

New products for machining technicians

NEW WTX – Speed UNI



≤ 3xD ≤ 5xD ≤ 8xD

The new WTX – Speed UNI raises your productivity and increases process security thanks to a new geometry and new Dragonskin coating DPX14S.

NEW WTX – Feed UNI



≤ 5xD ≤ 8xD ≤ 12xD

The update means the WTX – Feed UNI is even more versatile and capable thanks to several geometrical changes and the tried-and-tested universal Dragonskin coating DPX74S. Now available from Ø 4.00 mm.

NEW WTX – Quattro 4F



≤ 5xD ≤ 8xD ≤ 12xD

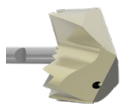
The high-performance drill with four guide lands has been made even more capable through geometrical changes and the universal Dragonskin coating DPX74S.

NEW WTX – short step drill



The WTX short step drill with tried-and-tested universal Dragonskin coating DPX74S.

NEW WTX – Change UNI



The WTX – Change UNI exchangeable head with tried-and-tested universal Dragonskin coating DPX74S.

NEW WTX – AL



≤ 5xD ≤ 8xD ≤ 12xD

DLC-coated high-performance drill for aluminium machining.

NEW WTX – H



≤ 3xD

High-performance drill for hardened steels from 45 to 70 HRC.



Solid drilling and bore machining

1 HSS drilling

2 Solid carbide drilling

3 Indexable insert drilling

4 Reaming and Countersinking

5 Spindle Tooling

Threading

6 Taps and thread formers

7 Circular and Thread Milling

8 Thread turning

Turning

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12 Miniature turning tools

Milling

13 HSS Milling Cutters

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Tool Clamping

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WNT \ Performance

Premium quality tools for high performance.

The premium quality tools from the **WNT Performance** product line have been designed for specific applications and are distinguished by their outstanding performance. If you make high demands on the performance of your production and want to achieve the very best results, we recommend the Premium tools in this product line.

WNT \ Standard

Quality tools for standard applications.

The quality tools of the **WNT Standard** product line are high quality, powerful and reliable and enjoy the highest trust of our customers worldwide. Tools from this product line are the first choice for many standard applications and guarantee optimal results.

Symbol explanation

Shank



Version



Int. coolant supply



self-centering



▲ Pilot drilling
▲ min. 2xD

- = Main Application
- = Extended application

Toolfinder

Product name	Tool type	Description	Int. coolant supply	Heads	1xD	3xD	5xD	8xD	12xD
Solid carbide drilling									
WTX	Speed UNI	<ul style="list-style-type: none"> ▲ high performance drill for high cutting speeds ▲ using new DPX14S Dragonskin coating ▲ new cutting geometry 	✓			21-24	38-42	55-58	
WTX	Feed UNI	<ul style="list-style-type: none"> ▲ high feed drills with 3 cutting edges ▲ for difficult drilling conditions ▲ high positional accuracy 	✓				38-42	55-58	63-65
WTX	UNI	<ul style="list-style-type: none"> ▲ highest performance for all materials up to 1200 N/mm² ▲ suitable for volume production 	✗ ✓			9-13 21-24	32-35 38-42		
WPC	UNI	<ul style="list-style-type: none"> ▲ quality tools for standard applications 	✗ ✓			14-17 25-28	36 50-53		66
WTX	180	<ul style="list-style-type: none"> ▲ for inclined surfaces up to 45° and flat bottom holes 	✓			31	54		
WTX	Quattro 4F	<ul style="list-style-type: none"> ▲ with additional guide land for best alignment accuracy, concentricity and positional accuracy 	✗ ✓				32-35 38-42		63-65
	N	<ul style="list-style-type: none"> ▲ uncoated solid carbide drills ▲ universal application 	✗			20	37		
Mini-drill									
WTX	MINI	<ul style="list-style-type: none"> ▲ standard shank Ø 3.0 mm ▲ optimal chip formation and removal thanks to WTX flute geometry 	✗ ✓				70 71		72
Drill Reamers									
WTX	Finish BR/BR100	<ul style="list-style-type: none"> ▲ solid carbide high performance drill reamer ▲ excellent surface quality ▲ for blind and through holes 	✓			73+74	74		
Stepped drills									
WTX	SB	<ul style="list-style-type: none"> ▲ core hole plus countersink for thread forming and tapping 	✗			75			
NC Spot Drill									
	NC-A	<ul style="list-style-type: none"> ▲ spiral fluted ▲ 90°, 120°, 142° 	✗		76+77				
Centre drills									
	ZB	<ul style="list-style-type: none"> ▲ spiral fluted ▲ 120° 	✗		78				
Exchange head drill									
WTX	Change Feed UNI	<ul style="list-style-type: none"> ▲ three-edged exchangeable head drill with solid carbide drill head type Feed UNI from Ø 14.0 mm to 32.0 mm ▲ universal application (steel, cast iron) 	✓	79+80		81	81	82	
WTX	Change UNI	<ul style="list-style-type: none"> ▲ exchangeable head drill with type UNI solid carbide drill head from Ø 12.0 mm to 41.0 mm ▲ for steels < 700 N/mm² 	✓	83-88	89	89	90	90	91
WTX	Change P	<ul style="list-style-type: none"> ▲ exchangeable head drill with type P solid carbide drill head from Ø 12.0 mm to 41.0 mm ▲ for steels > 700 N/mm² 	✓	83-88	89	89	90	90	91
Exchangeable head NC spot drill									
	NC-A	<ul style="list-style-type: none"> ▲ NC spot drill – Exchange Head System ▲ 90°, 120°, 142° 	✗	93					

i ✗ = without through coolant

✓ = with thro' coolant

Toolfinder

	Product name	Tool type	Description	Int. coolant supply	Heads	1xD	3xD	5xD	8xD	12xD
Solid carbide drilling										
Stainless steel	WTX	VA	▲ highest performance for corrosion and acid resistant steels and aluminium ▲ for volume production	✗ ✓			9-13 21-24	32-35 43-49	60-62	
	WPC	VA	▲ quality tools for corrosion and acid-resistant steels and aluminium	✗ ✓			14-17 25-28	50-53		
	WTX	Speed VA	▲ double the cutting speed in corrosion and acid-resistant steels and aluminium	✓				43-49		
Exchange head drill										
	WTX	Change VA	▲ exchangeable head drill with solid carbide drill head type VA from Ø 12.0 mm to 32.0 mm	✓	83-88	89	89	90	90	91
Solid carbide drilling										
Cast iron	WTX	GG	▲ highest performance in cast materials to 250 HB	✓				43-49	60-62	
	Exchange head drill									
	WTX	Change GG	▲ exchangeable head drill with solid carbide drill head type GG from Ø 12.0 mm to 32.0 mm	✓	83-88	89	89	90	90	91
Solid carbide drilling										
Non-ferrous metals	WTX	AL	▲ solid carbide high performance drill, especially for the machining of aluminum, copper and brass ▲ for volume production	✓				43-49	60-62	63-65
	Exchange head drill									
	WTX	Change AL	▲ exchangeable head drill with solid carbide drill head type AL from Ø 12.0 mm to 32.0 mm	✓	83-88	89	89	90	90	91
Solid carbide drilling										
Heat-resistant	WTX	Ti	▲ highest performance in titanium, titanium alloys and heat resistant alloys	✓			29+30	43-49		
Solid carbide drilling										
Tempered steel	WTX	H	▲ highest performance in hardened steel from 46 to 70 HRC	✗ ✓			19 18			

	Product name	Tool type	Description	Int. coolant supply	16xD	20xD	25xD	30xD	40xD	50xD
Deep Hole Drills										
Steel/ Universal	WTX	TB UNI	▲ solid carbide deep hole drill to 50xD without peck ▲ 4 facet geometry for excellent alignment accuracy	✓	67	67	68	68	69	69
	Non-ferrous metals	WTX	TB ALU	▲ solid carbide deep hole drills, up to 30xD without pecking ▲ 6-facet head geometry for excellent alignment accuracy	✓	67	67	68	68	

i ✗ = without through coolant ✓ = with thro' coolant

Overview Solid Carbide Drills

	Product name	Tool type	Length	Diameter in mm Ø DC	Material compatibility	Coating	Performance
					Steel Stainless steel Cast iron Non-ferrous metals Heat-resistant Hardened materials	<input checked="" type="checkbox"/> coated <input type="checkbox"/> uncoated	WNT / Performance WNT / Standard
3xD without thro' coolant							
	WTX	UNI	≤ 3xD	3-25	● ○ ○ ○ ○	<input checked="" type="checkbox"/>	9-13
	WTX	VA	≤ 3xD	2-20	○ ● ○ ● ○	<input checked="" type="checkbox"/>	9-13
	WPC	UNI	≤ 3xD	1-20	● ○ ● ○ ○	<input checked="" type="checkbox"/>	14-17
	WPC	VA	≤ 3xD	1-20	○ ● ○ ● ○	<input checked="" type="checkbox"/>	14-17
	WTX	H	≤ 3xD	2,55-14	○ ○ ○ ○ ●	<input checked="" type="checkbox"/>	19
		N	≤ 3xD	0,5-20	○ ○ ○ ● ○	<input type="checkbox"/>	20
3xD with thro' coolant							
	WTX	Speed UNI	≤ 3xD	3-20	● ○ ○ ○ ○	<input checked="" type="checkbox"/>	21-24
	WTX	UNI	≤ 3xD	3-25	● ○ ● ○ ○	<input checked="" type="checkbox"/>	21-24
	WTX	VA	≤ 3xD	3-20	○ ● ○ ● ○	<input checked="" type="checkbox"/>	21-24
	WPC	UNI	≤ 3xD	1-20	● ○ ● ○ ○	<input checked="" type="checkbox"/>	25-28
	WPC	VA	≤ 3xD	1-20	○ ● ○ ● ○	<input checked="" type="checkbox"/>	25-28
	WTX	Ti	≤ 3xD	3-20	○ ● ○ ○ ○	<input checked="" type="checkbox"/>	29+30
	WTX	180	≤ 3xD	3-20	● ○ ● ○ ○	<input checked="" type="checkbox"/>	31
	WTX	H	≤ 3xD	2,55-14	○ ○ ○ ○ ●	<input checked="" type="checkbox"/>	18
5xD without thro' coolant							
	WTX	UNI	≤ 5xD	3-20	● ○ ● ○ ○	<input checked="" type="checkbox"/>	32-35
	WTX	Quattro 4F	≤ 5xD	3-20	● ○ ● ○ ○	<input checked="" type="checkbox"/>	32-35
	WTX	VA	≤ 5xD	3-20	○ ● ○ ● ○	<input checked="" type="checkbox"/>	32-35
	WPC	UNI	≤ 5xD	3-20	● ○ ● ○ ○	<input checked="" type="checkbox"/>	36
		N	≤ 5xD	0,5-16	○ ○ ○ ● ○	<input type="checkbox"/>	37

Overview Solid Carbide Drills

	Product name	Tool type	Length	Diameter in mm Ø DC	Material	Flutes	Coating	Performance	
					Steel Stainless steel Cast iron Non-ferrous metals Heat-resistant Hardened materials		coated uncoated	WNT / Performance WNT / Standard	
5xD with thro' coolant									
	WTX	Feed UNI	≤ 5xD	4-20	HA	3 flute	coated	38-42	
	WTX	Speed UNI	≤ 5xD	3-20	HA		coated	38-42	
	WTX	UNI	≤ 5xD	3-25	HA HB HE		coated	38-42	
	WTX	Quattro 4F	≤ 5xD	3-20	HA		coated	38-42	
	WTX	Speed VA	≤ 5xD	3-20	HA		coated	43-49	
	WTX	VA	≤ 5xD	3-20	HA HE		coated	43-49	
	WTX	GG	≤ 5xD	3-20	HA		coated	43-49	
	WTX	AL	≤ 5xD	2,5-20	HA		coated	43-49	
	WTX	Ti	≤ 5xD	3-20	HA		coated	43-49	
	WPC	UNI	≤ 5xD	1-20	HA HB		coated	50-53	
	WPC	VA	≤ 5xD	1-20	HA HB		coated	50-53	
	WTX	180	≤ 5xD	3-20	HA		coated	54	
8xD with thro' coolant									
	WTX	Feed UNI	≤ 8xD	4-20	HA	3 flute	coated	55-58	
	WTX	Speed UNI	≤ 8xD	3-20	HA		coated	55-58	
	WTX	UNI	≤ 8xD	3-25	HA HB HE		coated	55-58	
	WTX	Quattro 4F	≤ 8xD	3-20	HA		coated	55-58	
	WPC	UNI	≤ 8xD	3-20	HA		coated	59	
	WTX	VA	≤ 8xD	3-20	HA		coated	60-62	
	WTX	GG	≤ 8xD	3-20	HA		coated	60-62	
	WTX	AL	≤ 8xD	3-20	HA		coated	60-62	

Overview Solid Carbide Drills

	Product name	Tool type	Length	Diameter in mm Ø DC			
12xD with thro' coolant							
	WTX	Feed UNI	≤ 12xD	4-20		<input checked="" type="checkbox"/>	63-65
	WTX	Quattro 4F	≤ 12xD	3-20		<input checked="" type="checkbox"/>	63-65
	WTX	AL	≤ 12xD	3-20		<input checked="" type="checkbox"/>	63-65
	WPC	UNI	≤ 12xD	3-18		<input checked="" type="checkbox"/>	66
Deep Hole Drills							
	WTX	TB UNI	≤ 16xD ≤ 20xD	2-12		<input checked="" type="checkbox"/>	67
	WTX	TB UNI	≤ 25xD ≤ 30xD	2-12		<input checked="" type="checkbox"/>	68
	WTX	TB UNI	≤ 40xD	3-9		<input checked="" type="checkbox"/>	69
	WTX	TB UNI	≤ 50xD	3-6,8		<input checked="" type="checkbox"/>	69
	WTX	TB ALU	≤ 16xD ≤ 20xD	2-12		<input checked="" type="checkbox"/>	67
	WTX	TB ALU	≤ 25xD ≤ 30xD	2-12		<input checked="" type="checkbox"/>	68
Micro Drills 5xD/8xD/12xD							
	WTX	MINI	≤ 5xD	0,1-2,9		<input checked="" type="checkbox"/>	70
	WTX	MINI	≤ 5xD	1,0-2,9		<input checked="" type="checkbox"/>	with thro' coolant 71
	WTX	MINI	≤ 8xD	1,0-2,9		<input checked="" type="checkbox"/>	with thro' coolant 71
	WTX	MINI	≤ 12xD	1,0-2,9		<input checked="" type="checkbox"/>	with thro' coolant 72
Drill Reamers							
	WTX	Finish BR100	≤ 3xD	3,97-12,02		<input checked="" type="checkbox"/>	73
	WTX	Finish BR	≤ 3xD	4-16		<input checked="" type="checkbox"/>	Tolerance H7 74
	WTX	Finish BR	≤ 5xD	4-20		<input checked="" type="checkbox"/>	Tolerance H7 74

Overview Solid Carbide Drills

	Product name	Tool type	Point angle	Diameter in mm Ø DC		<input checked="" type="checkbox"/> coated <input type="checkbox"/> uncoated	WNT / Performance WNT / Standard
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Stepped drills

	WTX	SB		2,5-14		<input checked="" type="checkbox"/> Thread cutting	75
	WTX	SB		2,8-15		<input checked="" type="checkbox"/> Thread forming	75

NC Spot Drill

		NC-A	$\triangleleft 90^\circ$ $\triangleleft 120^\circ$ $\triangleleft 142^\circ$	2-20		<input type="checkbox"/>	76
		NC-A	$\triangleleft 90^\circ$ $\triangleleft 120^\circ$ $\triangleleft 142^\circ$	2-20		<input checked="" type="checkbox"/>	76
		NC-A	$\triangleleft 90^\circ$ $\triangleleft 120^\circ$ $\triangleleft 142^\circ$	3-16		<input checked="" type="checkbox"/> Long version	77

Centre drills

		ZB	$\triangleleft 120^\circ$	0,5-6,3		<input type="checkbox"/>	78
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Exchangeable head system – heads

	WTX	Change Feed		14-32		<input checked="" type="checkbox"/>	79+80
	WTX	Change UNI		12-41		<input checked="" type="checkbox"/>	83-88
	WTX	Change P		12-41		<input checked="" type="checkbox"/>	83-88
	WTX	Change VA		12-32		<input checked="" type="checkbox"/>	83-88
	WTX	Change GG		12-32		<input checked="" type="checkbox"/>	83-88
	WTX	Change ALU		12-32		<input checked="" type="checkbox"/>	83-88

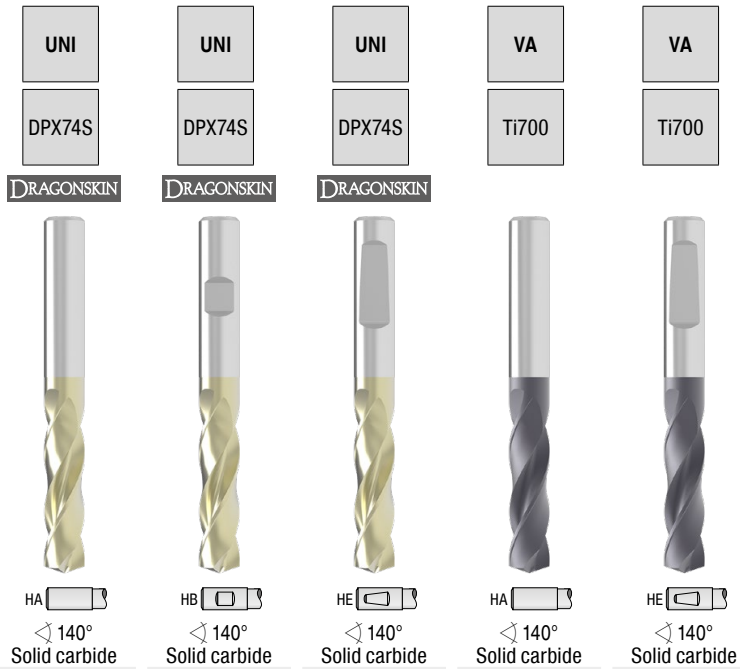
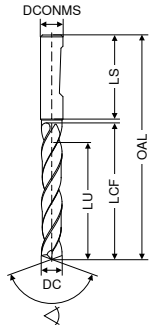
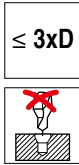
Exchangeable head system – holders 1xD/3xD/5xD/8xD/12xD

	WTX	Change Feed		14-32		<input type="checkbox"/>	81+82
	WTX	Change		12-41		<input type="checkbox"/>	89-91

MultiChange NC spot drill

		NC-A	$\triangleleft 90^\circ$ $\triangleleft 120^\circ$ $\triangleleft 142^\circ$	8-20		<input checked="" type="checkbox"/>	93
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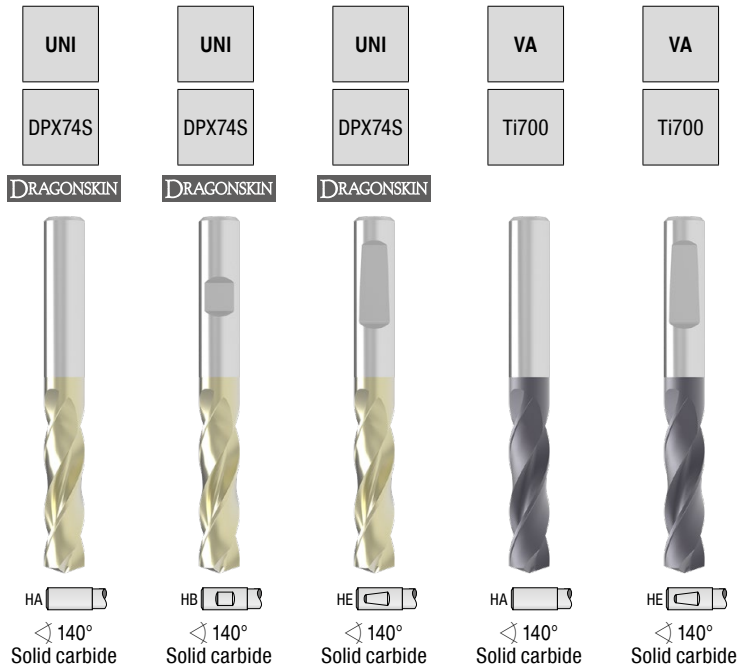
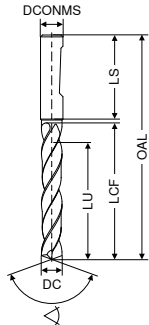
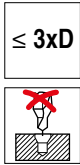
WTX – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	HA	HB	HE	HA	HE
mm	mm	mm	mm	mm	mm	140° Solid carbide T7	140° Solid carbide T7	140° Solid carbide T7	140° Solid carbide T5	140° Solid carbide T5
						Article no. 11 777 ...	Article no. 11 778 ...	Article no. 11 776 ...	Article no. 10 731 ...	Article no. 10 732 ...
						£	£	£	£	£
2.00	6	58	16	11	36				44.62 020	44.62 020
2.10	6	58	16	11	36				44.62 021	44.62 021
2.20	6	58	16	11	36				44.62 022	44.62 022
2.30	6	58	16	11	36				44.62 023	44.62 023
2.33	6	58	16	11	36				44.62 823	
2.40	6	58	16	11	36				44.62 024	44.62 024
2.43	6	58	16	11	36				44.62 824	
2.50	6	58	16	11	36				44.62 025	44.62 025
2.55	6	58	16	11	36				44.62 825	
2.60	6	58	16	11	36				44.62 026	44.62 026
2.62	6	58	16	11	36				44.62 826	
2.70	6	58	16	11	36				44.62 027	44.62 027
2.80	6	58	16	11	36				44.62 028	44.62 028
2.90	6	58	16	11	36				44.62 029	44.62 029
3.00	6	62	20	14	36	28.81 03000	28.81 03000	28.81 03000	58.94 030	58.94 030
3.10	6	62	20	14	36	28.81 03100	28.81 03100	28.81 03100	58.94 031	58.94 031
3.15	6	62	20	14	36	28.81 03150	28.81 03150	28.81 03150	58.94 831	
3.20	6	62	20	14	36	28.81 03200	28.81 03200	28.81 03200	58.94 032	58.94 032
3.22	6	62	20	14	36	28.81 03220	28.81 03220	28.81 03220	58.94 832	
3.25	6	62	20	14	36	28.81 03250	28.81 03250	28.81 03250	58.94 890	
3.30	6	62	20	14	36	28.81 03300	28.81 03300	28.81 03300	58.94 033	58.94 033
3.40	6	62	20	14	36	28.81 03400	28.81 03400	28.81 03400	58.94 034	58.94 034
3.50	6	62	20	14	36	28.81 03500	28.81 03500	28.81 03500	58.94 035	58.94 035
3.60	6	62	20	14	36	28.81 03600	28.81 03600	28.81 03600	58.94 036	58.94 036
3.70	6	62	20	14	36	28.81 03700	28.81 03700	28.81 03700	58.94 037	58.94 037
3.80	6	66	24	17	36	28.81 03800	28.81 03800	28.81 03800	58.94 038	58.94 038
3.85	6	66	24	17	36	28.81 03850	28.81 03850	28.81 03850	58.94 838	
3.90	6	66	24	17	36	28.81 03900	28.81 03900	28.81 03900	58.94 039	58.94 039
4.00	6	66	24	17	36	28.81 04000	28.81 04000	28.81 04000	58.94 040	58.94 040
4.10	6	66	24	17	36	28.81 04100	28.81 04100	28.81 04100	58.94 041	58.94 041
4.20	6	66	24	17	36	28.81 04200	28.81 04200	28.81 04200	58.94 042	58.94 042
4.25	6	66	24	17	36	28.81 04250	28.81 04250	28.81 04250		
4.30	6	66	24	17	36	28.81 04300	28.81 04300	28.81 04300	58.94 043	58.94 043
4.35	6	66	24	17	36	28.81 04350	28.81 04350	28.81 04350	58.94 843	
4.40	6	66	24	17	36	28.81 04400	28.81 04400	28.81 04400	58.94 044	58.94 044
4.45	6	66	24	17	36	28.81 04450	28.81 04450	28.81 04450	58.94 844	
4.50	6	66	24	17	36	28.81 04500	28.81 04500	28.81 04500	58.94 045	58.94 045
4.60	6	66	24	17	36	28.81 04600	28.81 04600	28.81 04600	58.94 046	58.94 046
4.65	6	66	24	17	36	28.81 04650	28.81 04650	28.81 04650	58.94 900	58.94 900
4.70	6	66	24	17	36	28.81 04700	28.81 04700	28.81 04700	58.94 047	58.94 047
4.80	6	66	28	20	36	28.81 04800	28.81 04800	28.81 04800	58.94 048	58.94 048
4.90	6	66	28	20	36	28.81 04900	28.81 04900	28.81 04900	58.94 049	58.94 049
4.95	6	66	28	20	36	28.81 04950	28.81 04950	28.81 04950		

Steel	●	●	●	○	○
Stainless steel				●	●
Cast iron	●	●	●	○	○
Non ferrous metals	○	○	○	●	●
Heat resistant alloys				○	○
Hardened materials	○	○	○	○	○

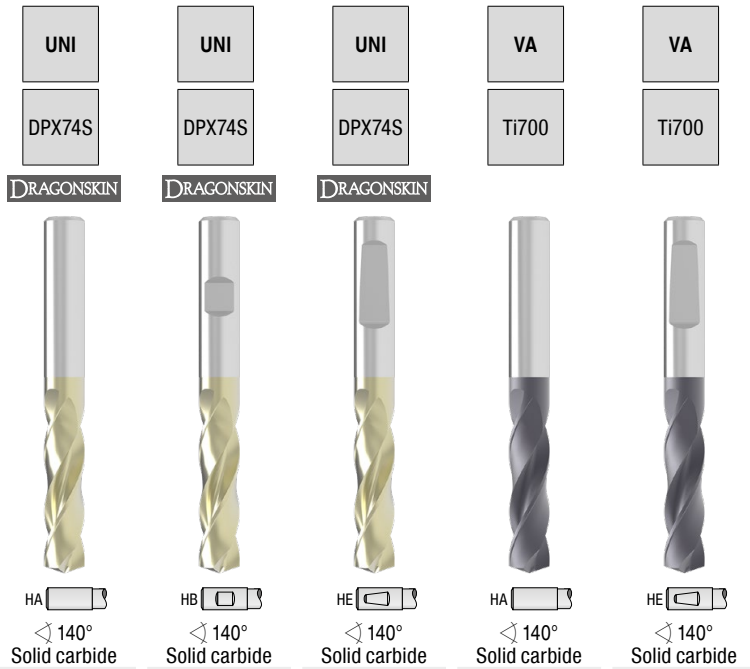
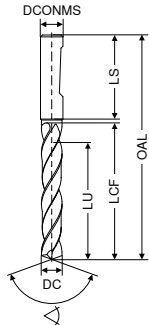
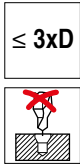
WTX – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI DPX74S DRAGONSKIN		UNI DPX74S DRAGONSKIN		UNI DPX74S DRAGONSKIN		VA Ti700		VA Ti700	
						Article no. 11 777 ...	Article no. 11 778 ...	Article no. 11 776 ...	Article no. 10 731 ...	Article no. 10 732 ...					
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£	£	£	£	
5.00	6	66	28	20	36	28.81 05000	28.81 05000	28.81 05000	58.94 050	58.94 050					
5.05	6	66	28	20	36	28.81 05050	28.81 05050	28.81 05050							
5.10	6	66	28	20	36	28.81 05100	28.81 05100	28.81 05100	58.94 051	58.94 051					
5.20	6	66	28	20	36	28.81 05200	28.81 05200	28.81 05200	58.94 052	58.94 052					
5.30	6	66	28	20	36	28.81 05300	28.81 05300	28.81 05300	58.94 053	58.94 053					
5.40	6	66	28	20	36	28.81 05400	28.81 05400	28.81 05400	58.94 054	58.94 054					
5.50	6	66	28	20	36	28.81 05500	28.81 05500	28.81 05500	58.94 055	58.94 055					
5.55	6	66	28	20	36	28.81 05550	28.81 05550	28.81 05550	58.94 902	58.94 902					
5.60	6	66	28	20	36	28.81 05600	28.81 05600	28.81 05600	58.94 056	58.94 056					
5.70	6	66	28	20	36	28.81 05700	28.81 05700	28.81 05700	58.94 057	58.94 057					
5.75	6	66	28	20	36	28.81 05750	28.81 05750	28.81 05750	58.94 916						
5.80	6	66	28	20	36	28.81 05800	28.81 05800	28.81 05800	58.94 058	58.94 058					
5.90	6	66	28	20	36	28.81 05900	28.81 05900	28.81 05900	58.94 059	58.94 059					
5.95	6	66	28	20	36	28.81 05950	28.81 05950	28.81 05950	58.94 959						
6.00	6	66	28	20	36	28.81 06000	28.81 06000	28.81 06000	58.94 060	58.94 060					
6.10	8	79	34	24	36	31.08 06100	31.08 06100	31.08 06100	74.87 061	74.87 061					
6.20	8	79	34	24	36	31.08 06200	31.08 06200	31.08 06200	74.87 062	74.87 062					
6.30	8	79	34	24	36	31.08 06300	31.08 06300	31.08 06300	74.87 063	74.87 063					
6.40	8	79	34	24	36	31.08 06400	31.08 06400	31.08 06400	74.87 064	74.87 064					
6.50	8	79	34	24	36	31.08 06500	31.08 06500	31.08 06500	74.87 065	74.87 065					
6.60	8	79	34	24	36	31.08 06600	31.08 06600	31.08 06600	74.87 066	74.87 066					
6.70	8	79	34	24	36	31.08 06700	31.08 06700	31.08 06700	74.87 067	74.87 067					
6.80	8	79	34	24	36	31.08 06800	31.08 06800	31.08 06800	74.87 068	74.87 068					
6.90	8	79	34	24	36	31.08 06900	31.08 06900	31.08 06900	74.87 069	74.87 069					
7.00	8	79	34	24	36	31.08 07000	31.08 07000	31.08 07000	74.87 070	74.87 070					
7.10	8	79	41	29	36	31.08 07100	31.08 07100	31.08 07100	74.87 071	74.87 071					
7.20	8	79	41	29	36	31.08 07200	31.08 07200	31.08 07200	74.87 072	74.87 072					
7.30	8	79	41	29	36	31.08 07300	31.08 07300	31.08 07300	74.87 073	74.87 073					
7.40	8	79	41	29	36	31.08 07400	31.08 07400	31.08 07400	74.87 074	74.87 074					
7.45	8	79	41	29	36	31.08 07450	31.08 07450	31.08 07450	74.87 924						
7.50	8	79	41	29	36	31.08 07500	31.08 07500	31.08 07500	74.87 075	74.87 075					
7.60	8	79	41	29	36	31.08 07600	31.08 07600	31.08 07600	74.87 076	74.87 076					
7.70	8	79	41	29	36	31.08 07700	31.08 07700	31.08 07700	74.87 077	74.87 077					
7.80	8	79	41	29	36	31.08 07800	31.08 07800	31.08 07800	74.87 078	74.87 078					
7.90	8	79	41	29	36	31.08 07900	31.08 07900	31.08 07900	74.87 079	74.87 079					
8.00	8	79	41	29	36	31.08 08000	31.08 08000	31.08 08000	74.87 080	74.87 080					
8.10	10	89	47	35	40	34.09 08100	34.09 08100	34.09 08100	89.24 081	89.24 081					
8.20	10	89	47	35	40	34.09 08200	34.09 08200	34.09 08200	89.24 082	89.24 082					
8.30	10	89	47	35	40	34.09 08300	34.09 08300	34.09 08300	89.24 083	89.24 083					
8.40	10	89	47	35	40	34.09 08400	34.09 08400	34.09 08400	89.24 084	89.24 084					
8.50	10	89	47	35	40	34.09 08500	34.09 08500	34.09 08500	89.24 085	89.24 085					
8.60	10	89	47	35	40	34.09 08600	34.09 08600	34.09 08600	89.24 086	89.24 086					
8.70	10	89	47	35	40	34.09 08700	34.09 08700	34.09 08700	89.24 087	89.24 087					

Steel	●	●	●	○	○
Stainless steel				●	●
Cast iron	●	●	●	○	○
Non ferrous metals	○	○	○	●	●
Heat resistant alloys				○	○
Hardened materials	○	○	○	○	○

