	**17000**	197.32	**17000**
17.50	18	123	73	51.0	48	166.19	**17500**	166.19	**17500**	197.32	**17500**	197.32	**17500**
18.00	18	123	73	51.0	48	166.19	**18000**	166.19	**18000**	197.32	**18000**	197.32	**18000**
18.50	20	131	79	55.0	50	183.95	**18500**	183.95	**18500**	217.41	**18500**	217.41	**18500**
18.90	20	131	79	55.0	50	183.95	**18900**	183.95	**18900**	217.41	**18900**	217.41	**18900**
19.00	20	131	79	55.0	50	183.95	**19000**	183.95	**19000**	217.41	**19000**	217.41	**19000**
19.30	20	131	79	55.0	50	183.95	**19300**	183.95	**19300**	217.41	**19300**	217.41	**19300**
19.50	20	131	79	55.0	50	183.95	**19500**	183.95	**19500**	217.41	**19500**	217.41	**19500**
20.00	20	131	79	55.0	50	183.95	**20000**	183.95	**20000**	217.41	**20000**	217.41	**20000**
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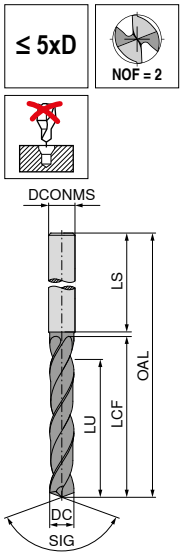

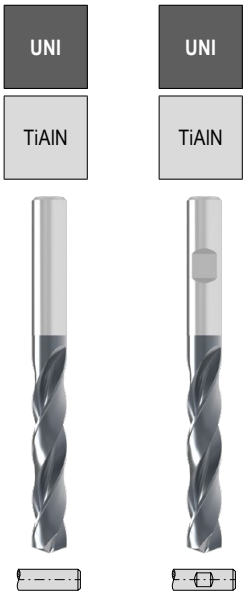

						SIG 140° Solid carbide		SIG 140° Solid carbide	
						11 710 ...		**11 709 ...**	
DC $_{m7}$ **mm**	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	£ T1/9C		£ T1/9C	
3.00	6	66	28	23.0	36	31.72	**03000**	31.72	**03000**
3.10	6	66	28	23.0	36	31.72	**03100**	31.72	**03100**
3.20	6	66	28	23.0	36	31.72	**03200**	31.72	**03200**
3.25	6	66	28	23.0	36	31.72	**03250**	31.72	**03250**
3.30	6	66	28	23.0	36	31.72	**03300**	31.72	**03300**
3.40	6	66	28	23.0	36	31.72	**03400**	31.72	**03400**
3.50	6	66	28	23.0	36	31.72	**03500**	31.72	**03500**
3.60	6	66	28	23.0	36	31.72	**03600**	31.72	**03600**
3.70	6	66	28	23.0	36	31.72	**03700**	31.72	**03700**
3.80	6	74	36	29.0	36	31.72	**03800**	31.72	**03800**
3.90	6	74	36	29.0	36	31.72	**03900**	31.72	**03900**
4.00	6	74	36	29.0	36	31.72	**04000**	31.72	**04000**
4.10	6	74	36	29.0	36	31.72	**04100**	31.72	**04100**
4.20	6	74	36	29.0	36	31.72	**04200**	31.72	**04200**
4.30	6	74	36	29.0	36	31.72	**04300**	31.72	**04300**
4.40	6	74	36	29.0	36	31.72	**04400**	31.72	**04400**
4.50	6	74	36	29.0	36	31.72	**04500**	31.72	**04500**
4.60	6	74	36	29.0	36	31.72	**04600**	31.72	**04600**
4.65	6	74	36	29.0	36	31.72	**04650**	31.72	**04650**
4.70	6	74	36	29.0	36	31.72	**04700**	31.72	**04700**
4.80	6	82	44	35.0	36	31.72	**04800**	31.72	**04800**
4.90	6	82	44	35.0	36	31.72	**04900**	31.72	**04900**
5.00	6	82	44	35.0	36	31.72	**05000**	31.72	**05000**
5.10	6	82	44	35.0	36	31.72	**05100**	31.72	**05100**
5.20	6	82	44	35.0	36	31.72	**05200**	31.72	**05200**
5.30	6	82	44	35.0	36	31.72	**05300**	31.72	**05300**
5.40	6	82	44	35.0	36	31.72	**05400**	31.72	**05400**
5.50	6	82	44	35.0	36	31.72	**05500**	31.72	**05500**
5.55	6	82	44	35.0	36	31.72	**05550**	31.72	**05550**
5.60	6	82	44	35.0	36	31.72	**05600**	31.72	**05600**
5.65	6	82	44	35.0	36	31.72	**05650**	31.72	**05650**
5.70	6	82	44	35.0	36	31.72	**05700**	31.72	**05700**
5.80	6	82	44	35.0	36	31.72	**05800**	31.72	**05800**
5.90	6	82	44	35.0	36	31.72	**05900**	31.72	**05900**
6.00	6	82	44	35.0	36	31.72	**06000**	31.72	**06000**
6.10	8	91	53	43.0	36	31.72	**06100**	31.72	**06100**
6.20	8	91	53	43.0	36	31.72	**06200**	31.72	**06200**
6.30	8	91	53	43.0	36	31.72	**06300**	31.72	**06300**
6.40	8	91	53	43.0	36	31.72	**06400**	31.72	**06400**
6.50	8	91	53	43.0	36	31.72	**06500**	31.72	**06500**
6.60	8	91	53	43.0	36	31.72	**06600**	31.72	**06600**
6.70	8	91	53	43.0	36	31.72	**06700**	31.72	**06700**
6.80	8	91	53	43.0	36	31.72	**06800**	31.72	**06800**
6.90	8	91	53	43.0	36	31.72	**06900**	31.72	**06900**
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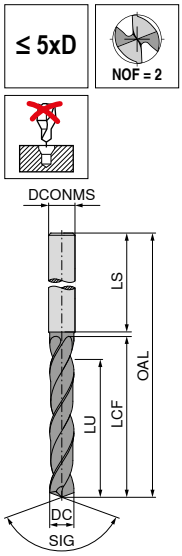
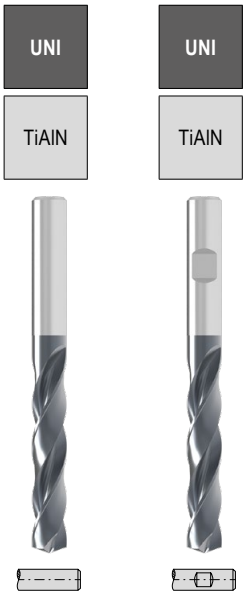
WPC – High Performance Drill, DIN 6537





SIG 140°
Solid carbide

SIG 140°
Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 710 ... £ T1/9C		11 709 ... £ T1/9C	
7.00	8	91	53	43.0	36	31.72	07000	31.72	07000
7.10	8	91	53	43.0	36	31.72	07100	31.72	07100
7.20	8	91	53	43.0	36	31.72	07200	31.72	07200
7.30	8	91	53	43.0	36	31.72	07300	31.72	07300
7.40	8	91	53	43.0	36	31.72	07400	31.72	07400
7.50	8	91	53	43.0	36	31.72	07500	31.72	07500
7.55	8	91	53	43.0	36	31.72	07550	31.72	07550
7.60	8	91	53	43.0	36	31.72	07600	31.72	07600
7.65	8	91	53	43.0	36	31.72	07650	31.72	07650
7.70	8	91	53	43.0	36	31.72	07700	31.72	07700
7.80	8	91	53	43.0	36	31.72	07800	31.72	07800
7.90	8	91	53	43.0	36	31.72	07900	31.72	07900
8.00	8	91	53	43.0	36	31.72	08000	31.72	08000
8.10	10	103	61	49.0	40	34.25	08100	34.25	08100
8.20	10	103	61	49.0	40	34.25	08200	34.25	08200
8.30	10	103	61	49.0	40	34.25	08300	34.25	08300
8.40	10	103	61	49.0	40	34.25	08400	34.25	08400
8.50	10	103	61	49.0	40	34.25	08500	34.25	08500
8.60	10	103	61	49.0	40	34.25	08600	34.25	08600
8.70	10	103	61	49.0	40	34.25	08700	34.25	08700
8.80	10	103	61	49.0	40	34.25	08800	34.25	08800
8.90	10	103	61	49.0	40	34.25	08900	34.25	08900
9.00	10	103	61	49.0	40	34.25	09000	34.25	09000
9.10	10	103	61	49.0	40	34.25	09100	34.25	09100
9.20	10	103	61	49.0	40	34.25	09200	34.25	09200
9.30	10	103	61	49.0	40	34.25	09300	34.25	09300
9.40	10	103	61	49.0	40	34.25	09400	34.25	09400
9.50	10	103	61	49.0	40	34.25	09500	34.25	09500
9.60	10	103	61	49.0	40	34.25	09600	34.25	09600
9.70	10	103	61	49.0	40	34.25	09700	34.25	09700
9.80	10	103	61	49.0	40	34.25	09800	34.25	09800
9.90	10	103	61	49.0	40	34.25	09900	34.25	09900
10.00	10	103	61	49.0	40	34.25	10000	34.25	10000
10.10	12	118	71	56.0	45	52.02	10100	52.02	10100
10.20	12	118	71	56.0	45	52.02	10200	52.02	10200
10.30	12	118	71	56.0	45	52.02	10300	52.02	10300
10.40	12	118	71	56.0	45	52.02	10400	52.02	10400
10.50	12	118	71	56.0	45	52.02	10500	52.02	10500
10.60	12	118	71	56.0	45	52.02	10600	52.02	10600
10.70	12	118	71	56.0	45	52.02	10700	52.02	10700
10.80	12	118	71	56.0	45	52.02	10800	52.02	10800
10.90	12	118	71	56.0	45	52.02	10900	52.02	10900
11.00	12	118	71	56.0	45	52.02	11000	52.02	11000
11.10	12	118	71	56.0	45	52.02	11100	52.02	11100
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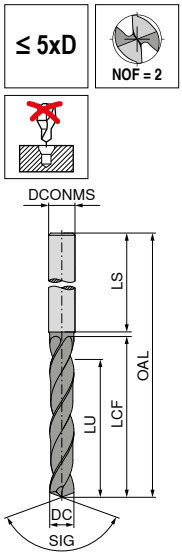
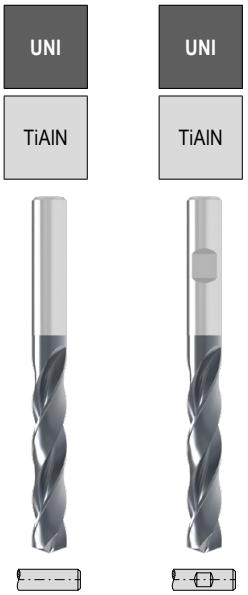
WPC – High Performance Drill, DIN 6537





DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	SIG 140° Solid carbide 11 710 ... £ T1/9C		SIG 140° Solid carbide 11 709 ... £ T1/9C	
11.20	12	118	71	56.0	45	52.02	**11200**	52.02	**11200**
11.30	12	118	71	56.0	45	52.02	**11300**	52.02	**11300**
11.40	12	118	71	56.0	45	52.02	**11400**	52.02	**11400**
11.50	12	118	71	56.0	45	52.02	**11500**	52.02	**11500**
11.60	12	118	71	56.0	45	52.02	**11600**	52.02	**11600**
11.70	12	118	71	56.0	45	52.02	**11700**	52.02	**11700**
11.80	12	118	71	56.0	45	52.02	**11800**	52.02	**11800**
11.90	12	118	71	56.0	45	52.02	**11900**	52.02	**11900**
12.00	12	118	71	56.0	45	52.02	**12000**	52.02	**12000**
12.10	14	124	77	60.0	45	68.51	**12100**	68.51	**12100**
12.20	14	124	77	60.0	45	68.51	**12200**	68.51	**12200**
12.25	14	124	77	60.0	45	68.51	**12250**	68.51	**12250**
12.50	14	124	77	60.0	45	68.51	**12500**	68.51	**12500**
12.70	14	124	77	60.0	45	75.77	**12700**	75.77	**12700**
12.80	14	124	77	60.0	45	68.51	**12800**	68.51	**12800**
13.00	14	124	77	60.0	45	68.51	**13000**	68.51	**13000**
13.20	14	124	77	60.0	45	68.51	**13200**	68.51	**13200**
13.50	14	124	77	60.0	45	68.51	**13500**	68.51	**13500**
13.80	14	124	77	60.0	45	68.51	**13800**	68.51	**13800**
14.00	14	124	77	60.0	45	68.51	**14000**	68.51	**14000**
14.20	16	133	83	63.0	48	88.81	**14200**	88.81	**14200**
14.40	16	133	83	63.0	48	88.81	**14400**	88.81	**14400**
14.50	16	133	83	63.0	48	88.81	**14500**	88.81	**14500**
14.80	16	133	83	63.0	48	88.81	**14800**	88.81	**14800**
15.00	16	133	83	63.0	48	88.81	**15000**	88.81	**15000**
15.20	16	133	83	63.0	48	88.81	**15200**	88.81	**15200**
15.50	16	133	83	63.0	48	88.81	**15500**	88.81	**15500**
15.80	16	133	83	63.0	48	88.81	**15800**	88.81	**15800**
16.00	16	133	83	63.0	48	88.81	**16000**	88.81	**16000**
16.50	18	143	93	71.0	48	144.64	**16500**	144.64	**16500**
17.00	18	143	93	71.0	48	144.64	**17000**	144.64	**17000**
17.50	18	143	93	71.0	48	144.64	**17500**	144.64	**17500**
18.00	18	143	93	71.0	48	144.64	**18000**	144.64	**18000**
18.50	20	153	101	77.0	50	154.78	**18500**	154.78	**18500**
18.90	20	153	101	77.0	50	154.78	**18900**	154.78	**18900**
19.00	20	153	101	77.0	50	154.78	**19000**	154.78	**19000**
19.50	20	153	101	77.0	50	154.78	**19500**	154.78	**19500**
20.00	20	153	101	77.0	50	154.78	**20000**	154.78	**20000**

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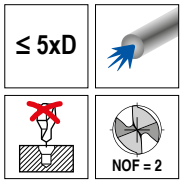
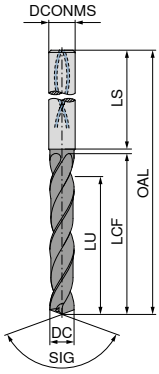
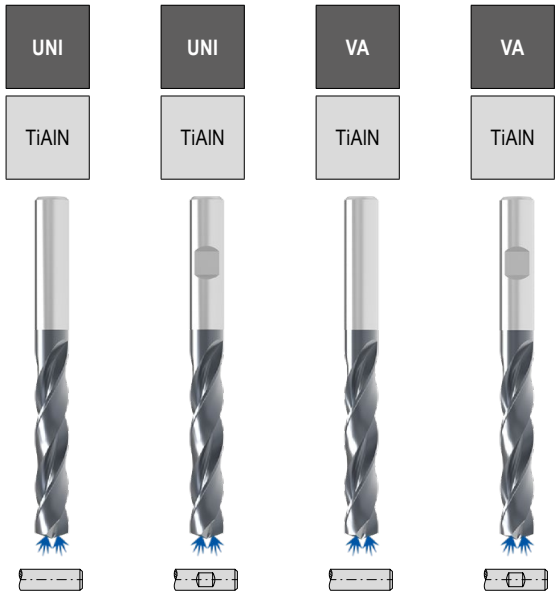
WPC – High Performance Drill, DIN 6537







SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 702 ... £ T1/9C		11 703 ... £ T1/9C		11 715 ... £ T1/9C		11 716 ... £ T1/9C	
1.00	4	55	8	6.5	28	38.06	01000			45.15	01000		
1.10	4	55	12	10.3	28	38.06	01100			45.15	01100		
1.20	4	55	12	10.2	28	38.06	01200			45.15	01200		
1.30	4	55	12	10.0	28	38.06	01300			45.15	01300		
1.40	4	55	12	9.9	28	38.06	01400			45.15	01400		
1.50	4	55	12	9.7	28	38.06	01500			45.15	01500		
1.60	4	55	16	13.6	28	38.06	01600			45.15	01600		
1.70	4	55	16	13.4	28	38.06	01700			45.15	01700		
1.80	4	55	16	13.3	28	38.06	01800			45.15	01800		
1.90	4	55	16	13.1	28	38.06	01900			45.15	01900		
2.00	4	57	21	18.0	28	38.06	02000			45.15	02000		
2.10	4	57	21	17.8	28	38.06	02100			45.15	02100		
2.20	4	57	21	17.7	28	38.06	02200			45.15	02200		
2.30	4	57	21	17.5	28	38.06	02300			45.15	02300		
2.40	4	57	21	17.4	28	38.06	02400			45.15	02400		
2.50	4	57	21	17.2	28	38.06	02500			45.15	02500		
2.60	4	57	21	17.1	28	38.06	02600			45.15	02600		
2.70	4	57	21	16.9	28	38.06	02700			45.15	02700		
2.80	4	57	21	16.8	28	38.06	02800			45.15	02800		
2.90	4	57	21	16.6	28	38.06	02900			45.15	02900		
3.00	6	66	28	23.0	36	38.06	03000	38.06	03000	44.41	03000	44.41	03000
3.10	6	66	28	23.0	36	38.06	03100	38.06	03100	44.41	03100	44.41	03100
3.20	6	66	28	23.0	36	38.06	03200	38.06	03200	44.41	03200	44.41	03200
3.25	6	66	28	23.0	36	38.06	03250	38.06	03250	44.41	03250	44.41	03250
3.30	6	66	28	23.0	36	38.06	03300	38.06	03300	44.41	03300	44.41	03300
3.40	6	66	28	23.0	36	38.06	03400	38.06	03400	44.41	03400	44.41	03400
3.50	6	66	28	23.0	36	38.06	03500	38.06	03500	44.41	03500	44.41	03500
3.60	6	66	28	23.0	36	38.06	03600	38.06	03600	44.41	03600	44.41	03600
3.70	6	66	28	23.0	36	38.06	03700	38.06	03700	44.41	03700	44.41	03700
3.80	6	74	36	29.0	36	38.06	03800	38.06	03800	44.41	03800	44.41	03800
3.85	6	74	36	29.0	36	38.06	03850	38.06	03850				
3.90	6	74	36	29.0	36	38.06	03900	38.06	03900	44.41	03900	44.41	03900
4.00	6	74	36	29.0	36	38.06	04000	38.06	04000	44.41	04000	44.41	04000
4.10	6	74	36	29.0	36	38.06	04100	38.06	04100	44.41	04100	44.41	04100
4.20	6	74	36	29.0	36	38.06	04200	38.06	04200	44.41	04200	44.41	04200
4.30	6	74	36	29.0	36	38.06	04300	38.06	04300	44.41	04300	44.41	04300
4.40	6	74	36	29.0	36	38.06	04400	38.06	04400	44.41	04400	44.41	04400
4.50	6	74	36	29.0	36	38.06	04500	38.06	04500	44.41	04500	44.41	04500
4.60	6	74	36	29.0	36	38.06	04600	38.06	04600	44.41	04600	44.41	04600
4.65	6	74	36	29.0	36	38.06	04650	38.06	04650	44.41	04650	44.41	04650
4.70	6	74	36	29.0	36	38.06	04700	38.06	04700	44.41	04700	44.41	04700
4.80	6	82	44	35.0	36	38.06	04800	38.06	04800	44.41	04800	44.41	04800
4.90	6	82	44	35.0	36	38.06	04900	38.06	04900	44.41	04900	44.41	04900
5.00	6	82	44	35.0	36	38.06	05000	38.06	05000	44.41	05000	44.41	05000
5.10	6	82	44	35.0	36	38.06	05100	38.06	05100	44.41	05100	44.41	05100
5.20	6	82	44	35.0	36	38.06	05200	38.06	05200	44.41	05200	44.41	05200

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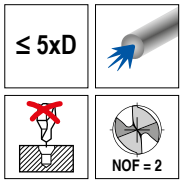
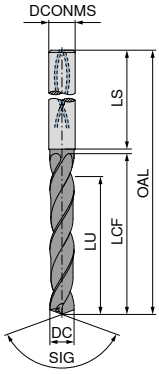
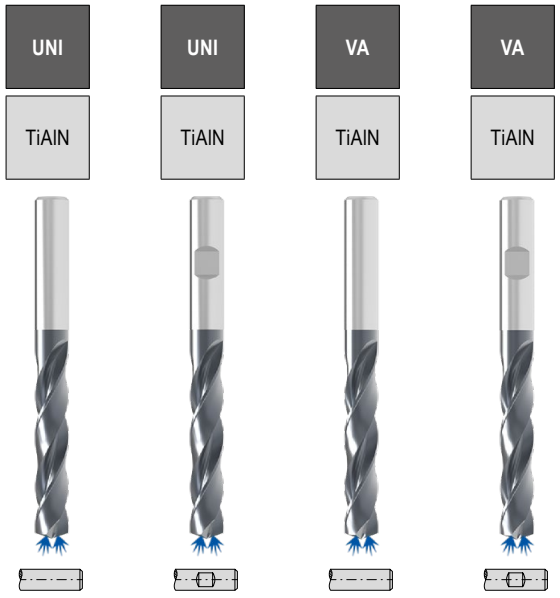
WPC – High Performance Drill, DIN 6537







SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide

DC $_{m7}$ mm	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	**11 702 ...** £ T1/9C		**11 703 ...** £ T1/9C		**11 715 ...** £ T1/9C		**11 716 ...** £ T1/9C	
5.30	6	82	44	35.0	36	38.06	**05300**	38.06	**05300**	44.41	**05300**	44.41	**05300**
5.40	6	82	44	35.0	36	38.06	**05400**	38.06	**05400**	44.41	**05400**	44.41	**05400**
5.50	6	82	44	35.0	36	38.06	**05500**	38.06	**05500**	44.41	**05500**	44.41	**05500**
5.55	6	82	44	35.0	36	38.06	**05550**	38.06	**05550**	44.41	**05550**	44.41	**05550**
5.60	6	82	44	35.0	36	38.06	**05600**	38.06	**05600**	44.41	**05600**	44.41	**05600**
5.65	6	82	44	35.0	36	38.06	**05650**	38.06	**05650**				
5.70	6	82	44	35.0	36	38.06	**05700**	38.06	**05700**	44.41	**05700**	44.41	**05700**
5.80	6	82	44	35.0	36	38.06	**05800**	38.06	**05800**	44.41	**05800**	44.41	**05800**
5.90	6	82	44	35.0	36	38.06	**05900**	38.06	**05900**	44.41	**05900**	44.41	**05900**
6.00	6	82	44	35.0	36	38.06	**06000**	38.06	**06000**	44.41	**06000**	44.41	**06000**
6.10	8	91	53	43.0	36	43.13	**06100**	43.13	**06100**	51.03	**06100**	51.03	**06100**
6.20	8	91	53	43.0	36	43.13	**06200**	43.13	**06200**	51.03	**06200**	51.03	**06200**
6.30	8	91	53	43.0	36	43.13	**06300**	43.13	**06300**	51.03	**06300**	51.03	**06300**
6.40	8	91	53	43.0	36	43.13	**06400**	43.13	**06400**	51.03	**06400**	51.03	**06400**
6.50	8	91	53	43.0	36	43.13	**06500**	43.13	**06500**	51.03	**06500**	51.03	**06500**
6.60	8	91	53	43.0	36	43.13	**06600**	43.13	**06600**	51.03	**06600**	51.03	**06600**
6.70	8	91	53	43.0	36	43.13	**06700**	43.13	**06700**	51.03	**06700**	51.03	**06700**
6.80	8	91	53	43.0	36	43.13	**06800**	43.13	**06800**	51.03	**06800**	51.03	**06800**
6.90	8	91	53	43.0	36	43.13	**06900**	43.13	**06900**	51.03	**06900**	51.03	**06900**
7.00	8	91	53	43.0	36	43.13	**07000**	43.13	**07000**	51.03	**07000**	51.03	**07000**
7.10	8	91	53	43.0	36	43.13	**07100**	43.13	**07100**	51.03	**07100**	51.03	**07100**
7.20	8	91	53	43.0	36	43.13	**07200**	43.13	**07200**	51.03	**07200**	51.03	**07200**
7.30	8	91	53	43.0	36	43.13	**07300**	43.13	**07300**	51.03	**07300**	51.03	**07300**
7.40	8	91	53	43.0	36	43.13	**07400**	43.13	**07400**	51.03	**07400**	51.03	**07400**
7.45	8	91	53	43.0	36	43.13	**07450**	43.13	**07450**	51.03	**07450**	51.03	**07450**
7.50	8	91	53	43.0	36	43.13	**07500**	43.13	**07500**	51.03	**07500**	51.03	**07500**
7.55	8	91	53	43.0	36	43.13	**07550**	43.13	**07550**	51.03	**07550**	51.03	**07550**
7.60	8	91	53	43.0	36	43.13	**07600**	43.13	**07600**	51.03	**07600**	51.03	**07600**
7.65	8	91	53	43.0	36	43.13	**07650**	43.13	**07650**				
7.70	8	91	53	43.0	36	43.13	**07700**	43.13	**07700**	51.03	**07700**	51.03	**07700**
7.80	8	91	53	43.0	36	43.13	**07800**	43.13	**07800**	51.03	**07800**	51.03	**07800**
7.90	8	91	53	43.0	36	43.13	**07900**	43.13	**07900**	51.03	**07900**	51.03	**07900**
8.00	8	91	53	43.0	36	43.13	**08000**	43.13	**08000**	51.03	**08000**	51.03	**08000**
8.10	10	103	61	49.0	40	49.48	**08100**	49.48	**08100**	58.35	**08100**	58.35	**08100**
8.20	10	103	61	49.0	40	49.48	**08200**	49.48	**08200**	58.35	**08200**	58.35	**08200**
8.30	10	103	61	49.0	40	49.48	**08300**	49.48	**08300**	58.35	**08300**	58.35	**08300**
8.40	10	103	61	49.0	40	49.48	**08400**	49.48	**08400**	58.35	**08400**	58.35	**08400**
8.50	10	103	61	49.0	40	49.48	**08500**	49.48	**08500**	58.35	**08500**	58.35	**08500**
8.60	10	103	61	49.0	40	49.48	**08600**	49.48	**08600**	58.35	**08600**	58.35	**08600**
8.70	10	103	61	49.0	40	49.48	**08700**	49.48	**08700**	58.35	**08700**	58.35	**08700**
8.80	10	103	61	49.0	40	49.48	**08800**	49.48	**08800**	58.35	**08800**	58.35	**08800**
8.90	10	103	61	49.0	40	49.48	**08900**	49.48	**08900**	58.35	**08900**	58.35	**08900**
9.00	10	103	61	49.0	40	49.48	**09000**	49.48	**09000**	58.35	**09000**	58.35	**09000**
9.10	10	103	61	49.0	40	49.48	**09100**	49.48	**09100**	58.35	**09100**	58.35	**09100**
9.20	10	103	61	49.0	40	49.48	**09200**	49.48	**09200**	58.35	**09200**	58.35	**09200**
9.25	10	103	61	49.0	40	49.48	**09250**	49.48	**09250**	58.35	**09250**		

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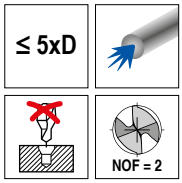
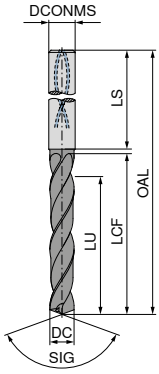
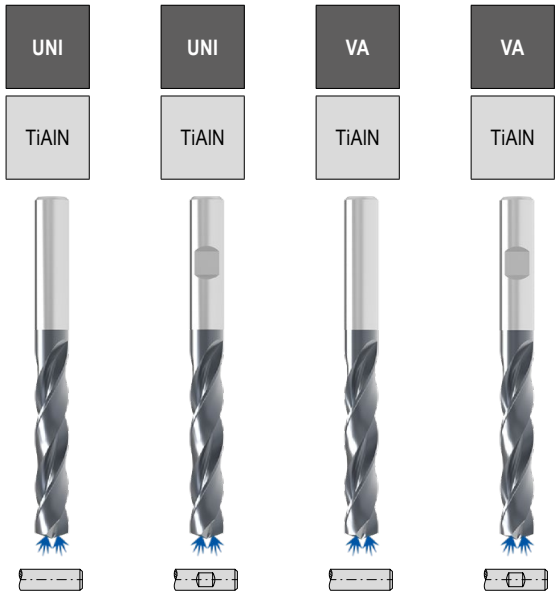
WPC – High Performance Drill, DIN 6537







SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide

DC $_{m7}$ mm	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	11 702 ... £ T1/9C		11 703 ... £ T1/9C		11 715 ... £ T1/9C		11 716 ... £ T1/9C	
9.30	10	103	61	49.0	40	49.48	**09300**	49.48	**09300**	58.35	**09300**	58.35	**09300**
9.35	10	103	61	49.0	40	49.48	**09350**	49.48	**09350**	58.35	**09350**		
9.40	10	103	61	49.0	40	49.48	**09400**	49.48	**09400**	58.35	**09400**	58.35	**09400**
9.50	10	103	61	49.0	40	49.48	**09500**	49.48	**09500**	58.35	**09500**	58.35	**09500**
9.55	10	103	61	49.0	40	49.48	**09550**	49.48	**09550**				
9.60	10	103	61	49.0	40	49.48	**09600**	49.48	**09600**	58.35	**09600**	58.35	**09600**
9.70	10	103	61	49.0	40	49.48	**09700**	49.48	**09700**	58.35	**09700**	58.35	**09700**
9.80	10	103	61	49.0	40	49.48	**09800**	49.48	**09800**	58.35	**09800**	58.35	**09800**
9.90	10	103	61	49.0	40	49.48	**09900**	49.48	**09900**	58.35	**09900**	58.35	**09900**
10.00	10	103	61	49.0	40	49.48	**10000**	49.48	**10000**	58.35	**10000**	58.35	**10000**
10.10	12	118	71	56.0	45	73.58	**10100**	73.58	**10100**	86.82	**10100**	86.82	**10100**
10.20	12	118	71	56.0	45	73.58	**10200**	73.58	**10200**	86.82	**10200**	86.82	**10200**
10.30	12	118	71	56.0	45	73.58	**10300**	73.58	**10300**	86.82	**10300**	86.82	**10300**
10.40	12	118	71	56.0	45	73.58	**10400**	73.58	**10400**	86.82	**10400**	86.82	**10400**
10.50	12	118	71	56.0	45	73.58	**10500**	73.58	**10500**	86.82	**10500**	86.82	**10500**
10.60	12	118	71	56.0	45	73.58	**10600**	73.58	**10600**	86.82	**10600**	86.82	**10600**
10.70	12	118	71	56.0	45	73.58	**10700**	73.58	**10700**	86.82	**10700**	86.82	**10700**
10.80	12	118	71	56.0	45	73.58	**10800**	73.58	**10800**	86.82	**10800**	86.82	**10800**
10.90	12	118	71	56.0	45	73.58	**10900**	73.58	**10900**	86.82	**10900**	86.82	**10900**
11.00	12	118	71	56.0	45	73.58	**11000**	73.58	**11000**	86.82	**11000**	86.82	**11000**
11.10	12	118	71	56.0	45	73.58	**11100**	73.58	**11100**	86.82	**11100**	86.82	**11100**
11.20	12	118	71	56.0	45	73.58	**11200**	73.58	**11200**	86.82	**11200**	86.82	**11200**
11.25	12	118	71	56.0	45	73.58	**11250**	73.58	**11250**	86.82	**11250**		
11.30	12	118	71	56.0	45	73.58	**11300**	73.58	**11300**	86.82	**11300**	86.82	**11300**
11.40	12	118	71	56.0	45	73.58	**11400**	73.58	**11400**	86.82	**11400**	86.82	**11400**
11.50	12	118	71	56.0	45	73.58	**11500**	73.58	**11500**	86.82	**11500**	86.82	**11500**
11.60	12	118	71	56.0	45	73.58	**11600**	73.58	**11600**	86.82	**11600**	86.82	**11600**
11.70	12	118	71	56.0	45	73.58	**11700**	73.58	**11700**	86.82	**11700**	86.82	**11700**
11.80	12	118	71	56.0	45	73.58	**11800**	73.58	**11800**	86.82	**11800**	86.82	**11800**
11.90	12	118	71	56.0	45	73.58	**11900**	73.58	**11900**	86.82	**11900**	86.82	**11900**
12.00	12	118	71	56.0	45	73.58	**12000**	73.58	**12000**	86.82	**12000**	86.82	**12000**
12.10	14	124	77	60.0	45	93.89	**12100**	93.89	**12100**	110.69	**12100**	110.69	**12100**
12.20	14	124	77	60.0	45	93.89	**12200**	93.89	**12200**	110.69	**12200**	110.69	**12200**
12.25	14	124	77	60.0	45	93.89	**12250**	93.89	**12250**	110.69	**12250**		
12.40	14	124	77	60.0	45	93.89	**12400**	93.89	**12400**	110.69	**12400**	110.69	**12400**
12.50	14	124	77	60.0	45	93.89	**12500**	93.89	**12500**	110.69	**12500**	110.69	**12500**
12.60	14	124	77	60.0	45	93.89	**12600**	93.89	**12600**	110.69	**12600**	110.69	**12600**
12.70	14	124	77	60.0	45	108.40	**12700**	108.40	**12700**	110.69	**12700**	110.69	**12700**
12.80	14	124	77	60.0	45	93.89	**12800**	93.89	**12800**	110.69	**12800**	110.69	**12800**
12.90	14	124	77	60.0	45	93.89	**12900**	93.89	**12900**				
13.00	14	124	77	60.0	45	93.89	**13000**	93.89	**13000**	110.69	**13000**	110.69	**13000**
13.10	14	124	77	60.0	45	93.89	**13100**	93.89	**13100**	110.69	**13100**	110.69	**13100**
13.20	14	124	77	60.0	45	93.89	**13200**	93.89	**13200**	110.69	**13200**	110.69	**13200**
13.30	14	124	77	60.0	45	93.89	**13300**	93.89	**13300**	110.69	**13300**	110.69	**13300**
13.50	14	124	77	60.0	45	93.89	**13500**	93.89	**13500**	110.69	**13500**	110.69	**13500**
13.70	14	124	77	60.0	45	93.89	**13700**	93.89	**13700**	110.69	**13700**	110.69	**13700**

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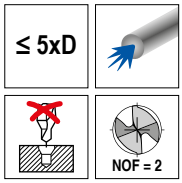
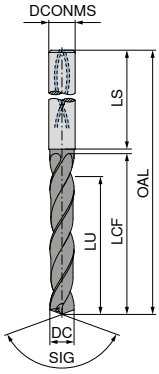
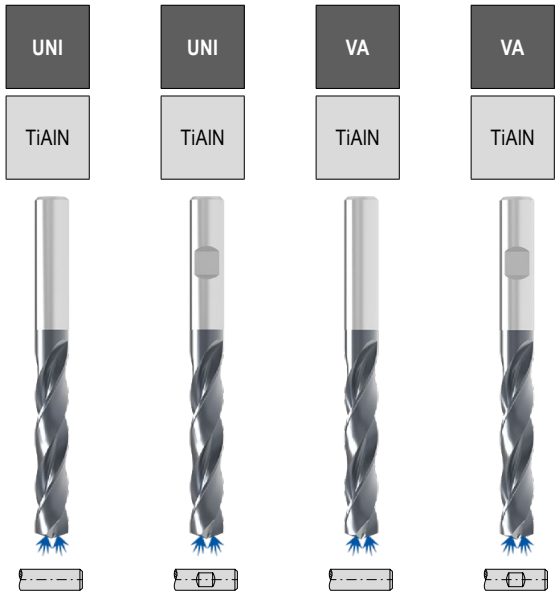
WPC – High Performance Drill, DIN 6537







SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide | SIG 140° Solid carbide