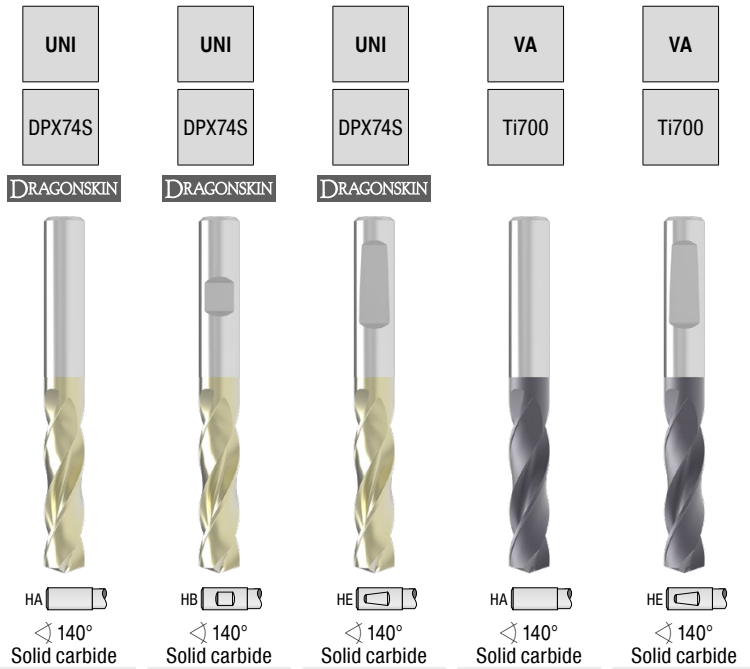
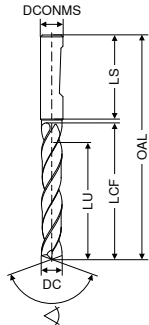
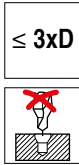
WTX – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI DPX74S DRAGONSKIN		UNI DPX74S DRAGONSKIN		UNI DPX74S DRAGONSKIN		VA Ti700		VA Ti700	
						Article no. 11 777 ...	Article no. 11 778 ...	Article no. 11 776 ...	Article no. 10 731 ...	Article no. 10 732 ...					
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£	£	£	£	
8.80	10	89	47	35	40	34.09 08800	34.09 08800	34.09 08800	89.24 088	89.24 088					
8.90	10	89	47	35	40	34.09 08900	34.09 08900	34.09 08900	89.24 089	89.24 089					
9.00	10	89	47	35	40	34.09 09000	34.09 09000	34.09 09000	89.24 090	89.24 090					
9.10	10	89	47	35	40	34.09 09100	34.09 09100	34.09 09100	89.24 091	89.24 091					
9.20	10	89	47	35	40	34.09 09200	34.09 09200	34.09 09200	89.24 092	89.24 092					
9.30	10	89	47	35	40	34.09 09300	34.09 09300	34.09 09300	89.24 093	89.24 093					
9.35	10	89	47	35	40	34.09 09350	34.09 09350	34.09 09350	89.24 930						
9.40	10	89	47	35	40	34.09 09400	34.09 09400	34.09 09400	89.24 094	89.24 094					
9.45	10	89	47	35	40	34.09 09450	34.09 09450	34.09 09450	89.24 994						
9.50	10	89	47	35	40	34.09 09500	34.09 09500	34.09 09500	89.24 095	89.24 095					
9.60	10	89	47	35	40	34.09 09600	34.09 09600	34.09 09600	89.24 096	89.24 096					
9.70	10	89	47	35	40	34.09 09700	34.09 09700	34.09 09700	89.24 097	89.24 097					
9.80	10	89	47	35	40	34.09 09800	34.09 09800	34.09 09800	89.24 098	89.24 098					
9.90	10	89	47	35	40	34.09 09900	34.09 09900	34.09 09900	89.24 099	89.24 099					
10.00	10	89	47	35	40	34.09 10000	34.09 10000	34.09 10000	89.24 100	89.24 100					
10.10	12	102	55	40	45	49.39 10100	49.39 10100	49.39 10100	126.60 101	126.60 101					
10.20	12	102	55	40	45	49.39 10200	49.39 10200	49.39 10200	126.60 102	126.60 102					
10.30	12	102	55	40	45	49.39 10300	49.39 10300	49.39 10300	126.60 103	126.60 103					
10.40	12	102	55	40	45	49.39 10400	49.39 10400	49.39 10400	126.60 104	126.60 104					
10.50	12	102	55	40	45	49.39 10500	49.39 10500	49.39 10500	126.60 105	126.60 105					
10.55	12	102	55	40	45	49.39 10550	49.39 10550	49.39 10550	126.60 932						
10.60	12	102	55	40	45	49.39 10600	49.39 10600	49.39 10600	126.60 106	126.60 106					
10.70	12	102	55	40	45	49.39 10700	49.39 10700	49.39 10700	126.60 107	126.60 107					
10.75	12	102	55	40	45	49.39 10750	49.39 10750	49.39 10750							
10.80	12	102	55	40	45	49.39 10800	49.39 10800	49.39 10800	126.60 108	126.60 108					
10.90	12	102	55	40	45	49.39 10900	49.39 10900	49.39 10900	126.60 109	126.60 109					
11.00	12	102	55	40	45	49.39 11000	49.39 11000	49.39 11000	126.60 110	126.60 110					
11.10	12	102	55	40	45	49.39 11100	49.39 11100	49.39 11100	126.60 111	126.60 111					
11.20	12	102	55	40	45	49.39 11200	49.39 11200	49.39 11200	126.60 112	126.60 112					
11.25	12	102	55	40	45	49.39 11250	49.39 11250	49.39 11250	126.60 912						
11.30	12	102	55	40	45	49.39 11300	49.39 11300	49.39 11300	126.60 113	126.60 113					
11.35	12	102	55	40	45	49.39 11350	49.39 11350	49.39 11350	126.60 913						
11.40	12	102	55	40	45	49.39 11400	49.39 11400	49.39 11400	126.60 114	126.60 114					
11.45	12	102	55	40	45	49.39 11450	49.39 11450	49.39 11450	126.60 914						
11.50	12	102	55	40	45	49.39 11500	49.39 11500	49.39 11500	126.60 115	126.60 115					
11.60	12	102	55	40	45	49.39 11600	49.39 11600	49.39 11600	126.60 116	126.60 116					
11.70	12	102	55	40	45	49.39 11700	49.39 11700	49.39 11700	126.60 117	126.60 117					
11.80	12	102	55	40	45	49.39 11800	49.39 11800	49.39 11800	126.60 118	126.60 118					
11.90	12	102	55	40	45	49.39 11900	49.39 11900	49.39 11900	126.60 119	126.60 119					
12.00	12	102	55	40	45	49.39 12000	49.39 12000	49.39 12000	126.60 120	126.60 120					
12.15	14	107	60	43	45	64.42 12150	64.42 12150	64.42 12150	167.68 921						
12.25	14	107	60	43	45	64.42 12250	64.42 12250	64.42 12250							
12.50	14	107	60	43	45	64.42 12500	64.42 12500	64.42 12500	167.68 125	167.68 125					

Steel	●	●	●	○	○
Stainless steel				●	●
Cast iron	●	●	●	○	○
Non ferrous metals	○	○	○	●	●
Heat resistant alloys					
Hardened materials	○	○	○	○	○

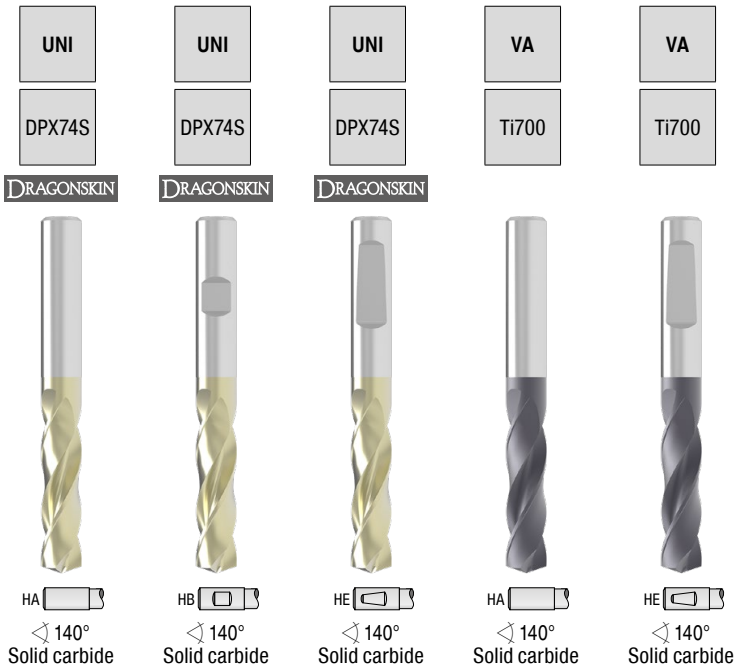
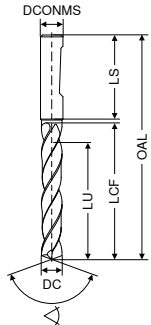
WTX – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI DPX74S DRAGONSKIN		UNI DPX74S DRAGONSKIN		UNI DPX74S DRAGONSKIN		VA Ti700		VA Ti700	
						Article no. 11 777 ...	Article no. 11 778 ...	Article no. 11 776 ...	Article no. 10 731 ...	Article no. 10 732 ...					
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£	£	£		
12.55	14	107	60	43	45	64.42 12550	64.42 12550	64.42 12550	167.68 925						
12.70	14	107	60	43	45	64.42 12700	64.42 12700	64.42 12700							
12.80	14	107	60	43	45	64.42 12800	64.42 12800	64.42 12800	167.68 128	167.68 128					
12.90	14	107	60	43	45	64.42 12900	64.42 12900	64.42 12900							
13.00	14	107	60	43	45	64.42 13000	64.42 13000	64.42 13000	167.68 130	167.68 130					
13.10	14	107	60	43	45	64.42 13100	64.42 13100	64.42 13100							
13.30	14	107	60	43	45	64.42 13300	64.42 13300	64.42 13300							
13.35	14	107	60	43	45	64.42 13350	64.42 13350	64.42 13350	167.68 933						
13.50	14	107	60	43	45	64.42 13500	64.42 13500	64.42 13500	167.68 135	167.68 135					
13.70	14	107	60	43	45	64.42 13700	64.42 13700	64.42 13700							
13.80	14	107	60	43	45	64.42 13800	64.42 13800	64.42 13800	167.68 138	167.68 138					
14.00	14	107	60	43	45	64.42 14000	64.42 14000	64.42 14000	167.68 140	167.68 140					
14.20	16	115	65	45	48	83.97 14200	83.97 14200	83.97 14200							
14.50	16	115	65	45	48	83.97 14500	83.97 14500	83.97 14500	206.85 145	206.85 145					
14.80	16	115	65	45	48	83.97 14800	83.97 14800	83.97 14800	206.85 148	206.85 148					
15.00	16	115	65	45	48	83.97 15000	83.97 15000	83.97 15000	206.85 150	206.85 150					
15.10	16	115	65	45	48	83.97 15100	83.97 15100	83.97 15100							
15.25	16	115	65	45	48	83.97 15250	83.97 15250	83.97 15250							
15.30	16	115	65	45	48	83.97 15300	83.97 15300	83.97 15300							
15.35	16	115	65	45	48	83.97 15350	83.97 15350	83.97 15350	206.85 953						
15.50	16	115	65	45	48	83.97 15500	83.97 15500	83.97 15500	206.85 155	206.85 155					
15.60	16	115	65	45	48	83.97 15600	83.97 15600	83.97 15600							
15.80	16	115	65	45	48	83.97 15800	83.97 15800	83.97 15800	206.85 158	206.85 158					
16.00	16	115	65	45	48	83.97 16000	83.97 16000	83.97 16000	206.85 160	206.85 160					
16.05	18	123	73	51	48	163.85 16050	163.85 16050	163.85 16050	303.13 960						
16.50	18	123	73	51	48	163.85 16500	163.85 16500	163.85 16500	303.13 165	303.13 165					
16.80	18	123	73	51	48	163.85 16800	163.85 16800	163.85 16800	303.13 168	303.13 168					
16.90	18	123	73	51	48	163.85 16900	163.85 16900	163.85 16900							
17.00	18	123	73	51	48	163.85 17000	163.85 17000	163.85 17000	303.13 170	303.13 170					
17.50	18	123	73	51	48	163.85 17500	163.85 17500	163.85 17500	303.13 175	303.13 175					
17.60	18	123	73	51	48	163.85 17600	163.85 17600	163.85 17600							
17.80	18	123	73	51	48	163.85 17800	163.85 17800	163.85 17800	303.13 178	303.13 178					
18.00	18	123	73	51	48	163.85 18000	163.85 18000	163.85 18000	303.13 180	303.13 180					
18.50	20	131	79	55	50	182.02 18500	182.02 18500	182.02 18500	401.21 185	401.21 185					
18.80	20	131	79	55	50	182.02 18800	182.02 18800	182.02 18800	401.21 188	401.21 188					
18.90	20	131	79	55	50	182.02 18900	182.02 18900	182.02 18900							
19.00	20	131	79	55	50	182.02 19000	182.02 19000	182.02 19000	401.21 190	401.21 190					
19.35	20	131	79	55	50	182.02 19350	182.02 19350	182.02 19350	401.21 993						
19.50	20	131	79	55	50	182.02 19500	182.02 19500	182.02 19500	401.21 195	401.21 195					
19.60	20	131	79	55	50	182.02 19600	182.02 19600	182.02 19600							
19.80	20	131	79	55	50	182.02 19800	182.02 19800	182.02 19800	401.21 198	401.21 198					
20.00	20	131	79	55	50	182.02 20000	182.02 20000	182.02 20000	401.21 200	401.21 200					
20.50	25	151	93	66	56	328.90 20500	328.90 20500	328.90 20500							

Steel	●	●	●	○	○
Stainless steel				●	●
Cast iron	●	●	●	○	○
Non ferrous metals	○	○	○	●	●
Heat resistant alloys					
Hardened materials	○	○	○	○	○

WTX – High Performance Drill, DIN 6537

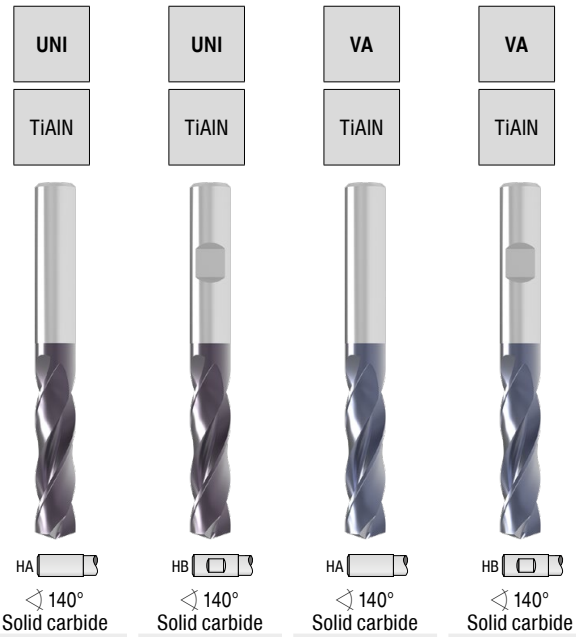
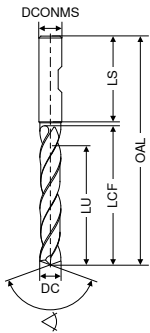
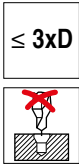


DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 11 777 ...	Article no. 11 778 ...	Article no. 11 776 ...	Article no. 10 731 ...	Article no. 10 732 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£
21.00	25	151	93	66	56	328.90 21000	328.90 21000	328.90 21000		
21.50	25	151	93	66	56	328.90 21500	328.90 21500	328.90 21500		
22.00	25	151	93	66	56	328.90 22000	328.90 22000	328.90 22000		
22.50	25	153	96	72	56	328.90 22500	328.90 22500	328.90 22500		
23.00	25	153	96	72	56	328.90 23000	328.90 23000	328.90 23000		
23.50	25	153	96	72	56	328.90 23500	328.90 23500	328.90 23500		
24.00	25	153	96	72	56	328.90 24000	328.90 24000	328.90 24000		
24.50	25	153	96	75	56	328.90 24500	328.90 24500	328.90 24500		
25.00	25	153	96	75	56	328.90 25000	328.90 25000	328.90 25000		

Steel	●	●	●	○	○
Stainless steel	○	○	○	●	●
Cast iron	●	●	●	○	○
Non ferrous metals	○	○	○	●	●
Heat resistant alloys	○	○	○	○	○
Hardened materials	○	○	○	○	○

→ v_c Page 100+102

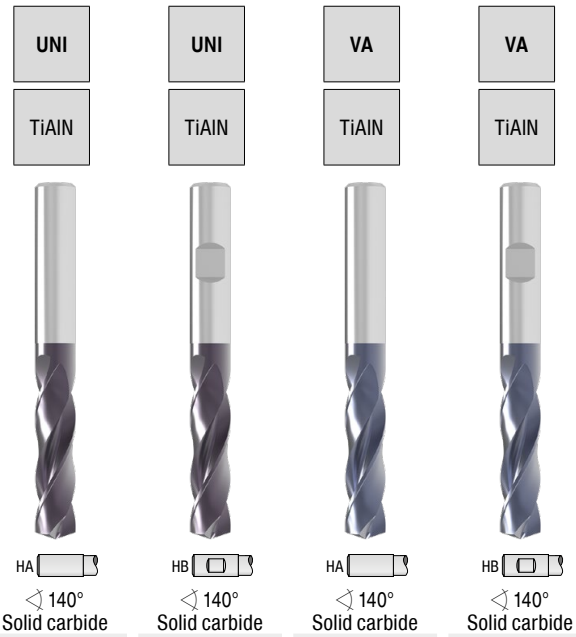
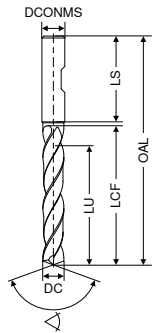
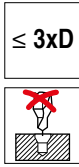
WPC – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA		UNI TiAlN HB		VA TiAlN HA		VA TiAlN HB	
						Article no. 11 600 ...	£	Article no. 11 601 ...	£	Article no. 11 620 ...	£	Article no. 11 621 ...	£
1.00	4	45	5.0	4.5	32.0	20.35	010			19.79	010		
1.10	4	45	5.5	5.0	31.5	20.35	011			19.79	011		
1.20	4	45	6.0	5.4	31.0	20.35	012			19.79	012		
1.30	4	45	6.5	5.9	31.5	20.35	013			19.79	013		
1.40	4	45	7.0	6.3	30.0	20.35	014			19.79	014		
1.50	4	50	7.5	6.8	35.0	20.35	015			19.79	015		
1.60	4	50	8.0	7.2	34.5	20.35	016			19.79	016		
1.70	4	50	8.5	7.7	34.0	20.35	017			19.79	017		
1.80	4	50	9.0	8.1	33.5	20.35	018			19.79	018		
1.90	4	50	9.5	8.6	33.0	20.35	019			19.79	019		
2.00	6	58	14.0	11.0	36.0	20.35	020	20.35	020	24.39	020	20.35	020
2.10	6	58	14.0	11.0	36.0	20.35	021	20.35	021	24.39	021	20.35	021
2.20	6	58	14.0	11.0	36.0	20.35	022	20.35	022	24.39	022	20.35	022
2.30	6	58	14.0	11.0	36.0	20.35	023	20.35	023	24.39	023	20.35	023
2.40	6	58	14.0	11.0	36.0	20.35	024	20.35	024	24.39	024	20.35	024
2.50	6	58	14.0	11.0	36.0	20.35	025	20.35	025	24.39	025	20.35	025
2.60	6	58	14.0	11.0	36.0	20.35	026	20.35	026	24.39	026	20.35	026
2.70	6	58	14.0	11.0	36.0	20.35	027	20.35	027	24.39	027	20.35	027
2.80	6	58	14.0	11.0	36.0	20.35	028	20.35	028	24.39	028	20.35	028
2.90	6	58	14.0	11.0	36.0	20.35	029	20.35	029	24.39	029	20.35	029
3.00	6	62	20.0	14.0	36.0	19.79	030	20.35	030	19.79	030	20.35	030
3.10	6	62	20.0	14.0	36.0	19.79	031	20.35	031	19.79	031	20.35	031
3.20	6	62	20.0	14.0	36.0	19.79	032	20.35	032	19.79	032	20.35	032
3.30	6	62	20.0	14.0	36.0	19.79	033	20.35	033	19.79	033	20.35	033
3.40	6	62	20.0	14.0	36.0	19.79	034	20.35	034	19.79	034	20.35	034
3.50	6	62	20.0	14.0	36.0	19.79	035	20.35	035	19.79	035	20.35	035
3.60	6	62	20.0	14.0	36.0	19.79	036	20.35	036	19.79	036	20.35	036
3.70	6	62	20.0	14.0	36.0	19.79	037	20.35	037	19.79	037	20.35	037
3.80	6	66	24.0	17.0	36.0	19.79	038	20.35	038	19.79	038	20.35	038
3.90	6	66	24.0	17.0	36.0	19.79	039	20.35	039	19.79	039	20.35	039
4.00	6	66	24.0	17.0	36.0	19.79	040	20.35	040	19.79	040	20.35	040
4.10	6	66	24.0	17.0	36.0	19.79	041	20.35	041	19.79	041	20.35	041
4.20	6	66	24.0	17.0	36.0	19.79	042	20.35	042	19.79	042	20.35	042
4.30	6	66	24.0	17.0	36.0	19.79	043	20.35	043	19.79	043	20.35	043
4.40	6	66	24.0	17.0	36.0	19.79	044	20.35	044	19.79	044	20.35	044
4.50	6	66	24.0	17.0	36.0	19.79	045	20.35	045	19.79	045	20.35	045
4.60	6	66	24.0	17.0	36.0	19.79	046	20.35	046	19.79	046	20.35	046
4.65	6	66	24.0	17.0	36.0	19.79	900	20.35	900	19.79	900	20.35	900
4.70	6	66	24.0	17.0	36.0	19.79	047	20.35	047	19.79	047	20.35	047

Steel	●	●	○	○
Stainless steel			●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys				
Hardened materials			○	○

WPC – High Performance Drill, DIN 6537

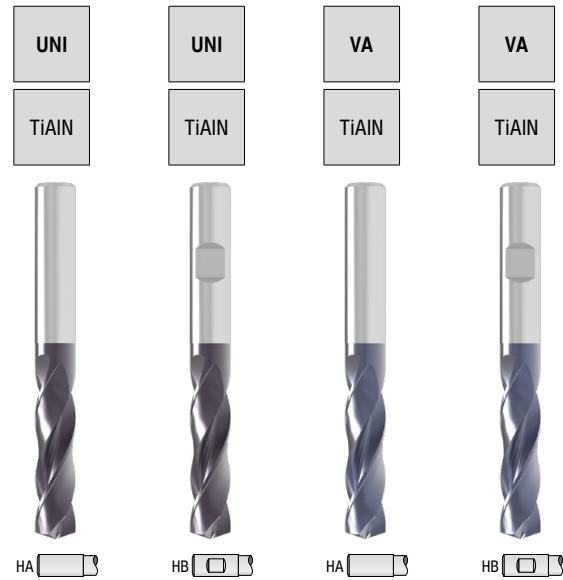
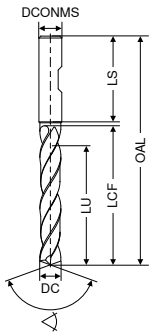
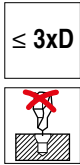


DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA		UNI TiAlN HB		VA TiAlN HA		VA TiAlN HB	
						Article no. 11 600 ...	Article no. 11 601 ...	Article no. 11 620 ...	Article no. 11 621 ...				
mm	mm	mm	mm	mm	mm	£	£	£	£				
4.80	6	66	28.0	20.0	36.0	19.79 048	20.35 048	19.79 048	20.35 048				
4.90	6	66	28.0	20.0	36.0	19.79 049	20.35 049	19.79 049	20.35 049				
5.00	6	66	28.0	20.0	36.0	19.79 050	20.35 050	19.79 050	20.35 050				
5.10	6	66	28.0	20.0	36.0	19.79 051	20.35 051	19.79 051	20.35 051				
5.20	6	66	28.0	20.0	36.0	19.79 052	20.35 052	19.79 052	20.35 052				
5.30	6	66	28.0	20.0	36.0	19.79 053	20.35 053	19.79 053	20.35 053				
5.40	6	66	28.0	20.0	36.0	19.79 054	20.35 054	19.79 054	20.35 054				
5.50	6	66	28.0	20.0	36.0	19.79 055	20.35 055	19.79 055	20.35 055				
5.55	6	66	28.0	20.0	36.0	19.79 902	20.35 902	19.79 902	20.35 902				
5.60	6	66	28.0	20.0	36.0	19.79 056	20.35 056	19.79 056	20.35 056				
5.70	6	66	28.0	20.0	36.0	19.79 057	20.35 057	19.79 057	20.35 057				
5.80	6	66	28.0	20.0	36.0	19.79 058	20.35 058	19.79 058	20.35 058				
5.90	6	66	28.0	20.0	36.0	19.79 059	20.35 059	19.79 059	20.35 059				
6.00	6	66	28.0	20.0	36.0	19.79 060	20.35 060	19.79 060	20.35 060				
6.10	8	79	34.0	24.0	36.0	20.35 061	20.35 061	20.35 061	20.35 061				
6.20	8	79	34.0	24.0	36.0	20.35 062	20.35 062	20.35 062	20.35 062				
6.30	8	79	34.0	24.0	36.0	20.35 063	20.35 063	20.35 063	20.35 063				
6.40	8	79	34.0	24.0	36.0	20.35 064	20.35 064	20.35 064	20.35 064				
6.50	8	79	34.0	24.0	36.0	20.35 065	20.35 065	20.35 065	20.35 065				
6.60	8	79	34.0	24.0	36.0	20.35 066	20.35 066	20.35 066	20.35 066				
6.70	8	79	34.0	24.0	36.0	20.35 067	20.35 067	20.35 067	20.35 067				
6.80	8	79	34.0	24.0	36.0	20.35 068	20.35 068	20.35 068	20.35 068				
6.90	8	79	34.0	24.0	36.0	20.35 069	20.35 069	20.35 069	20.35 069				
7.00	8	79	34.0	24.0	36.0	20.35 070	20.35 070	20.35 070	20.35 070				
7.10	8	79	41.0	29.0	36.0	20.35 071	20.35 071	20.35 071	20.35 071				
7.20	8	79	41.0	29.0	36.0	20.35 072	20.35 072	20.35 072	20.35 072				
7.30	8	79	41.0	29.0	36.0	20.35 073	20.35 073	20.35 073	20.35 073				
7.40	8	79	41.0	29.0	36.0	20.35 074	20.35 074	20.35 074	20.35 074				
7.50	8	79	41.0	29.0	36.0	20.35 075	20.35 075	20.35 075	20.35 075				
7.55	8	79	41.0	29.0	36.0	20.35 975	20.35 975	20.35 975	20.35 975				
7.60	8	79	41.0	29.0	36.0	20.35 076	20.35 076	20.35 076	20.35 076				
7.70	8	79	41.0	29.0	36.0	20.35 077	20.35 077	20.35 077	20.35 077				
7.80	8	79	41.0	29.0	36.0	20.35 078	20.35 078	20.35 078	20.35 078				
7.90	8	79	41.0	29.0	36.0	20.35 079	20.35 079	20.35 079	20.35 079				
8.00	8	79	41.0	29.0	36.0	20.35 080	20.35 080	20.35 080	20.35 080				
8.10	10	89	47.0	35.0	40.0	21.78 081	23.25 081	21.78 081	23.25 081				
8.20	10	89	47.0	35.0	40.0	21.78 082	23.25 082	21.78 082	23.25 082				
8.30	10	89	47.0	35.0	40.0	21.78 083	23.25 083	21.78 083	23.25 083				
8.40	10	89	47.0	35.0	40.0	21.78 084	23.25 084	21.78 084	23.25 084				

Steel	●	●	○	○
Stainless steel	●	●	●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys				
Hardened materials			○	○

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WPC – High Performance Drill, DIN 6537



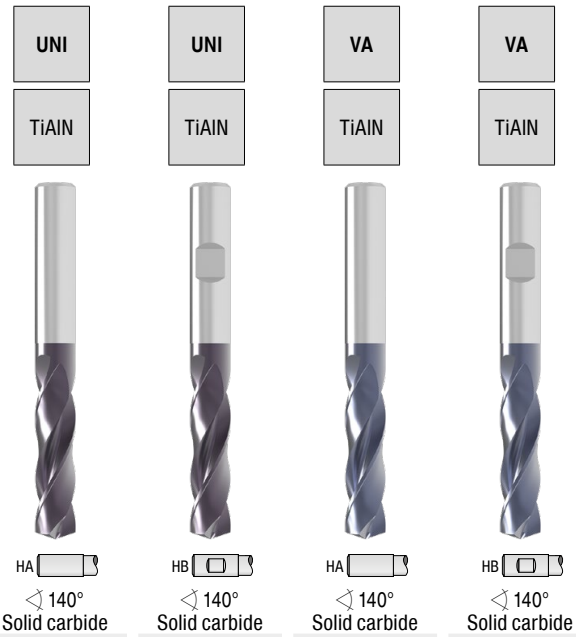
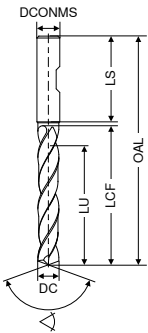
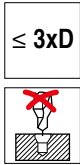
HA HB HA HB
 $\sphericalangle 140^\circ$ Solid carbide T1 Solid carbide T1 Solid carbide T1 Solid carbide T1

DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA		UNI TiAlN HB		VA TiAlN HA		VA TiAlN HB	
						Article no. 11 600 ...	£	Article no. 11 601 ...	£	Article no. 11 620 ...	£	Article no. 11 621 ...	£
8.50	10	89	47.0	35.0	40.0	21.78	085	23.25	085	21.78	085	23.25	085
8.60	10	89	47.0	35.0	40.0	21.78	086	23.25	086	21.78	086	23.25	086
8.70	10	89	47.0	35.0	40.0	21.78	087	23.25	087	21.78	087	23.25	087
8.80	10	89	47.0	35.0	40.0	21.78	088	23.25	088	21.78	088	23.25	088
8.90	10	89	47.0	35.0	40.0	21.78	089	23.25	089	21.78	089	23.25	089
9.00	10	89	47.0	35.0	40.0	21.78	090	23.25	090	21.78	090	23.25	090
9.10	10	89	47.0	35.0	40.0	21.78	091	23.25	091	21.78	091	23.25	091
9.20	10	89	47.0	35.0	40.0	21.78	092	23.25	092	21.78	092	23.25	092
9.25	10	89	47.0	35.0	40.0	21.78	925	23.25	925	21.78	925	23.25	925
9.30	10	89	47.0	35.0	40.0	21.78	093	23.25	093	21.78	093	23.25	093
9.40	10	89	47.0	35.0	40.0	21.78	094	23.25	094	21.78	094	23.25	094
9.50	10	89	47.0	35.0	40.0	21.78	095	23.25	095	21.78	095	23.25	095
9.60	10	89	47.0	35.0	40.0	21.78	096	23.25	096	21.78	096	23.25	096
9.70	10	89	47.0	35.0	40.0	21.78	097	23.25	097	21.78	097	23.25	097
9.80	10	89	47.0	35.0	40.0	21.78	098	23.25	098	21.78	098	23.25	098
9.90	10	89	47.0	35.0	40.0	21.78	099	23.25	099	21.78	099	23.25	099
10.00	10	89	47.0	35.0	40.0	21.78	100	23.25	100	21.78	100	23.25	100
10.10	12	102	55.0	40.0	45.0	33.40	101	34.87	101	33.40	101	34.87	101
10.20	12	102	55.0	40.0	45.0	33.40	102	34.87	102	33.40	102	34.87	102
10.30	12	102	55.0	40.0	45.0	33.40	103	34.87	103	33.40	103	34.87	103
10.40	12	102	55.0	40.0	45.0	33.40	104	34.87	104	33.40	104	34.87	104
10.50	12	102	55.0	40.0	45.0	33.40	105	34.87	105	33.40	105	34.87	105
10.60	12	102	55.0	40.0	45.0	33.40	106	34.87	106	33.40	106	34.87	106
10.70	12	102	55.0	40.0	45.0	33.40	107	34.87	107	33.40	107	34.87	107
10.80	12	102	55.0	40.0	45.0	33.40	108	34.87	108	33.40	108	34.87	108
10.90	12	102	55.0	40.0	45.0	33.40	109	34.87	109	33.40	109	34.87	109
11.00	12	102	55.0	40.0	45.0	33.40	110	34.87	110	33.40	110	34.87	110
11.10	12	102	55.0	40.0	45.0	33.40	111	34.87	111	33.40	111	34.87	111
11.20	12	102	55.0	40.0	45.0	33.40	112	34.87	112	33.40	112	34.87	112
11.30	12	102	55.0	40.0	45.0	33.40	113	34.87	113	33.40	113	34.87	113
11.40	12	102	55.0	40.0	45.0	33.40	114	34.87	114	33.40	114	34.87	114
11.50	12	102	55.0	40.0	45.0	33.40	115	34.87	115	33.40	115	34.87	115
11.60	12	102	55.0	40.0	45.0	33.40	116	34.87	116	33.40	116	34.87	116
11.70	12	102	55.0	40.0	45.0	33.40	117	34.87	117	33.40	117	34.87	117
11.80	12	102	55.0	40.0	45.0	33.40	118	34.87	118	33.40	118	34.87	118
11.90	12	102	55.0	40.0	45.0	33.40	119	34.87	119	33.40	119	34.87	119
12.00	12	102	55.0	40.0	45.0	33.40	120	34.87	120	33.40	120	34.87	120
12.25	14	107	60.0	43.0	45.0	45.05	122	45.05	122				
12.50	14	107	60.0	43.0	45.0	45.05	125	46.49	125	45.05	125	46.49	125

Steel	●	●	○	○
Stainless steel			●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys				
Hardened materials			○	○

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WPC – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA		UNI TiAlN HB		VA TiAlN HA		VA TiAlN HB	
						Article no. 11 600 ...	Article no. 11 601 ...	Article no. 11 620 ...	Article no. 11 621 ...				
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£	£	£
12.70	14	107	60.0	43.0	45.0	45.05	127	46.49	127	45.05	127	46.49	127
12.80	14	107	60.0	43.0	45.0	45.05	128	45.05	128				
12.90	14	107	60.0	43.0	45.0	45.05	129	45.05	129				
13.00	14	107	60.0	43.0	45.0	45.05	130	46.49	130	45.05	130	46.49	130
13.30	14	107	60.0	43.0	45.0	45.05	133	45.05	133				
13.50	14	107	60.0	43.0	45.0	45.05	135	46.49	135	45.05	135	46.49	135
13.70	14	107	60.0	43.0	45.0	45.05	137	46.49	137	45.05	137	46.49	137
13.80	14	107	60.0	43.0	45.0	45.05	138	45.05	138				
14.00	14	107	60.0	43.0	45.0	45.05	140	46.49	140	45.05	140	46.49	140
14.20	16	115	65.0	45.0	48.0	59.54	142	59.54	142				
14.50	16	115	65.0	45.0	48.0	59.54	145	61.02	145	59.54	145	61.02	145
14.70	16	115	65.0	45.0	48.0	59.54	147	61.02	147	59.54	147	61.02	147
14.80	16	115	65.0	45.0	48.0	59.54	148	59.54	148				
15.00	16	115	65.0	45.0	48.0	59.54	150	61.02	150	59.54	150	61.02	150
15.25	16	115	65.0	45.0	48.0	59.54	152	59.54	152				
15.30	16	115	65.0	45.0	48.0	59.54	153	59.54	153				
15.50	16	115	65.0	45.0	48.0	59.54	155	61.02	155	59.54	155	61.02	155
15.70	16	115	65.0	45.0	48.0	59.54	157	61.02	157	59.54	157	61.02	157
15.80	16	115	65.0	45.0	48.0	59.54	158	59.54	158				
16.00	16	115	65.0	45.0	48.0	59.54	160	61.02	160	59.54	160	61.02	160
16.50	18	123	73.0	51.0	48.0	100.22	165	103.14	165	100.22	165	103.14	165
16.80	18	123	73.0	51.0	48.0	100.22	168	100.22	168				
17.00	18	123	73.0	51.0	48.0	100.22	170	103.14	170	100.22	170	103.14	170
17.50	18	123	73.0	51.0	48.0	100.22	175	103.14	175	100.22	175	103.14	175
17.80	18	123	73.0	51.0	48.0	100.22	178	100.22	178				
18.00	18	123	73.0	51.0	48.0	100.22	180	103.14	180	100.22	180	103.14	180
18.50	20	131	79.0	55.0	50.0	108.95	185	114.76	185	108.95	185	114.76	185
18.80	20	131	79.0	55.0	50.0	108.95	188	108.95	188				
19.00	20	131	79.0	55.0	50.0	108.95	190	114.76	190	108.95	190	114.76	190
19.50	20	131	79.0	55.0	50.0	108.95	195	114.76	195	108.95	195	114.76	195
19.80	20	131	79.0	55.0	50.0	108.95	198	108.95	198				
20.00	20	131	79.0	55.0	50.0	108.95	200	114.76	200	108.95	200	114.76	200

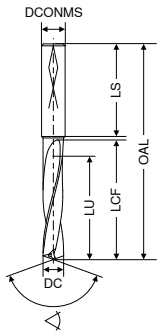
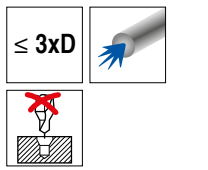
Steel	●	●	○	○
Stainless steel			●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys				
Hardened materials			○	○

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WTX – High Performance Drill, factory standard

- ▲ Special cutting edge geometry
- ▲ Special flute geometry
- ▲ Special core diameter

▲ 46-58 HRC



H
DPX64S
DRAGONSKIN



HA 140°
Solid carbide

NEW T4
Article no.
10 776 ...