DC $_{m7}$ mm	DCONMS $_{h6}$ mm	OAL mm	LCF mm	LU mm	LS mm	11 702 ... £ T1/9C		11 703 ... £ T1/9C		11 715 ... £ T1/9C		11 716 ... £ T1/9C	
13.80	14	124	77	60.0	45	93.89	13800	93.89	13800	110.69	13800	110.69	13800
14.00	14	124	77	60.0	45	93.89	14000	93.89	14000	110.69	14000	110.69	14000
14.20	16	133	83	63.0	48	120.52	14200	120.52	14200	141.98	14200	141.98	14200
14.30	16	133	83	63.0	48	120.52	14300	120.52	14300	141.98	14300	141.98	14300
14.40	16	133	83	63.0	48	120.52	14400	120.52	14400	141.98	14400	141.98	14400
14.50	16	133	83	63.0	48	120.52	14500	120.52	14500	141.98	14500	141.98	14500
14.70	16	133	83	63.0	48	120.52	14700	120.52	14700	141.98	14700	141.98	14700
14.80	16	133	83	63.0	48	120.52	14800	120.52	14800	141.98	14800	141.98	14800
15.00	16	133	83	63.0	48	120.52	15000	120.52	15000	141.98	15000	141.98	15000
15.10	16	133	83	63.0	48	120.52	15100	120.52	15100	141.98	15100	141.98	15100
15.20	16	133	83	63.0	48	120.52	15200	120.52	15200	141.98	15200	141.98	15200
15.25	16	133	83	63.0	48	120.52	15250	120.52	15250				
15.30	16	133	83	63.0	48	120.52	15300	120.52	15300	141.98	15300	141.98	15300
15.50	16	133	83	63.0	48	120.52	15500	120.52	15500	141.98	15500	141.98	15500
15.70	16	133	83	63.0	48	120.52	15700	120.52	15700	141.98	15700	141.98	15700
15.80	16	133	83	63.0	48	120.52	15800	120.52	15800	141.98	15800	141.98	15800
16.00	16	133	83	63.0	48	120.52	16000	120.52	16000	141.98	16000	141.98	16000
16.20	18	143	93	71.0	48	185.22	16200	185.22	16200	219.58	16200	219.58	16200
16.30	18	143	93	71.0	48	185.22	16300	185.22	16300	219.58	16300	219.58	16300
16.50	18	143	93	71.0	48	185.22	16500	185.22	16500	219.58	16500	219.58	16500
16.80	18	143	93	71.0	48	185.22	16800	185.22	16800	219.58	16800	219.58	16800
17.00	18	143	93	71.0	48	185.22	17000	185.22	17000	219.58	17000	219.58	17000
17.30	18	143	93	71.0	48	185.22	17300	185.22	17300	219.58	17300	219.58	17300
17.50	18	143	93	71.0	48	185.22	17500	185.22	17500	219.58	17500	219.58	17500
17.60	18	143	93	71.0	48	185.22	17600	185.22	17600				
17.80	18	143	93	71.0	48	185.22	17800	185.22	17800				
18.00	18	143	93	71.0	48	185.22	18000	185.22	18000	219.58	18000	219.58	18000
18.50	20	153	101	77.0	50	201.71	18500	201.71	18500	238.86	18500	238.86	18500
18.80	20	153	101	77.0	50	201.71	18800	201.71	18800				
18.90	20	153	101	77.0	50	201.71	18900	201.71	18900	238.86	18900	238.86	18900
19.00	20	153	101	77.0	50	201.71	19000	201.71	19000	238.86	19000	238.86	19000
19.20	20	153	101	77.0	50	201.71	19200	201.71	19200	238.86	19200	238.86	19200
19.30	20	153	101	77.0	50	201.71	19300	201.71	19300	238.86	19300	238.86	19300
19.50	20	153	101	77.0	50	201.71	19500	201.71	19500	238.86	19500	238.86	19500
19.70	20	153	101	77.0	50	201.71	19700	201.71	19700	238.86	19700	238.86	19700
19.80	20	153	101	77.0	50	201.71	19800	201.71	19800				
20.00	20	153	101	77.0	50	201.71	20000	201.71	20000	238.86	20000	238.86	20000
P						●		●		○		○	
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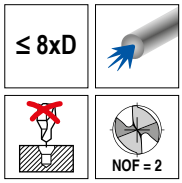
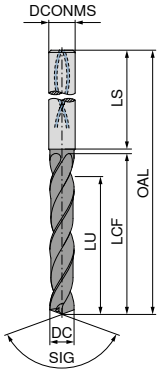
WPC – High Performance Drill, factory standard





UNI

TiAlN

SIG 135°
Solid carbide

11 704 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1/9C	
3.00	6	72	34	29.0	36	74.86	**03000**
3.10	6	72	34	29.0	36	74.86	**03100**
3.20	6	72	34	29.0	36	74.86	**03200**
3.30	6	72	34	29.0	36	74.86	**03300**
3.40	6	72	34	29.0	36	74.86	**03400**
3.50	6	72	34	29.0	36	74.86	**03500**
3.60	6	72	34	29.0	36	74.86	**03600**
3.70	6	72	34	29.0	36	74.86	**03700**
3.80	6	81	43	36.0	36	74.86	**03800**
3.90	6	81	43	36.0	36	74.86	**03900**
4.00	6	81	43	36.0	36	74.86	**04000**
4.10	6	81	43	36.0	36	74.86	**04100**
4.20	6	81	43	36.0	36	74.86	**04200**
4.30	6	81	43	36.0	36	74.86	**04300**
4.40	6	81	43	36.0	36	74.86	**04400**
4.50	6	81	43	36.0	36	74.86	**04500**
4.60	6	81	43	36.0	36	74.86	**04600**
4.70	6	81	43	36.0	36	74.86	**04700**
4.80	6	95	57	48.0	36	74.86	**04800**
4.90	6	95	57	48.0	36	74.86	**04900**
5.00	6	95	57	48.0	36	74.86	**05000**
5.10	6	95	57	48.0	36	74.86	**05100**
5.20	6	95	57	48.0	36	74.86	**05200**
5.30	6	95	57	48.0	36	74.86	**05300**
5.40	6	95	57	48.0	36	74.86	**05400**
5.50	6	95	57	48.0	36	74.86	**05500**
5.60	6	95	57	48.0	36	74.86	**05600**
5.70	6	95	57	48.0	36	74.86	**05700**
5.80	6	95	57	48.0	36	74.86	**05800**
5.90	6	95	57	48.0	36	74.86	**05900**
6.00	6	95	57	48.0	36	74.86	**06000**
6.10	8	114	76	64.0	36	92.62	**06100**
6.20	8	114	76	64.0	36	92.62	**06200**
6.30	8	114	76	64.0	36	92.62	**06300**
6.40	8	114	76	64.0	36	92.62	**06400**
6.50	8	114	76	64.0	36	92.62	**06500**
6.60	8	114	76	64.0	36	92.62	**06600**
6.70	8	114	76	64.0	36	92.62	**06700**
6.80	8	114	76	64.0	36	92.62	**06800**

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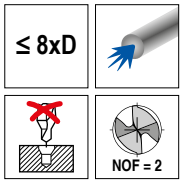
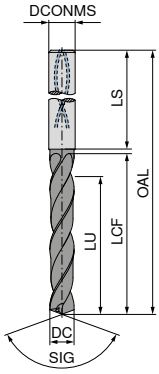
WPC – High Performance Drill, factory standard





UNI

TiAlN

SIG 135°
Solid carbide

11 704 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1/9C	
6.90	8	114	76	64.0	36	92.62	**06900**
7.00	8	114	76	64.0	36	92.62	**07000**
7.10	8	114	76	64.0	36	92.62	**07100**
7.20	8	114	76	64.0	36	92.62	**07200**
7.30	8	114	76	64.0	36	92.62	**07300**
7.40	8	114	76	64.0	36	92.62	**07400**
7.50	8	114	76	64.0	36	92.62	**07500**
7.60	8	114	76	64.0	36	92.62	**07600**
7.70	8	114	76	64.0	36	92.62	**07700**
7.80	8	114	76	64.0	36	92.62	**07800**
7.90	8	114	76	64.0	36	92.62	**07900**
8.00	8	114	76	64.0	36	92.62	**08000**
8.10	10	142	95	80.0	40	112.91	**08100**
8.20	10	142	95	80.0	40	112.91	**08200**
8.30	10	142	95	80.0	40	112.91	**08300**
8.40	10	142	95	80.0	40	112.91	**08400**
8.50	10	142	95	80.0	40	112.91	**08500**
8.60	10	142	95	80.0	40	112.91	**08600**
8.70	10	142	95	80.0	40	112.91	**08700**
8.80	10	142	95	80.0	40	112.91	**08800**
8.90	10	142	95	80.0	40	112.91	**08900**
9.00	10	142	95	80.0	40	112.91	**09000**
9.10	10	142	95	80.0	40	112.91	**09100**
9.20	10	142	95	80.0	40	112.91	**09200**
9.30	10	142	95	80.0	40	112.91	**09300**
9.40	10	142	95	80.0	40	112.91	**09400**
9.50	10	142	95	80.0	40	112.91	**09500**
9.60	10	142	95	80.0	40	112.91	**09600**
9.70	10	142	95	80.0	40	112.91	**09700**
9.80	10	142	95	80.0	40	112.91	**09800**
9.90	10	142	95	80.0	40	112.91	**09900**
10.00	10	142	95	80.0	40	112.91	**10000**
10.20	12	162	114	96.0	45	150.96	**10200**
10.50	12	162	114	96.0	45	150.96	**10500**
10.80	12	162	114	96.0	45	150.96	**10800**
11.00	12	162	114	96.0	45	150.96	**11000**
11.20	12	162	114	96.0	45	150.96	**11200**
11.50	12	162	114	96.0	45	150.96	**11500**
11.80	12	162	114	96.0	45	150.96	**11800**

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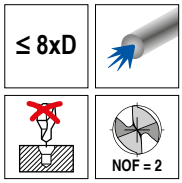
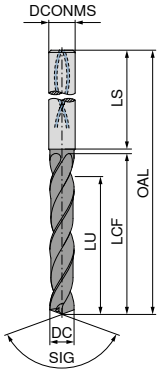
WPC – High Performance Drill, factory standard





UNI

TiAlN

SIG 135°
Solid carbide

11 704 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1/9C	
12.00	12	162	114	96.0	45	150.96	**12000**
12.20	14	178	131	112.0	45	225.82	**12200**
12.50	14	178	131	112.0	45	225.82	**12500**
12.70	14	178	131	112.0	45	261.83	**12700**
13.00	14	178	131	112.0	45	225.82	**13000**
13.50	14	178	131	112.0	45	225.82	**13500**
14.00	14	178	131	112.0	45	225.82	**14000**
14.50	16	203	152	128.0	48	295.60	**14500**
15.00	16	203	152	128.0	48	295.60	**15000**
15.50	16	203	152	128.0	48	295.60	**15500**
16.00	16	203	152	128.0	48	295.60	**16000**
16.50	18	222	171	144.0	48	381.87	**16500**
17.00	18	222	171	144.0	48	381.87	**17000**
17.50	18	222	171	144.0	48	381.87	**17500**
18.00	18	222	171	144.0	48	381.87	**18000**
18.50	20	243	190	160.0	50	425.00	**18500**
19.00	20	243	190	160.0	50	425.00	**19000**
19.50	20	243	190	160.0	50	425.00	**19500**
20.00	20	243	190	160.0	50	425.00	**20000**

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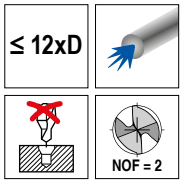
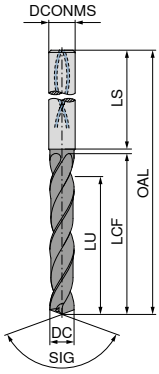
WPC – High Performance Drill, factory standard





UNI

TiAlN

SIG 135°
Solid carbide

11 705 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1/9C	
3.00	6	92	54	48.0	36	100.22	**03000**
3.10	6	92	54	48.0	36	100.22	**03100**
3.20	6	92	54	48.0	36	100.22	**03200**
3.30	6	92	54	48.0	36	100.22	**03300**
3.40	6	92	54	48.0	36	100.22	**03400**
3.50	6	92	54	48.0	36	100.22	**03500**
3.60	6	92	54	48.0	36	100.22	**03600**
3.70	6	92	54	48.0	36	100.22	**03700**
3.80	6	102	64	58.0	36	100.22	**03800**
3.90	6	102	64	58.0	36	100.22	**03900**
4.00	6	102	64	58.0	36	100.22	**04000**
4.10	6	102	64	58.0	36	100.22	**04100**
4.20	6	102	64	58.0	36	100.22	**04200**
4.30	6	102	64	58.0	36	100.22	**04300**
4.40	6	102	64	58.0	36	100.22	**04400**
4.50	6	102	64	58.0	36	100.22	**04500**
4.60	6	102	64	58.0	36	100.22	**04600**
4.70	6	102	64	58.0	36	100.22	**04700**
4.80	6	116	78	70.0	36	100.22	**04800**
4.90	6	116	78	70.0	36	100.22	**04900**
5.00	6	116	78	70.0	36	100.22	**05000**
5.10	6	116	78	70.0	36	100.22	**05100**
5.20	6	116	78	70.0	36	100.22	**05200**
5.30	6	116	78	70.0	36	100.22	**05300**
5.40	6	116	78	70.0	36	100.22	**05400**
5.50	6	116	78	70.0	36	100.22	**05500**
5.60	6	116	78	70.0	36	100.22	**05600**
5.70	6	116	78	70.0	36	100.22	**05700**
5.80	6	116	78	70.0	36	100.22	**05800**
5.90	6	116	78	70.0	36	100.22	**05900**
6.00	6	116	78	70.0	36	100.22	**06000**
6.10	8	146	108	94.0	36	111.65	**06100**
6.20	8	146	108	94.0	36	111.65	**06200**
6.30	8	146	108	94.0	36	111.65	**06300**
6.40	8	146	108	94.0	36	111.65	**06400**
6.50	8	146	108	94.0	36	111.65	**06500**
6.60	8	146	108	94.0	36	111.65	**06600**
6.70	8	146	108	94.0	36	111.65	**06700**
6.80	8	146	108	94.0	36	111.65	**06800**

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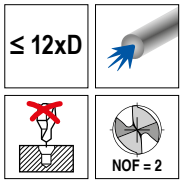
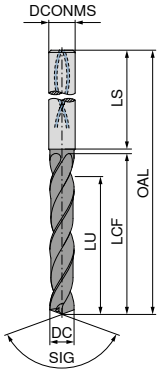
WPC – High Performance Drill, factory standard





UNI

TiAlN

SIG 135°
Solid carbide

11 705 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1/9C	
6.90	8	146	108	94.0	36	111.65	**06900**
7.00	8	146	108	94.0	36	111.65	**07000**
7.10	8	146	108	94.0	36	111.65	**07100**
7.20	8	146	108	94.0	36	111.65	**07200**
7.30	8	146	108	94.0	36	111.65	**07300**
7.40	8	146	108	94.0	36	111.65	**07400**
7.50	8	146	108	94.0	36	111.65	**07500**
7.60	8	146	108	94.0	36	111.65	**07600**
7.70	8	146	108	94.0	36	111.65	**07700**
7.80	8	146	108	94.0	36	111.65	**07800**
7.90	8	146	108	94.0	36	111.65	**07900**
8.00	8	146	108	94.0	36	111.65	**08000**
8.10	10	162	120	110.0	40	156.05	**08100**
8.20	10	162	120	110.0	40	156.05	**08200**
8.30	10	162	120	110.0	40	156.05	**08300**
8.40	10	162	120	110.0	40	156.05	**08400**
8.50	10	162	120	110.0	40	156.05	**08500**
8.60	10	162	120	110.0	40	156.05	**08600**
8.70	10	162	120	110.0	40	156.05	**08700**
8.80	10	162	120	110.0	40	156.05	**08800**
8.90	10	162	120	110.0	40	156.05	**08900**
9.00	10	162	120	110.0	40	156.05	**09000**
9.10	10	162	120	110.0	40	156.05	**09100**
9.20	10	162	120	110.0	40	156.05	**09200**
9.30	10	162	120	110.0	40	156.05	**09300**
9.40	10	162	120	110.0	40	156.05	**09400**
9.50	10	162	120	110.0	40	156.05	**09500**
9.60	10	162	120	110.0	40	156.05	**09600**
9.70	10	162	120	110.0	40	156.05	**09700**
9.80	10	162	120	110.0	40	156.05	**09800**
9.90	10	162	120	110.0	40	156.05	**09900**
10.00	10	162	120	110.0	40	156.05	**10000**
10.20	12	204	156	142.0	45	215.67	**10200**
10.50	12	204	156	142.0	45	215.67	**10500**
10.80	12	204	156	142.0	45	215.67	**10800**
11.00	12	204	156	142.0	45	215.67	**11000**
11.50	12	204	156	142.0	45	215.67	**11500**
11.80	12	204	156	142.0	45	215.67	**11800**
12.00	12	204	156	142.0	45	215.67	**12000**

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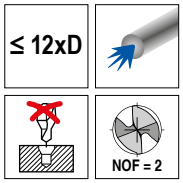
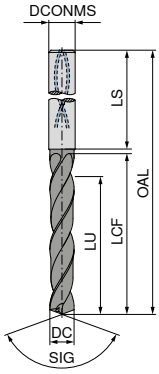
WPC – High Performance Drill, factory standard





UNI

TiAlN

SIG 135°
Solid carbide

11 705 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1/9C	
12.50	14	230	182	166.0	45	277.84	**12500**
12.70	14	230	182	166.0	45	277.84	**12700**
12.80	14	230	182	166.0	45	277.84	**12800**
13.00	14	230	182	166.0	45	277.84	**13000**
13.50	14	230	182	166.0	45	277.84	**13500**
13.80	14	230	182	166.0	45	277.84	**13800**
14.00	14	230	182	166.0	45	277.84	**14000**
14.50	16	260	208	192.0	48	366.65	**14500**
14.80	16	260	208	192.0	48	366.65	**14800**
15.00	16	260	208	192.0	48	366.65	**15000**
15.50	16	260	208	192.0	48	366.65	**15500**
15.80	16	260	208	192.0	48	366.65	**15800**
16.00	16	260	208	192.0	48	366.65	**16000**
16.50	18	285	234	216.0	48	437.68	**16500**
17.00	18	285	234	216.0	48	437.68	**17000**
17.50	18	285	234	216.0	48	437.68	**17500**
18.00	18	285	234	216.0	48	437.68	**18000**
18.50	20	310	258	240.0	50	437.68	**18500**
19.00	20	310	258	240.0	50	437.68	**19000**
19.50	20	310	258	240.0	50	437.68	**19500**
20.00	20	310	258	240.0	50	437.68	**20000**

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→ v_c Page 33

WPC – Indexable insert for indexable insert drill

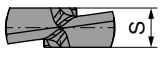
Scope of supply:

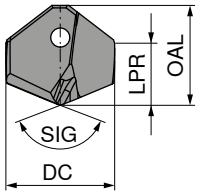
Indexable insert (clamping screws can be ordered separately, if necessary)

NEW

Change UNI

TPX74S





SIG 135°

HM

11 910 ...

DC m7 mm	OAL mm	LPR mm	S mm	£ TS	
14.00	12.8	7.73	5.0	89.44	14000
14.10	12.8	7.73	5.0	89.44	14100
14.20	12.8	7.73	5.0	89.44	14200
14.30	12.8	7.73	5.0	89.44	14300
14.40	12.8	7.73	5.0	89.44	14400
14.50	13.1	7.84	5.0	89.44	14500
14.60	13.1	7.84	5.0	89.44	14600
14.70	13.1	7.84	5.0	89.44	14700
14.80	13.1	7.84	5.0	90.82	14800
14.90	13.1	7.84	5.0	90.82	14900
15.00	13.4	7.95	5.0	90.82	15000
15.10	13.4	7.95	5.0	90.82	15100
15.20	13.4	7.95	5.0	90.82	15200
15.30	13.4	7.95	5.0	90.82	15300
15.40	13.4	7.95	5.0	90.82	15400
15.50	13.7	8.05	5.0	90.82	15500
15.60	13.7	8.05	5.0	90.82	15600
15.70	13.7	8.05	5.0	90.82	15700
15.80	13.7	8.05	5.0	96.34	15800
15.90	13.7	8.05	5.0	96.34	15900
16.00	14.4	9.06	5.8	96.34	16000
16.10	14.4	9.06	5.8	96.34	16100
16.20	14.4	9.06	5.8	96.34	16200
16.30	14.4	9.06	5.8	96.34	16300
16.40	14.4	9.06	5.8	96.34	16400
16.50	14.7	9.17	5.8	96.34	16500
16.60	14.7	9.17	5.8	96.34	16600
16.70	14.7	9.17	5.8	96.34	16700
16.80	14.7	9.17	5.8	98.64	16800
16.90	14.7	9.17	5.8	98.64	16900
17.00	15.0	9.28	5.8	98.64	17000
17.10	15.0	9.28	5.8	98.64	17100
17.20	15.0	9.28	5.8	98.64	17200
17.30	15.0	9.28	5.8	98.64	17300
17.40	15.0	9.28	5.8	98.64	17400
17.50	15.3	9.39	5.8	98.64	17500
17.60	15.3	9.39	5.8	98.64	17600
17.70	15.3	9.39	5.8	98.64	17700
17.80	15.3	9.39	5.8	100.95	17800
17.90	15.3	9.39	5.8	100.95	17900
18.00	16.3	10.19	6.5	100.95	18000
18.10	16.3	10.19	6.5	100.95	18100
18.20	16.3	10.19	6.5	100.95	18200
18.30	16.3	10.19	6.5	100.95	18300
18.40	16.3	10.19	6.5	100.95	18400
18.50	16.6	10.30	6.5	100.95	18500
18.60	16.6	10.30	6.5	100.95	18600
18.70	16.6	10.30	6.5	100.95	18700
18.80	16.6	10.30	6.5	103.91	18800
18.90	16.6	10.30	6.5	103.91	18900
19.00	16.9	10.41	6.5	103.91	19000
19.10	16.9	10.41	6.5	103.91	19100
19.20	16.9	10.41	6.5	103.91	19200
19.30	16.9	10.41	6.5	103.91	19300
19.40	16.9	10.41	6.5	103.91	19400
19.50	17.2	10.52	6.5	103.91	19500
19.60	17.2	10.52	6.5	103.91	19600
19.70	17.2	10.52	6.5	103.91	19700
19.80	17.2	10.52	6.5	107.34	19800
19.90	17.2	10.52	6.5	107.34	19900

11 910 ...