DC _{h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Price	Article no.
mm	mm	mm	mm	mm	mm	£	10 776 ...
2.55	4	55	20	7.6	28	39.79	02550
2.60	4	55	20	7.8	28	39.79	02600
2.70	4	55	20	8.1	28	39.79	02700
2.80	4	55	20	8.4	28	39.79	02800
2.90	4	55	20	8.7	28	39.79	02900
3.00	6	62	20	9.0	36	57.38	03000
3.10	6	62	20	9.3	36	57.38	03100
3.20	6	62	20	9.6	36	57.38	03200
3.30	6	62	20	9.9	36	57.38	03300
3.40	6	62	20	10.2	36	57.38	03400
3.50	6	62	20	10.5	36	57.38	03500
3.60	6	62	20	10.8	36	57.38	03600
3.70	6	62	20	11.1	36	57.38	03700
3.80	6	66	24	11.4	36	57.38	03800
3.90	6	66	24	11.7	36	57.38	03900
4.00	6	66	24	12.0	36	57.38	04000
4.10	6	66	24	12.3	36	57.38	04100
4.20	6	66	24	12.6	36	57.38	04200
4.30	6	66	24	12.9	36	57.38	04300
4.40	6	66	24	13.2	36	57.38	04400
4.50	6	66	24	13.5	36	57.38	04500
4.60	6	66	24	13.8	36	57.38	04600
4.70	6	66	24	14.1	36	57.38	04700
4.80	6	66	28	14.4	36	57.38	04800
4.90	6	66	28	14.7	36	57.38	04900
5.00	6	66	28	15.0	36	57.38	05000
5.10	6	66	28	15.3	36	57.38	05100
5.20	6	66	28	15.6	36	57.38	05200
5.30	6	66	28	15.9	36	57.38	05300
5.40	6	66	28	16.2	36	57.38	05400
5.50	6	66	28	16.5	36	57.38	05500
5.60	6	66	28	16.8	36	57.38	05600
5.70	6	66	28	17.1	36	57.38	05700
5.80	6	66	28	17.4	36	57.38	05800
5.90	6	66	28	17.7	36	57.38	05900
6.00	6	66	28	18.0	36	57.38	06000
6.10	8	79	34	18.3	36	74.57	06100
6.20	8	79	34	18.6	36	74.57	06200
6.30	8	79	34	18.9	36	74.57	06300
6.40	8	79	34	19.2	36	74.57	06400
6.50	8	79	34	19.5	36	74.57	06500
6.60	8	79	34	19.8	36	74.57	06600
6.70	8	79	34	20.1	36	74.57	06700
6.80	8	79	34	20.4	36	74.57	06800
6.90	8	79	34	20.7	36	74.57	06900
7.00	8	79	34	21.0	36	74.57	07000
7.10	8	79	41	21.3	36	74.57	07100
7.20	8	79	41	21.6	36	74.57	07200
7.30	8	79	41	21.9	36	74.57	07300
7.40	8	79	41	22.2	36	74.57	07400
7.50	8	79	41	22.5	36	74.57	07500

DC _{h7}	DCONMS _{h6}	OAL	LCF	LU	LS	NEW T4 Article no. 10 776 ...	Price £
7.60	8	79	41	22.8	36	74.57	07600
7.70	8	79	41	23.1	36	74.57	07700
7.80	8	79	41	23.4	36	74.57	07800
7.90	8	79	41	23.7	36	74.57	07900
8.00	8	79	41	24.0	36	74.57	08000
8.10	10	89	47	24.3	40	95.80	08100
8.20	10	89	47	24.6	40	95.80	08200
8.30	10	89	47	24.9	40	95.80	08300
8.40	10	89	47	25.2	40	95.80	08400
8.50	10	89	47	25.5	40	95.80	08500
8.60	10	89	47	25.8	40	95.80	08600
8.70	10	89	47	26.1	40	95.80	08700
8.80	10	89	47	26.4	40	95.80	08800
8.90	10	89	47	26.7	40	95.80	08900
9.00	10	89	47	27.0	40	95.80	09000
9.10	10	89	47	27.3	40	95.80	09100
9.20	10	89	47	27.6	40	95.80	09200
9.30	10	89	47	27.9	40	95.80	09300
9.40	10	89	47	28.2	40	95.80	09400
9.50	10	89	47	28.5	40	95.80	09500
9.60	10	89	47	28.8	40	95.80	09600
9.70	10	89	47	29.1	40	95.80	09700
9.80	10	89	47	29.4	40	95.80	09800
9.90	10	89	47	29.7	40	95.80	09900
10.00	10	89	47	30.0	40	95.80	10000
10.10	12	102	55	30.3	45	136.81	10100
10.20	12	102	55	30.6	45	136.81	10200
10.30	12	102	55	30.9	45	136.81	10300
10.40	12	102	55	31.2	45	136.81	10400
10.50	12	102	55	31.5	45	136.81	10500
10.60	12	102	55	31.8	45	136.81	10600
10.70	12	102	55	32.1	45	136.81	10700
10.80	12	102	55	32.4	45	136.81	10800
10.90	12	102	55	32.7	45	136.81	10900
11.00	12	102	55	33.0	45	136.81	11000
11.10	12	102	55	33.3	45	136.81	11100
11.20	12	102	55	33.6	45	136.81	11200
11.30	12	102	55	33.9	45	136.81	11300
11.40	12	102	55	34.2	45	136.81	11400
11.50	12	102	55	34.5	45	136.81	11500
11.60	12	102	55	34.8	45	136.81	11600
11.70	12	102	55	35.1	45	136.81	11700
11.80	12	102	55	35.4	45	136.81	11800
11.90	12	102	55	35.7	45	136.81	11900
12.00	12	102	55	36.0	45	136.81	12000
12.10	14	107	60	36.3	45	176.78	12100
12.20	14	107	60	36.6	45	176.78	12200
12.30	14	107	60	36.9	45	176.78	12300
12.40	14	107	60	37.2	45	176.78	12400
12.50	14	107	60	37.5	45	176.78	12500
12.60	14	107	60	37.8	45	176.78	12600
12.70	14	107	60	38.1	45	176.78	12700
12.80	14	107	60	38.4	45	176.78	12800
12.90	14	107	60	38.7	45	176.78	12900
13.00	14	107	60	39.0	45	176.78	13000
13.10	14	107	60	39.3	45	176.78	13100
13.20	14	107	60	39.6	45	176.78	13200
13.30	14	107	60	39.9	45	176.78	13300
13.40	14	107	60	40.2	45	176.78	13400
13.50	14	107	60	40.5	45	176.78	13500
13.60	14	107	60	40.8	45	176.78	13600
13.70	14	107	60	41.1	45	176.78	13700
13.80	14	107	60	41.4	45	176.78	13800
13.90	14	107	60	41.7	45	176.78	13900
14.00	14	107	60	42.0	45	176.78	14000

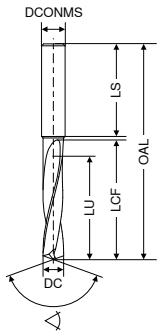
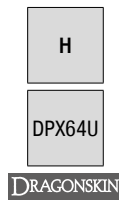
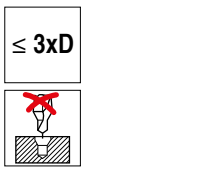
Steel	○
Cast iron	○
Hardened < 45 HRC	●
Hardened 46-55 HRC	●
Hardened 56-60 HRC	○
Hardened 61-65 HRC	
Hardened 65-70 HRC	

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WTX – High Performance Drill, factory standard

- ▲ Special cutting edge geometry
- ▲ Special flute geometry
- ▲ Special core diameter

▲ 46–70 HRC



140°

Solid carbide

NEW T4

Article no.

10 777 ...

£

DC _{H7}	DCONMS _{H6}	OAL	LCF	LU	LS	Article no.	£
2.55	4	55	20	7.6	28	49.73	02550
2.60	4	55	20	7.8	28	49.73	02600
2.70	4	55	20	8.1	28	49.73	02700
2.80	4	55	20	8.4	28	49.73	02800
2.90	4	55	20	8.7	28	49.73	02900
3.00	6	62	20	9.0	36	71.72	03000
3.10	6	62	20	9.3	36	71.72	03100
3.20	6	62	20	9.6	36	71.72	03200
3.30	6	62	20	9.9	36	71.72	03300
3.40	6	62	20	10.2	36	71.72	03400
3.50	6	62	20	10.5	36	71.72	03500
3.60	6	62	20	10.8	36	71.72	03600
3.70	6	62	20	11.1	36	71.72	03700
3.80	6	66	24	11.4	36	71.72	03800
3.90	6	66	24	11.7	36	71.72	03900
4.00	6	66	24	12.0	36	71.72	04000
4.10	6	66	24	12.3	36	71.72	04100
4.20	6	66	24	12.6	36	71.72	04200
4.30	6	66	24	12.9	36	71.72	04300
4.40	6	66	24	13.2	36	71.72	04400
4.50	6	66	24	13.5	36	71.72	04500
4.60	6	66	24	13.8	36	71.72	04600
4.70	6	66	24	14.1	36	71.72	04700
4.80	6	66	28	14.4	36	71.72	04800
4.90	6	66	28	14.7	36	71.72	04900
5.00	6	66	28	15.0	36	71.72	05000
5.10	6	66	28	15.3	36	71.72	05100
5.20	6	66	28	15.6	36	71.72	05200
5.30	6	66	28	15.9	36	71.72	05300
5.40	6	66	28	16.2	36	71.72	05400
5.50	6	66	28	16.5	36	71.72	05500
5.60	6	66	28	16.8	36	71.72	05600
5.70	6	66	28	17.1	36	71.72	05700
5.80	6	66	28	17.4	36	71.72	05800
5.90	6	66	28	17.7	36	71.72	05900
6.00	6	66	28	18.0	36	71.72	06000
6.10	8	79	34	18.3	36	93.21	06100
6.20	8	79	34	18.6	36	93.21	06200
6.30	8	79	34	18.9	36	93.21	06300
6.40	8	79	34	19.2	36	93.21	06400
6.50	8	79	34	19.5	36	93.21	06500
6.60	8	79	34	19.8	36	93.21	06600
6.70	8	79	34	20.1	36	93.21	06700
6.80	8	79	34	20.4	36	93.21	06800
6.90	8	79	34	20.7	36	93.21	06900
7.00	8	79	34	21.0	36	93.21	07000
7.10	8	79	41	21.3	36	93.21	07100
7.20	8	79	41	21.6	36	93.21	07200
7.30	8	79	41	21.9	36	93.21	07300
7.40	8	79	41	22.2	36	93.21	07400
7.50	8	79	41	22.5	36	93.21	07500

NEW T4

Article no.
10 777 ...

£

DC _{H7}	DCONMS _{H6}	OAL	LCF	LU	LS	Article no.	£
7.60	8	79	41	22.8	36	93.21	07600
7.70	8	79	41	23.1	36	93.21	07700
7.80	8	79	41	23.4	36	93.21	07800
7.90	8	79	41	23.7	36	93.21	07900
8.00	8	79	41	24.0	36	93.21	08000
8.10	10	89	47	24.3	40	105.35	08100
8.20	10	89	47	24.6	40	105.35	08200
8.30	10	89	47	24.9	40	105.35	08300
8.40	10	89	47	25.2	40	105.35	08400
8.50	10	89	47	25.5	40	105.35	08500
8.60	10	89	47	25.8	40	105.35	08600
8.70	10	89	47	26.1	40	105.35	08700
8.80	10	89	47	26.4	40	105.35	08800
8.90	10	89	47	26.7	40	105.35	08900
9.00	10	89	47	27.0	40	105.35	09000
9.10	10	89	47	27.3	40	105.35	09100
9.20	10	89	47	27.6	40	105.35	09200
9.30	10	89	47	27.9	40	105.35	09300
9.40	10	89	47	28.2	40	105.35	09400
9.50	10	89	47	28.5	40	105.35	09500
9.60	10	89	47	28.8	40	105.35	09600
9.70	10	89	47	29.1	40	105.35	09700
9.80	10	89	47	29.4	40	105.35	09800
9.90	10	89	47	29.7	40	105.35	09900
10.00	10	89	47	30.0	40	105.35	10000
10.10	12	102	55	30.3	45	136.81	10100
10.20	12	102	55	30.6	45	136.81	10200
10.30	12	102	55	30.9	45	136.81	10300
10.40	12	102	55	31.2	45	136.81	10400
10.50	12	102	55	31.5	45	136.81	10500
10.60	12	102	55	31.8	45	136.81	10600
10.70	12	102	55	32.1	45	136.81	10700
10.80	12	102	55	32.4	45	136.81	10800
10.90	12	102	55	32.7	45	136.81	10900
11.00	12	102	55	33.0	45	136.81	11000
11.10	12	102	55	33.3	45	136.81	11100
11.20	12	102	55	33.6	45	136.81	11200
11.30	12	102	55	33.9	45	136.81	11300
11.40	12	102	55	34.2	45	136.81	11400
11.50	12	102	55	34.5	45	136.81	11500
11.60	12	102	55	34.8	45	136.81	11600
11.70	12	102	55	35.1	45	136.81	11700
11.80	12	102	55	35.4	45	136.81	11800
11.90	12	102	55	35.7	45	136.81	11900
12.00	12	102	55	36.0	45	136.81	12000
12.10	14	107	60	36.3	45	161.66	12100
12.20	14	107	60	36.6	45	161.66	12200
12.30	14	107	60	36.9	45	161.66	12300
12.40	14	107	60	37.2	45	161.66	12400
12.50	14	107	60	37.5	45	161.66	12500
12.60	14	107	60	37.8	45	161.66	12600
12.70	14	107	60	38.1	45	161.66	12700
12.80	14	107	60	38.4	45	161.66	12800
12.90	14	107	60	38.7	45	161.66	12900
13.00	14	107	60	39.0	45	161.66	13000
13.10	14	107	60	39.3	45	161.66	13100
13.20	14	107	60	39.6	45	161.66	13200
13.30	14	107	60	39.9	45	161.66	13300
13.40	14	107	60	40.2	45	161.66	13400
13.50	14	107	60	40.5	45	161.66	13500
13.60	14	107	60	40.8	45	161.66	13600
13.70	14	107	60	41.1	45	161.66	13700
13.80	14	107	60	41.4	45	161.66	13800
13.90	14	107	60	41.7	45	161.66	13900
14.00	14	107	60	42.0	45	161.66	14000

Hardened < 45 HRC



Hardened 46–55 HRC



Hardened 56–60 HRC



Hardened 61–65 HRC



Hardened 65–70 HRC



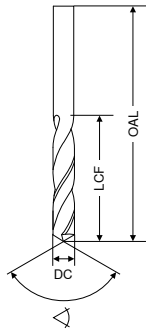
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Twist drill similar to DIN 1897

- ▲ Rake angle 30°
- ▲ Shank Ø h7

≤ 3xD

N



118°
Solid carbide
T3

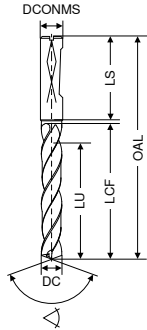
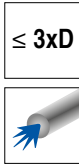
DC _{h7}	OAL	LCF	Article no. 10 700 ...	£
mm	mm	mm		
0.5	20	3.0	5.69 005	
0.6	21	3.5	5.98 006	
0.7	23	4.5	5.98 007	
0.8	24	5.0	5.98 008	
0.9	25	5.5	5.98 009	
1.0	26	6.0	5.98 010	
1.2	30	8.0	5.98 012	
1.3	30	8.0	5.98 013	
1.4	32	9.0	5.98 014	
1.5	32	9.0	5.98 015	
1.6	34	10.0	5.98 016	
1.7	34	10.0	5.98 017	
1.8	36	11.0	5.98 018	
1.9	36	11.0	5.98 019	
2.0	38	12.0	8.02 020	
2.1	38	12.0	8.27 021	
2.2	40	13.0	8.27 022	
2.3	40	13.0	8.27 023	
2.4	43	14.0	8.27 024	
2.5	43	14.0	9.28 025	
2.6	43	14.0	9.28 026	
2.7	46	16.0	9.74 027	
2.8	46	16.0	9.74 028	
2.9	46	16.0	9.74 029	
3.0	46	16.0	10.42 030	
3.1	49	18.0	10.42 031	
3.2	49	18.0	10.42 032	
3.3	49	18.0	12.19 033	
3.4	52	20.0	12.19 034	
3.5	52	20.0	13.14 035	
3.6	52	20.0	13.14 036	
3.7	52	20.0	13.14 037	
3.8	55	22.0	13.55 038	
3.9	55	22.0	13.55 039	
4.0	55	22.0	15.64 040	
4.1	55	22.0	15.64 041	
4.2	55	22.0	17.02 042	
4.3	58	24.0	17.02 043	
4.4	58	24.0	17.02 044	
4.5	58	24.0	18.41 045	
4.6	58	24.0	18.41 046	
4.7	58	24.0	18.41 047	
4.8	62	26.0	18.41 048	
4.9	62	26.0	18.41 049	
5.0	62	26.0	20.63 050	
5.1	62	26.0	20.63 051	
5.2	62	26.0	21.25 052	
5.3	62	26.0	21.25 053	
5.4	66	28.0	21.25 054	
5.5	66	28.0	23.95 055	
5.6	66	28.0	23.95 056	
5.7	66	28.0	23.95 057	

DC _{h7}	OAL	LCF	Article no. 10 700 ...	£
mm	mm	mm		
5.8	66	28.0	23.95 058	
5.9	66	28.0	23.95 059	
6.0	66	28.0	26.57 060	
6.1	70	31.0	27.38 061	
6.2	70	31.0	27.38 062	
6.3	70	31.0	27.38 063	
6.4	70	31.0	27.38 064	
6.5	70	31.0	29.63 065	
6.6	70	31.0	32.66 066	
6.7	70	31.0	32.66 067	
6.8	74	34.0	32.66 068	
6.9	74	34.0	32.66 069	
7.0	74	34.0	32.66 070	
7.1	74	34.0	32.66 071	
7.2	74	34.0	32.66 072	
7.3	74	34.0	32.66 073	
7.4	74	34.0	32.66 074	
7.5	74	34.0	37.78 075	
7.6	79	37.0	37.78 076	
7.7	79	37.0	37.78 077	
7.8	79	37.0	37.78 078	
7.9	79	37.0	37.78 079	
8.0	79	37.0	38.78 080	
8.1	79	37.0	42.53 081	
8.2	79	37.0	42.53 082	
8.3	79	37.0	42.53 083	
8.4	79	37.0	42.53 084	
8.5	79	37.0	44.05 085	
8.6	84	40.0	44.90 086	
8.7	84	40.0	44.90 087	
8.8	84	40.0	49.11 088	
8.9	84	40.0	49.11 089	
9.0	84	40.0	49.11 090	
9.1	84	40.0	49.11 091	
9.2	84	40.0	49.11 092	
9.3	84	40.0	49.11 093	
9.4	84	40.0	49.11 094	
9.5	84	40.0	52.87 095	
9.6	89	43.0	52.87 096	
9.7	89	43.0	52.87 097	
9.8	89	43.0	52.87 098	
9.9	89	43.0	52.87 099	
10.0	89	43.0	58.69 100	
10.2	89	43.0	62.57 102	
10.5	89	43.0	62.57 105	
10.8	95	47.0	62.57 108	
11.0	95	47.0	69.72 110	
11.2	95	47.0	76.37 112	
11.5	95	47.0	77.44 115	
11.8	95	47.0	77.44 118	
12.0	102	51.0	86.88 120	
12.5	102	51.0	94.78 125	
13.0	102	51.0	106.20 130	
13.5	107	54.0	120.86 135	
14.0	107	54.0	131.19 140	
14.5	111	56.0	140.37 145	
15.0	111	56.0	152.23 150	
15.5	115	58.0	164.30 155	
16.0	115	58.0	173.18 160	
18.0	123	62.0	232.39 180	
20.0	131	66.0	311.37 200	

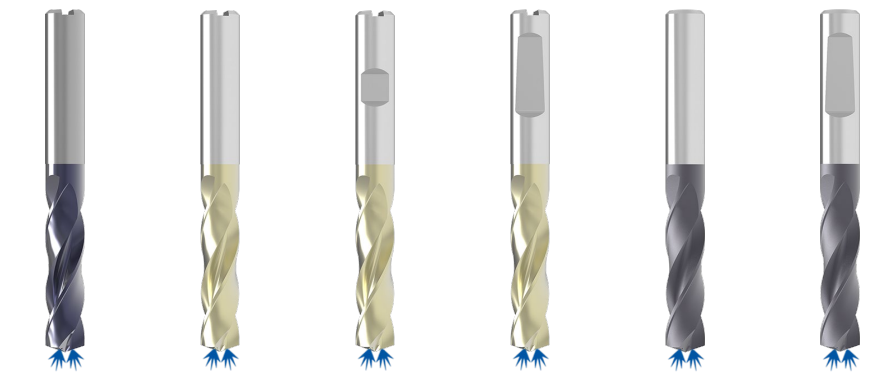
Steel	●
Stainless steel	○
Cast iron	○
Non ferrous metals	●
Heat resistant alloys	○

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WTX – High Performance Drill, DIN 6537



Speed UNI	UNI	UNI	UNI	VA	VA
DPX14S	DPX74S	DPX74S	DPX74S	Ti700	Ti700
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		



HA	HA	HB	HE	HA	HE
∠ 145°	∠ 140°	∠ 140°	∠ 140°	∠ 140°	∠ 140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide

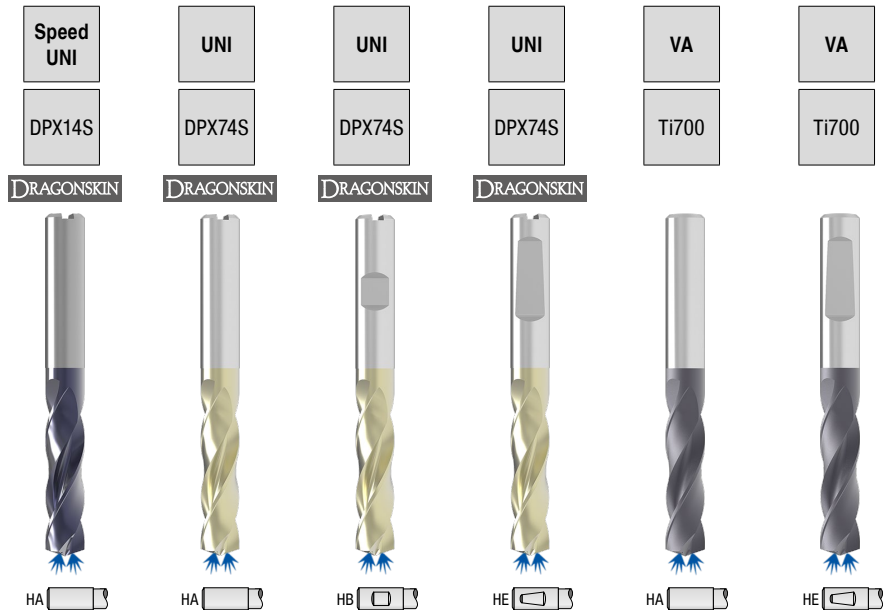
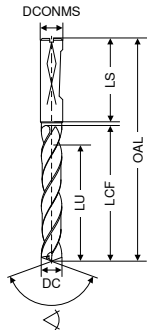
DC _{m7}	DCONMS _{H6}	OAL	LCF	LU	LS	Article no.	Article no.	Article no.	Article no.	Article no.	Article no.
mm	mm	mm	mm	mm	mm	10 781 ...	11 780 ...	11 781 ...	11 779 ...	10 734 ...	10 733 ...
3.00	6	62	20	14	36	91.60 03000	43.16 03000	43.16 03000	43.16 03000	83.84 030	83.84 030
3.10	6	62	20	14	36	91.60 03100	43.16 03100	43.16 03100	43.16 03100	83.84 031	83.84 031
3.15	6	62	20	14	36		43.16 03150	43.16 03150	43.16 03150	83.84 831	
3.20	6	62	20	14	36	91.60 03200	43.16 03200	43.16 03200	43.16 03200	83.84 032	83.84 032
3.22	6	62	20	14	36		43.16 03220	43.16 03220	43.16 03220	83.84 832	
3.25	6	62	20	14	36		43.16 03250	43.16 03250	43.16 03250	83.84 890	
3.30	6	62	20	14	36	91.60 03300	43.16 03300	43.16 03300	43.16 03300	83.84 033	83.84 033
3.40	6	62	20	14	36	91.60 03400	43.16 03400	43.16 03400	43.16 03400	83.84 034	83.84 034
3.50	6	62	20	14	36	91.60 03500	43.16 03500	43.16 03500	43.16 03500	83.84 035	83.84 035
3.60	6	62	20	14	36	91.60 03600	43.16 03600	43.16 03600	43.16 03600	83.84 036	83.84 036
3.70	6	62	20	14	36	91.60 03700	43.16 03700	43.16 03700	43.16 03700	83.84 037	83.84 037
3.80	6	66	24	17	36	91.60 03800	43.16 03800	43.16 03800	43.16 03800	83.84 038	83.84 038
3.85	6	66	24	17	36		43.16 03850	43.16 03850	43.16 03850	83.84 838	
3.90	6	66	24	17	36	91.60 03900	43.16 03900	43.16 03900	43.16 03900	83.84 039	83.84 039
4.00	6	66	24	17	36	91.60 04000	43.16 04000	43.16 04000	43.16 04000	83.84 040	83.84 040
4.10	6	66	24	17	36	91.60 04100	43.16 04100	43.16 04100	43.16 04100	83.84 041	83.84 041
4.20	6	66	24	17	36	91.60 04200	43.16 04200	43.16 04200	43.16 04200	83.84 042	83.84 042
4.25	6	66	24	17	36		43.16 04250	43.16 04250	43.16 04250		
4.30	6	66	24	17	36	91.60 04300	43.16 04300	43.16 04300	43.16 04300	83.84 043	83.84 043
4.35	6	66	24	17	36		43.16 04350	43.16 04350	43.16 04350	83.84 843	
4.40	6	66	24	17	36	91.60 04400	43.16 04400	43.16 04400	43.16 04400	83.84 044	83.84 044
4.45	6	66	24	17	36		43.16 04450	43.16 04450	43.16 04450	83.84 844	
4.50	6	66	24	17	36	91.60 04500	43.16 04500	43.16 04500	43.16 04500	83.84 045	83.84 045
4.60	6	66	24	17	36	91.60 04600	43.16 04600	43.16 04600	43.16 04600	83.84 046	83.84 046
4.65	6	66	24	17	36	91.60 04650	43.16 04650	43.16 04650	43.16 04650	83.84 900	83.84 900
4.70	6	66	24	17	36	91.60 04700	43.16 04700	43.16 04700	43.16 04700	83.84 047	83.84 047
4.80	6	66	28	20	36	91.60 04800	43.16 04800	43.16 04800	43.16 04800	83.84 048	83.84 048
4.90	6	66	28	20	36	91.60 04900	43.16 04900	43.16 04900	43.16 04900	83.84 049	83.84 049
4.95	6	66	28	20	36		43.16 04950	43.16 04950	43.16 04950		
5.00	6	66	28	20	36	91.60 05000	43.16 05000	43.16 05000	43.16 05000	83.84 050	83.84 050
5.05	6	66	28	20	36		43.16 05050	43.16 05050	43.16 05050		
5.10	6	66	28	20	36	91.60 05100	43.16 05100	43.16 05100	43.16 05100	83.84 051	83.84 051
5.20	6	66	28	20	36	91.60 05200	43.16 05200	43.16 05200	43.16 05200	83.84 052	83.84 052
5.30	6	66	28	20	36	91.60 05300	43.16 05300	43.16 05300	43.16 05300	83.84 053	83.84 053
5.40	6	66	28	20	36	91.60 05400	43.16 05400	43.16 05400	43.16 05400	83.84 054	83.84 054
5.50	6	66	28	20	36	91.60 05500	43.16 05500	43.16 05500	43.16 05500	83.84 055	83.84 055
5.55	6	66	28	20	36	91.60 05550	43.16 05550	43.16 05550	43.16 05550	83.84 902	83.84 902
5.60	6	66	28	20	36	91.60 05600	43.16 05600	43.16 05600	43.16 05600	83.84 056	83.84 056
5.70	6	66	28	20	36	91.60 05700	43.16 05700	43.16 05700	43.16 05700	83.84 057	83.84 057
5.75	6	66	28	20	36		43.16 05750	43.16 05750	43.16 05750	83.84 916	
5.80	6	66	28	20	36	91.60 05800	43.16 05800	43.16 05800	43.16 05800	83.84 058	83.84 058
5.90	6	66	28	20	36	91.60 05900	43.16 05900	43.16 05900	43.16 05900	83.84 059	83.84 059

Steel	●	●	●	●	○	○
Stainless steel	●	○	○	○	●	●
Cast iron	●	●	●	●	○	○
Non ferrous metals	○	○	○	○	●	●
Heat resistant alloys					○	○
Hardened materials	○	○	○	○		

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i Ø DC_{m7} for Type UNI and VA / Ø DC_{m7} for Type Speed UNI

WTX - High Performance Drill, DIN 6537



HA $\angle 145^\circ$ Solid carbide
 HA $\angle 140^\circ$ Solid carbide
 HB $\angle 140^\circ$ Solid carbide
 HE $\angle 140^\circ$ Solid carbide
 HA $\angle 140^\circ$ Solid carbide
 HE $\angle 140^\circ$ Solid carbide