DC m7 mm	OAL mm	LPR mm	S mm	£ TS	
20.00	18.2	11.33	7.2	107.34	20000
20.10	18.2	11.33	7.2	107.34	20100
20.20	18.2	11.33	7.2	107.34	20200
20.30	18.2	11.33	7.2	107.34	20300
20.40	18.2	11.33	7.2	107.34	20400
20.50	18.5	11.43	7.2	107.34	20500
20.60	18.5	11.43	7.2	107.34	20600
20.70	18.5	11.43	7.2	107.34	20700
20.80	18.5	11.43	7.2	110.35	20800
20.90	18.5	11.43	7.2	110.35	20900
21.00	18.8	11.54	7.2	110.35	21000
21.10	18.8	11.54	7.2	110.35	21100
21.20	18.8	11.54	7.2	110.35	21200
21.30	18.8	11.54	7.2	110.35	21300
21.40	18.8	11.54	7.2	110.35	21400
21.50	19.1	11.65	7.2	110.35	21500
21.60	19.1	11.65	7.2	110.35	21600
21.70	19.1	11.65	7.2	110.35	21700
21.80	19.1	11.65	7.2	112.94	21800
21.90	19.1	11.65	7.2	112.94	21900
22.00	20.2	12.56	7.9	112.94	22000
22.10	20.2	12.56	7.9	112.94	22100
22.20	20.2	12.56	7.9	112.94	22200
22.30	20.2	12.56	7.9	112.94	22300
22.40	20.2	12.56	7.9	112.94	22400
22.50	20.5	12.67	7.9	112.94	22500
22.60	20.5	12.67	7.9	112.94	22600
22.70	20.5	12.67	7.9	112.94	22700
22.80	20.5	12.67	7.9	117.20	22800
22.90	20.5	12.67	7.9	117.20	22900
23.00	20.8	12.78	7.9	117.20	23000
23.10	20.8	12.78	7.9	117.20	23100
23.20	20.8	12.78	7.9	117.20	23200
23.30	20.8	12.78	7.9	117.20	23300
23.40	20.8	12.78	7.9	117.20	23400
23.50	21.1	12.88	7.9	117.20	23500
23.60	21.1	12.88	7.9	117.20	23600
23.70	21.1	12.88	7.9	117.20	23700
23.80	21.1	12.88	7.9	123.53	23800
23.90	21.1	12.88	7.9	123.53	23900
24.00	22.1	13.69	8.6	123.53	24000
24.10	22.1	13.69	8.6	123.53	24100
24.20	22.1	13.69	8.6	123.53	24200
24.30	22.1	13.69	8.6	123.53	24300
24.40	22.1	13.69	8.6	123.53	24400
24.50	22.4	13.80	8.6	123.53	24500
24.60	22.4	13.80	8.6	123.53	24600
24.70	22.4	13.80	8.6	123.53	24700
24.80	22.4	13.80	8.6	130.62	24800
24.90	22.4	13.80	8.6	130.62	24900
25.00	22.7	13.91	8.6	130.62	25000
25.10	22.7	13.91	8.6	130.62	25100
25.20	22.7	13.91	8.6	130.62	25200
25.30	22.7	13.91	8.6	130.62	25300
25.40	22.7	13.91	8.6	130.62	25400
25.50	23.0	14.02	8.6	130.62	25500
25.60	23.0	14.02	8.6	130.62	25600
25.70	23.0	14.02	8.6	130.62	25700
25.80	23.0	14.02	8.6	137.39	25800
25.90	23.0	14.02	8.6	137.39	25900
26.00	24.1	14.92	9.4	137.39	26000
26.50	24.4	15.03	9.4	137.39	26500
27.00	24.7	15.14	9.4	147.75	27000
27.50	25.0	15.25	9.4	147.75	27500
28.00	25.3	15.36	9.4	147.75	28000
28.50	25.6	15.47	9.4	154.07	28500
29.00	25.9	15.57	9.4	154.07	29000
29.50	26.2	15.68	9.4	159.82	29500
30.00	26.2	15.49	9.4	159.82	30000

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→ Application recommendation on page 35

When changing inserts, please observe the specified tightening torque.

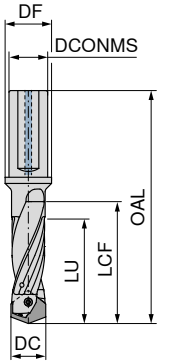
WPC – Holder for indexable insert drill

▲ Easy handling
▲ Insert can be changed in the machine
▲ Precise and stable insert seat, clamping via TORX PLUS® screw

Scope of supply:
Holder incl. clamping screw

≤ 3xD

NEW
Change



11 903 ...

DC mm	DCONMS mm	OAL mm	LCF mm	LU mm	DF mm	torque moment Nm	£ TT	
14,00 - 14,49	16	108.9	50.8	43.5	20	0.9	263.49	**14000**
14,50 - 14,99	16	111.0	52.5	45.0	20	0.9	263.49	**14500**
15,00 - 15,49	20	115.1	54.3	46.5	25	0.9	263.49	**15000**
15,50 - 15,99	20	117.2	56.0	48.0	25	0.9	263.49	**15500**
16,00 - 16,49	20	119.3	57.8	49.5	25	1.2	289.10	**16000**
16,50 - 16,99	20	121.4	59.5	51.0	25	1.2	289.10	**16500**
17,00 - 17,49	20	123.5	61.3	52.5	25	1.2	289.10	**17000**
17,50 - 17,99	20	125.6	63.0	54.0	25	1.2	289.10	**17500**
18,00 - 18,49	20	127.7	64.8	55.5	25	2.2	308.22	**18000**
18,50 - 18,99	20	129.8	66.5	57.0	25	2.2	308.22	**18500**
19,00 - 19,49	25	137.9	68.3	58.5	30	2.2	308.22	**19000**
19,50 - 19,99	25	140.0	70.0	60.0	30	2.2	308.22	**19500**
20,00 - 20,49	25	142.1	71.8	61.5	30	2.2	327.33	**20000**
20,50 - 20,99	25	144.2	73.5	63.0	30	2.2	327.33	**20500**
21,00 - 21,49	25	146.3	75.3	64.5	30	2.2	356.01	**21000**
21,50 - 21,99	25	148.4	77.0	66.0	30	2.2	361.16	**21500**
22,00 - 22,49	25	150.5	78.8	67.5	30	3.2	366.20	**22000**
22,50 - 22,99	25	152.6	80.5	69.0	30	3.2	371.21	**22500**
23,00 - 23,49	25	154.7	82.3	70.5	30	3.2	376.48	**23000**
23,50 - 23,99	25	156.8	84.0	72.0	30	3.2	381.51	**23500**
24,00 - 24,49	32	162.9	85.8	73.5	39	5	386.54	**24000**
24,50 - 24,99	32	165.0	87.5	75.0	39	5	391.67	**24500**
25,00 - 25,49	32	167.1	89.3	76.5	39	5	396.69	**25000**
25,50 - 25,99	32	169.2	91.0	78.0	39	5	401.85	**25500**
26,00 - 26,49	32	171.3	92.8	79.5	39	6	406.88	**26000**
26,50 - 26,99	32	173.4	94.5	81.0	39	6	412.02	**26500**
27,00 - 27,49	32	175.5	96.3	82.5	39	6	417.04	**27000**
27,50 - 27,99	32	177.6	98.0	84.0	39	6	422.07	**27500**
28,00 - 28,49	32	179.7	99.8	85.5	39	6	427.33	**28000**
28,50 - 28,99	32	181.8	101.5	87.0	39	6	432.37	**28500**
29,00 - 29,49	32	183.9	103.3	88.5	39	6	437.38	**29000**
29,50 - 30,00	32	186.0	105.0	90.0	39	6	442.53	**29500**

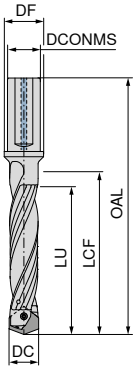
WPC – Holder for indexable insert drill

▲ Easy handling
▲ Insert can be changed in the machine
▲ Precise and stable insert seat, clamping via TORX PLUS® screw

Scope of supply:
Holder incl. clamping screw

≤ 5xD

NEW
Change



11 905 ...

DC mm	DCONMS mm	OAL mm	LCF mm	LU mm	DF mm	torque moment Nm	£ TT	
14,00 - 14,49	16	137.9	79.8	72.5	20	0.9	285.55	**14000**
14,50 - 14,99	16	141.0	82.5	75.0	20	0.9	285.55	**14500**
15,00 - 15,49	20	146.1	85.3	77.5	25	0.9	285.55	**15000**
15,50 - 15,99	20	149.2	88.0	80.0	25	0.9	285.55	**15500**
16,00 - 16,49	20	152.3	90.8	82.5	25	1.2	310.90	**16000**
16,50 - 16,99	20	155.4	93.5	85.0	25	1.2	310.90	**16500**
17,00 - 17,49	20	158.5	96.3	87.5	25	1.2	310.90	**17000**
17,50 - 17,99	20	161.6	99.0	90.0	25	1.2	310.90	**17500**
18,00 - 18,49	20	164.7	101.8	92.5	25	2.2	330.77	**18000**
18,50 - 18,99	20	167.8	104.5	95.0	25	2.2	330.77	**18500**
19,00 - 19,49	25	176.9	107.3	97.5	30	2.2	330.77	**19000**
19,50 - 19,99	25	180.0	110.0	100.0	30	2.2	330.77	**19500**
20,00 - 20,49	25	183.1	112.8	102.5	30	2.2	349.39	**20000**
20,50 - 20,99	25	186.2	115.5	105.0	30	2.2	349.39	**20500**
21,00 - 21,49	25	189.3	118.3	107.5	30	2.2	379.17	**21000**
21,50 - 21,99	25	192.4	121.0	110.0	30	2.2	384.20	**21500**
22,00 - 22,49	25	195.5	123.8	112.5	30	3.2	389.22	**22000**
22,50 - 22,99	25	198.6	126.5	115.0	30	3.2	394.38	**22500**
23,00 - 23,49	25	201.7	129.3	117.5	30	3.2	399.51	**23000**
23,50 - 23,99	25	204.8	132.0	120.0	30	3.2	404.54	**23500**
24,00 - 24,49	32	211.9	134.8	122.5	39	5	409.70	**24000**
24,50 - 24,99	32	215.0	137.5	125.0	39	5	414.72	**24500**
25,00 - 25,49	32	218.1	140.3	127.5	39	5	419.85	**25000**
25,50 - 25,99	32	221.2	143.0	130.0	39	5	425.01	**25500**
26,00 - 26,49	32	224.3	145.8	132.5	39	6	430.04	**26000**
26,50 - 26,99	32	227.4	148.5	135.0	39	6	435.06	**26500**
27,00 - 27,49	32	230.5	151.3	137.5	39	6	440.20	**27000**
27,50 - 27,99	32	233.6	154.0	140.0	39	6	445.35	**27500**
28,00 - 28,49	32	236.7	156.8	142.5	39	6	450.38	**28000**
28,50 - 28,99	32	239.8	159.5	145.0	39	6	455.40	**28500**
29,00 - 29,49	32	242.9	162.3	147.5	39	6	460.56	**29000**
29,50 - 30,00	32	246.0	165.0	150.0	39	6	465.58	**29500**

Screwdriver

80 950 ...

Spare parts

DC		£ Y7	
14,00 - 15,99	T08 - IP	11.07	**060**
16,00 - 17,99	T08 - IP	11.07	**060**
18,00 - 21,99	T10 - IP	10.85	**062**
22,00 - 23,99	T10 - IP	10.85	**062**
24,00 - 25,99	T15 - IP	11.44	**063**
26,00 - 30,00	T20 - IP	12.73	**064**

Replaceable Blade for TORX PLUS®

80 950 ...

		£ Y7	
T08 - IP		8.91	**043**
T08 - IP		8.91	**043**
T10 - IP		8.91	**053**
T10 - IP		8.91	**053**
T15 - IP		8.91	**054**
T20 - IP		8.91	**055**

Torque screwdrivers

80 950 ...

		£ Y7	
0,5 - 2,0 Nm		217.91	**191**
0,5 - 2,0 Nm		217.91	**191**
2,0 - 7,0 Nm		244.07	**193**
2,0 - 7,0 Nm		244.07	**193**
2,0 - 7,0 Nm		244.07	**193**
2,0 - 7,0 Nm		244.07	**193**

Clamping screw

11 950 ...