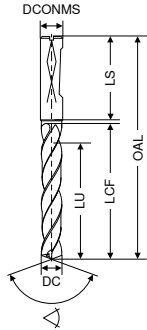
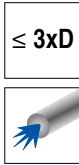
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no.	Article no.	Article no.	Article no.	Article no.	Article no.
mm	mm	mm	mm	mm	mm	10 781 ...	11 780 ...	11 781 ...	11 779 ...	10 734 ...	10 733 ...
						£	£	£	£	£	£
5.95	6	66	28	20	36		43.16 05950	43.16 05950	43.16 05950	83.84 959	
6.00	6	66	28	20	36	91.60 06000	43.16 06000	43.16 06000	43.16 06000	83.84 060	83.84 060
6.10	8	79	34	24	36	111.94 06100	56.37 06100	56.37 06100	56.37 06100	103.49 061	103.49 061
6.20	8	79	34	24	36	111.94 06200	56.37 06200	56.37 06200	56.37 06200	103.49 062	103.49 062
6.30	8	79	34	24	36	111.94 06300	56.37 06300	56.37 06300	56.37 06300	103.49 063	103.49 063
6.40	8	79	34	24	36	111.94 06400	56.37 06400	56.37 06400	56.37 06400	103.49 064	103.49 064
6.50	8	79	34	24	36	111.94 06500	56.37 06500	56.37 06500	56.37 06500	103.49 065	103.49 065
6.60	8	79	34	24	36	111.94 06600	56.37 06600	56.37 06600	56.37 06600	103.49 066	103.49 066
6.70	8	79	34	24	36	111.94 06700	56.37 06700	56.37 06700	56.37 06700	103.49 067	103.49 067
6.80	8	79	34	24	36	111.94 06800	56.37 06800	56.37 06800	56.37 06800	103.49 068	103.49 068
6.90	8	79	34	24	36	111.94 06900	56.37 06900	56.37 06900	56.37 06900	103.49 069	103.49 069
7.00	8	79	34	24	36	111.94 07000	56.37 07000	56.37 07000	56.37 07000	103.49 070	103.49 070
7.10	8	79	41	29	36	111.94 07100	56.37 07100	56.37 07100	56.37 07100	103.49 071	103.49 071
7.20	8	79	41	29	36	111.94 07200	56.37 07200	56.37 07200	56.37 07200	103.49 072	103.49 072
7.30	8	79	41	29	36	111.94 07300	56.37 07300	56.37 07300	56.37 07300	103.49 073	103.49 073
7.40	8	79	41	29	36	111.94 07400	56.37 07400	56.37 07400	56.37 07400	103.49 074	103.49 074
7.45	8	79	41	29	36		56.37 07450	56.37 07450	56.37 07450	103.49 924	
7.50	8	79	41	29	36	111.94 07500	56.37 07500	56.37 07500	56.37 07500	103.49 075	103.49 075
7.60	8	79	41	29	36	111.94 07600	56.37 07600	56.37 07600	56.37 07600	103.49 076	103.49 076
7.70	8	79	41	29	36	111.94 07700	56.37 07700	56.37 07700	56.37 07700	103.49 077	103.49 077
7.80	8	79	41	29	36	111.94 07800	56.37 07800	56.37 07800	56.37 07800	103.49 078	103.49 078
7.90	8	79	41	29	36	111.94 07900	56.37 07900	56.37 07900	56.37 07900	103.49 079	103.49 079
8.00	8	79	41	29	36	111.94 08000	56.37 08000	56.37 08000	56.37 08000	102.81 080	102.81 080
8.10	10	89	47	35	40	154.39 08100	64.42 08100	64.42 08100	64.42 08100	103.49 081	103.49 081
8.20	10	89	47	35	40	154.39 08200	64.42 08200	64.42 08200	64.42 08200	103.49 082	103.49 082
8.30	10	89	47	35	40	154.39 08300	64.42 08300	64.42 08300	64.42 08300	103.49 083	103.49 083
8.40	10	89	47	35	40	154.39 08400	64.42 08400	64.42 08400	64.42 08400	103.49 084	103.49 084
8.50	10	89	47	35	40	154.39 08500	64.42 08500	64.42 08500	64.42 08500	103.49 085	103.49 085
8.60	10	89	47	35	40	154.39 08600	64.42 08600	64.42 08600	64.42 08600	103.49 086	103.49 086
8.70	10	89	47	35	40	154.39 08700	64.42 08700	64.42 08700	64.42 08700	103.49 087	103.49 087
8.80	10	89	47	35	40	154.39 08800	64.42 08800	64.42 08800	64.42 08800	103.49 088	103.49 088
8.90	10	89	47	35	40	154.39 08900	64.42 08900	64.42 08900	64.42 08900	103.49 089	103.49 089
9.00	10	89	47	35	40	154.39 09000	64.42 09000	64.42 09000	64.42 09000	103.49 090	103.49 090
9.10	10	89	47	35	40	154.39 09100	64.42 09100	64.42 09100	64.42 09100	103.49 091	103.49 091
9.20	10	89	47	35	40	154.39 09200	64.42 09200	64.42 09200	64.42 09200	119.55 092	119.55 092
9.30	10	89	47	35	40	154.39 09300	64.42 09300	64.42 09300	64.42 09300	119.55 093	119.55 093
9.35	10	89	47	35	40		64.42 09350	64.42 09350	64.42 09350	119.55 930	
9.40	10	89	47	35	40	154.39 09400	64.42 09400	64.42 09400	64.42 09400	119.55 094	119.55 094
9.45	10	89	47	35	40		64.42 09450	64.42 09450	64.42 09450	119.55 994	
9.50	10	89	47	35	40	154.39 09500	64.42 09500	64.42 09500	64.42 09500	119.55 095	119.55 095
9.60	10	89	47	35	40	154.39 09600	64.42 09600	64.42 09600	64.42 09600	119.55 096	119.55 096
9.70	10	89	47	35	40	154.39 09700	64.42 09700	64.42 09700	64.42 09700	119.55 097	119.55 097

Steel	●	●	●	●	○	○
Stainless steel	●	○	○	○	●	●
Cast iron	●	●	●	●	○	○
Non ferrous metals	○	○	○	○	●	●
Heat resistant alloys					○	○
Hardened materials	○	○	○	○		

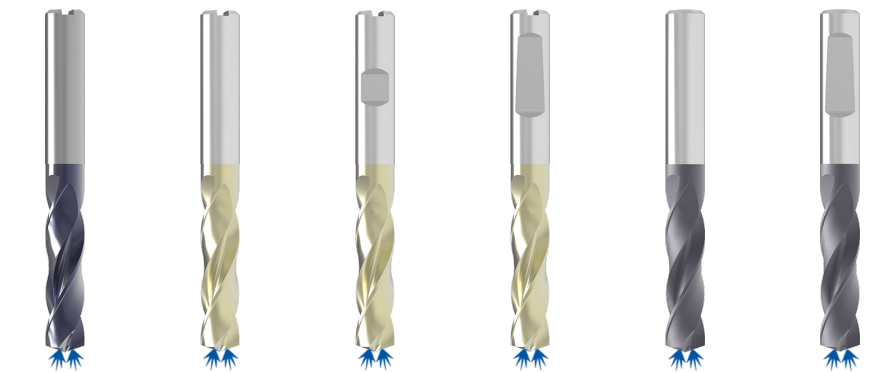
→ v_c Page 96-102

i Ø DC_{m7} for Type UNI and VA / Ø DC_{m7} for Type Speed UNI

WTX – High Performance Drill, DIN 6537



Speed UNI	UNI	UNI	UNI	VA	VA
DPX14S	DPX74S	DPX74S	DPX74S	Ti700	Ti700
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		



HA	HA	HB	HE	HA	HE
∠ 145°	∠ 140°	∠ 140°	∠ 140°	∠ 140°	∠ 140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide

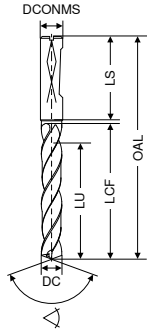
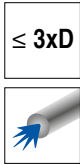
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. NEW T4 10 781 ...	Article no. T7 10 780 ...	Article no. T7 11 781 ...	Article no. T7 11 779 ...	Article no. T5 10 734 ...	Article no. T5 10 733 ...				
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£				
9.80	10	89	47	35	40	154.39	09800	64.42	09800	64.42	09800	119.55	098	119.55	098
9.90	10	89	47	35	40	154.39	09900	64.42	09900	64.42	09900	119.55	099	119.55	099
10.00	10	89	47	35	40	154.39	10000	64.42	10000	64.42	10000	119.55	100	119.55	100
10.10	12	102	55	40	45	194.49	10100	89.94	10100	89.94	10100	165.88	101	165.88	101
10.20	12	102	55	40	45	194.49	10200	89.94	10200	89.94	10200	165.88	102	165.88	102
10.30	12	102	55	40	45	194.49	10300	89.94	10300	89.94	10300	165.88	103	165.88	103
10.40	12	102	55	40	45	194.49	10400	89.94	10400	89.94	10400	165.88	104	165.88	104
10.50	12	102	55	40	45	194.49	10500	89.94	10500	89.94	10500	165.88	105	165.88	105
10.55	12	102	55	40	45			89.94	10550	89.94	10550	165.88	932		
10.60	12	102	55	40	45	194.49	10600	89.94	10600	89.94	10600	165.88	106	165.88	106
10.70	12	102	55	40	45	194.49	10700	89.94	10700	89.94	10700	165.88	107	165.88	107
10.75	12	102	55	40	45			89.94	10750	89.94	10750				
10.80	12	102	55	40	45	194.49	10800	89.94	10800	89.94	10800	165.88	108	165.88	108
10.90	12	102	55	40	45	194.49	10900	89.94	10900	89.94	10900	165.88	109	165.88	109
11.00	12	102	55	40	45	194.49	11000	89.94	11000	89.94	11000	165.88	110	165.88	110
11.10	12	102	55	40	45	194.49	11100	89.94	11100	89.94	11100	165.88	111	165.88	111
11.20	12	102	55	40	45	194.49	11200	89.94	11200	89.94	11200	165.88	112	165.88	112
11.25	12	102	55	40	45			89.94	11250	89.94	11250	165.88	912		
11.30	12	102	55	40	45	194.49	11300	89.94	11300	89.94	11300	165.88	113	165.88	113
11.35	12	102	55	40	45			89.94	11350	89.94	11350	165.88	913		
11.40	12	102	55	40	45	194.49	11400	89.94	11400	89.94	11400	165.88	114	165.88	114
11.45	12	102	55	40	45			89.94	11450	89.94	11450	165.88	914		
11.50	12	102	55	40	45	194.49	11500	89.94	11500	89.94	11500	165.88	115	165.88	115
11.60	12	102	55	40	45	194.49	11600	89.94	11600	89.94	11600	165.88	116	165.88	116
11.70	12	102	55	40	45	194.49	11700	89.94	11700	89.94	11700	165.88	117	165.88	117
11.80	12	102	55	40	45	194.49	11800	89.94	11800	89.94	11800	165.88	118	165.88	118
11.90	12	102	55	40	45	194.49	11900	89.94	11900	89.94	11900	165.88	119	165.88	119
12.00	12	102	55	40	45	194.49	12000	89.94	12000	89.94	12000	165.88	120	165.88	120
12.15	14	107	60	43	45			127.39	12150	127.39	12150	233.53	921		
12.25	14	107	60	43	45			127.39	12250	127.39	12250				
12.50	14	107	60	43	45	317.70	12500	127.39	12500	127.39	12500	233.53	125	233.53	125
12.55	14	107	60	43	45			127.39	12550	127.39	12550	233.53	925		
12.70	14	107	60	43	45			127.39	12700	127.39	12700				
12.80	14	107	60	43	45	317.70	12800	127.39	12800	127.39	12800	233.53	128	233.53	128
12.90	14	107	60	43	45			127.39	12900	127.39	12900				
13.00	14	107	60	43	45	317.70	13000	127.39	13000	127.39	13000	233.53	130	233.53	130
13.10	14	107	60	43	45			127.39	13100	127.39	13100				
13.30	14	107	60	43	45			127.39	13300	127.39	13300				
13.35	14	107	60	43	45			127.39	13350	127.39	13350	233.53	933		
13.50	14	107	60	43	45	317.70	13500	127.39	13500	127.39	13500	233.53	135	233.53	135
13.70	14	107	60	43	45			127.39	13700	127.39	13700				
13.80	14	107	60	43	45	317.70	13800	127.39	13800	127.39	13800	233.53	138	233.53	138

Steel	●	●	●	●	○	○
Stainless steel	●	○	○	○	●	●
Cast iron	●	●	●	●	○	○
Non ferrous metals	○	○	○	○	●	●
Heat resistant alloys					○	○
Hardened materials	○	○	○	○		

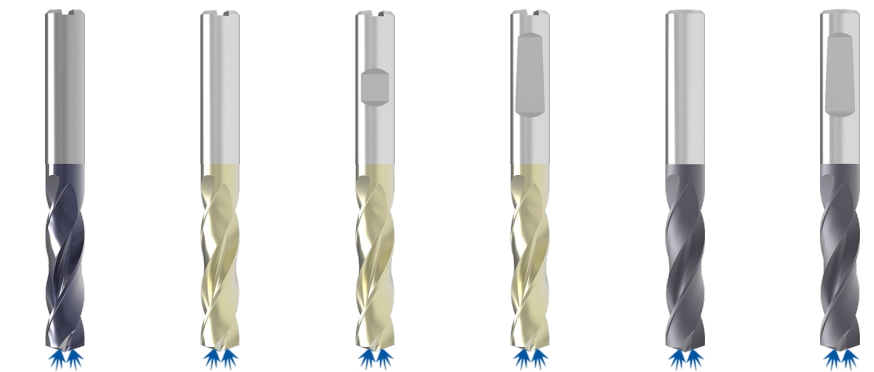
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∅ DC_{m7} for Type UNI and VA / ∅ DC_{m7} for Type Speed UNI

WTX – High Performance Drill, DIN 6537



Speed UNI	UNI	UNI	UNI	VA	VA
DPX14S	DPX74S	DPX74S	DPX74S	Ti700	Ti700
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		



HA	HA	HB	HE	HA	HE
∠ 145°	∠ 140°	∠ 140°	∠ 140°	∠ 140°	∠ 140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide

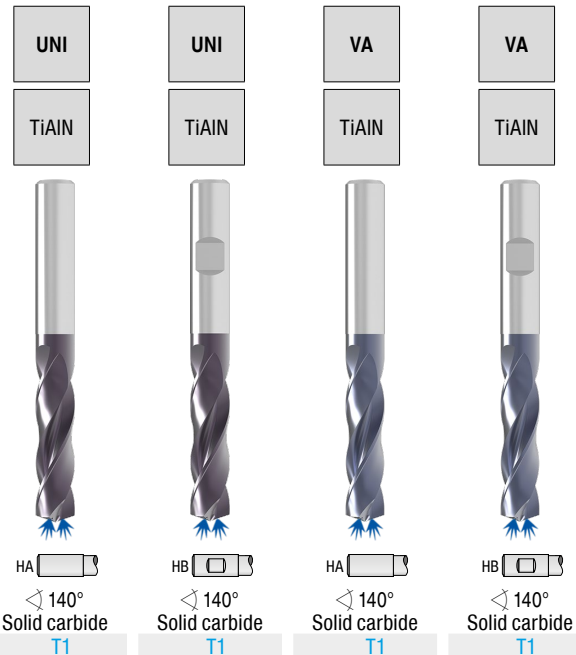
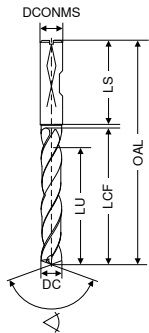
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no.	Article no.	Article no.	Article no.	Article no.	Article no.				
mm	mm	mm	mm	mm	mm	NEW 10 781 ...	10 780 ...	11 781 ...	11 779 ...	10 734 ...	10 733 ...				
						£	£	£	£	£	£				
14.00	14	107	60	43	45	317.70	14000	127.39	14000	127.39	14000	233.53	140	233.53	140
14.20	16	115	65	45	48			149.92	14200	149.92	14200				
14.50	16	115	65	45	48	399.34	14500	149.92	14500	149.92	14500	295.94	145	295.94	145
14.80	16	115	65	45	48	399.34	14800	149.92	14800	149.92	14800	295.94	148	295.94	148
15.00	16	115	65	45	48	399.34	15000	149.92	15000	149.92	15000	295.94	150	295.94	150
15.10	16	115	65	45	48			149.92	15100	149.92	15100				
15.25	16	115	65	45	48			149.92	15250	149.92	15250				
15.30	16	115	65	45	48			149.92	15300	149.92	15300				
15.35	16	115	65	45	48			149.92	15350	149.92	15350	295.94	953		
15.50	16	115	65	45	48	399.34	15500	149.92	15500	149.92	15500	295.94	155	295.94	155
15.60	16	115	65	45	48			149.92	15600	149.92	15600				
15.80	16	115	65	45	48	399.34	15800	149.92	15800	149.92	15800	295.94	158	295.94	158
16.00	16	115	65	45	48	399.34	16000	149.92	16000	149.92	16000	295.94	160	295.94	160
16.05	18	123	73	51	48			243.32	16050	243.32	16050	406.33	960		
16.50	18	123	73	51	48	537.42	16500	243.32	16500	243.32	16500	406.33	165	406.33	165
16.80	18	123	73	51	48	537.42	16800	243.32	16800	243.32	16800	406.33	168	406.33	168
16.90	18	123	73	51	48			243.32	16900	243.32	16900				
17.00	18	123	73	51	48	537.42	17000	243.32	17000	243.32	17000	406.33	170	406.33	170
17.50	18	123	73	51	48	537.42	17500	243.32	17500	243.32	17500	406.33	175	406.33	175
17.60	18	123	73	51	48			243.32	17600	243.32	17600				
17.80	18	123	73	51	48	537.42	17800	243.32	17800	243.32	17800	406.33	178	406.33	178
18.00	18	123	73	51	48	537.42	18000	243.32	18000	243.32	18000	406.33	180	406.33	180
18.50	20	131	79	55	50	654.71	18500	262.06	18500	262.06	18500	504.43	185	504.43	185
18.80	20	131	79	55	50	654.71	18800	262.06	18800	262.06	18800	504.43	188	504.43	188
18.90	20	131	79	55	50			262.06	18900	262.06	18900				
19.00	20	131	79	55	50	654.71	19000	262.06	19000	262.06	19000	504.43	190	504.43	190
19.35	20	131	79	55	50			262.06	19350	262.06	19350	504.43	993		
19.50	20	131	79	55	50	654.71	19500	262.06	19500	262.06	19500	504.43	195	504.43	195
19.60	20	131	79	55	50			262.06	19600	262.06	19600				
19.80	20	131	79	55	50	654.71	19800	262.06	19800	262.06	19800	504.43	198	504.43	198
20.00	20	131	79	55	50	654.71	20000	262.06	20000	262.06	20000	504.43	200	504.43	200
20.50	25	151	93	66	56			578.57	20500	578.57	20500				
21.00	25	151	93	66	56			578.57	21000	578.57	21000				
21.50	25	151	93	66	56			578.57	21500	578.57	21500				
22.00	25	151	93	66	56			578.57	22000	578.57	22000				
22.50	25	153	96	72	56			578.57	22500	578.57	22500				
23.00	25	153	96	72	56			578.57	23000	578.57	23000				
23.50	25	153	96	72	56			578.57	23500	578.57	23500				
24.00	25	153	96	72	56			578.57	24000	578.57	24000				
24.50	25	153	96	75	56			578.57	24500	578.57	24500				
25.00	25	153	96	75	56			578.57	25000	578.57	25000				

Steel	●	●	●	●	○	○
Stainless steel	●	○	○	○	●	●
Cast iron	●	●	●	●	○	○
Non ferrous metals	○	○	○	○	●	●
Heat resistant alloys					○	○
Hardened materials	○	○	○	○		

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i Ø DC_{m7} for Type UNI and VA / Ø DC_{h7} for Type Speed UNI

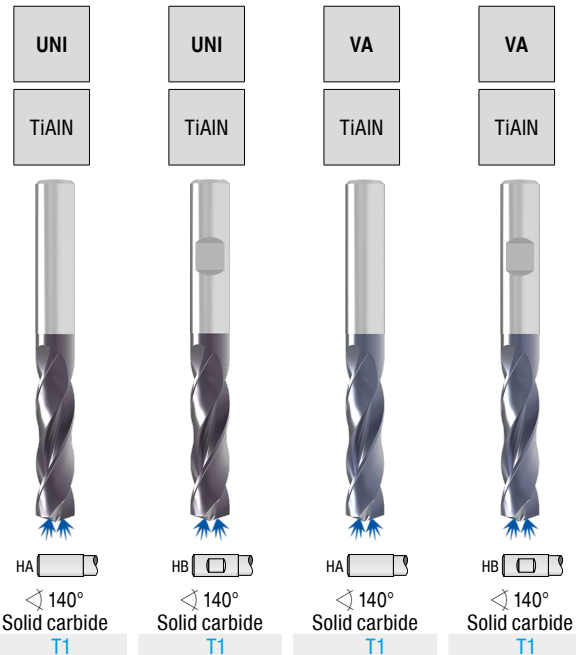
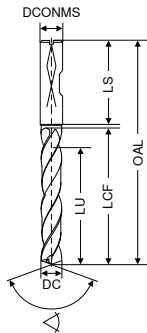
WPC – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA	UNI TiAlN HB	VA TiAlN HA	VA TiAlN HB
mm	mm	mm	mm	mm	mm	Article no. 11 603 ...	Article no. 11 604 ...	Article no. 11 623 ...	Article no. 11 624 ...
						£	£	£	£
1.00	4	45	6.0	4.5	32.0	25.89 010		25.89 010	
1.10	4	45	6.6	5.0	31.5	25.89 011		25.89 011	
1.20	4	45	7.2	5.4	31.0	25.89 012		25.89 012	
1.30	4	45	7.8	5.9	31.5	25.89 013		25.89 013	
1.40	4	45	8.4	6.3	30.0	25.89 014		25.89 014	
1.50	4	50	9.0	6.8	35.0	25.89 015		25.89 015	
1.60	4	50	9.6	7.2	34.5	25.89 016		25.89 016	
1.70	4	50	10.2	7.7	34.0	25.89 017		25.89 017	
1.80	4	50	10.8	8.1	33.5	25.89 018		25.89 018	
1.90	4	50	11.4	8.6	33.0	25.89 019		25.89 019	
2.00	4	50	12.0	9.0	33.0	25.89 020		25.89 020	
2.10	4	55	12.6	9.5	37.5	25.89 021		25.89 021	
2.20	4	55	13.2	9.9	37.0	25.89 022		25.89 022	
2.30	4	55	13.8	10.4	36.5	25.89 023		25.89 023	
2.40	4	55	14.4	10.8	36.0	25.89 024		25.89 024	
2.50	4	55	15.0	11.3	35.5	25.89 025		25.89 025	
2.60	4	55	15.6	11.7	35.5	25.89 026		25.89 026	
2.70	4	55	16.2	12.2	35.0	25.89 027		25.89 027	
2.80	4	55	16.8	12.6	34.0	25.89 028		25.89 028	
2.90	4	55	17.4	13.1	34.0	25.89 029		25.89 029	
3.00	6	62	20.0	14.0	36.0	25.89 030	26.16 030	25.89 030	26.16 030
3.10	6	62	20.0	14.0	36.0	25.89 031	26.16 031	25.89 031	26.16 031
3.20	6	62	20.0	14.0	36.0	25.89 032	26.16 032	25.89 032	26.16 032
3.25	6	62	20.0	14.0	36.0	26.16 890	26.16 890	35.66 03250	
3.30	6	62	20.0	14.0	36.0	25.89 033	26.16 033	25.89 033	26.16 033
3.40	6	62	20.0	14.0	36.0	25.89 034	26.16 034	25.89 034	26.16 034
3.50	6	62	20.0	14.0	36.0	25.89 035	26.16 035	25.89 035	26.16 035
3.60	6	62	20.0	14.0	36.0	25.89 036	26.16 036	25.89 036	26.16 036
3.70	6	62	20.0	14.0	36.0	25.89 037	26.16 037	25.89 037	26.16 037
3.80	6	66	24.0	17.0	36.0	25.89 038	26.16 038	25.89 038	26.16 038
3.90	6	66	24.0	17.0	36.0	25.89 039	26.16 039	25.89 039	26.16 039
4.00	6	66	24.0	17.0	36.0	26.16 040	27.61 040	26.16 040	27.61 040
4.10	6	66	24.0	17.0	36.0	26.16 041	27.61 041	26.16 041	27.61 041
4.20	6	66	24.0	17.0	36.0	26.16 042	27.61 042	26.16 042	27.61 042
4.30	6	66	24.0	17.0	36.0	26.16 043	27.61 043	26.16 043	27.61 043
4.40	6	66	24.0	17.0	36.0	26.16 044	27.61 044	26.16 044	27.61 044
4.50	6	66	24.0	17.0	36.0	26.16 045	27.61 045	26.16 045	27.61 045
4.60	6	66	24.0	17.0	36.0	26.16 046	27.61 046	26.16 046	27.61 046
4.65	6	66	24.0	17.0	36.0	26.16 900	27.61 900	26.16 900	27.61 900
4.70	6	66	24.0	17.0	36.0	26.16 047	27.61 047	26.16 047	27.61 047
4.80	6	66	28.0	20.0	36.0	26.16 048	27.61 048	26.16 048	27.61 048

Steel	●	●	○	○
Stainless steel	○	○	●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys			●	●

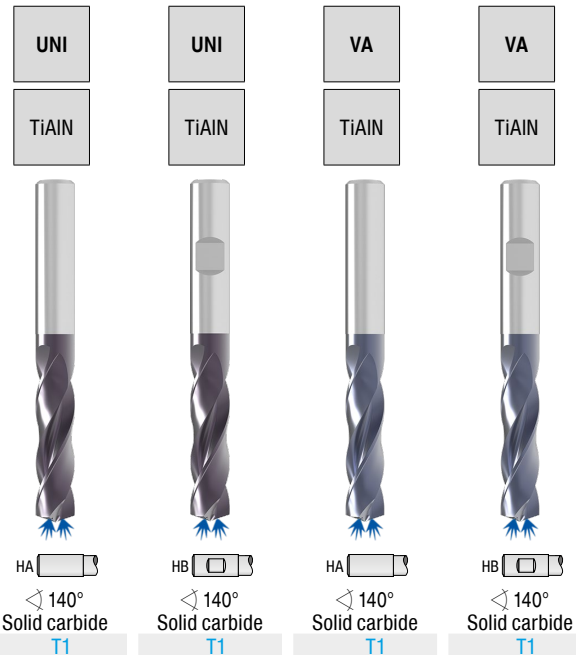
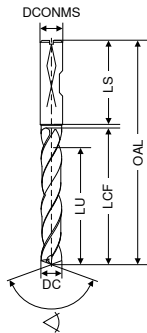
WPC – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA		UNI TiAlN HB		VA TiAlN HA		VA TiAlN HB	
						Article no. 11 603 ...	Article no. 11 604 ...	Article no. 11 623 ...	Article no. 11 624 ...				
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£	£	£
4.90	6	66	28.0	20.0	36.0	26.16 049	27.61 049	26.16 049	27.61 049				
5.00	6	66	28.0	20.0	36.0	26.16 050	27.61 050	26.16 050	27.61 050				
5.10	6	66	28.0	20.0	36.0	26.16 051	27.61 051	26.16 051	27.61 051				
5.20	6	66	28.0	20.0	36.0	26.16 052	27.61 052	26.16 052	27.61 052				
5.30	6	66	28.0	20.0	36.0	26.16 053	27.61 053	26.16 053	27.61 053				
5.40	6	66	28.0	20.0	36.0	26.16 054	27.61 054	26.16 054	27.61 054				
5.50	6	66	28.0	20.0	36.0	26.16 055	27.61 055	26.16 055	27.61 055				
5.55	6	66	28.0	20.0	36.0	26.16 902	27.61 902	26.16 902	27.61 902				
5.60	6	66	28.0	20.0	36.0	26.16 056	27.61 056	26.16 056	27.61 056				
5.70	6	66	28.0	20.0	36.0	26.16 057	27.61 057	26.16 057	27.61 057				
5.80	6	66	28.0	20.0	36.0	26.16 058	27.61 058	26.16 058	27.61 058				
5.90	6	66	28.0	20.0	36.0	26.16 059	27.61 059	26.16 059	27.61 059				
6.00	6	66	28.0	20.0	36.0	26.16 060	27.61 060	26.16 060	27.61 060				
6.10	8	79	34.0	24.0	36.0	36.33 061	36.33 061	36.33 061	36.33 061				
6.20	8	79	34.0	24.0	36.0	36.33 062	36.33 062	36.33 062	36.33 062				
6.30	8	79	34.0	24.0	36.0	36.33 063	36.33 063	36.33 063	36.33 063				
6.40	8	79	34.0	24.0	36.0	36.33 064	36.33 064	36.33 064	36.33 064				
6.50	8	79	34.0	24.0	36.0	36.33 065	37.78 065	36.33 065	37.78 065				
6.60	8	79	34.0	24.0	36.0	36.33 066	37.78 066	36.33 066	37.78 066				
6.70	8	79	34.0	24.0	36.0	36.33 067	37.78 067	36.33 067	37.78 067				
6.80	8	79	34.0	24.0	36.0	36.33 068	37.78 068	36.33 068	37.78 068				
6.90	8	79	34.0	24.0	36.0	36.33 069	37.78 069	36.33 069	37.78 069				
7.00	8	79	34.0	24.0	36.0	36.33 070	37.78 070	36.33 070	37.78 070				
7.10	8	79	41.0	29.0	36.0	36.33 071	37.78 071	36.33 071	37.78 071				
7.20	8	79	41.0	29.0	36.0	36.33 072	37.78 072	36.33 072	37.78 072				
7.30	8	79	41.0	29.0	36.0	36.33 073	37.78 073	36.33 073	37.78 073				
7.40	8	79	41.0	29.0	36.0	36.33 074	37.78 074	36.33 074	37.78 074				
7.45	8	79	41.0	29.0	36.0	36.33 924	36.33 924	47.81 07450					
7.50	8	79	41.0	29.0	36.0	36.33 075	37.78 075	36.33 075	37.78 075				
7.55	8	79	41.0	29.0	36.0	36.33 975	37.78 975	36.33 975	37.78 975				
7.60	8	79	41.0	29.0	36.0	36.33 076	37.78 076	36.33 076	37.78 076				
7.70	8	79	41.0	29.0	36.0	36.33 077	37.78 077	36.33 077	37.78 077				
7.80	8	79	41.0	29.0	36.0	36.33 078	37.78 078	36.33 078	37.78 078				
7.90	8	79	41.0	29.0	36.0	36.33 079	37.78 079	36.33 079	37.78 079				
8.00	8	79	41.0	29.0	36.0	36.33 080	37.78 080	36.33 080	37.78 080				
8.10	10	89	47.0	35.0	40.0	42.13 081	43.60 081	42.13 081	43.60 081				
8.20	10	89	47.0	35.0	40.0	42.13 082	43.60 082	42.13 082	43.60 082				
8.30	10	89	47.0	35.0	40.0	42.13 083	43.60 083	42.13 083	43.60 083				
8.40	10	89	47.0	35.0	40.0	42.13 084	43.60 084	42.13 084	43.60 084				
8.50	10	89	47.0	35.0	40.0	42.13 085	43.60 085	42.13 085	43.60 085				
8.60	10	89	47.0	35.0	40.0	42.13 086	43.60 086	42.13 086	43.60 086				

Steel	●	●	○	○
Stainless steel	○	○	●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys			●	●

WPC – High Performance Drill, DIN 6537

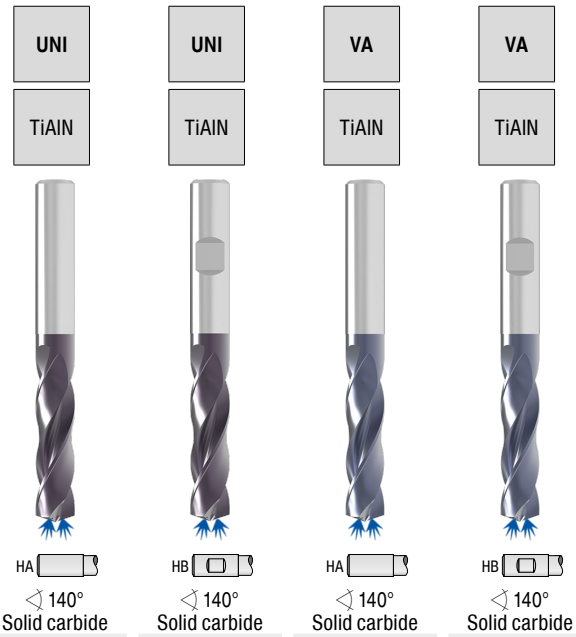
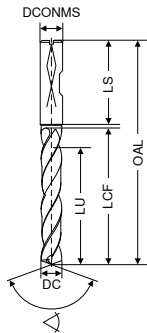


DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA Solid carbide T1 Article no. 11 603 ... £		UNI TiAlN HB Solid carbide T1 Article no. 11 604 ... £		VA TiAlN HA Solid carbide T1 Article no. 11 623 ... £		VA TiAlN HB Solid carbide T1 Article no. 11 624 ... £	
8.70	10	89	47.0	35.0	40.0	42.13	087	43.60	087	42.13	087	43.60	087
8.80	10	89	47.0	35.0	40.0	42.13	088	43.60	088	42.13	088	43.60	088
8.90	10	89	47.0	35.0	40.0	42.13	089	43.60	089	42.13	089	43.60	089
9.00	10	89	47.0	35.0	40.0	42.13	090	43.60	090	42.13	090	43.60	090
9.10	10	89	47.0	35.0	40.0	42.13	091	43.60	091	42.13	091	43.60	091
9.20	10	89	47.0	35.0	40.0	42.13	092	43.60	092	42.13	092	43.60	092
9.25	10	89	47.0	35.0	40.0	42.13	925	43.60	925	42.13	925	43.60	925
9.30	10	89	47.0	35.0	40.0	42.13	093	43.60	093	42.13	093	43.60	093
9.35	10	89	47.0	35.0	40.0	42.13	930	42.13	930	55.31	09350		
9.40	10	89	47.0	35.0	40.0	42.13	094	43.60	094	42.13	094	43.60	094
9.50	10	89	47.0	35.0	40.0	42.13	095	43.60	095	42.13	095	43.60	095
9.60	10	89	47.0	35.0	40.0	42.13	096	43.60	096	42.13	096	43.60	096
9.70	10	89	47.0	35.0	40.0	42.13	097	43.60	097	42.13	097	43.60	097
9.80	10	89	47.0	35.0	40.0	42.13	098	43.60	098	42.13	098	43.60	098
9.90	10	89	47.0	35.0	40.0	42.13	099	43.60	099	42.13	099	43.60	099
10.00	10	89	47.0	35.0	40.0	42.13	100	43.60	100	42.13	100	43.60	100
10.10	12	102	55.0	40.0	45.0	59.54	101	62.47	101	59.54	101	62.47	101
10.20	12	102	55.0	40.0	45.0	59.54	102	62.47	102	59.54	102	62.47	102
10.30	12	102	55.0	40.0	45.0	59.54	103	62.47	103	59.54	103	62.47	103
10.40	12	102	55.0	40.0	45.0	59.54	104	62.47	104	59.54	104	62.47	104
10.50	12	102	55.0	40.0	45.0	59.54	105	62.47	105	59.54	105	62.47	105
10.60	12	102	55.0	40.0	45.0	59.54	106	62.47	106	59.54	106	62.47	106
10.70	12	102	55.0	40.0	45.0	59.54	107	62.47	107	59.54	107	62.47	107
10.75	12	102	55.0	40.0	45.0	59.54	904	59.54	904	78.69	10750		
10.80	12	102	55.0	40.0	45.0	59.54	108	62.47	108	59.54	108	62.47	108
10.90	12	102	55.0	40.0	45.0	59.54	109	62.47	109	59.54	109	62.47	109
11.00	12	102	55.0	40.0	45.0	59.54	110	62.47	110	59.54	110	62.47	110
11.10	12	102	55.0	40.0	45.0	59.54	111	62.47	111	59.54	111	62.47	111
11.20	12	102	55.0	40.0	45.0	59.54	112	62.47	112	59.54	112	62.47	112
11.25	12	102	55.0	40.0	45.0	59.54	912	59.54	912	78.15	11250		
11.30	12	102	55.0	40.0	45.0	59.54	113	62.47	113	59.54	113	62.47	113
11.40	12	102	55.0	40.0	45.0	59.54	114	62.47	114	59.54	114	62.47	114
11.50	12	102	55.0	40.0	45.0	59.54	115	62.47	115	59.54	115	62.47	115
11.60	12	102	55.0	40.0	45.0	59.54	116	62.47	116	59.54	116	62.47	116
11.70	12	102	55.0	40.0	45.0	59.54	117	62.47	117	59.54	117	62.47	117
11.80	12	102	55.0	40.0	45.0	59.54	118	62.47	118	59.54	118	62.47	118
11.90	12	102	55.0	40.0	45.0	59.54	119	62.47	119	59.54	119	62.47	119
12.00	12	102	55.0	40.0	45.0	59.54	120	62.47	120	59.54	120	62.47	120
12.25	14	107	60.0	43.0	45.0	84.25	122	84.25	122	106.57	12250		
12.50	14	107	60.0	43.0	45.0	84.25	125	87.16	125	84.25	125	87.16	125
12.70	14	107	60.0	43.0	45.0	84.25	127	87.16	127	84.25	127	87.16	127

Steel	●	●	○	○
Stainless steel	○	○	●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys			●	●

→ v_c Page 116+120

WPC – High Performance Drill, DIN 6537

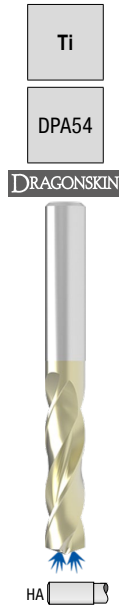
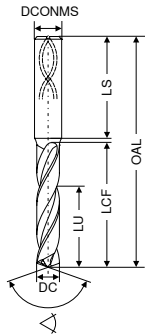
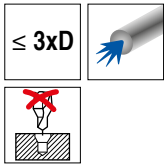


DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA		UNI TiAlN HB		VA TiAlN HA		VA TiAlN HB	
mm	mm	mm	mm	mm	mm	Article no. 11 603 ...	£	Article no. 11 604 ...	£	Article no. 11 623 ...	£	Article no. 11 624 ...	£
12.80	14	107	60.0	43.0	45.0	84.25	128	84.25	128				
12.90	14	107	60.0	43.0	45.0	84.25	129	84.25	129				
13.00	14	107	60.0	43.0	45.0	84.25	130	87.16	130	84.25	130	87.16	130
13.10	14	107	60.0	43.0	45.0	84.25	131	84.25	131				
13.30	14	107	60.0	43.0	45.0	84.25	133	84.25	133				
13.50	14	107	60.0	43.0	45.0	84.25	135	87.16	135	84.25	135	87.16	135
13.70	14	107	60.0	43.0	45.0	84.25	137	87.16	137	84.25	137	87.16	137
13.80	14	107	60.0	43.0	45.0	84.25	138	84.25	138				
14.00	14	107	60.0	43.0	45.0	84.25	140	87.16	140	84.25	140	87.16	140
14.20	16	115	65.0	45.0	48.0	103.14	142	103.14	142				
14.50	16	115	65.0	45.0	48.0	103.14	145	107.51	145	103.14	145	107.51	145
14.70	16	115	65.0	45.0	48.0	103.14	147	107.51	147	103.14	147	107.51	147
14.80	16	115	65.0	45.0	48.0	103.14	148	103.14	148				
15.00	16	115	65.0	45.0	48.0	103.14	150	107.51	150	103.14	150	107.51	150
15.10	16	115	65.0	45.0	48.0	103.14	151	103.14	151				
15.25	16	115	65.0	45.0	48.0	103.14	152	103.14	152				
15.30	16	115	65.0	45.0	48.0	103.14	153	103.14	153				
15.50	16	115	65.0	45.0	48.0	103.14	155	107.51	155	103.14	155	107.51	155
15.60	16	115	65.0	45.0	48.0	103.14	156	103.14	156				
15.70	16	115	65.0	45.0	48.0	103.14	157	107.51	157	103.14	157	107.51	157
15.80	16	115	65.0	45.0	48.0	103.14	158	103.14	158				
16.00	16	115	65.0	45.0	48.0	103.14	160	107.51	160	103.14	160	107.51	160
16.50	18	123	73.0	51.0	48.0	165.61	165	172.88	165	165.61	165	172.88	165
16.80	18	123	73.0	51.0	48.0	165.61	168	165.61	168				
16.90	18	123	73.0	51.0	48.0	165.61	169	165.61	169				
17.00	18	123	73.0	51.0	48.0	165.61	170	172.88	170	165.61	170	172.88	170
17.50	18	123	73.0	51.0	48.0	165.61	175	172.88	175	165.61	175	172.88	175
17.60	18	123	73.0	51.0	48.0	165.61	176	165.61	176				
17.80	18	123	73.0	51.0	48.0	165.61	178	165.61	178				
18.00	18	123	73.0	51.0	48.0	165.61	180	172.88	180	165.61	180	172.88	180
18.50	20	131	79.0	55.0	50.0	180.14	185	188.86	185	180.14	185	188.86	185
18.80	20	131	79.0	55.0	50.0	180.14	188	180.14	188				
18.90	20	131	79.0	55.0	50.0	180.14	189	180.14	189				
19.00	20	131	79.0	55.0	50.0	180.14	190	188.86	190	180.14	190	188.86	190
19.50	20	131	79.0	55.0	50.0	180.14	195	188.86	195	180.14	195	188.86	195
19.60	20	131	79.0	55.0	50.0	180.14	196	180.14	196				
19.80	20	131	79.0	55.0	50.0	180.14	198	180.14	198				
20.00	20	131	79.0	55.0	50.0	180.14	200	188.86	200	180.14	200	188.86	200

Steel	●	●	○	○
Stainless steel	○	○	●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys			●	●

WTX – High-performance drill, DIN 6537

▲ Specialist for difficult to machine materials



140°
Solid carbide

T4

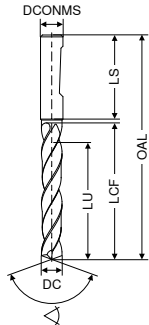
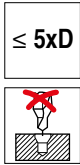
DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no.	£
14.0	14	107	60	43	45	172.97	140
14.1	16	115	65	45	48	205.39	141
14.2	16	115	65	45	48	205.39	142
14.3	16	115	65	45	48	205.39	143
14.4	16	115	65	45	48	205.39	144
14.5	16	115	65	45	48	205.39	145
14.6	16	115	65	45	48	205.39	146
14.7	16	115	65	45	48	205.39	147
14.8	16	115	65	45	48	205.39	148
14.9	16	115	65	45	48	205.39	149
15.0	16	115	65	45	48	205.39	150
15.1	16	115	65	45	48	205.39	151
15.2	16	115	65	45	48	205.39	152
15.3	16	115	65	45	48	205.39	153
15.4	16	115	65	45	48	205.39	154
15.5	16	115	65	45	48	205.39	155
15.6	16	115	65	45	48	205.39	156
15.7	16	115	65	45	48	205.39	157
15.8	16	115	65	45	48	205.39	158
15.9	16	115	65	45	48	205.39	159
16.0	16	115	65	45	48	205.39	160
16.1	18	123	73	51	48	205.39	161
16.2	18	123	73	51	48	205.39	162
16.3	18	123	73	51	48	205.39	163
16.4	18	123	73	51	48	205.39	164
16.5	18	123	73	51	48	288.28	165
16.6	18	123	73	51	48	288.28	166
16.7	18	123	73	51	48	288.28	167
16.8	18	123	73	51	48	288.28	168
16.9	18	123	73	51	48	288.28	169
17.0	18	123	73	51	48	288.28	170
17.1	18	123	73	51	48	288.28	171
17.2	18	123	73	51	48	288.28	172
17.3	18	123	73	51	48	288.28	173
17.4	18	123	73	51	48	288.28	174
17.5	18	123	73	51	48	288.28	175
17.6	18	123	73	51	48	288.28	176
17.7	18	123	73	51	48	288.28	177
17.8	18	123	73	51	48	288.28	178
17.9	18	123	73	51	48	288.28	179
18.0	18	123	73	51	48	288.28	180
18.1	20	131	79	55	50	360.34	181
18.2	20	131	79	55	50	360.34	182
18.3	20	131	79	55	50	360.34	183
18.4	20	131	79	55	50	360.34	184
18.5	20	131	79	55	50	360.34	185
18.6	20	131	79	55	50	360.34	186
18.7	20	131	79	55	50	360.34	187
18.8	20	131	79	55	50	360.34	188
18.9	20	131	79	55	50	360.34	189
19.0	20	131	79	55	50	360.34	190

DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no.	£
19.1	20	131	79	55	50	360.34	191
19.2	20	131	79	55	50	360.34	192
19.3	20	131	79	55	50	360.34	193
19.4	20	131	79	55	50	360.34	194
19.5	20	131	79	55	50	360.34	195
19.6	20	131	79	55	50	360.34	196
19.7	20	131	79	55	50	360.34	197
19.8	20	131	79	55	50	360.34	198
19.9	20	131	79	55	50	360.34	199
20.0	20	131	79	55	50	360.34	200

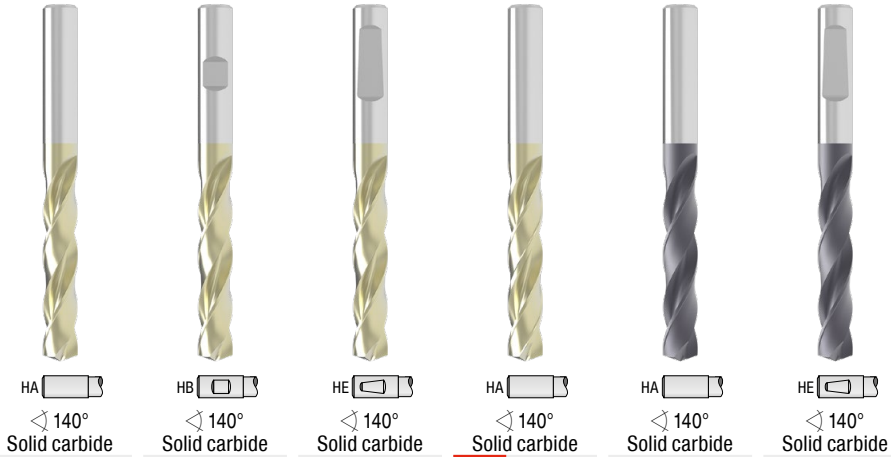
Material	Availability
Steel	
Stainless steel	●
Cast iron	
Non ferrous metals	
Heat resistant alloys	●

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WTX – High Performance Drill, DIN 6537



UNI	UNI	UNI	Quattro 4F	VA	VA
DPX74S	DPX74S	DPX74S	DPX74S	Ti700	Ti700
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		

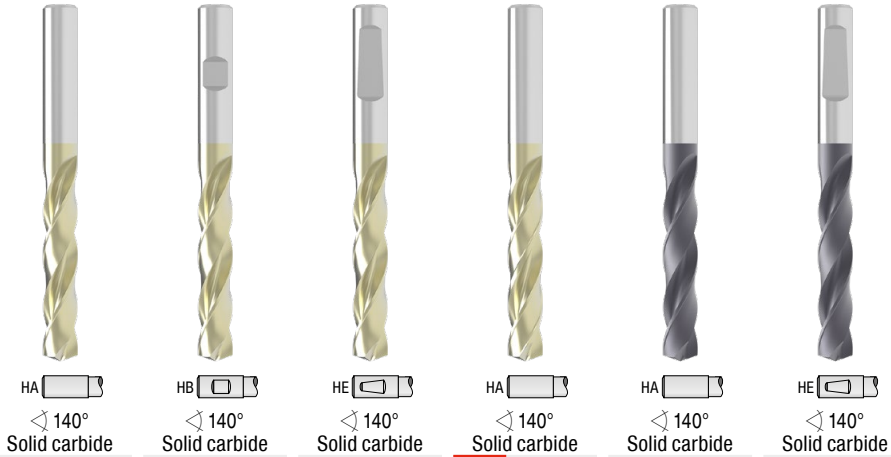
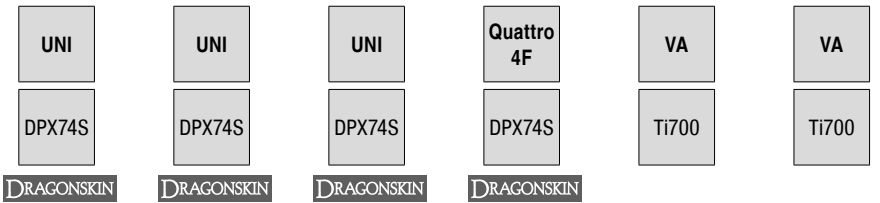
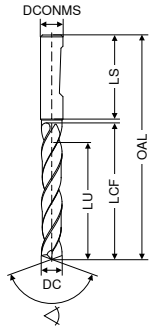
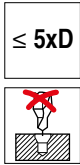


HA	HB	HE	HA	HA	HE
∠ 140°	∠ 140°	∠ 140°	∠ 140°	∠ 140°	∠ 140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
T7	T7	T7	T4	T4	T4

DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 11 783 ...	Article no. 11 784 ...	Article no. 11 782 ...	Article no. 10 730 ...	Article no. 10 740 ...	Article no. 10 741 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
3.00	6	66	28	23	36	35.97 03000	35.97 03000	35.97 03000	76.99 03000	69.30 030	69.30 030
3.10	6	66	28	23	36	35.97 03100	35.97 03100	35.97 03100	76.99 03100	69.30 031	69.30 031
3.15	6	66	28	23	36	35.97 03150	35.97 03150	35.97 03150			
3.20	6	66	28	23	36	35.97 03200	35.97 03200	35.97 03200	76.99 03200	69.30 032	69.30 032
3.22	6	66	28	23	36	35.97 03220	35.97 03220	35.97 03220			
3.25	6	66	28	23	36	35.97 03250	35.97 03250	35.97 03250			
3.30	6	66	28	23	36	35.97 03300	35.97 03300	35.97 03300	76.99 03300	69.30 033	69.30 033
3.40	6	66	28	23	36	35.97 03400	35.97 03400	35.97 03400	76.99 03400	69.30 034	69.30 034
3.50	6	66	28	23	36	35.97 03500	35.97 03500	35.97 03500	76.99 03500	69.30 035	69.30 035
3.60	6	66	28	23	36	35.97 03600	35.97 03600	35.97 03600	76.99 03600	69.30 036	69.30 036
3.70	6	66	28	23	36	35.97 03700	35.97 03700	35.97 03700	76.99 03700	69.30 037	69.30 037
3.80	6	74	36	29	36	35.97 03800	35.97 03800	35.97 03800	76.99 03800	69.30 038	69.30 038
3.85	6	74	36	29	36	35.97 03850	35.97 03850	35.97 03850			
3.90	6	74	36	29	36	35.97 03900	35.97 03900	35.97 03900	76.99 03900	69.30 039	69.30 039
4.00	6	74	36	29	36	35.97 04000	35.97 04000	35.97 04000	76.99 04000	69.30 040	69.30 040
4.10	6	74	36	29	36	35.97 04100	35.97 04100	35.97 04100	76.99 04100	69.30 041	69.30 041
4.20	6	74	36	29	36	35.97 04200	35.97 04200	35.97 04200	76.99 04200	69.30 042	69.30 042
4.25	6	74	36	29	36	35.97 04250	35.97 04250	35.97 04250			
4.30	6	74	36	29	36	35.97 04300	35.97 04300	35.97 04300	76.99 04300	69.30 043	69.30 043
4.35	6	74	36	29	36	35.97 04350	35.97 04350	35.97 04350			
4.40	6	74	36	29	36	35.97 04400	35.97 04400	35.97 04400	76.99 04400	69.30 044	69.30 044
4.45	6	74	36	29	36	35.97 04450	35.97 04450	35.97 04450			
4.50	6	74	36	29	36	35.97 04500	35.97 04500	35.97 04500	76.99 04500	69.30 045	69.30 045
4.60	6	74	36	29	36	35.97 04600	35.97 04600	35.97 04600	76.99 04600	69.30 046	69.30 046
4.65	6	74	36	29	36	35.97 04650	35.97 04650	35.97 04650			
4.70	6	74	36	29	36	35.97 04700	35.97 04700	35.97 04700	76.99 04700	69.30 047	69.30 047
4.80	6	82	44	35	36	35.97 04800	35.97 04800	35.97 04800	76.99 04800	69.30 048	69.30 048
4.90	6	82	44	35	36	35.97 04900	35.97 04900	35.97 04900	76.99 04900	69.30 049	69.30 049
4.95	6	82	44	35	36	35.97 04950	35.97 04950	35.97 04950			
5.00	6	82	44	35	36	35.97 05000	35.97 05000	35.97 05000	76.99 05000	69.30 050	69.30 050
5.05	6	82	44	35	36	35.97 05050	35.97 05050	35.97 05050			
5.10	6	82	44	35	36	35.97 05100	35.97 05100	35.97 05100	76.99 05100	69.30 051	69.30 051
5.20	6	82	44	35	36	35.97 05200	35.97 05200	35.97 05200	76.99 05200	69.30 052	69.30 052
5.30	6	82	44	35	36	35.97 05300	35.97 05300	35.97 05300	76.99 05300	69.30 053	69.30 053
5.40	6	82	44	35	36	35.97 05400	35.97 05400	35.97 05400	76.99 05400	69.30 054	69.30 054
5.50	6	82	44	35	36	35.97 05500	35.97 05500	35.97 05500	76.99 05500	69.30 055	69.30 055
5.55	6	82	44	35	36	35.97 05550	35.97 05550	35.97 05550			
5.60	6	82	44	35	36	35.97 05600	35.97 05600	35.97 05600	76.99 05600	69.30 056	69.30 056
5.70	6	82	44	35	36	35.97 05700	35.97 05700	35.97 05700	76.99 05700	69.30 057	69.30 057
5.75	6	82	44	35	36	35.97 05750	35.97 05750	35.97 05750			
5.80	6	82	44	35	36	35.97 05800	35.97 05800	35.97 05800	76.99 05800	69.30 058	69.30 058
5.90	6	82	44	35	36	35.97 05900	35.97 05900	35.97 05900	76.99 05900	69.30 059	69.30 059
5.95	6	82	44	35	36	35.97 05950	35.97 05950	35.97 05950			
6.00	6	82	44	35	36	35.97 06000	35.97 06000	35.97 06000	76.99 06000	83.84 060	83.84 060

Steel	●	●	●	●	○	○
Stainless steel					●	●
Cast iron	●	●	●	●	○	○
Non ferrous metals	○	○	○	○	●	●
Heat resistant alloys						
Hardened materials					○	○

WTX – High Performance Drill, DIN 6537



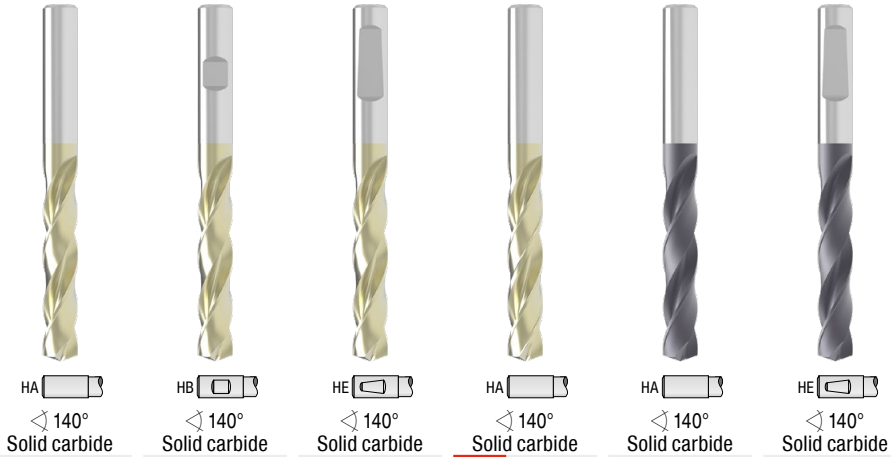
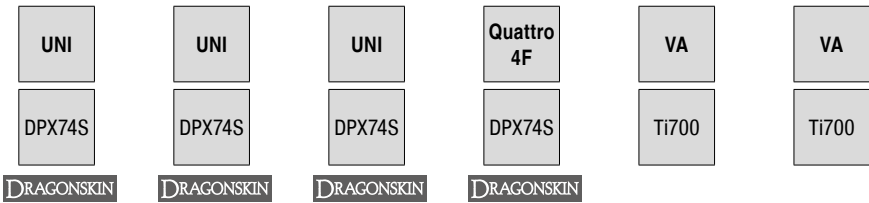
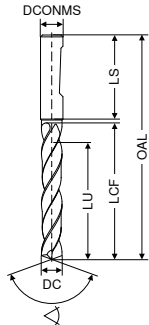
HA HB HE HA HA HE
 $\sphericalangle 140^\circ$ Solid carbide T7 T7 T7 **NEW** T4 T4 T4

DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 11 783 ...	Article no. 11 784 ...	Article no. 11 782 ...	Article no. 10 730 ...	Article no. 10 740 ...	Article no. 10 741 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
6.10	8	91	53	43	36	39.08 06100	39.08 06100	39.08 06100	91.92 06100	83.84 061	83.84 061
6.20	8	91	53	43	36	39.08 06200	39.08 06200	39.08 06200	91.92 06200	83.84 062	83.84 062
6.30	8	91	53	43	36	39.08 06300	39.08 06300	39.08 06300	91.92 06300	83.84 063	83.84 063
6.40	8	91	53	43	36	39.08 06400	39.08 06400	39.08 06400	91.92 06400	83.84 064	83.84 064
6.50	8	91	53	43	36	39.08 06500	39.08 06500	39.08 06500	91.92 06500	83.84 065	83.84 065
6.60	8	91	53	43	36	39.08 06600	39.08 06600	39.08 06600	91.92 06600	83.84 066	83.84 066
6.70	8	91	53	43	36	39.08 06700	39.08 06700	39.08 06700	91.92 06700	83.84 067	83.84 067
6.80	8	91	53	43	36	39.08 06800	39.08 06800	39.08 06800	91.92 06800	83.84 068	83.84 068
6.90	8	91	53	43	36	39.08 06900	39.08 06900	39.08 06900	91.92 06900	83.84 069	83.84 069
7.00	8	91	53	43	36	39.08 07000	39.08 07000	39.08 07000	91.92 07000	83.84 070	83.84 070
7.10	8	91	53	43	36	39.08 07100	39.08 07100	39.08 07100	91.92 07100	83.84 071	83.84 071
7.20	8	91	53	43	36	39.08 07200	39.08 07200	39.08 07200	91.92 07200	83.84 072	83.84 072
7.30	8	91	53	43	36	39.08 07300	39.08 07300	39.08 07300	91.92 07300	83.84 073	83.84 073
7.40	8	91	53	43	36	39.08 07400	39.08 07400	39.08 07400	91.92 07400	83.84 074	83.84 074
7.45	8	91	53	43	36	39.08 07450	39.08 07450	39.08 07450			
7.50	8	91	53	43	36	39.08 07500	39.08 07500	39.08 07500	91.92 07500	83.84 075	83.84 075
7.60	8	91	53	43	36	39.08 07600	39.08 07600	39.08 07600	91.92 07600	83.84 076	83.84 076
7.70	8	91	53	43	36	39.08 07700	39.08 07700	39.08 07700	91.92 07700	83.84 077	83.84 077
7.80	8	91	53	43	36	39.08 07800	39.08 07800	39.08 07800	91.92 07800	83.84 078	83.84 078
7.90	8	91	53	43	36	39.08 07900	39.08 07900	39.08 07900	91.92 07900	83.84 079	83.84 079
8.00	8	91	53	43	36	39.08 08000	39.08 08000	39.08 08000	91.92 08000	83.84 080	83.84 080
8.10	10	103	61	49	40	42.01 08100	42.01 08100	42.01 08100	108.68 08100	98.09 081	98.09 081
8.20	10	103	61	49	40	42.01 08200	42.01 08200	42.01 08200	108.68 08200	98.09 082	98.09 082
8.30	10	103	61	49	40	42.01 08300	42.01 08300	42.01 08300	108.68 08300	98.09 083	98.09 083
8.40	10	103	61	49	40	42.01 08400	42.01 08400	42.01 08400	108.68 08400	98.09 084	98.09 084
8.50	10	103	61	49	40	42.01 08500	42.01 08500	42.01 08500	108.68 08500	98.09 085	98.09 085
8.60	10	103	61	49	40	42.01 08600	42.01 08600	42.01 08600	108.68 08600	98.09 086	98.09 086
8.70	10	103	61	49	40	42.01 08700	42.01 08700	42.01 08700	108.68 08700	98.09 087	98.09 087
8.80	10	103	61	49	40	42.01 08800	42.01 08800	42.01 08800	108.68 08800	98.09 088	98.09 088
8.90	10	103	61	49	40	42.01 08900	42.01 08900	42.01 08900	108.68 08900	98.09 089	98.09 089
9.00	10	103	61	49	40	42.01 09000	42.01 09000	42.01 09000	108.68 09000	98.09 090	98.09 090
9.10	10	103	61	49	40	42.01 09100	42.01 09100	42.01 09100	108.68 09100	98.09 091	98.09 091
9.20	10	103	61	49	40	42.01 09200	42.01 09200	42.01 09200	108.68 09200	98.09 092	98.09 092
9.30	10	103	61	49	40	42.01 09300	42.01 09300	42.01 09300	108.68 09300	98.09 093	98.09 093
9.35	10	103	61	49	40	42.01 09350	42.01 09350	42.01 09350			
9.40	10	103	61	49	40	42.01 09400	42.01 09400	42.01 09400	108.68 09400	98.09 094	98.09 094
9.45	10	103	61	49	40	42.01 09450	42.01 09450	42.01 09450			
9.50	10	103	61	49	40	42.01 09500	42.01 09500	42.01 09500	108.68 09500	98.09 095	98.09 095
9.60	10	103	61	49	40	42.01 09600	42.01 09600	42.01 09600	108.68 09600	98.09 096	98.09 096
9.70	10	103	61	49	40	42.01 09700	42.01 09700	42.01 09700	108.68 09700	98.09 097	98.09 097
9.80	10	103	61	49	40	42.01 09800	42.01 09800	42.01 09800	108.68 09800	98.09 098	98.09 098
9.90	10	103	61	49	40	42.01 09900	42.01 09900	42.01 09900	108.68 09900	98.09 099	98.09 099
10.00	10	103	61	49	40	42.01 10000	42.01 10000	42.01 10000	108.68 10000	98.09 100	98.09 100
10.10	12	118	71	56	45	60.97 10100	60.97 10100	60.97 10100	185.53 10100	139.05 101	139.05 101

Steel	●	●	●	●	○	○
Stainless steel	●	●	●	●	●	●
Cast iron	●	●	●	●	○	○
Non ferrous metals	○	○	○	○	●	●
Heat resistant alloys						
Hardened materials					○	○

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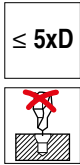
WTX – High Performance Drill, DIN 6537



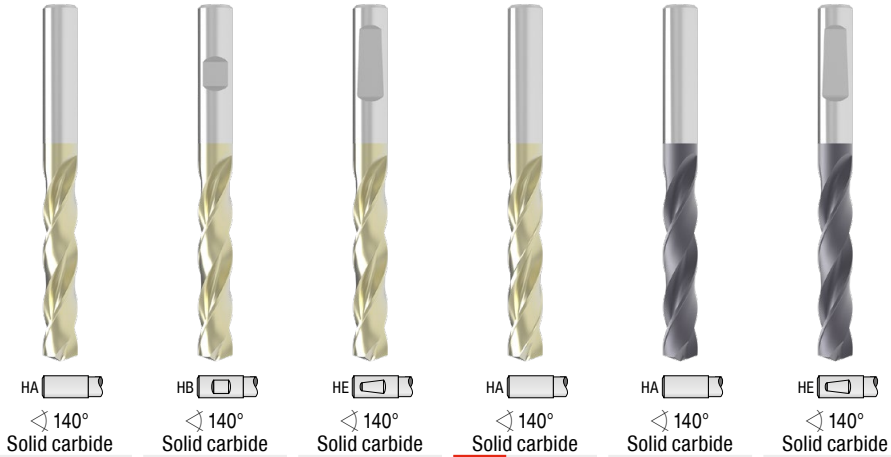
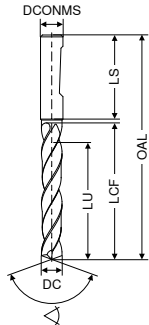
DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 11 783 ...	Article no. 11 784 ...	Article no. 11 782 ...	Article no. 10 730 ...	Article no. 10 740 ...	Article no. 10 741 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
10.20	12	118	71	56	45	60.97 10200	60.97 10200	60.97 10200	185.53 10200	139.05 102	139.05 102
10.30	12	118	71	56	45	60.97 10300	60.97 10300	60.97 10300	185.53 10300	139.05 103	139.05 103
10.40	12	118	71	56	45	60.97 10400	60.97 10400	60.97 10400	185.53 10400	139.05 104	139.05 104
10.50	12	118	71	56	45	60.97 10500	60.97 10500	60.97 10500	185.53 10500	139.05 105	139.05 105
10.55	12	118	71	56	45	60.97 10550	60.97 10550	60.97 10550			
10.60	12	118	71	56	45	60.97 10600	60.97 10600	60.97 10600	185.53 10600	139.05 106	139.05 106
10.70	12	118	71	56	45	60.97 10700	60.97 10700	60.97 10700	185.53 10700	139.05 107	139.05 107
10.75	12	118	71	56	45	60.97 10750	60.97 10750	60.97 10750			
10.80	12	118	71	56	45	60.97 10800	60.97 10800	60.97 10800	185.53 10800	139.05 108	139.05 108
10.90	12	118	71	56	45	60.97 10900	60.97 10900	60.97 10900	185.53 10900	139.05 109	139.05 109
11.00	12	118	71	56	45	60.97 11000	60.97 11000	60.97 11000	185.53 11000	139.05 110	139.05 110
11.10	12	118	71	56	45	60.97 11100	60.97 11100	60.97 11100	185.53 11100	139.05 111	139.05 111
11.20	12	118	71	56	45	60.97 11200	60.97 11200	60.97 11200	185.53 11200	139.05 112	139.05 112
11.25	12	118	71	56	45	60.97 11250	60.97 11250	60.97 11250			
11.30	12	118	71	56	45	60.97 11300	60.97 11300	60.97 11300	185.53 11300	139.05 113	139.05 113
11.35	12	118	71	56	45	60.97 11350	60.97 11350	60.97 11350			
11.40	12	118	71	56	45	60.97 11400	60.97 11400	60.97 11400	185.53 11400	139.05 114	139.05 114
11.45	12	118	71	56	45	60.97 11450	60.97 11450	60.97 11450			
11.50	12	118	71	56	45	60.97 11500	60.97 11500	60.97 11500	185.53 11500	139.05 115	139.05 115
11.60	12	118	71	56	45	60.97 11600	60.97 11600	60.97 11600	185.53 11600	139.05 116	139.05 116
11.70	12	118	71	56	45	60.97 11700	60.97 11700	60.97 11700	185.53 11700	139.05 117	139.05 117
11.80	12	118	71	56	45	60.97 11800	60.97 11800	60.97 11800	185.53 11800	139.05 118	139.05 118
11.90	12	118	71	56	45	60.97 11900	60.97 11900	60.97 11900	185.53 11900	139.05 119	139.05 119
12.00	12	118	71	56	45	60.97 12000	60.97 12000	60.97 12000	185.53 12000	139.05 120	139.05 120
12.15	14	124	77	60	45	81.79 12150	81.79 12150	81.79 12150			
12.25	14	124	77	60	45	81.79 12250	81.79 12250	81.79 12250			
12.50	14	124	77	60	45	81.79 12500	81.79 12500	81.79 12500	205.84 12500	183.75 125	183.75 125
12.55	14	124	77	60	45	81.79 12550	81.79 12550	81.79 12550			
12.70	14	124	77	60	45	81.79 12700	81.79 12700	81.79 12700			
12.80	14	124	77	60	45	81.79 12800	81.79 12800	81.79 12800	205.84 12800	183.75 128	183.75 128
12.90	14	124	77	60	45	81.79 12900	81.79 12900	81.79 12900			
13.00	14	124	77	60	45	81.79 13000	81.79 13000	81.79 13000	205.84 13000	183.75 130	183.75 130
13.10	14	124	77	60	45	81.79 13100	81.79 13100	81.79 13100			
13.30	14	124	77	60	45	81.79 13300	81.79 13300	81.79 13300			
13.35	14	124	77	60	45	81.79 13350	81.79 13350	81.79 13350			
13.50	14	124	77	60	45	81.79 13500	81.79 13500	81.79 13500	205.84 13500	183.75 135	183.75 135
13.70	14	124	77	60	45	81.79 13700	81.79 13700	81.79 13700			
13.80	14	124	77	60	45	81.79 13800	81.79 13800	81.79 13800	205.84 13800	183.75 138	183.75 138
14.00	14	124	77	60	45	81.79 14000	81.79 14000	81.79 14000	205.84 14000	228.28 140	228.28 140
14.20	16	133	83	63	48	105.01 14200	105.01 14200	105.01 14200			
14.50	16	133	83	63	48	105.01 14500	105.01 14500	105.01 14500	282.69 14500	239.69 145	239.69 145
14.80	16	133	83	63	48	105.01 14800	105.01 14800	105.01 14800	282.69 14800	239.69 148	239.69 148
15.00	16	133	83	63	48	105.01 15000	105.01 15000	105.01 15000	282.69 15000	239.69 150	239.69 150
15.10	16	133	83	63	48	105.01 15100	105.01 15100	105.01 15100			