		£ TT	
M2,2x13 - 08IP		11.54	**00100**
M2,5x15 - 08IP		11.54	**00200**
M3,0x17 - 10IP		12.34	**00300**
M3,5x21 - 10IP		12.34	**00400**
M4,0x23 - 15IP		12.34	**00500**
M4,5x25 - 20IP		14.54	**00600**

Material examples for cutting data tables

	Material sub-group	Index	Composition / Structure / Heat treatment		Tensile strength N/mm²* / HB / HRC	Material number	Material designation	Material number	Material designation
P	Unalloyed steel	P.1.1	< 0,15 % C	Annealed	420 N/mm² / 125 HB	1.0401	C15	1.1141	Ck15
		P.1.2	< 0,45 % C	Annealed	640 N/mm² / 190 HB	1.1191	C45E	1.0718	9SMnPb28
		P.1.3		Tempered	840 N/mm² / 250 HB	1.1191	C45E	1.0535	C55
		P.1.4	< 0,75 % C	Annealed	910 N/mm² / 270 HB	1.1223	C60R	1.0535	C55
		P.1.5		Tempered	1010 N/mm² / 300 HB	1.1223	C60R	1.0727	45S20
	Low-alloy steel	P.2.1		Annealed	610 N/mm² / 180 HB	1.7131	16MnCr5	1.6587	17CrNiMo6
		P.2.2		Tempered	930 N/mm² / 275 HB	1.7131	16MnCr5	1.6587	17CrNiMo6
		P.2.3		Tempered	1010 N/mm² / 300 HB	1.7225	42CrMo4	1.3505	100Cr6
		P.2.4		Tempered	1200 N/mm² / 375 HB	1.7225	42CrMo4	1.3505	100Cr6
	High-alloy steel and high-alloy tool steel	P.3.1		Annealed	680 N/mm² / 200 HB	1.4021	X20Cr13	1.4034	X46Cr13
		P.3.2		Hardened and tempered	1100 N/mm² / 300 HB	1.2343	X38CrMoV5-1	1.4034	X46Cr13
		P.3.3		Hardened and tempered	1300 N/mm² / 400 HB	1.2343	X38CrMoV5-1	1.4034	X46Cr13
	Stainless steel	P.4.1	Ferritic / martensitic	Annealed	680 N/mm² / 200 HB	1.4016	X6Cr17	1.2316	X36CrMo16
		P.4.2	Martensitic	Tempered	1010 N/mm² / 300 HB	1.4112	X90CrMoV18	1.2316	X36CrMo16
M	Stainless steel	M.1.1	Austenitic / austenitic-ferritic	Quenched	610 N/mm² / 180 HB	1.4301	X5CrNi18-10	1.4571	X6CrNiMoTi17-12-2
		M.2.1	Austenitic	Tempered	300 HB	1.4841	X15CrNiSi25-21	1.4539	X1NiCrMoCu25-20-5
		M.3.1	Austenitic / ferritic (Duplex)		780 N/mm² / 230 HB	1.4462	X2CrNiMoN22-5-3	1.4501	X2CrNiMoCuWN25-7-4
K	Grey cast iron	K.1.1	Pearlitic / ferritic		350 N/mm² / 180 HB	0.6010	GG-10	0.6025	GG-25
		K.1.2	Pearlitic (martensitic)		500 N/mm² / 260 HB	0.6030	GG-30	0.6045	GG-45
	Spherulitic graphite cast iron	K.2.1	Ferritic		540 N/mm² / 160 HB	0.7040	GGG-40	0.7060	GGG-60
		K.2.2	Pearlitic		845 N/mm² / 250 HB	0.7070	GGG-70	0.7080	GGG-80
	Malleable iron	K.3.1	Ferritic		440 N/mm² / 130 HB	0.8035	GTW-35-04	0.8045	GTW-45
		K.3.2	Pearlitic		780 N/mm² / 230 HB	0.8165	GTS-65-02	0.8170	GTS-70-02
N	Aluminium wrought alloy	N.1.1	Non-hardenable		60 HB	3.0255	Al99,5	3.3315	AlMg1
		N.1.2	Hardenable	Age-hardened	340 N/mm² / 100 HB	3.1355	AlCuMg2	3.2315	AlMgSi1
	Cast aluminium alloy	N.2.1	≤ 12 % Si, non-hardenable		250 N/mm² / 75 HB	3.2581	G-AlSi12	3.2163	G-AlSi9Cu3
		N.2.2	≤ 12 % Si, hardenable	Age-hardened	300 N/mm² / 90 HB	3.2134	G-AlSi5Cu1Mg	3.2373	G-AlSi9Mg
		N.2.3	> 12 % Si, non-hardenable		440 N/mm² / 130 HB		G-AlSi17Cu4Mg		G-AlSi18CuNiMg
	Copper and copper alloys (bronze/brass)	N.3.1	Free-machining alloys, PB > 1 %		375 N/mm² / 110 HB	2.0380	CuZn39Pb2 (Ms58)	2.0410	CuZn44Pb2
		N.3.2	CuZn, CuSnZn		300 N/mm² / 90 HB	2.0331	CuZn15	2.4070	CuZn28Sn1As
		N.3.3	CuSn, lead-free copper and electrolytic copper		340 N/mm² / 100 HB	2.0060	E-Cu57	2.0590	CuZn40Fe
	Magnesium alloys	N.4.1	Magnesium and magnesium alloys		70 HB	3.5612	MgAl6Zn	3.5312	MgAl3Zn
S	Heat-resistant alloys	S.1.1	Fe - basis	Annealed	680 N/mm² / 200 HB	1.4864	X12NiCrSi 36-16	1.4865	G-X40NiCrSi38-18
		S.1.2		Age-hardened	950 N/mm² / 280 HB	1.4980	X6NiCrTiMoVB25-15-2	1.4876	X10NiCrAlTi32-20
		S.2.1	Ni or Co basis	Annealed	840 N/mm² / 250 HB	2.4631	NiCr20TiAl (Nimonic80A)	3.4856	NiCr22Mo9Nb
		S.2.2		Age-hardened	1180 N/mm² / 350 HB	2.4668	NiCr19Nb5Mo3 (Inconel 718)	2.4955	NiFe25Cr20NbTi
		S.2.3		Cast	1080 N/mm² / 320 HB	2.4765	CoCr20W15Ni	1.3401	G-X120Mn12
	Titanium alloys	S.3.1	Pure titanium		400 N/mm²	3.7025	Ti99,8	3.7034	Ti99,7
		S.3.2	Alpha + beta alloys	Age-hardened	1050 N/mm² / 320 HB	3.7165	TiAl6V4	Ti-6246	Ti-6Al-2Sn-4Zr-6Mo
		S.3.3	Beta alloys		1400 N/mm² / 410 HB	Ti555.3	Ti-5Al-5V-5Mo-3Cr	R56410	Ti-10V-2Fe-3Al
H	Hardened steel	H.1.1		Hardened and tempered	46–55 HRC				
		H.1.2		Hardened and tempered	56–60 HRC				
		H.1.3		Hardened and tempered	61–65 HRC				
		H.1.4		Hardened and tempered	66–70 HRC				
	Chilled iron	H.2.1		Cast	400 HB				
	Hardened cast iron	H.3.1		Hardened and tempered	55 HRC				
O	Non-metal materials	O.1.1	Plastics, duroplastic		≤ 150 N/mm²				
		O.1.2	Plastics, thermoplastic		≤ 100 N/mm²				
		O.2.1	Aramid fibre-reinforced		≤ 1000 N/mm²				
		O.2.2	Glass/carbon-fibre reinforced		≤ 1000 N/mm²				
		O.3.1	Graphite						

*** Tensile strength**

Cutting data standard values – WPC – UNI – 3xD and 5xD

Index	11 706 ..., 11 707 ..., 11 709 ..., 11 710 ...																
	3xD / 5xD																
	without through coolant	≤ Ø 1	Ø 1–1,25	Ø 1,25–1,5	Ø 1,5–2	Ø 2–2,5	Ø 2,5–3	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
	v_c (m/min)	f (mm/rev)															
P.1.1	90	0,03	0,04	0,05	0,06	0,08	0,09	0,13	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,36	0,38
P.1.2	75	0,03	0,03	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.1.3	75	0,03	0,03	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.1.4	70	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.1.5	70	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.2.1	80	0,03	0,04	0,05	0,06	0,08	0,09	0,13	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,36	0,38
P.2.2	70	0,03	0,03	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.2.3	70	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.2.4	55	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.1	70	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.2	55	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.3																	
P.4.1																	
P.4.2																	
M.1.1																	
M.2.1																	
M.3.1																	
K.1.1	90	0,04	0,05	0,06	0,08	0,10	0,13	0,16	0,18	0,22	0,25	0,29	0,33	0,37	0,40	0,43	0,46
K.1.2	75	0,04	0,05	0,06	0,08	0,10	0,13	0,16	0,18	0,22	0,25	0,29	0,33	0,37	0,40	0,43	0,46
K.2.1	75	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.2.2	70	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.3.1	75	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.3.2	70	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
N.1.1																	
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O.1.1																	
O.1.2																	
O.2.1																	
O.2.2																	
O.3.1																	

The cutting data depends extremely on the external conditions, the material and machine type. The indicated values are possible values which have to be increased or reduced according to the application conditions.

Cutting data standard values – WPC – UNI – 3xD and 5xD

Index	11 700 ..., 11 701 ..., 11 702 ..., 11 703 ...																
	3xD / 5xD																
	with through coolant	≤ Ø 1	Ø 1–1,25	Ø 1,25–1,5	Ø 1,5–2	Ø 2–2,5	Ø 2,5–3	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
	v_c (m/min)	f (mm/rev)															
P.1.1	115	0,03	0,04	0,05	0,06	0,08	0,09	0,13	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,36	0,38
P.1.2	95	0,03	0,03	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.1.3	95	0,03	0,03	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.1.4	85	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.1.5	85	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.2.1	95	0,03	0,04	0,05	0,06	0,08	0,09	0,13	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,36	0,38
P.2.2	85	0,03	0,03	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.2.3	85	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.2.4	70	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.1	85	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.2	70	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.3	40	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.4.1	50	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.4.2	30	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
M.1.1	35	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
M.2.1	35	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
M.3.1	35	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
K.1.1	115	0,04	0,05	0,06	0,08	0,10	0,13	0,16	0,18	0,22	0,25	0,29	0,33	0,37	0,40	0,43	0,46
K.1.2	95	0,04	0,05	0,06	0,08	0,10	0,13	0,16	0,18	0,22	0,25	0,29	0,33	0,37	0,40	0,43	0,46
K.2.1	95	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.2.2	90	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.3.1	95	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.3.2	90	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
N.1.1	200	0,03	0,03	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
N.1.2	200	0,03	0,03	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
N.2.1	160	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23	0,26	0,29	0,33
N.2.2	160	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23	0,26	0,29	0,33
N.2.3	140	0,02	0,02	0,03	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
N.3.1	120	0,02	0,02	0,03	0,03	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,18
N.3.2	120	0,02	0,02	0,03	0,03	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,18
N.3.3	100	0,02	0,02	0,03	0,03	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,18
N.4.1																	
S.1.1																	
S.1.2																	
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O.2.1																	
O.2.2																	
O.3.1																	

The cutting data depends extremely on the external conditions, the material and machine type. The indicated values are possible values which have to be increased or reduced according to the application conditions.

Cutting data standard values – WPC – VA – 3xD

Index	11 711 ..., 11 712 ...																
	3xD																
	without through coolant	≤ Ø 1	Ø 1–1,25	Ø 1,25–1,5	Ø 1,5–2	Ø 2–2,5	Ø 2,5–3	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
	v_c (m/min)	f (mm/rev)															
P.1.1	75	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
P.1.2																	
P.1.3																	
P.1.4																	
P.1.5																	
P.2.1	65	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
P.2.2	60	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
P.2.3																	
P.2.4																	
P.3.1																	
P.3.2																	
P.3.3																	
P.4.1	**45**	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
P.4.2	**30**	0,01	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,20	0,21
M.1.1	**35**	0,01	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,20	0,21
M.2.1	**35**	0,01	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,20	0,21
M.3.1	**35**	0,01	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,20	0,21
K.1.1																	
K.1.2																	
K.2.1																	
K.2.2																	
K.3.1																	
K.3.2																	
N.1.1	160	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,20	0,24	0,27	0,31	0,32	0,34	0,36
N.1.2	160	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,20	0,24	0,27	0,31	0,32	0,34	0,36
N.2.1	130	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,20	0,24	0,27	0,31	0,32	0,34	0,36
N.2.2	130	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,20	0,24	0,27	0,31	0,32	0,34	0,36
N.2.3	110	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
N.3.1	160	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,20	0,24	0,27	0,31	0,32	0,34	0,36
N.3.2	160	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,20	0,24	0,27	0,31	0,32	0,34	0,36
N.3.3	225	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
N.4.1																	
S.1.1																	
S.1.2																	
S.2.1																	
S.2.2																	
S.2.3																	
S.3.1	30	0,002	0,004	0,006	0,009	0,013	0,017	0,025	0,032	0,04	0,06	0,07	0,09	0,10	0,11	0,12	0,12
S.3.2	20	0,002	0,004	0,006	0,009	0,013	0,017	0,025	0,032	0,04	0,06	0,07	0,09	0,10	0,11	0,12	0,12
S.3.3																	
H.1.1																	
H.1.2																	
H.1.3																	
H.1.4																	
H.2.1																	
H.3.1																	
O.1.1	100	0,01	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,2	0,21
O.1.2	80	0,002	0,004	0,007	0,012	0,016	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13	0,13	0,14	0,15
O.2.1																	
O.2.2																	
O.3.1																	

The cutting data is strongly influenced by external conditions, such as the stability of the tool and workpiece clamping, material and type of machine. The specified values represent guideline cutting data that must be corrected according to the usage conditions.

Cutting data standard values – WPC – VA – 3xD and 5xD

Index	11 713 ..., 11 714 ..., 11 715 ..., 11 716 ...																
	3xD / 5xD																
	with through coolant	≤ Ø 1	Ø 1–1,25	Ø 1,25–1,5	Ø 1,5–2	Ø 2–2,5	Ø 2,5–3	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
	v_c (m/min)	f (mm/rev)															
P.1.1	85	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
P.1.2																	
P.1.3																	
P.1.4																	
P.1.5																	
P.2.1	75	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
P.2.2	65	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
P.2.3																	
P.2.4																	
P.3.1																	
P.3.2																	
P.3.3																	
P.4.1	55	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
P.4.2	40	0,01	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,20	0,21
M.1.1	45	0,01	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,20	0,21
M.2.1	45	0,01	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,20	0,21
M.3.1	45	0,01	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,20	0,21
K.1.1																	
K.1.2																	
K.2.1																	
K.2.2																	
K.3.1																	
K.3.2																	
N.1.1	200	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,2	0,24	0,27	0,31	0,32	0,34	0,36
N.1.2	200	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,2	0,24	0,27	0,31	0,32	0,34	0,36
N.2.1	160	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,2	0,24	0,27	0,31	0,32	0,34	0,36
N.2.2	160	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,2	0,24	0,27	0,31	0,32	0,34	0,36
N.2.3	140	0,027	0,034	0,04	0,05	0,07	0,08	0,1	0,11	0,12	0,15	0,18	0,2	0,23	0,24	0,26	0,27
N.3.1	200	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,2	0,24	0,27	0,31	0,32	0,34	0,36
N.3.2	200	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,16	0,2	0,24	0,27	0,31	0,32	0,34	0,36
N.3.3	280	0,027	0,034	0,04	0,05	0,07	0,08	0,10	0,11	0,12	0,15	0,18	0,20	0,23	0,24	0,26	0,27
N.4.1																	
S.1.1																	
S.1.2																	
S.2.1	15	0,002	0,004	0,006	0,009	0,013	0,017	0,025	0,032	0,04	0,06	0,07	0,09	0,10	0,11	0,12	0,12
S.2.2	15	0,002	0,004	0,006	0,009	0,013	0,017	0,025	0,032	0,04	0,06	0,07	0,09	0,10	0,11	0,12	0,12
S.2.3	15	0,002	0,004	0,006	0,009	0,013	0,017	0,025	0,032	0,04	0,06	0,07	0,09	0,10	0,11	0,12	0,12
S.3.1	35	0,002	0,004	0,006	0,009	0,013	0,017	0,025	0,032	0,04	0,06	0,07	0,09	0,10	0,11	0,12	0,12
S.3.2	25	0,002	0,004	0,006	0,009	0,013	0,017	0,025	0,032	0,04	0,06	0,07	0,09	0,10	0,11	0,12	0,12
S.3.3																	
H.1.1																	
H.1.2																	
H.1.3																	
H.1.4																	
H.2.1																	
H.3.1																	
O.1.1	120	0,009	0,015	0,02	0,03	0,04	0,05	0,06	0,08	0,09	0,11	0,13	0,15	0,17	0,19	0,20	0,21
O.1.2	100	0,002	0,004	0,007	0,012	0,016	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13	0,13	0,14	0,15
O.2.1																	
O.2.2																	
O.3.1																	

The cutting data is strongly influenced by external conditions, such as the stability of the tool and workpiece clamping, material and type of machine. The specified values represent guideline cutting data that must be corrected according to the usage conditions.

Cutting data standard values – WPC – UNI – 8xD

Index	11 704 ...										
	8xD										
	with through coolant	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
	v_c (m/min)	f (mm/rev)									
P.1.1	100	0,13	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,36	0,38
P.1.2	80	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.1.3	80	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.1.4	75	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.1.5	75	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.2.1	80	0,13	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,36	0,38
P.2.2	75	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.2.3	75	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.2.4	60	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.1	75	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.2	60	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.3	35	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.4.1	40	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.4.2	25	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
M.1.1	30	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
M.2.1	30	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
M.3.1	30	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
K.1.1	100	0,16	0,18	0,22	0,25	0,29	0,33	0,37	0,40	0,43	0,46
K.1.2	80	0,16	0,18	0,22	0,25	0,29	0,33	0,37	0,40	0,43	0,46
K.2.1	80	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.2.2	75	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.3.1	80	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.3.2	75	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
N.1.1											
N.1.2											
N.2.1											
N.2.2											
N.2.3											
N.3.1											
N.3.2											
N.3.3											
N.4.1											
S.1.1											
S.1.2											
S.2.1											
S.2.2											
S.2.3											
S.3.1											
S.3.2											
S.3.3											
H.1.1											
H.1.2											
H.1.3											
H.1.4											
H.2.1											
H.3.1											
O.1.1											
O.1.2											
O.2.1											
O.2.2											
O.3.1											

The cutting data depends extremely on the external conditions, the material and machine type. The indicated values are possible values which have to be increased or reduced according to the application conditions.

Cutting data standard values – WPC – UNI – 12xD

Index	11 705 ...										
	12xD										
	with through coolant	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
	v_c (m/min)	f (mm/rev)									
P.1.1	90	0,13	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,36	0,38
P.1.2	75	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.1.3	75	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.1.4	70	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.1.5	70	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.2.1	80	0,13	0,16	0,19	0,22	0,25	0,28	0,31	0,34	0,36	0,38
P.2.2	70	0,12	0,15	0,18	0,21	0,24	0,27	0,30	0,32	0,35	0,37
P.2.3	70	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.2.4	55	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.1	70	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.2	55	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.3.3	35	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.4.1	40	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
P.4.2	25	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
M.1.1	30	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
M.2.1	30	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
M.3.1	30	0,06	0,08	0,10	0,12	0,14	0,15	0,18	0,20	0,23	0,25
K.1.1	90	0,16	0,18	0,22	0,25	0,29	0,33	0,37	0,40	0,43	0,46
K.1.2	75	0,16	0,18	0,22	0,25	0,29	0,33	0,37	0,40	0,43	0,46
K.2.1	75	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.2.2	70	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.3.1	75	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
K.3.2	70	0,10	0,13	0,15	0,18	0,20	0,23	0,26	0,30	0,34	0,38
N.1.1											
N.1.2											
N.2.1											
N.2.2											
N.2.3											
N.3.1											
N.3.2											
N.3.3											
N.4.1											
S.1.1											
S.1.2											
S.2.1											
S.2.2											
S.2.3											
S.3.1											
S.3.2											
S.3.3											
H.1.1											
H.1.2											
H.1.3											
H.1.4											
H.2.1											
H.3.1											
O.1.1											
O.1.2											
O.2.1											
O.2.2											
O.3.1											

The cutting data depends extremely on the external conditions, the material and machine type. The indicated values are possible values which have to be increased or reduced according to the application conditions.

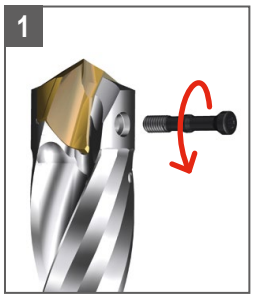
Cutting data standard values – WPC – Change

Index	11 910 ...				
	UNI				
	with through coolant	Ø 14–16	> Ø 16–20	> Ø 20–25	> Ø 25–30
	v_c (m/min)	f (mm/rev)			
P.1.1	100	0,22	0,25	0,28	0,32
P.1.2	100	0,27	0,31	0,35	0,39
P.1.3	100	0,27	0,31	0,35	0,39
P.1.4	90	0,25	0,28	0,32	0,35
P.1.5	90	0,25	0,28	0,32	0,35
P.2.1	100	0,25	0,28	0,32	0,35
P.2.2	100	0,25	0,28	0,32	0,35
P.2.3	100	0,25	0,28	0,32	0,35
P.2.4	80	0,21	0,24	0,27	0,30
P.3.1	70	0,20	0,22	0,25	0,28
P.3.2	70	0,18	0,21	0,24	0,26
P.3.3	60	0,17	0,19	0,22	0,24
P.4.1	55	0,17	0,19	0,22	0,24
P.4.2	55	0,17	0,19	0,22	0,24
M.1.1					
M.2.1					
M.3.1					
K.1.1	110	0,37	0,42	0,47	0,53
K.1.2	100	0,31	0,35	0,39	0,44
K.2.1	100	0,37	0,42	0,47	0,53
K.2.2	90	0,31	0,35	0,39	0,44
K.3.1	100	0,37	0,42	0,47	0,53
K.3.2	90	0,31	0,35	0,39	0,44
N.1.1					
N.1.2					
N.2.1					
N.2.2					
N.2.3					
N.3.1					
N.3.2					
N.3.3					
N.4.1					
S.1.1					
S.1.2					
S.2.1					
S.2.2					
S.2.3					
S.3.1					
S.3.2					
S.3.3					
H.1.1					
H.1.2					
H.1.3					
H.1.4					
H.2.1					
H.3.1					
O.1.1					
O.1.2					
O.2.1					
O.2.2					
O.3.1					

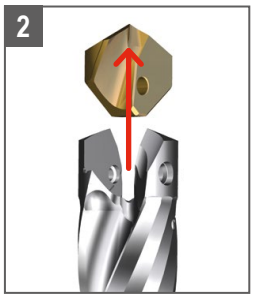
The cutting data is highly dependent on external conditions, such as stability of the tool and workpiece clamping, material and machine type! The values indicated represent possible cutting data which may need to be corrected depending on operating conditions !

Application notes for WPC – Change indexable insert drill

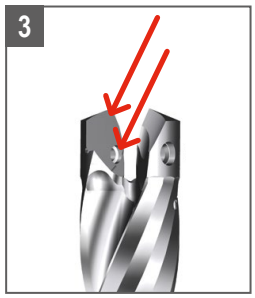
Assembly of the indexable insert



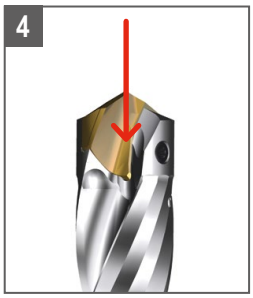
Loosen the clamping screw anti-clockwise using a TORX PLUS® screwdriver (screwdriver not included in the scope of supply).



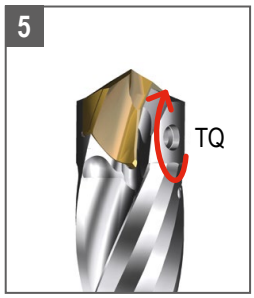
Remove the indexable insert from the insert seat.



Clean the insert seat and screw thread with compressed air.



Insert the new indexable insert in the insert seat.



Insert clamping screw from correct side and tighten clockwise with the specified torque.
Observe the change interval of the clamping screw!

Notes

- ▲ Only insert indexable inserts in the diameter range designated for the respective holder.
- ▲ The clamping screw must also be replaced upon every fifth replacement of the indexable insert.
- ▲ The tightening torque and item number of the clamping screw are labelled on the holder.
- ▲ Use only original spare parts.

Clamping screws and tightening torques

Diameter range	Article no. Clamping screw	Drive	Torque moment TQ
14,00–15,99 mm	**11 950 00100**	08IP	0,9 Nm
16,00–17,99 mm	**11 950 00200**	08IP	1,2 Nm
18,00–21,99 mm	**11 950 00300**	10IP	2,2 Nm
22,00–23,99 mm	**11 950 00400**	10IP	3,2 Nm
24,00–25,99 mm	**11 950 00500**	15IP	5,0 Nm
26,00–30,00 mm	**11 950 00600**	20IP	6,0 Nm

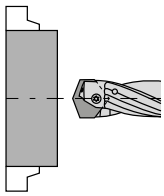
Notes on drilling technology

Solid drilling

Stack plate drilling: stable clamping of closely spaced stack plates required.

When drilling into angled surfaces < 3°, reduce the feed by approx. 50 %.
For an angled drill entrance > 3°, prior spot facing is required.

When exiting at an angle < 3°, reduce the feed by approx. 50 %.
Machining angled drill exits > 3° is not recommended.



When machining with a stationary tool (turning machines), a precise centre position of the tool in relation to the rotational axis of the workpiece must be ensured. Maximum permissible offset ± 0.02 mm.

To achieve the optimal results, it is recommended to use the tool with thro' coolant only.
The recommended minimum coolant pressure should be 12 bar.

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