Steel	●	●	●	●	○	○
Stainless steel					●	●
Cast iron	●	●	●	●	○	○
Non ferrous metals	○	○	○	○	●	●
Heat resistant alloys						
Hardened materials					○	○

WTX – High Performance Drill, DIN 6537



UNI	UNI	UNI	Quattro 4F	VA	VA
DPX74S	DPX74S	DPX74S	DPX74S	Ti700	Ti700
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		



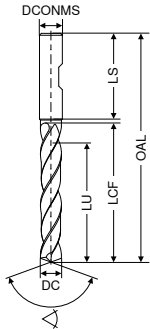
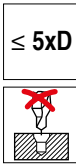
HA HB HE HA HA HE
 < 140° Solid carbide T7 T7 T7 NEW T4 T4 T4

DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 11 783 ...	Article no. 11 784 ...	Article no. 11 782 ...	Article no. 10 730 ...	Article no. 10 740 ...	Article no. 10 741 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
15.25	16	133	83	63	48	105.01 15250	105.01 15250	105.01 15250			
15.30	16	133	83	63	48	105.01 15300	105.01 15300	105.01 15300			
15.35	16	133	83	63	48	105.01 15350	105.01 15350	105.01 15350			
15.50	16	133	83	63	48	105.01 15500	105.01 15500	105.01 15500	282.69 15500	239.69 155	239.69 155
15.60	16	133	83	63	48	105.01 15600	105.01 15600	105.01 15600			
15.80	16	133	83	63	48	105.01 15800	105.01 15800	105.01 15800	282.69 15800	239.69 158	239.69 158
16.00	16	133	83	63	48	105.01 16000	105.01 16000	105.01 16000	282.69 16000	239.69 160	239.69 160
16.05	18	143	93	71	48	178.41 16050	178.41 16050	178.41 16050			
16.50	18	143	93	71	48	178.41 16500	178.41 16500	178.41 16500	409.94 16500	349.95 165	349.95 165
16.80	18	143	93	71	48	178.41 16800	178.41 16800	178.41 16800	409.94 16800	349.95 168	349.95 168
16.90	18	143	93	71	48	178.41 16900	178.41 16900	178.41 16900			
17.00	18	143	93	71	48	178.41 17000	178.41 17000	178.41 17000	409.94 17000	349.95 170	349.95 170
17.50	18	143	93	71	48	178.41 17500	178.41 17500	178.41 17500	409.94 17500	349.95 175	349.95 175
17.60	18	143	93	71	48	178.41 17600	178.41 17600	178.41 17600			
17.80	18	143	93	71	48	178.41 17800	178.41 17800	178.41 17800	409.94 17800	349.95 178	349.95 178
18.00	18	143	93	71	48	178.41 18000	178.41 18000	178.41 18000	409.94 18000	440.22 180	440.22 180
18.50	20	153	101	77	50	200.17 18500	200.17 18500	200.17 18500	499.57 18500	462.26 185	462.26 185
18.80	20	153	101	77	50	200.17 18800	200.17 18800	200.17 18800	499.57 18800	462.26 188	462.26 188
18.90	20	153	101	77	50	200.17 18900	200.17 18900	200.17 18900			
19.00	20	153	101	77	50	200.17 19000	200.17 19000	200.17 19000	499.57 19000	462.26 190	462.26 190
19.35	20	153	101	77	50	200.17 19350	200.17 19350	200.17 19350			
19.50	20	153	101	77	50	200.17 19500	200.17 19500	200.17 19500	499.57 19500	462.26 195	462.26 195
19.60	20	153	101	77	50	200.17 19600	200.17 19600	200.17 19600			
19.80	20	153	101	77	50	200.17 19800	200.17 19800	200.17 19800	499.57 19800	462.26 198	462.26 198
20.00	20	153	101	77	50	200.17 20000	200.17 20000	200.17 20000	499.57 20000	644.56 200	644.56 200

Steel	●	●	●	●	○	○
Stainless steel	○	○	○	○	●	●
Cast iron	●	●	●	●	○	○
Non ferrous metals	○	○	○	○	●	●
Heat resistant alloys						
Hardened materials					○	○

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WPC – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 11 606 ...		Article no. 11 607 ...	
mm	mm	mm	mm	mm	mm	£		£	
3.00	6	66	28	23	36	23.25	030	23.25	030
3.10	6	66	28	23	36	23.25	031	23.25	031
3.20	6	66	28	23	36	23.25	032	23.25	032
3.30	6	66	28	23	36	23.25	033	23.25	033
3.40	6	66	28	23	36	23.25	034	23.25	034
3.50	6	66	28	23	36	23.25	035	23.25	035
3.60	6	66	28	23	36	23.25	036	23.25	036
3.70	6	66	28	23	36	23.25	037	23.25	037
3.80	6	74	36	29	36	23.25	038	23.25	038
3.90	6	74	36	29	36	23.25	039	23.25	039
4.00	6	74	36	29	36	23.25	040	23.25	040
4.10	6	74	36	29	36	23.25	041	23.25	041
4.20	6	74	36	29	36	23.25	042	23.25	042
4.30	6	74	36	29	36	23.25	043	23.25	043
4.40	6	74	36	29	36	23.25	044	23.25	044
4.50	6	74	36	29	36	23.25	045	23.25	045
4.60	6	74	36	29	36	23.25	046	23.25	046
4.65	6	74	36	29	36	23.25	900	23.25	900
4.70	6	74	36	29	36	23.25	047	23.25	047
4.80	6	82	44	35	36	23.25	048	23.25	048
4.90	6	82	44	35	36	23.25	049	23.25	049
5.00	6	82	44	35	36	23.25	050	23.25	050
5.10	6	82	44	35	36	23.25	051	23.25	051
5.20	6	82	44	35	36	23.25	052	23.25	052
5.30	6	82	44	35	36	23.25	053	23.25	053
5.40	6	82	44	35	36	23.25	054	23.25	054
5.50	6	82	44	35	36	23.25	055	23.25	055
5.55	6	82	44	35	36	23.25	902	23.25	902
5.60	6	82	44	35	36	23.25	056	23.25	056
5.70	6	82	44	35	36	23.25	057	23.25	057
5.80	6	82	44	35	36	23.25	058	23.25	058
5.90	6	82	44	35	36	23.25	059	23.25	059
6.00	6	82	44	35	36	23.25	060	23.25	060
6.10	8	91	53	43	36	23.25	061	23.25	061
6.20	8	91	53	43	36	23.25	062	23.25	062
6.30	8	91	53	43	36	23.25	063	23.25	063
6.40	8	91	53	43	36	23.25	064	23.25	064
6.50	8	91	53	43	36	23.25	065	23.25	065
6.60	8	91	53	43	36	23.25	066	23.25	066
6.70	8	91	53	43	36	23.25	067	23.25	067
6.80	8	91	53	43	36	23.25	068	23.25	068
6.90	8	91	53	43	36	23.25	069	23.25	069
7.00	8	91	53	43	36	23.25	070	23.25	070
7.10	8	91	53	43	36	23.25	071	23.25	071
7.20	8	91	53	43	36	23.25	072	23.25	072
7.30	8	91	53	43	36	23.25	073	23.25	073
7.40	8	91	53	43	36	23.25	074	23.25	074
7.50	8	91	53	43	36	23.25	075	23.25	075
7.55	8	91	53	43	36	23.25	975	23.25	975
7.60	8	91	53	43	36	23.25	076	23.25	076
7.70	8	91	53	43	36	23.25	077	23.25	077
7.80	8	91	53	43	36	23.25	078	23.25	078
7.90	8	91	53	43	36	23.25	079	23.25	079
8.00	8	91	53	43	36	23.25	080	23.25	080
8.10	10	103	61	49	40	26.16	081	26.16	081
8.20	10	103	61	49	40	26.16	082	26.16	082
8.30	10	103	61	49	40	26.16	083	26.16	083
8.40	10	103	61	49	40	26.16	084	26.16	084
8.50	10	103	61	49	40	26.16	085	26.16	085

DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	T1 Article no. 11 606 ...		T1 Article no. 11 607 ...	
mm	mm	mm	mm	mm	mm	£		£	
8.60	10	103	61	49	40	26.16	086	26.16	086
8.70	10	103	61	49	40	26.16	087	26.16	087
8.80	10	103	61	49	40	26.16	088	26.16	088
8.90	10	103	61	49	40	26.16	089	26.16	089
9.00	10	103	61	49	40	26.16	090	26.16	090
9.10	10	103	61	49	40	26.16	091	26.16	091
9.20	10	103	61	49	40	26.16	092	26.16	092
9.25	10	103	61	49	40	26.16	925	26.16	925
9.30	10	103	61	49	40	26.16	093	26.16	093
9.40	10	103	61	49	40	26.16	094	26.16	094
9.50	10	103	61	49	40	26.16	095	26.16	095
9.60	10	103	61	49	40	26.16	096	26.16	096
9.70	10	103	61	49	40	26.16	097	26.16	097
9.80	10	103	61	49	40	26.16	098	26.16	098
9.90	10	103	61	49	40	26.16	099	26.16	099
10.00	10	103	61	49	40	26.16	100	26.16	100
10.10	12	118	71	56	45	39.23	101	39.23	101
10.20	12	118	71	56	45	39.23	102	39.23	102
10.30	12	118	71	56	45	39.23	103	39.23	103
10.40	12	118	71	56	45	39.23	104	39.23	104
10.50	12	118	71	56	45	39.23	105	39.23	105
10.60	12	118	71	56	45	39.23	106	39.23	106
10.70	12	118	71	56	45	39.23	107	39.23	107
10.80	12	118	71	56	45	39.23	108	39.23	108
10.90	12	118	71	56	45	39.23	109	39.23	109
11.00	12	118	71	56	45	39.23	110	39.23	110
11.10	12	118	71	56	45	39.23	111	39.23	111
11.20	12	118	71	56	45	39.23	112	39.23	112
11.30	12	118	71	56	45	39.23	113	39.23	113
11.40	12	118	71	56	45	39.23	114	39.23	114
11.50	12	118	71	56	45	39.23	115	39.23	115
11.60	12	118	71	56	45	39.23	116	39.23	116
11.70	12	118	71	56	45	39.23	117	39.23	117
11.80	12	118	71	56	45	39.23	118	39.23	118
11.90	12	118	71	56	45	39.23	119	39.23	119
12.00	12	118	71	56	45	39.23	120	39.23	120
12.25	14	124	77	60	45	50.84	122	50.84	122
12.50	14	124	77	60	45	50.84	125	50.84	125
12.70	14	124	77	60	45	50.84	127	50.84	127
12.80	14	124	77	60	45	50.84	128	50.84	128
12.90	14	124	77	60	45	50.84	129	50.84	129
13.00	14	124	77	60	45	50.84	130	50.84	130
13.30	14	124	77	60	45	50.84	133	50.84	133
13.50	14	124	77	60	45	50.84	135	50.84	135
13.70	14	124	77	60	45	50.84	137	50.84	137
13.80	14	124	77	60	45	50.84	138	50.84	138
14.00	14	124	77	60	45	50.84	140	50.84	140
14.20	16	133	83	63	48	66.83	142	66.83	142
14.50	16	133	83	63	48	66.83	145	66.83	145
14.70	16	133	83	63	48	66.83	147	66.83	147
14.80	16	133	83	63	48	66.83	148	66.83	148
15.00	16	133	83	63	48	66.83	150	66.83	150
15.25	16	133	83	63	48	66.83	152	66.83	152
15.30	16	133	83	63	48	66.83	153	66.83	153
15.50	16	133	83	63	48	66.83	155	66.83	155
15.70	16	133	83	63	48	66.83	157	66.83	157
15.80	16	133	83	63	48	66.83	158	66.83	158
16.00	16	133	83	63	48	66.83	160	66.83	160
16.50	18	143	93	71	48	107.51	165	107.51	165
16.80	18	143	93	71	48	107.51	168	107.51	168
17.00	18	143	93	71	48	107.51	170	107.51	170
17.50	18	143	93	71	48	107.51	175	107.51	175
17.80	18	143	93	71	48	107.51	178	107.51	178
18.00	18	143	93	71	48	107.51	180	107.51	180
18.50	20	153	101	77	50	116.21	185	116.21	185
18.80	20	153	101	77	50	116.21	188	116.21	188
19.00	20	153	101	77	50	116.21	190	116.21	190
19.50	20	153	101	77	50	116.21	195	116.21	195
19.80	20	153	101	77	50	116.21	198	116.21	198
20.00	20	153	101	77	50	116.21	200	116.21	200

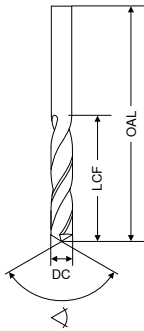
Steel	●	●
Stainless steel		
Cast iron	●	●
Non ferrous metals	○	○
Heat resistant alloys		

Twist drill similar to DIN 338

- ▲ Rake angle 30°
- ▲ Shank Ø h7

≤ 5xD

N



118°
Solid carbide
T3

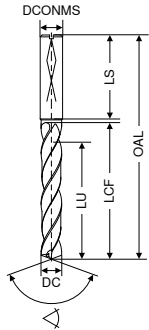
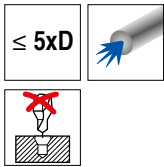
DC _{h7}	OAL	LCF	Article no. 10 710 ...	£
mm	mm	mm		
0.5	22	6	005	5.69
0.6	24	7	006	5.69
0.7	28	9	007	5.69
0.8	30	10	008	5.69
0.9	32	11	009	5.69
1.0	34	12	010	5.69
1.1	36	14	011	6.56
1.2	38	16	012	6.56
1.3	38	16	013	6.56
1.4	40	18	014	6.56
1.5	40	18	015	6.56
1.6	43	20	016	6.56
1.7	43	20	017	7.26
1.8	46	22	018	7.70
1.9	46	22	019	7.70
2.0	49	24	020	9.42
2.1	49	24	021	9.68
2.2	53	27	022	9.68
2.3	53	27	023	9.68
2.4	57	30	024	9.68
2.5	57	30	025	11.26
2.6	57	30	026	11.26
2.7	61	33	027	12.37
2.8	61	33	028	13.11
2.9	61	33	029	13.11
3.0	61	33	030	13.08
3.1	65	36	031	13.08
3.2	65	36	032	13.08
3.3	65	36	033	14.52
3.4	70	39	034	14.52
3.5	70	39	035	15.99
3.6	70	39	036	15.99
3.7	70	39	037	15.99
3.8	75	43	038	15.99
3.9	75	43	039	15.99
4.0	75	43	040	19.05
4.1	75	43	041	18.13
4.2	75	43	042	19.65
4.3	80	47	043	20.64
4.4	80	47	044	20.64
4.5	80	47	045	22.11
4.6	80	47	046	22.11
4.7	80	47	047	22.11
4.8	86	52	048	22.52
4.9	86	52	049	22.52
5.0	86	52	050	26.31
5.1	86	52	051	26.31
5.2	86	52	052	26.31
5.3	86	52	053	27.55

DC _{h7}	OAL	LCF	Article no. 10 710 ...	£
mm	mm	mm		
5.4	93	57	054	32.41
5.5	93	57	055	32.41
5.6	93	57	056	32.41
5.7	93	57	057	32.41
5.8	93	57	058	32.41
5.9	93	57	059	32.41
6.0	93	57	060	35.32
6.1	101	63	061	36.99
6.2	101	63	062	36.99
6.3	101	63	063	36.99
6.4	101	63	064	36.99
6.5	101	63	065	42.29
6.6	109	69	066	42.29
6.8	109	69	068	48.32
7.0	109	69	070	48.32
7.5	109	69	075	52.30
7.8	117	75	078	57.68
8.0	117	75	080	57.68
8.5	117	75	085	64.85
8.8	125	81	088	78.60
9.0	125	81	090	78.60
9.5	125	81	095	85.42
9.8	133	87	098	94.31
10.0	133	87	100	94.31
10.2	133	87	102	99.05
10.5	133	87	105	102.91
11.0	142	94	110	119.99
11.5	142	94	115	133.26
12.0	151	101	120	155.43
13.0	151	101	130	168.93
14.0	160	108	140	181.09
16.0	178	120	160	245.93

Steel	●
Stainless steel	○
Cast iron	○
Non ferrous metals	●
Heat resistant alloys	○

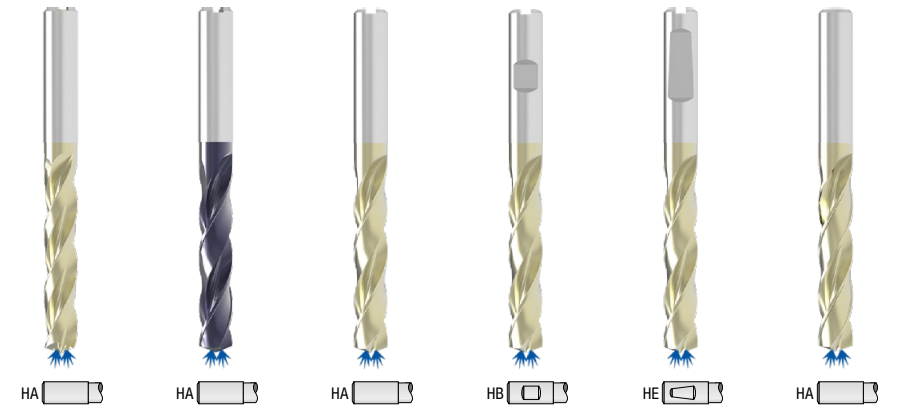
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WTX – High Performance Drill, DIN 6537



Feed UNI = Three Cutting Edges

Feed UNI	Speed UNI	UNI	UNI	UNI	Quattro 4F
DPX74S	DPX14S	DPX74S	DPX74S	DPX74S	DPX74S
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN



HA $\sphericalangle 140^\circ$ Solid carbide
 HA $\sphericalangle 145^\circ$ Solid carbide
 HA $\sphericalangle 140^\circ$ Solid carbide
 HB $\sphericalangle 140^\circ$ Solid carbide
 HE $\sphericalangle 140^\circ$ Solid carbide
 HA $\sphericalangle 140^\circ$ Solid carbide

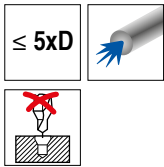
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no.	Article no.	Article no.	Article no.	Article no.	Article no.
mm	mm	mm	mm	mm	mm	NEW T4 10 789 ... £	NEW T4 10 771 ... £	T7 11 786 ... £	T7 11 787 ... £	T7 11 785 ... £	NEW T4 10 735 ... £
3.00	6	66	28	23	36		110.41 03000	56.61 03000	56.61 03000	53.41 03000	110.56 03000
3.10	6	66	28	23	36		110.41 03100	56.61 03100	56.61 03100	53.41 03100	110.56 03100
3.15	6	66	28	23	36			56.61 03150	56.61 03150	53.41 03150	
3.20	6	66	28	23	36		110.41 03200	56.61 03200	56.61 03200	53.41 03200	110.56 03200
3.22	6	66	28	23	36			56.61 03220	56.61 03220	53.41 03220	
3.25	6	66	28	23	36			56.61 03250	56.61 03250	53.41 03250	
3.30	6	66	28	23	36		110.41 03300	56.61 03300	56.61 03300	53.41 03300	110.56 03300
3.40	6	66	28	23	36		110.41 03400	56.61 03400	56.61 03400	53.41 03400	110.56 03400
3.50	6	66	28	23	36		110.41 03500	56.61 03500	56.61 03500	53.41 03500	110.56 03500
3.60	6	66	28	23	36		110.41 03600	56.61 03600	56.61 03600	53.41 03600	110.56 03600
3.70	6	66	28	23	36		110.41 03700	56.61 03700	56.61 03700	53.41 03700	110.56 03700
3.80	6	74	36	29	36		110.41 03800	56.61 03800	56.61 03800	53.41 03800	110.56 03800
3.85	6	74	36	29	36			56.61 03850	56.61 03850	53.41 03850	
3.90	6	74	36	29	36		110.41 03900	56.61 03900	56.61 03900	53.41 03900	110.56 03900
4.00	6	74	36	29	36	90.03 04000	110.41 04000	56.61 04000	56.61 04000	53.41 04000	110.56 04000
4.10	6	74	36	29	36	90.03 04100	110.41 04100	56.61 04100	56.61 04100	53.41 04100	110.56 04100
4.20	6	74	36	29	36	90.03 04200	110.41 04200	56.61 04200	56.61 04200	53.41 04200	110.56 04200
4.25	6	74	36	29	36			56.61 04250	56.61 04250	53.41 04250	
4.30	6	74	36	29	36	90.03 04300	110.41 04300	56.61 04300	56.61 04300	53.41 04300	110.56 04300
4.35	6	74	36	29	36			56.61 04350	56.61 04350	53.41 04350	
4.40	6	74	36	29	36	90.03 04400	110.41 04400	56.61 04400	56.61 04400	53.41 04400	110.56 04400
4.45	6	74	36	29	36			56.61 04450	56.61 04450	53.41 04450	
4.50	6	74	36	29	36	90.03 04500	110.41 04500	56.61 04500	56.61 04500	53.41 04500	110.56 04500
4.60	6	74	36	29	36	90.03 04600	110.41 04600	56.61 04600	56.61 04600	53.41 04600	110.56 04600
4.65	6	74	36	29	36		110.41 04650	56.61 04650	56.61 04650	53.41 04650	
4.70	6	74	36	29	36	90.03 04700	110.41 04700	56.61 04700	56.61 04700	53.41 04700	110.56 04700
4.80	6	82	44	35	36	90.03 04800	110.41 04800	56.61 04800	56.61 04800	53.41 04800	110.56 04800
4.90	6	82	44	35	36	90.03 04900	110.41 04900	56.61 04900	56.61 04900	53.41 04900	110.56 04900
4.95	6	82	44	35	36			56.61 04950	56.61 04950	53.41 04950	
5.00	6	82	44	35	36	90.03 05000	110.41 05000	56.61 05000	56.61 05000	53.41 05000	110.56 05000
5.05	6	82	44	35	36			56.61 05050	56.61 05050	53.41 05050	
5.10	6	82	44	35	36	90.03 05100	110.41 05100	56.61 05100	56.61 05100	53.41 05100	110.56 05100
5.20	6	82	44	35	36	90.03 05200	110.41 05200	56.61 05200	56.61 05200	53.41 05200	110.56 05200
5.30	6	82	44	35	36	90.03 05300	110.41 05300	56.61 05300	56.61 05300	53.41 05300	110.56 05300
5.40	6	82	44	35	36	90.03 05400	110.41 05400	56.61 05400	56.61 05400	53.41 05400	110.56 05400
5.50	6	82	44	35	36	90.03 05500	110.41 05500	56.61 05500	56.61 05500	53.41 05500	110.56 05500

Steel	●	●	●	●	●
Stainless steel	●	●	○	○	○
Cast iron	●	●	●	●	●
Non ferrous metals	○	○	○	○	○
Heat resistant alloys					
Hardened materials		○	○	○	○

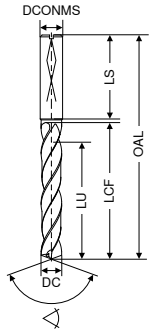
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i Ø DC_{m7} for Type UNI, Feed UNI and Quattro 4F/ Ø DC_{h7} for Type Speed UNI

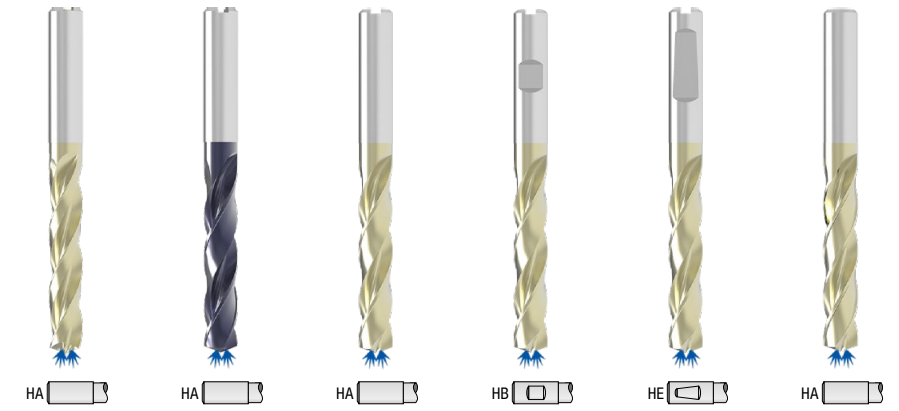
WTX – High Performance Drill, DIN 6537



Feed UNI	Speed UNI	UNI	UNI	UNI	Quattro 4F
DPX74S	DPX14S	DPX74S	DPX74S	DPX74S	DPX74S
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN



Feed UNI = Three Cutting Edges



HA \sphericalangle 140° Solid carbide
 HA \sphericalangle 145° Solid carbide
 HA \sphericalangle 140° Solid carbide
 HB \sphericalangle 140° Solid carbide
 HE \sphericalangle 140° Solid carbide
 HA \sphericalangle 140° Solid carbide

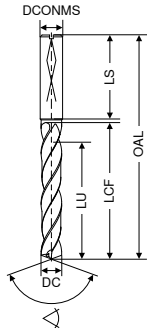
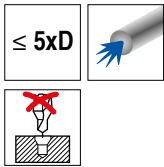
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	NEW T4 Article no. 10 789 ...	NEW T4 Article no. 10 771 ...	T7 Article no. 11 786 ...	T7 Article no. 11 787 ...	T7 Article no. 11 785 ...	NEW T4 Article no. 10 735 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
5.55	6	82	44	35	36	90.03 05550	110.41 05550	66.28 05550	66.28 05550	53.41 05550	
5.60	6	82	44	35	36	90.03 05600	110.41 05600	56.61 05600	56.61 05600	53.41 05600	110.56 05600
5.70	6	82	44	35	36	90.03 05700	110.41 05700	56.61 05700	56.61 05700	53.41 05700	110.56 05700
5.75	6	82	44	35	36			56.61 05750	56.61 05750	53.41 05750	
5.80	6	82	44	35	36	90.03 05800	110.41 05800	56.61 05800	56.61 05800	53.41 05800	110.56 05800
5.90	6	82	44	35	36	90.03 05900	110.41 05900	56.61 05900	56.61 05900	53.41 05900	110.56 05900
5.95	6	82	44	35	36			56.61 05950	56.61 05950	53.41 05950	
6.00	6	82	44	35	36	90.03 06000	110.41 06000	56.61 06000	56.61 06000	53.41 06000	110.56 06000
6.10	8	91	53	43	36	100.76 06100	123.48 06100	63.82 06100	63.82 06100	60.97 06100	129.29 06100
6.20	8	91	53	43	36	100.76 06200	123.48 06200	63.82 06200	63.82 06200	60.97 06200	129.29 06200
6.30	8	91	53	43	36	100.76 06300	123.48 06300	63.82 06300	63.82 06300	60.97 06300	129.29 06300
6.40	8	91	53	43	36	100.76 06400	123.48 06400	63.82 06400	63.82 06400	60.97 06400	129.29 06400
6.50	8	91	53	43	36	100.76 06500	123.48 06500	63.82 06500	63.82 06500	60.97 06500	129.29 06500
6.60	8	91	53	43	36	100.76 06600	123.48 06600	63.82 06600	63.82 06600	60.97 06600	129.29 06600
6.70	8	91	53	43	36	100.76 06700	123.48 06700	63.82 06700	63.82 06700	60.97 06700	129.29 06700
6.80	8	91	53	43	36	100.76 06800	123.48 06800	63.82 06800	63.82 06800	60.97 06800	129.29 06800
6.90	8	91	53	43	36	100.76 06900	123.48 06900	63.82 06900	63.82 06900	60.97 06900	129.29 06900
7.00	8	91	53	43	36	100.76 07000	123.48 07000	63.82 07000	63.82 07000	60.97 07000	129.29 07000
7.10	8	91	53	43	36	100.76 07100	123.48 07100	63.82 07100	63.82 07100	60.97 07100	129.29 07100
7.20	8	91	53	43	36	100.76 07200	123.48 07200	63.82 07200	63.82 07200	60.97 07200	129.29 07200
7.30	8	91	53	43	36	100.76 07300	123.48 07300	63.82 07300	63.82 07300	60.97 07300	129.29 07300
7.40	8	91	53	43	36	100.76 07400	123.48 07400	63.82 07400	63.82 07400	60.97 07400	129.29 07400
7.45	8	91	53	43	36			63.82 07450	63.82 07450	63.82 07450	
7.50	8	91	53	43	36	100.76 07500	123.48 07500	63.82 07500	63.82 07500	60.97 07500	129.29 07500
7.60	8	91	53	43	36	100.76 07600	123.48 07600	63.82 07600	63.82 07600	60.97 07600	129.29 07600
7.70	8	91	53	43	36	100.76 07700	123.48 07700	63.82 07700	63.82 07700	60.97 07700	129.29 07700
7.80	8	91	53	43	36	100.76 07800	123.48 07800	63.82 07800	63.82 07800	60.97 07800	129.29 07800
7.90	8	91	53	43	36	100.76 07900	123.48 07900	63.82 07900	63.82 07900	60.97 07900	129.29 07900
8.00	8	91	53	43	36	100.76 08000	123.48 08000	63.82 08000	63.82 08000	60.97 08000	129.29 08000
8.10	10	103	61	49	40	145.76 08100	177.24 08100	73.97 08100	73.97 08100	68.80 08100	160.97 08100
8.20	10	103	61	49	40	145.76 08200	177.24 08200	73.97 08200	73.97 08200	68.80 08200	160.97 08200
8.30	10	103	61	49	40	145.76 08300	177.24 08300	73.97 08300	73.97 08300	68.80 08300	160.97 08300
8.40	10	103	61	49	40	145.76 08400	177.24 08400	73.97 08400	73.97 08400	68.80 08400	160.97 08400
8.50	10	103	61	49	40	145.76 08500	177.24 08500	73.97 08500	73.97 08500	68.80 08500	160.97 08500
8.60	10	103	61	49	40	145.76 08600	177.24 08600	73.97 08600	73.97 08600	68.80 08600	160.97 08600
8.70	10	103	61	49	40	145.76 08700	177.24 08700	73.97 08700	73.97 08700	68.80 08700	160.97 08700

Steel	●	●	●	●	●
Stainless steel	●	●	○	○	○
Cast iron	●	●	●	●	●
Non ferrous metals	○	○	○	○	○
Heat resistant alloys					
Hardened materials		○	○	○	○

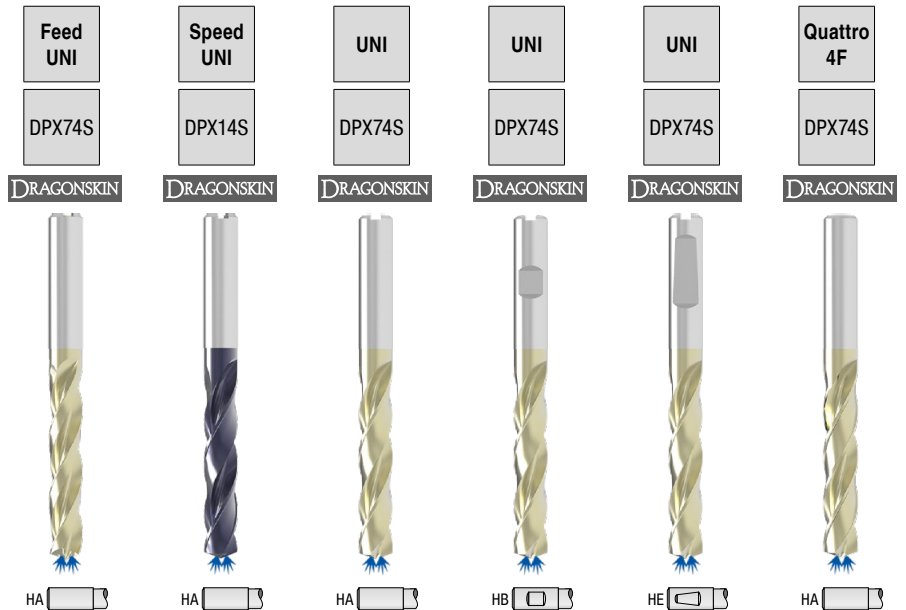
→ v_c Page 96-104

i Ø DC_{m7} for Type UNI, Feed UNI and Quattro 4F/ Ø DC_{h7} for Type Speed UNI

WTX – High Performance Drill, DIN 6537



Feed UNI = Three Cutting Edges



HA $\sphericalangle 140^\circ$ Solid carbide
 HA $\sphericalangle 145^\circ$ Solid carbide
 HA $\sphericalangle 140^\circ$ Solid carbide
 HB $\sphericalangle 140^\circ$ Solid carbide
 HE $\sphericalangle 140^\circ$ Solid carbide
 HA $\sphericalangle 140^\circ$ Solid carbide

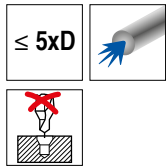
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	NEW T4 Article no. 10 789 ... £	NEW T4 Article no. 10 771 ... £	T7 Article no. 11 786 ... £	T7 Article no. 11 787 ... £	T7 Article no. 11 785 ... £	NEW T4 Article no. 10 735 ... £
8.80	10	103	61	49	40	145.76 08800	177.24 08800	73.97 08800	73.97 08800	68.80 08800	160.97 08800
8.90	10	103	61	49	40	145.76 08900	177.24 08900	73.97 08900	73.97 08900	68.80 08900	160.97 08900
9.00	10	103	61	49	40	145.76 09000	177.24 09000	73.97 09000	73.97 09000	68.80 09000	160.97 09000
9.10	10	103	61	49	40	145.76 09100	177.24 09100	73.97 09100	73.97 09100	68.80 09100	160.97 09100
9.20	10	103	61	49	40	145.76 09200	177.24 09200	73.97 09200	73.97 09200	68.80 09200	160.97 09200
9.30	10	103	61	49	40	145.76 09300	177.24 09300	73.97 09300	73.97 09300	68.80 09300	160.97 09300
9.35	10	103	61	49	40			73.97 09350	73.97 09350	68.80 09350	
9.40	10	103	61	49	40	145.76 09400	177.24 09400	73.97 09400	73.97 09400	68.80 09400	160.97 09400
9.45	10	103	61	49	40			73.97 09450	73.97 09450	68.80 09450	
9.50	10	103	61	49	40	145.76 09500	177.24 09500	73.97 09500	73.97 09500	68.80 09500	160.97 09500
9.60	10	103	61	49	40	145.76 09600	177.24 09600	73.97 09600	73.97 09600	68.80 09600	160.97 09600
9.70	10	103	61	49	40	145.76 09700	177.24 09700	73.97 09700	73.97 09700	68.80 09700	160.97 09700
9.80	10	103	61	49	40	145.76 09800	177.24 09800	73.97 09800	73.97 09800	68.80 09800	160.97 09800
9.90	10	103	61	49	40	145.76 09900	177.24 09900	73.97 09900	73.97 09900	68.80 09900	160.97 09900
10.00	10	103	61	49	40	145.76 10000	177.24 10000	73.97 10000	73.97 10000	68.80 10000	160.97 10000
10.10	12	118	71	56	45	204.07 10100	249.85 10100	104.76 10100	104.76 10100	99.07 10100	228.35 10100
10.20	12	118	71	56	45	204.07 10200	249.85 10200	104.76 10200	104.76 10200	99.07 10200	228.35 10200
10.30	12	118	71	56	45	204.07 10300	249.85 10300	104.76 10300	104.76 10300	99.07 10300	228.35 10300
10.40	12	118	71	56	45	204.07 10400	249.85 10400	104.76 10400	104.76 10400	99.07 10400	228.35 10400
10.50	12	118	71	56	45	204.07 10500	249.85 10500	104.76 10500	104.76 10500	99.07 10500	228.35 10500
10.55	12	118	71	56	45			104.76 10550	104.76 10550	99.07 10550	
10.60	12	118	71	56	45	204.07 10600	249.85 10600	104.76 10600	104.76 10600	99.07 10600	228.35 10600
10.70	12	118	71	56	45	204.07 10700	249.85 10700	104.76 10700	104.76 10700	99.07 10700	228.35 10700
10.75	12	118	71	56	45			104.76 10750	104.76 10750	99.07 10750	
10.80	12	118	71	56	45	204.07 10800	249.85 10800	104.76 10800	104.76 10800	99.07 10800	228.35 10800
10.90	12	118	71	56	45	204.07 10900	249.85 10900	104.76 10900	104.76 10900	99.07 10900	228.35 10900
11.00	12	118	71	56	45	204.07 11000	249.85 11000	104.76 11000	104.76 11000	99.07 11000	228.35 11000
11.10	12	118	71	56	45	204.07 11100	249.85 11100	104.76 11100	104.76 11100	99.07 11100	228.35 11100
11.20	12	118	71	56	45	204.07 11200	249.85 11200	104.76 11200	104.76 11200	99.07 11200	228.35 11200
11.25	12	118	71	56	45			104.76 11250	104.76 11250	99.07 11250	
11.30	12	118	71	56	45	204.07 11300	249.85 11300	104.76 11300	104.76 11300	99.07 11300	228.35 11300
11.35	12	118	71	56	45			104.76 11350	104.76 11350	99.07 11350	
11.40	12	118	71	56	45	204.07 11400	249.85 11400	104.76 11400	104.76 11400	99.07 11400	228.35 11400
11.45	12	118	71	56	45			104.76 11450	104.76 11450	99.07 11450	
11.50	12	118	71	56	45	204.07 11500	249.85 11500	104.76 11500	104.76 11500	99.07 11500	228.35 11500
11.60	12	118	71	56	45	204.07 11600	249.85 11600	104.76 11600	104.76 11600	99.07 11600	228.35 11600

Steel	●	●	●	●	●
Stainless steel	●	●	○	○	○
Cast iron	●	●	●	●	●
Non ferrous metals	○	○	○	○	○
Heat resistant alloys					
Hardened materials		○	○	○	○

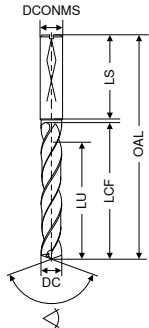
→ v_c Page 96-104

i Ø DC_{m7} for Type UNI, Feed UNI and Quattro 4F/ Ø DC_{h7} for Type Speed UNI

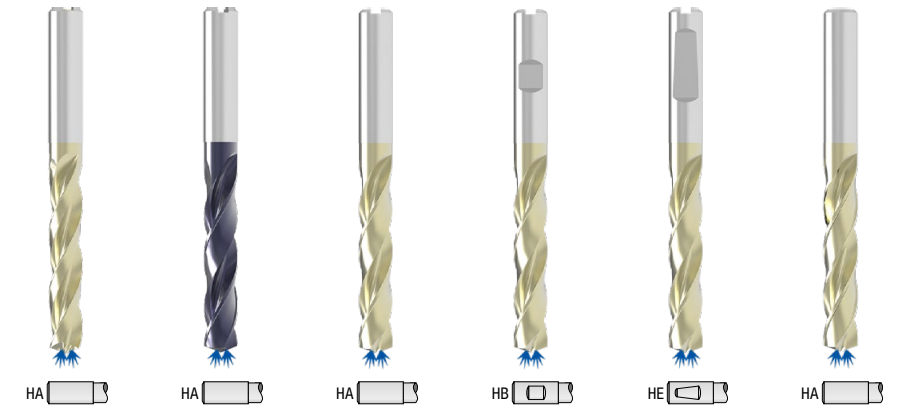
WTX – High Performance Drill, DIN 6537



Feed UNI	Speed UNI	UNI	UNI	UNI	Quattro 4F
DPX74S	DPX14S	DPX74S	DPX74S	DPX74S	DPX74S
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN



Feed UNI = Three Cutting Edges



HA \sphericalangle 140° Solid carbide
 HA \sphericalangle 145° Solid carbide
 HA \sphericalangle 140° Solid carbide
 HB \sphericalangle 140° Solid carbide
 HE \sphericalangle 140° Solid carbide
 HA \sphericalangle 140° Solid carbide

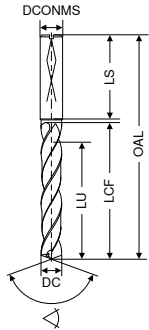
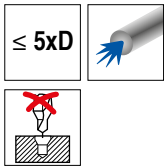
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	NEW T4 Article no. 10 789 ... £	NEW T4 Article no. 10 771 ... £	T7 Article no. 11 786 ... £	T7 Article no. 11 787 ... £	T7 Article no. 11 785 ... £	NEW T4 Article no. 10 735 ... £				
11.70	12	118	71	56	45	204.07	11700	249.85	11700	104.76	11700	99.07	11700	228.35	11700
11.80	12	118	71	56	45	204.07	11800	249.85	11800	104.76	11800	99.07	11800	228.35	11800
11.90	12	118	71	56	45	204.07	11900	249.85	11900	104.76	11900	99.07	11900	228.35	11900
12.00	12	118	71	56	45	204.07	12000	249.85	12000	104.76	12000	99.07	12000	228.35	12000
12.15	14	124	77	60	45					141.23	12150	141.23	12150	131.19	12150
12.20	14	124	77	60	45			339.91	12200						
12.25	14	124	77	60	45					141.23	12250	141.23	12250	131.19	12250
12.50	14	124	77	60	45	277.55	12500	339.91	12500	141.23	12500	141.23	12500	131.19	12500
12.55	14	124	77	60	45					141.23	12550	141.23	12550	131.19	12550
12.70	14	124	77	60	45					141.23	12700	141.23	12700	131.19	12700
12.80	14	124	77	60	45	277.55	12800	339.91	12800	141.23	12800	141.23	12800	131.19	12800
12.90	14	124	77	60	45					131.19	12900	131.19	12900	131.19	12900
13.00	14	124	77	60	45	277.55	13000	339.91	13000	141.23	13000	141.23	13000	131.19	13000
13.10	14	124	77	60	45					141.23	13100	141.23	13100	131.19	13100
13.30	14	124	77	60	45					131.19	13300	131.19	13300	131.19	13300
13.35	14	124	77	60	45					131.19	13350	131.19	13350	131.19	13350
13.50	14	124	77	60	45	277.55	13500	339.91	13500	141.23	13500	141.23	13500	131.19	13500
13.70	14	124	77	60	45					141.23	13700	141.23	13700	131.19	13700
13.80	14	124	77	60	45	277.55	13800	339.91	13800	141.23	13800	141.23	13800	131.19	13800
14.00	14	124	77	60	45	277.55	14000	339.91	14000	141.23	14000	141.23	14000	131.19	14000
14.20	16	133	83	63	48			424.18	14200	163.85	14200	163.85	14200	163.85	14200
14.50	16	133	83	63	48	346.34	14500	424.18	14500	176.53	14500	176.53	14500	163.85	14500
14.80	16	133	83	63	48	346.34	14800	424.18	14800	176.53	14800	176.53	14800	163.85	14800
15.00	16	133	83	63	48	346.34	15000	424.18	15000	176.53	15000	176.53	15000	163.85	15000
15.10	16	133	83	63	48					176.53	15100	176.53	15100	163.85	15100
15.20	16	133	83	63	48			424.18	15200						
15.25	16	133	83	63	48					176.53	15250	176.53	15250	163.85	15250
15.30	16	133	83	63	48					171.65	15300	171.65	15300	163.85	15300
15.35	16	133	83	63	48					171.65	15350	171.65	15350	163.85	15350
15.50	16	133	83	63	48	346.34	15500	424.18	15500	176.53	15500	176.53	15500	163.85	15500
15.60	16	133	83	63	48					176.53	15600	176.53	15600	163.85	15600
15.80	16	133	83	63	48	346.34	15800	424.18	15800	176.53	15800	176.53	15800	163.85	15800
16.00	16	133	83	63	48	346.34	16000	424.18	16000	176.53	16000	176.53	16000	163.85	16000
16.05	18	143	93	71	48					274.55	16050	274.55	16050	254.80	16050
16.50	18	143	93	71	48	455.96	16500	557.82	16500	274.55	16500	274.55	16500	254.80	16500
16.80	18	143	93	71	48	455.96	16800	557.82	16800	274.55	16800	274.55	16800	254.80	16800

Steel	●	●	●	●	●
Stainless steel	●	●	○	○	○
Cast iron	●	●	●	●	●
Non ferrous metals	○	○	○	○	○
Heat resistant alloys					
Hardened materials		○	○	○	○

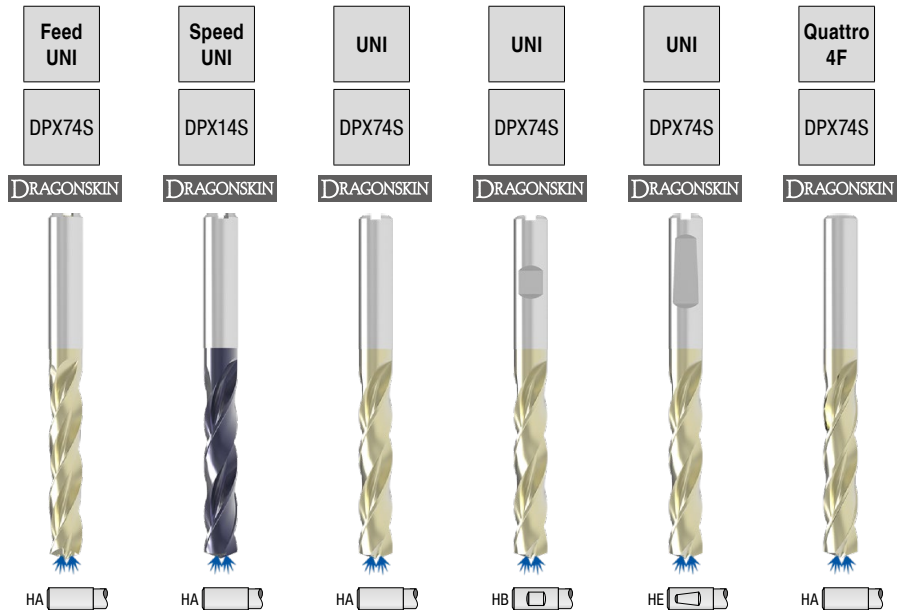
→ v_c Page 96-104

! Ø DC_{m7} for Type UNI, Feed UNI and Quattro 4F/ Ø DC_{h7} for Type Speed UNI

WTX – High Performance Drill, DIN 6537



Feed UNI = Three Cutting Edges



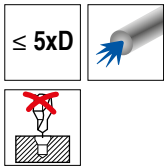
DC _{m7/h7} mm	DCONMS _{h6} mm	OAL mm	LCF mm	LU mm	LS mm	Feed UNI Solid carbide NEW T4 Article no. 10 789 ... £		Speed UNI Solid carbide NEW T4 Article no. 10 771 ... £		UNI Solid carbide T7 Article no. 11 786 ... £		UNI Solid carbide T7 Article no. 11 787 ... £		UNI Solid carbide T7 Article no. 11 785 ... £		Quattro 4F Solid carbide NEW T4 Article no. 10 735 ... £	
						16.90	18	143	93	71	48					274.55	16900
17.00	18	143	93	71	48	455.96	17000	557.82	17000	274.55	17000	274.55	17000	254.80	17000	507.13	17000
17.50	18	143	93	71	48	455.96	17500	557.82	17500	274.55	17500	274.55	17500	254.80	17500	507.13	17500
17.60	18	143	93	71	48					274.55	17600	274.55	17600	254.80	17600		
17.80	18	143	93	71	48	455.96	17800	557.82	17800	274.55	17800	274.55	17800	254.80	17800	507.13	17800
18.00	18	143	93	71	48	455.96	18000	557.82	18000	274.55	18000	274.55	18000	254.80	18000	507.13	18000
18.50	20	153	101	77	50	590.06	18500	721.96	18500	317.89	18500	317.89	18500	282.11	18500	658.62	18500
18.80	20	153	101	77	50	590.06	18800	721.96	18800	317.89	18800	317.89	18800	282.11	18800	658.62	18800
18.90	20	153	101	77	50					317.89	18900	317.89	18900	282.11	18900		
19.00	20	153	101	77	50	590.06	19000	721.96	19000	317.89	19000	317.89	19000	282.11	19000	658.62	19000
19.35	20	153	101	77	50					317.89	19350	317.89	19350	282.11	19350		
19.50	20	153	101	77	50	590.06	19500	721.96	19500	317.89	19500	317.89	19500	282.11	19500	658.62	19500
19.60	20	153	101	77	50					317.89	19600	317.89	19600	282.11	19600		
19.80	20	153	101	77	50	590.06	19800	721.96	19800	317.89	19800	317.89	19800	282.11	19800	658.62	19800
20.00	20	153	101	77	50	590.06	20000	721.96	20000	317.89	20000	317.89	20000	282.11	20000	658.62	20000
20.50	25	200	135	110	56					817.03	20500	817.03	20500	546.03	20500		
21.00	25	200	135	110	56					817.03	21000	817.03	21000	546.03	21000		
21.50	25	200	135	110	56					817.03	21500	817.03	21500	546.03	21500		
22.00	25	200	135	110	56					817.03	22000	817.03	22000	546.03	22000		
22.50	25	200	140	120	56					817.03	22500	817.03	22500	546.03	22500		
23.00	25	200	140	120	56					817.03	23000	817.03	23000	546.03	23000		
23.50	25	200	140	120	56					817.03	23500	817.03	23500	546.03	23500		
24.00	25	200	140	120	56					817.03	24000	817.03	24000	546.03	24000		
24.50	25	200	140	120	56					817.03	24500	817.03	24500	546.03	24500		
25.00	25	200	140	120	56					817.03	25000	817.03	25000	546.03	25000		

Steel	●	●	●	●	●	●
Stainless steel	●	●	○	○	○	○
Cast iron	●	●	●	●	●	●
Non ferrous metals	○	○	○	○	○	○
Heat resistant alloys						
Hardened materials		○	○	○	○	○

→ v_c Page 96-104

i Ø DC_{m7} for Type UNI, Feed UNI and Quattro 4F/ Ø DC_{h7} for Type Speed UNI

WTX - High-performance drill, DIN 6537



Speed
VA

Ti800

VA

Ti700

VA

Ti700

GG

Ti700

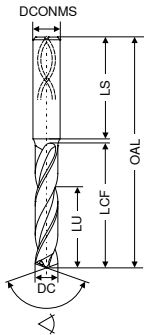
AL

DLC

Ti

DPA54

DRAGONSKIN



Type GG = Straight Fluted



HA \sphericalangle 135°
Solid carbide
T4



HA \sphericalangle 140°
Solid carbide
T4



HE \sphericalangle 140°
Solid carbide
T4



HA \sphericalangle 130°
Solid carbide
T4



HA \sphericalangle 135°
Solid carbide
NEW T4



HA \sphericalangle 140°
Solid carbide
T4

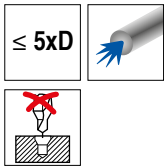
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 773 ...	Article no. 10 745 ...	Article no. 10 746 ...	Article no. 10 749 ...	Article no. 10 791 ...	Article no. 10 787 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
2.50	4	57	21	17	28					81.53 02500	
2.60	4	57	21	17	28					81.53 02600	
2.70	4	57	21	17	28					81.53 02700	
2.80	4	57	21	17	28					81.53 02800	
2.90	4	57	21	17	28					81.53 02900	
3.00	6	66	28	23	36	111.79 030	98.09 030	98.09 030	74.65 030	81.53 03000	72.44 030
3.10	6	66	28	23	36	111.79 031	98.09 031	98.09 031	74.65 031	81.53 03100	72.44 031
3.15	6	66	28	23	36		98.09 831				
3.20	6	66	28	23	36	111.79 032	98.09 032	98.09 032	74.65 032	81.53 03200	72.44 032
3.22	6	66	28	23	36		98.09 832				
3.25	6	66	28	23	36		98.09 890				
3.30	6	66	28	23	36	111.79 033	98.09 033	98.09 033	74.65 033	81.53 03300	72.44 033
3.40	6	66	28	23	36	111.79 034	98.09 034	98.09 034	74.65 034	81.53 03400	72.44 034
3.50	6	66	28	23	36	111.79 035	98.09 035	98.09 035	74.65 035	81.53 03500	72.44 035
3.60	6	66	28	23	36	111.79 036	98.09 036	98.09 036	74.65 036	81.53 03600	72.44 036
3.70	6	66	28	23	36	111.79 037	98.09 037	98.09 037	74.65 037	81.53 03700	72.44 037
3.80	6	74	36	29	36	111.79 038	98.09 038	98.09 038	74.65 038	78.67 03800	72.44 038
3.85	6	74	36	29	36		98.09 838				
3.90	6	74	36	29	36	111.79 039	98.09 039	98.09 039	74.65 039	78.67 03900	72.44 039
3.97	6	74	36	29	36						72.44 900
4.00	6	74	36	29	36	111.79 040	98.09 040	98.09 040	74.65 040	78.67 04000	72.44 040
4.10	6	74	36	29	36	111.79 041	98.09 041	98.09 041	74.65 041	78.67 04100	72.44 041
4.20	6	74	36	29	36	111.79 042	98.09 042	98.09 042	74.65 042	78.67 04200	72.44 042
4.23	6	74	36	29	36						72.44 901
4.30	6	74	36	29	36	111.79 043	98.09 043	98.09 043	74.65 043	78.67 04300	72.44 043
4.35	6	74	36	29	36		98.09 843				
4.40	6	74	36	29	36	111.79 044	98.09 044	98.09 044	74.65 044	78.67 04400	72.44 044
4.45	6	74	36	29	36		98.09 844				
4.50	6	74	36	29	36	111.79 045	98.09 045	98.09 045	74.65 045	78.67 04500	72.44 045
4.60	6	74	36	29	36	111.79 046	98.09 046	98.09 046	74.65 046	78.67 04600	72.44 046
4.65	6	74	36	29	36	111.79 900	98.09 900				
4.70	6	74	36	29	36	111.79 047	98.09 047	98.09 047	74.65 047	78.67 04700	72.44 047
4.80	6	82	44	35	36	111.79 048	98.09 048	98.09 048	74.65 048	79.03 04800	72.44 048
4.90	6	82	44	35	36	111.79 049	98.09 049	98.09 049	74.65 049	79.03 04900	72.44 049
5.00	6	82	44	35	36	111.79 050	98.09 050	98.09 050	74.65 050	79.03 05000	72.44 050
5.10	6	82	44	35	36	111.79 051	98.09 051	98.09 051	74.65 051	79.03 05100	72.44 051
5.20	6	82	44	35	36	111.79 052	98.09 052	98.09 052	74.65 052	79.03 05200	72.44 052
5.30	6	82	44	35	36	111.79 053	98.09 053	98.09 053	74.65 053	79.03 05300	72.44 053
5.40	6	82	44	35	36	111.79 054	98.09 054	98.09 054	74.65 054	79.03 05400	72.44 054
5.50	6	82	44	35	36	111.79 055	98.09 055	98.09 055	74.65 055	79.03 05500	72.44 055
5.55	6	82	44	35	36	111.79 902					

Steel	○	○	○	
Stainless steel	●	●	●	●
Cast iron	○	○	○	○
Non ferrous metals	○	●	●	●
Heat resistant alloys	○	○	○	●

→ v_c Page 95-108

i Ø DC_{m7} for Type VA, Ti and GG / Ø DC_{n7} for Type Speed VA and AL

WTX - High-performance drill, DIN 6537



Speed
VA

Ti800

VA

Ti700

VA

Ti700

GG

Ti700

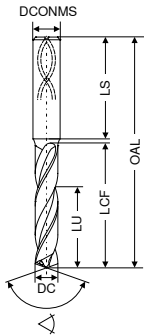
AL

DLC

Ti

DPA54

DRAGONSKIN



Type GG = Straight Fluted



HA

135°
Solid carbide
T4



HA

140°
Solid carbide
T4



HE

140°
Solid carbide
T4



HA

130°
Solid carbide
T4



HA

135°
Solid carbide
NEW T4



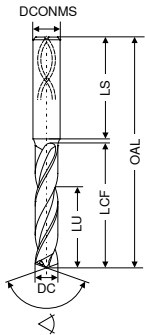
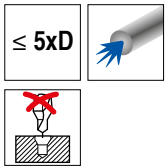
HA

140°
Solid carbide
T4

DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 773 ...	Article no. 10 745 ...	Article no. 10 746 ...	Article no. 10 749 ...	Article no. 10 791 ...	Article no. 10 787 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
5.56	6	82	44	35	36						72.44 902
5.60	6	82	44	35	36	111.79 056	98.09 056	98.09 056	74.65 056	79.03 05600	72.44 056
5.70	6	82	44	35	36	111.79 057	98.09 057	98.09 057	74.65 057	79.03 05700	72.44 057
5.75	6	82	44	35	36		98.09 916				
5.80	6	82	44	35	36	111.79 058	98.09 058	98.09 058	74.65 058	79.03 05800	72.44 058
5.90	6	82	44	35	36	111.79 059	98.09 059	98.09 059	74.65 059	79.03 05900	72.44 059
5.95	6	82	44	35	36		98.09 959				
6.00	6	82	44	35	36	111.79 060	98.09 060	98.09 060	74.65 060	79.03 06000	72.44 060
6.10	8	91	53	43	36	125.15 061	115.95 061	115.95 061	82.42 061	88.20 06100	80.83 061
6.20	8	91	53	43	36	125.15 062	115.95 062	115.95 062	82.42 062	88.20 06200	80.83 062
6.30	8	91	53	43	36	125.15 063	115.95 063	115.95 063	82.42 063	88.20 06300	80.83 063
6.35	8	91	53	43	36						80.83 903
6.40	8	91	53	43	36	125.15 064	115.95 064	115.95 064	82.42 064	88.20 06400	80.83 064
6.50	8	91	53	43	36	125.15 065	115.95 065	115.95 065	82.42 065	88.20 06500	80.83 065
6.60	8	91	53	43	36	125.15 066	115.95 066	115.95 066	82.42 066	88.20 06600	80.83 066
6.70	8	91	53	43	36	125.15 067	115.95 067	115.95 067	82.42 067	88.20 06700	80.83 067
6.80	8	91	53	43	36	125.15 068	115.95 068	115.95 068	82.42 068	88.20 06800	80.83 068
6.90	8	91	53	43	36	125.15 069	115.95 069	115.95 069	82.42 069	88.20 06900	80.83 069
7.00	8	91	53	43	36	125.15 070	115.95 070	115.95 070	82.42 070	88.20 07000	80.83 070
7.10	8	91	53	43	36	125.15 071	115.95 071	115.95 071	82.42 071	88.20 07100	80.83 071
7.20	8	91	53	43	36	125.15 072	115.95 072	115.95 072	82.42 072	88.20 07200	80.83 072
7.30	8	91	53	43	36	125.15 073	115.95 073	115.95 073	82.42 073	88.20 07300	80.83 073
7.40	8	91	53	43	36	125.15 074	115.95 074	115.95 074	82.42 074	88.20 07400	80.83 074
7.45	8	91	53	43	36		115.95 924				
7.50	8	91	53	43	36	125.15 075	115.95 075	115.95 075	82.42 075	88.20 07500	80.83 075
7.60	8	91	53	43	36	125.15 076	115.95 076	115.95 076	82.42 076	88.20 07600	80.83 076
7.70	8	91	53	43	36	125.15 077	115.95 077	115.95 077	82.42 077	88.20 07700	80.83 077
7.80	8	91	53	43	36	125.15 078	115.95 078	115.95 078	82.42 078	88.20 07800	80.83 078
7.90	8	91	53	43	36	125.15 079	115.95 079	115.95 079	82.42 079	88.20 07900	80.83 079
7.94	8	91	53	43	36						80.83 904
8.00	8	91	53	43	36	125.15 080	115.95 080	115.95 080	82.42 080	88.20 08000	80.83 080
8.10	10	103	61	49	40	181.10 081	146.02 081	146.02 081	119.16 081	103.29 08100	94.65 081
8.20	10	103	61	49	40	181.10 082	146.02 082	146.02 082	119.16 082	103.29 08200	94.65 082
8.30	10	103	61	49	40	181.10 083	146.02 083	146.02 083	119.16 083	103.29 08300	94.65 083
8.40	10	103	61	49	40	181.10 084	146.02 084	146.02 084	119.16 084	103.29 08400	94.65 084
8.50	10	103	61	49	40	181.10 085	146.02 085	146.02 085	119.16 085	103.29 08500	94.65 085
8.60	10	103	61	49	40	181.10 086	146.02 086	146.02 086	119.16 086	103.29 08600	94.65 086
8.70	10	103	61	49	40	181.10 087	146.02 087	146.02 087	119.16 087	103.29 08700	94.65 087
8.80	10	103	61	49	40	181.10 088	146.02 088	146.02 088	119.16 088	103.29 08800	94.65 088
8.90	10	103	61	49	40	181.10 089	146.02 089	146.02 089	119.16 089	103.29 08900	94.65 089
9.00	10	103	61	49	40	181.10 090	146.02 090	146.02 090	119.16 090	103.29 09000	94.65 090

Steel	○	○	○		
Stainless steel	●	●	●		●
Cast iron	○	○	○	●	○
Non ferrous metals	○	●	●	●	●
Heat resistant alloys	○	○	○		●

WTX - High-performance drill, DIN 6537



Type GG = Straight Fluted

Speed VA	VA	VA	GG	AL	Ti
Ti800	Ti700	Ti700	Ti700	DLC	DPA54
DRAGONSKIN					



HA	HA	HE	HA	HA	HA
∠ 135°	∠ 140°	∠ 140°	∠ 130°	∠ 135°	∠ 140°
Solid carbide T4	Solid carbide T4	Solid carbide T4	Solid carbide T4	Solid carbide T4	Solid carbide T4

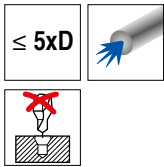
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 773 ...	Article no. 10 745 ...	Article no. 10 746 ...	Article no. 10 749 ...	Article no. 10 791 ...	Article no. 10 787 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
9.10	10	103	61	49	40	181.10 091	146.02 091	146.02 091	119.16 091	103.29 09100	94.65 091
9.20	10	103	61	49	40	181.10 092	146.02 092	146.02 092	119.16 092	103.29 09200	94.65 092
9.30	10	103	61	49	40	181.10 093	146.02 093	146.02 093	119.16 093	103.29 09300	94.65 093
9.35	10	103	61	49	40		146.02 930				
9.40	10	103	61	49	40	181.10 094	146.02 094	146.02 094	119.16 094	103.29 09400	94.65 094
9.45	10	103	61	49	40		146.02 994				
9.50	10	103	61	49	40	181.10 095	146.02 095	146.02 095	119.16 095	103.29 09500	94.65 095
9.53	10	103	61	49	40						94.65 905
9.60	10	103	61	49	40	181.10 096	146.02 096	146.02 096	119.16 096	103.29 09600	94.65 096
9.70	10	103	61	49	40	181.10 097	146.02 097	146.02 097	119.16 097	103.29 09700	94.65 097
9.80	10	103	61	49	40	181.10 098	146.02 098	146.02 098	119.16 098	103.29 09800	94.65 098
9.90	10	103	61	49	40	181.10 099	146.02 099	146.02 099	119.16 099	103.29 09900	94.65 099
10.00	10	103	61	49	40	181.10 100	146.02 100	146.02 100	119.16 100	103.29 10000	94.65 100
10.10	12	118	71	54	45						132.13 101
10.10	12	118	71	56	45	253.86 101	198.30 101	198.30 101	163.50 101	144.11 10100	
10.20	12	118	71	54	45						132.13 102
10.20	12	118	71	56	45	253.86 102	198.30 102	198.30 102	163.50 102	144.11 10200	
10.30	12	118	71	54	45						132.13 103
10.30	12	118	71	56	45	253.86 103	198.30 103	198.30 103	163.50 103	144.11 10300	
10.40	12	118	71	54	45						132.13 104
10.40	12	118	71	56	45	253.86 104	198.30 104	198.30 104	163.50 104	144.11 10400	
10.50	12	118	71	56	45	253.86 105	198.30 105	198.30 105	163.50 105	144.11 10500	
10.50	12	118	71	54	45						132.13 105
10.55	12	118	71	56	45		198.30 932				
10.60	12	118	71	56	45	253.86 106	198.30 106	198.30 106	163.50 106	144.11 10600	
10.60	12	118	71	54	45						132.13 106
10.70	12	118	71	54	45						132.13 107
10.70	12	118	71	56	45	253.86 107	198.30 107	198.30 107	163.50 107	144.11 10700	
10.80	12	118	71	54	45						132.13 108
10.80	12	118	71	56	45	253.86 108	198.30 108	198.30 108	163.50 108	144.11 10800	
10.90	12	118	71	54	45						132.13 109
10.90	12	118	71	56	45	253.86 109	198.30 109	198.30 109	163.50 109		
11.00	12	118	71	54	45						132.13 110
11.00	12	118	71	56	45	253.86 110	198.30 110	198.30 110	163.50 110	144.11 11000	
11.10	12	118	71	56	45	253.86 111	198.30 111	198.30 111	163.50 111	144.11 11100	
11.10	12	118	71	54	45						132.13 111
11.11	12	118	71	54	45						132.13 906
11.20	12	118	71	56	45	253.86 112	198.30 112	198.30 112	163.50 112	144.11 11200	
11.20	12	118	71	54	45						132.13 112
11.25	12	118	71	56	45		198.30 912				
11.30	12	118	71	56	45	253.86 113	198.30 113	198.30 113	163.50 113	144.11 11300	

Steel	○	○	○		
Stainless steel	●	●	●		●
Cast iron	○	○	○	●	○
Non ferrous metals	○	●	●	●	●
Heat resistant alloys	○	○	○		●

→ v_c Page 95-108

i Ø DC_{m7} for Type VA, Ti and GG / Ø DC_{n7} for Type Speed VA and AL

WTX - High-performance drill, DIN 6537



Speed VA
Ti800

VA
Ti700

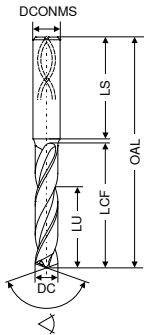
VA
Ti700

GG
Ti700

AL
DLC

Ti
DPA54

DRAGONSKIN



Type GG = Straight Fluted



HA \sphericalangle 135°

HA \sphericalangle 140°

HE \sphericalangle 140°

HA \sphericalangle 130°

HA \sphericalangle 135°

HA \sphericalangle 140°

Solid carbide T4

Solid carbide T4

Solid carbide T4

Solid carbide T4

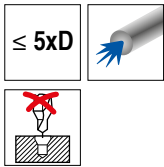
NEW Solid carbide T4

Solid carbide T4

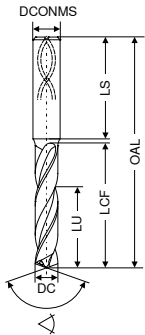
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 773 ...	Article no. 10 745 ...	Article no. 10 746 ...	Article no. 10 749 ...	Article no. 10 791 ...	Article no. 10 787 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
11.30	12	118	71	54	45						132.13 113
11.35	12	118	71	56	45		198.30 913				
11.40	12	118	71	54	45	253.86 114	198.30 114	198.30 114	163.50 114	144.11 11400	132.13 114
11.40	12	118	71	56	45	253.86 115	198.30 115	198.30 115	163.50 115	144.11 11500	
11.45	12	118	71	56	45		198.30 114				
11.50	12	118	71	56	45	253.86 115	198.30 115	198.30 115	163.50 115	144.11 11500	
11.50	12	118	71	54	45						132.13 115
11.60	12	118	71	54	45						132.13 116
11.60	12	118	71	56	45	253.86 116	198.30 116	198.30 116	163.50 116		
11.70	12	118	71	54	45						132.13 117
11.70	12	118	71	56	45	253.86 117	198.30 117	198.30 117	163.50 117	144.11 11700	
11.80	12	118	71	54	45						132.13 118
11.80	12	118	71	56	45	253.86 118	198.30 118	198.30 118	163.50 118	144.11 11800	
11.90	12	118	71	54	45						132.13 119
11.90	12	118	71	56	45	253.86 119	198.30 119	198.30 119	163.50 119		
12.00	12	118	71	54	45						132.13 120
12.00	12	118	71	56	45	253.86 120	198.30 120	198.30 120	163.50 120	144.11 12000	
12.10	14	124	77	58	45						183.78 121
12.15	14	124	77	60	45		273.27 921				
12.20	14	124	77	58	45						183.78 122
12.20	14	124	77	60	45				200.04 12200		
12.30	14	124	77	58	45						183.78 123
12.40	14	124	77	58	45						183.78 124
12.50	14	124	77	58	45						183.78 125
12.50	14	124	77	60	45	344.42 125	273.27 125	273.27 125	221.33 125	200.04 12500	
12.55	14	124	77	60	45		273.27 925				
12.60	14	124	77	58	45						183.78 126
12.60	14	124	77	60	45				200.04 12600		
12.70	14	124	77	58	45						183.78 907
12.80	14	124	77	58	45						183.78 128
12.80	14	124	77	60	45	344.42 128	273.27 128	273.27 128	221.33 128	200.04 12800	
12.90	14	124	77	58	45						183.78 129
13.00	14	124	77	58	45	344.42 130	273.27 130	273.27 130	221.33 130	200.04 13000	
13.00	14	124	77	60	45						183.78 130
13.10	14	124	77	58	45						183.78 131
13.20	14	124	77	58	45						183.78 132
13.30	14	124	77	58	45						183.78 133
13.35	14	124	77	60	45		273.27 933				
13.40	14	124	77	58	45						183.78 134
13.50	14	124	77	60	45	344.42 135	273.27 135	273.27 135	221.33 135	200.04 13500	
13.50	14	124	77	58	45						183.78 135

Steel	○	○	○		
Stainless steel	●	●	●		●
Cast iron	○	○	○	●	○
Non ferrous metals	○	●	●	●	●
Heat resistant alloys	○	○	○		●

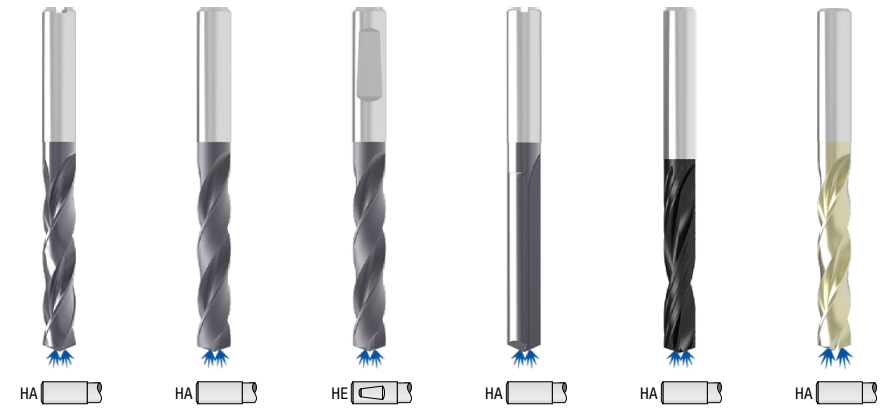
WTX - High-performance drill, DIN 6537



Speed VA	VA	VA	GG	AL	Ti
Ti800	Ti700	Ti700	Ti700	DLC	DPA54



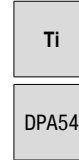
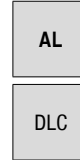
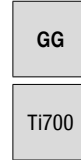
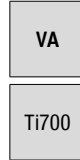
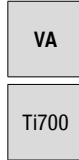
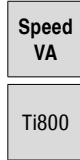
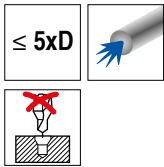
Type GG = Straight Fluted



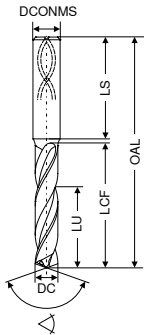
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 773 ...	Article no. 10 745 ...	Article no. 10 746 ...	Article no. 10 749 ...	Article no. 10 791 ...	Article no. 10 787 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
13.60	14	124	77	58	45						183.78 136
13.70	14	124	77	58	45						183.78 137
13.80	14	124	77	58	45						183.78 138
13.80	14	124	77	60	45	344.42 138	273.27 138	273.27 138	221.33 138	200.04 13800	183.78 139
13.90	14	124	77	58	45						183.78 139
14.00	14	124	77	60	45	344.42 140	273.27 140	273.27 140	221.33 140	200.04 14000	183.78 140
14.00	14	124	77	58	45						183.78 140
14.10	16	133	83	61	48						224.60 141
14.20	16	133	83	61	48						224.60 142
14.20	16	133	83	63	48					244.62 14200	224.60 142
14.30	16	133	83	61	48						224.60 143
14.40	16	133	83	61	48						224.60 144
14.50	16	133	83	61	48						224.60 145
14.50	16	133	83	63	48	430.52 145	344.28 145	344.28 145	273.37 145	244.62 14500	224.60 146
14.60	16	133	83	61	48						224.60 146
14.70	16	133	83	61	48						224.60 147
14.80	16	133	83	61	48						224.60 148
14.80	16	133	83	63	48	430.52 148	344.28 148	344.28 148	273.37 148	244.62 14800	224.60 149
14.90	16	133	83	61	48						224.60 149
15.00	16	133	83	61	48						224.60 150
15.00	16	133	83	63	48	430.52 150	344.28 150	344.28 150	273.37 150	244.62 15000	224.60 151
15.10	16	133	83	61	48						224.60 151
15.20	16	133	83	61	48						224.60 152
15.20	16	133	83	63	48					244.62 15200	224.60 153
15.30	16	133	83	61	48						224.60 153
15.35	16	133	83	63	48		344.28 953				224.60 154
15.40	16	133	83	61	48						224.60 154
15.50	16	133	83	61	48						224.60 155
15.50	16	133	83	63	48	430.52 155	344.28 155	344.28 155	273.37 155	244.62 15500	224.60 156
15.60	16	133	83	61	48						224.60 156
15.70	16	133	83	61	48						224.60 157
15.80	16	133	83	61	48						224.60 158
15.80	16	133	83	63	48	430.52 158	344.28 158	344.28 158	273.37 158	244.62 15800	224.60 159
15.90	16	133	83	61	48						224.60 159
16.00	16	133	83	61	48						224.60 160
16.00	16	133	83	63	48	430.52 160	344.28 160	344.28 160	273.37 160	244.62 16000	224.60 161
16.05	18	143	93	71	48		475.31 960				224.60 162
16.10	18	143	93	69	48						224.60 162
16.20	18	143	93	69	48						224.60 163
16.30	18	143	93	69	48						224.60 163
16.40	18	143	93	69	48						224.60 164

Steel	○	○	○		
Stainless steel	●	●	●		●
Cast iron	○	○	○	●	○
Non ferrous metals	○	●	●	●	●
Heat resistant alloys	○	○	○		●

WTX - High-performance drill, DIN 6537



DRAGONSKIN



Type GG = Straight Fluted



135° Solid carbide T4

140° Solid carbide T4

140° Solid carbide T4

130° Solid carbide T4

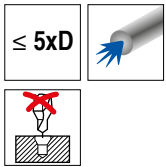
135° Solid carbide T4

140° Solid carbide T4

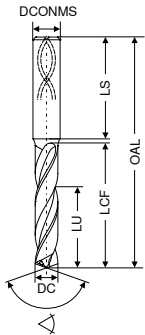
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 773 ...	Article no. 10 745 ...	Article no. 10 746 ...	Article no. 10 749 ...	Article no. 10 791 ...	Article no. 10 787 ...					
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£					
16.50	18	143	93	69	48						311.09					
16.50	18	143	93	71	48	567.11	165	475.31	165	475.31	165	358.91	165	339.62	16500	
16.60	18	143	93	69	48						311.09	166	311.09	167	311.09	168
16.70	18	143	93	69	48						311.09	168	311.09	169	311.09	170
16.80	18	143	93	69	48						311.09	170	311.09	171	311.09	172
16.80	18	143	93	71	48	567.11	168	475.31	168	475.31	168	358.91	168			
16.90	18	143	93	69	48						311.09	169	311.09	170	311.09	171
17.00	18	143	93	71	48	567.11	170	475.31	170	475.31	170	358.91	170	339.62	17000	
17.00	18	143	93	69	48						311.09	170	311.09	171	311.09	172
17.10	18	143	93	69	48						311.09	171	311.09	172	311.09	173
17.20	18	143	93	69	48						311.09	172	311.09	173	311.09	174
17.30	18	143	93	69	48						311.09	173	311.09	174	311.09	175
17.40	18	143	93	69	48						311.09	174	311.09	175	311.09	176
17.50	18	143	93	69	48						311.09	175	311.09	176	311.09	177
17.50	18	143	93	71	48	567.11	175	475.31	175	475.31	175	358.91	175	339.62	17500	
17.60	18	143	93	69	48						311.09	176	311.09	177	311.09	178
17.70	18	143	93	69	48						311.09	177	311.09	178	311.09	179
17.80	18	143	93	69	48						311.09	178	311.09	179	311.09	180
17.80	18	143	93	71	48	567.11	178	475.31	178	475.31	178	358.91	178			
17.90	18	143	93	69	48						311.09	179	311.09	180	311.09	181
18.00	18	143	93	69	48						311.09	180	311.09	181	311.09	182
18.00	18	143	93	71	48	567.11	180	475.31	180	475.31	180	358.91	180	339.62	18000	
18.10	20	153	101	75	50						384.35	181	384.35	182	384.35	183
18.20	20	153	101	75	50						384.35	182	384.35	183	384.35	184
18.30	20	153	101	75	50						384.35	183	384.35	184	384.35	185
18.40	20	153	101	75	50						384.35	184	384.35	185	384.35	186
18.50	20	153	101	75	50						384.35	185	384.35	186	384.35	187
18.50	20	153	101	77	50	733.39	185	563.20	185	563.20	185	462.00	185	419.38	18500	
18.60	20	153	101	75	50						384.35	186	384.35	187	384.35	188
18.70	20	153	101	75	50						384.35	187	384.35	188	384.35	189
18.80	20	153	101	75	50						384.35	188	384.35	189	384.35	190
18.80	20	153	101	77	50	733.39	188	563.20	188	563.20	188	462.00	188			
18.90	20	153	101	75	50						384.35	189	384.35	190	384.35	191
19.00	20	153	101	75	50						384.35	190	384.35	191	384.35	192
19.00	20	153	101	77	50	733.39	190	563.20	190	563.20	190	462.00	190	419.38	19000	
19.10	20	153	101	75	50						384.35	191	384.35	192	384.35	193
19.20	20	153	101	75	50						384.35	192	384.35	193	384.35	194
19.30	20	153	101	75	50						384.35	193	384.35	194	384.35	195
19.35	20	153	101	77	50			563.20	993							
19.40	20	153	101	75	50						384.35	194	384.35	195	384.35	196
19.50	20	153	101	77	50	733.39	195	563.20	195	563.20	195	462.00	195	419.38	19500	

Steel	○	○	○		
Stainless steel	●	●	●		●
Cast iron	○	○	○	●	○
Non ferrous metals	○	●	●	●	●
Heat resistant alloys	○	○	○		●

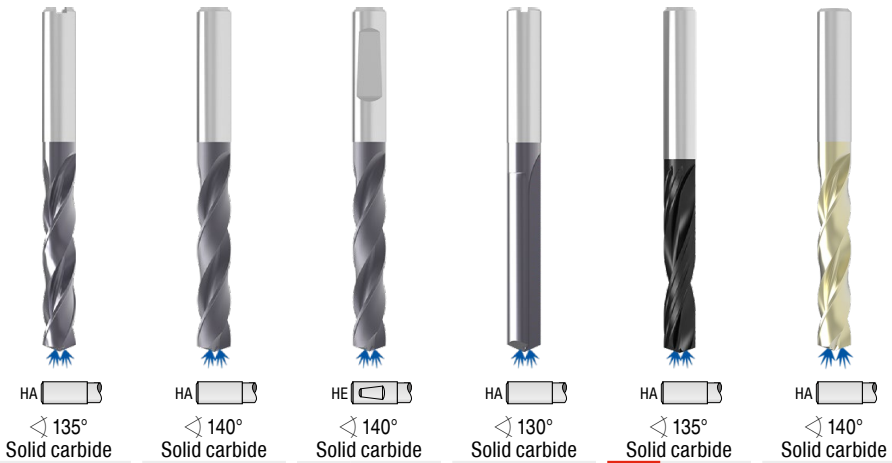
WTX – High-performance drill, DIN 6537



Speed VA	VA	VA	GG	AL	Ti
Ti800	Ti700	Ti700	Ti700	DLC	DPA54
DRAGONSKIN					



Type GG = Straight Fluted



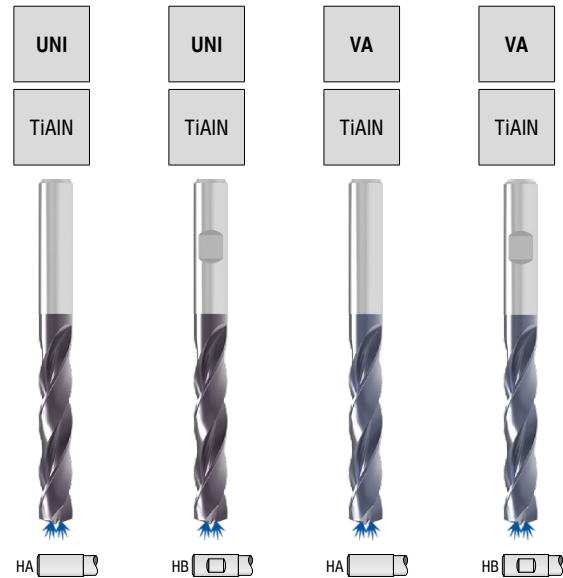
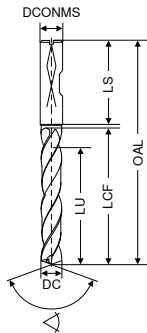
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 773 ...	Article no. 10 745 ...	Article no. 10 746 ...	Article no. 10 749 ...	Article no. 10 791 ...	Article no. 10 787 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
19.50	20	153	101	75	50						384.35 195
19.60	20	153	101	75	50						384.35 196
19.70	20	153	101	75	50						384.35 197
19.80	20	153	101	77	50	733.39 198	563.20 198	563.20 198	462.00 198		384.35 198
19.80	20	153	101	75	50						384.35 199
19.90	20	153	101	75	50						384.35 200
20.00	20	153	101	77	50	733.39 200	563.20 200	563.20 200	462.00 200	419.38 20000	

Steel	○	○	○			
Stainless steel	●	●	●			●
Cast iron	○	○	○	●	○	
Non ferrous metals	○	●	●	●	●	
Heat resistant alloys	○	○	○			●

→ v_c Page 95-108

i Ø DC_{m7} for Type VA, Ti and GG / Ø DC_{h7} for Type Speed VA and AL

WPC – High Performance Drill, DIN 6537

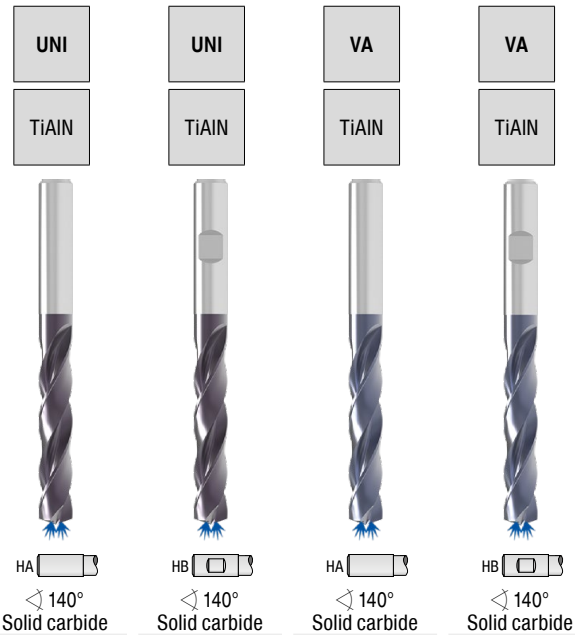
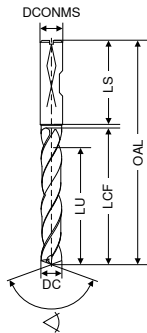


HA HB HA HB
 $\sphericalangle 140^\circ$ $\sphericalangle 140^\circ$ $\sphericalangle 140^\circ$ $\sphericalangle 140^\circ$
 Solid carbide T1 Solid carbide T1 Solid carbide T1 Solid carbide T1

DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 11 609 ...	Article no. 11 610 ...	Article no. 11 629 ...	Article no. 11 630 ...
mm	mm	mm	mm	mm	mm	£	£	£	£
1.00	4	45	8.0	6.5	30.0	34.39 010		34.39 010	
1.10	4	45	8.8	7.2	29.0	34.39 011		34.39 011	
1.20	4	45	9.6	7.8	29.0	34.39 012		34.39 012	
1.30	4	45	10.4	8.5	28.5	34.39 013		34.39 013	
1.40	4	45	11.2	9.1	28.0	34.39 014		34.39 014	
1.50	4	50	12.0	9.8	32.0	34.39 015		34.39 015	
1.60	4	50	12.8	10.4	31.0	34.39 016		34.39 016	
1.70	4	50	13.6	11.1	30.5	34.39 017		34.39 017	
1.80	4	50	14.4	11.7	30.0	34.39 018		34.39 018	
1.90	4	50	15.2	12.4	29.5	34.39 019		34.39 019	
2.00	4	50	16.0	13.0	29.0	34.39 020		34.39 020	
2.10	4	55	16.8	13.7	33.0	34.39 021		34.39 021	
2.20	4	55	17.6	14.3	32.5	34.39 022		34.39 022	
2.30	4	55	18.4	15.0	32.0	34.39 023		34.39 023	
2.40	4	55	19.2	15.6	31.5	34.39 024		34.39 024	
2.50	4	55	20.0	16.3	30.5	34.39 025		34.39 025	
2.60	4	55	20.8	16.9	30.0	34.39 026		34.39 026	
2.70	4	55	21.6	17.6	29.0	34.39 027		34.39 027	
2.80	4	55	22.4	18.2	29.0	34.39 028		34.39 028	
2.90	4	55	23.2	18.9	28.5	34.39 029		34.39 029	
3.00	6	66	28.0	23.0	36.0	34.39 030	35.00 030	34.39 030	35.00 030
3.10	6	66	28.0	23.0	36.0	34.39 031	35.00 031	34.39 031	35.00 031
3.20	6	66	28.0	23.0	36.0	34.39 032	35.00 032	34.39 032	35.00 032
3.25	6	66	28.0	23.0	36.0	34.87 890	34.87 890	47.87 03250	
3.30	6	66	28.0	23.0	36.0	34.39 033	35.00 033	34.39 033	35.00 033
3.40	6	66	28.0	23.0	36.0	34.39 034	35.00 034	34.39 034	35.00 034
3.50	6	66	28.0	23.0	36.0	34.39 035	35.00 035	34.39 035	35.00 035
3.60	6	66	28.0	23.0	36.0	34.39 036	35.00 036	34.39 036	35.00 036
3.70	6	66	28.0	23.0	36.0	34.39 037	35.00 037	34.39 037	35.00 037
3.80	6	74	36.0	29.0	36.0	34.39 038	35.00 038	34.39 038	35.00 038
3.90	6	74	36.0	29.0	36.0	34.39 039	35.00 039	34.39 039	35.00 039
4.00	6	74	36.0	29.0	36.0	34.87 040	36.33 040	34.87 040	36.33 040
4.10	6	74	36.0	29.0	36.0	34.87 041	36.33 041	34.87 041	36.33 041
4.20	6	74	36.0	29.0	36.0	34.87 042	36.33 042	34.87 042	36.33 042
4.30	6	74	36.0	29.0	36.0	34.87 043	36.33 043	34.87 043	36.33 043
4.40	6	74	36.0	29.0	36.0	34.87 044	36.33 044	34.87 044	36.33 044
4.50	6	74	36.0	29.0	36.0	34.87 045	36.33 045	34.87 045	36.33 045
4.60	6	74	36.0	29.0	36.0	34.87 046	36.33 046	34.87 046	36.33 046
4.65	6	74	36.0	29.0	36.0	34.87 900	36.33 900	34.87 900	36.33 900
4.70	6	74	36.0	29.0	36.0	34.87 047	36.33 047	34.87 047	36.33 047
4.80	6	82	44.0	35.0	36.0	34.87 048	36.33 048	34.87 048	36.33 048
4.90	6	82	44.0	35.0	36.0	34.87 049	36.33 049	34.87 049	36.33 049
5.00	6	82	44.0	35.0	36.0	34.87 050	36.33 050	34.87 050	36.33 050
5.10	6	82	44.0	35.0	36.0	34.87 051	36.33 051	34.87 051	36.33 051

Steel	●	●	○	○
Stainless steel	○	○	●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys			●	●

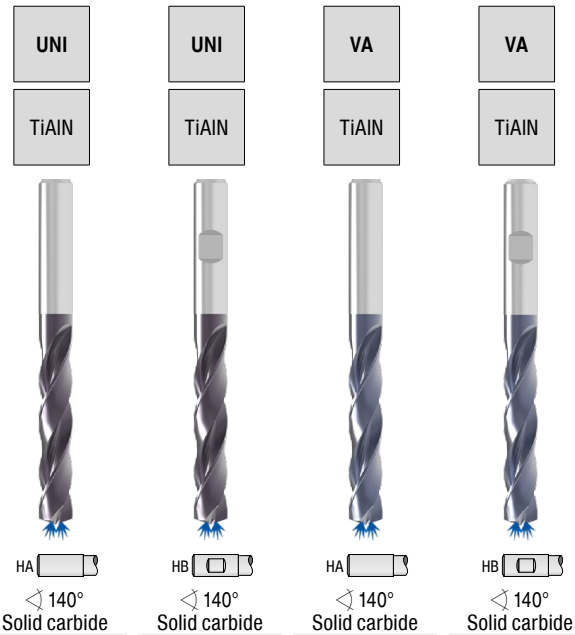
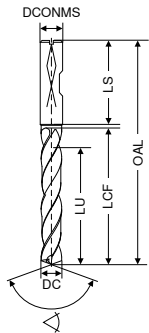
WPC – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA		UNI TiAlN HB		VA TiAlN HA		VA TiAlN HB	
						Article no. 11 609 ...	Article no. 11 610 ...	Article no. 11 629 ...	Article no. 11 630 ...				
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£	£	£
5.20	6	82	44.0	35.0	36.0	34.87 052	36.33 052	34.87 052	36.33 052				
5.30	6	82	44.0	35.0	36.0	34.87 053	36.33 053	34.87 053	36.33 053				
5.40	6	82	44.0	35.0	36.0	34.87 054	36.33 054	34.87 054	36.33 054				
5.50	6	82	44.0	35.0	36.0	34.87 055	36.33 055	34.87 055	36.33 055				
5.55	6	82	44.0	35.0	36.0	34.87 902	36.33 902	34.87 902	36.33 902				
5.60	6	82	44.0	35.0	36.0	34.87 056	36.33 056	34.87 056	36.33 056				
5.70	6	82	44.0	35.0	36.0	34.87 057	36.33 057	34.87 057	36.33 057				
5.80	6	82	44.0	35.0	36.0	34.87 058	36.33 058	34.87 058	36.33 058				
5.90	6	82	44.0	35.0	36.0	34.87 059	36.33 059	34.87 059	36.33 059				
6.00	6	82	44.0	35.0	36.0	34.87 060	36.33 060	34.87 060	36.33 060				
6.10	8	91	53.0	43.0	36.0	39.23 061	36.83 061	39.23 061	39.23 061				
6.20	8	91	53.0	43.0	36.0	39.23 062	36.83 062	39.23 062	39.23 062				
6.30	8	91	53.0	43.0	36.0	39.23 063	36.83 063	39.23 063	39.23 063				
6.40	8	91	53.0	43.0	36.0	39.23 064	36.83 064	39.23 064	39.23 064				
6.50	8	91	53.0	43.0	36.0	39.23 065	40.69 065	39.23 065	40.69 065				
6.60	8	91	53.0	43.0	36.0	39.23 066	40.69 066	39.23 066	40.69 066				
6.70	8	91	53.0	43.0	36.0	39.23 067	40.69 067	39.23 067	40.69 067				
6.80	8	91	53.0	43.0	36.0	39.23 068	40.69 068	39.23 068	40.69 068				
6.90	8	91	53.0	43.0	36.0	39.23 069	40.69 069	39.23 069	40.69 069				
7.00	8	91	53.0	43.0	36.0	39.23 070	40.69 070	39.23 070	40.69 070				
7.10	8	91	53.0	43.0	36.0	39.23 071	40.69 071	39.23 071	40.69 071				
7.20	8	91	53.0	43.0	36.0	39.23 072	40.69 072	39.23 072	40.69 072				
7.30	8	91	53.0	43.0	36.0	39.23 073	40.69 073	39.23 073	40.69 073				
7.40	8	91	53.0	43.0	36.0	39.23 074	40.69 074	39.23 074	40.69 074				
7.45	8	91	53.0	43.0	36.0	39.23 924	39.23 924	55.05 07450					
7.50	8	91	53.0	43.0	36.0	39.23 075	40.69 075	39.23 075	40.69 075				
7.55	8	91	53.0	43.0	36.0	39.23 975	40.69 975	39.23 975	40.69 975				
7.60	8	91	53.0	43.0	36.0	39.23 076	40.69 076	39.23 076	40.69 076				
7.70	8	91	53.0	43.0	36.0	39.23 077	40.69 077	39.23 077	40.69 077				
7.80	8	91	53.0	43.0	36.0	39.23 078	40.69 078	39.23 078	40.69 078				
7.90	8	91	53.0	43.0	36.0	39.23 079	40.69 079	39.23 079	40.69 079				
8.00	8	91	53.0	43.0	36.0	39.23 080	40.69 080	39.23 080	40.69 080				
8.10	10	103	61.0	49.0	40.0	45.05 081	46.49 081	45.05 081	45.05 081				
8.20	10	103	61.0	49.0	40.0	45.05 082	46.49 082	45.05 082	45.05 082				
8.30	10	103	61.0	49.0	40.0	45.05 083	46.49 083	45.05 083	45.05 083				
8.40	10	103	61.0	49.0	40.0	45.05 084	46.49 084	45.05 084	45.05 084				
8.50	10	103	61.0	49.0	40.0	45.05 085	46.49 085	45.05 085	45.05 085				
8.60	10	103	61.0	49.0	40.0	45.05 086	46.49 086	45.05 086	45.05 086				
8.70	10	103	61.0	49.0	40.0	45.05 087	46.49 087	45.05 087	45.05 087				
8.80	10	103	61.0	49.0	40.0	45.05 088	46.49 088	45.05 088	45.05 088				
8.90	10	103	61.0	49.0	40.0	45.05 089	46.49 089	45.05 089	45.05 089				
9.00	10	103	61.0	49.0	40.0	45.05 090	46.49 090	45.05 090	45.05 090				
9.10	10	103	61.0	49.0	40.0	45.05 091	46.49 091	45.05 091	45.05 091				
9.20	10	103	61.0	49.0	40.0	45.05 092	46.49 092	45.05 092	45.05 092				

Steel	●	●	○	○
Stainless steel	○	○	●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys			●	●

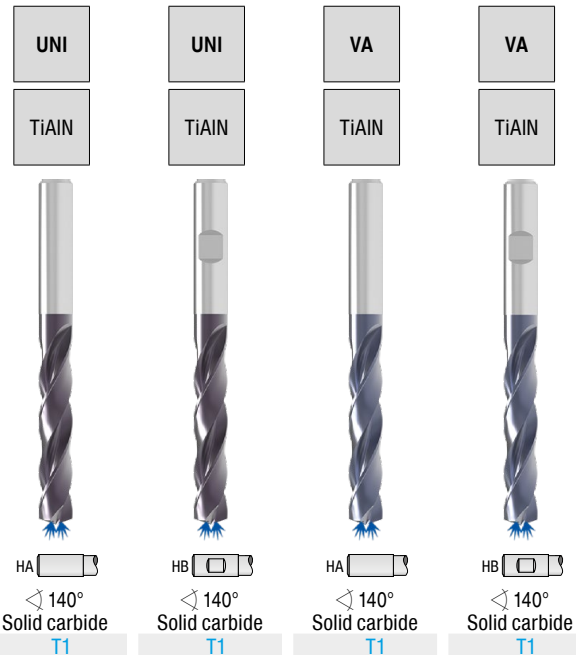
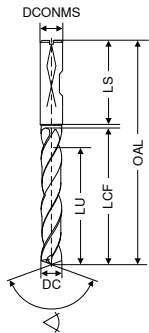
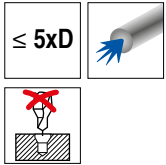
WPC – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA		UNI TiAlN HB		VA TiAlN HA		VA TiAlN HB	
						Article no. 11 609 ...	£	Article no. 11 610 ...	£	Article no. 11 629 ...	£	Article no. 11 630 ...	£
9.25	10	103	61.0	49.0	40.0	45.05	925	46.49	925	45.05	925	45.05	925
9.30	10	103	61.0	49.0	40.0	45.05	093	46.49	093	45.05	093	45.05	093
9.35	10	103	61.0	49.0	40.0	45.05	930	45.05	930	61.34	09350		
9.40	10	103	61.0	49.0	40.0	45.05	094	46.49	094	45.05	094	45.05	094
9.50	10	103	61.0	49.0	40.0	45.05	095	46.49	095	45.05	095	45.05	095
9.60	10	103	61.0	49.0	40.0	45.05	096	46.49	096	45.05	096	45.05	096
9.70	10	103	61.0	49.0	40.0	45.05	097	46.49	097	45.05	097	45.05	097
9.80	10	103	61.0	49.0	40.0	45.05	098	46.49	098	45.05	098	45.05	098
9.90	10	103	61.0	49.0	40.0	45.05	099	46.49	099	45.05	099	45.05	099
10.00	10	103	61.0	49.0	40.0	45.05	100	46.49	100	45.05	100	45.05	100
10.10	12	118	71.0	56.0	45.0	65.36	101	68.29	101	65.36	101	68.29	101
10.20	12	118	71.0	56.0	45.0	65.36	102	68.29	102	65.36	102	68.29	102
10.30	12	118	71.0	56.0	45.0	65.36	103	68.29	103	65.36	103	68.29	103
10.40	12	118	71.0	56.0	45.0	65.36	104	68.29	104	65.36	104	68.29	104
10.50	12	118	71.0	56.0	45.0	65.36	105	68.29	105	65.36	105	68.29	105
10.60	12	118	71.0	56.0	45.0	65.36	106	68.29	106	65.36	106	68.29	106
10.70	12	118	71.0	56.0	45.0	65.36	107	68.29	107	65.36	107	68.29	107
10.75	12	118	71.0	56.0	45.0	65.36	904	65.36	904	89.12	10750		
10.80	12	118	71.0	56.0	45.0	65.36	108	68.29	108	65.36	108	68.29	108
10.90	12	118	71.0	56.0	45.0	65.36	109	68.29	109	65.36	109	68.29	109
11.00	12	118	71.0	56.0	45.0	65.36	110	68.29	110	65.36	110	68.29	110
11.10	12	118	71.0	56.0	45.0	65.36	111	68.29	111	65.36	111	68.29	111
11.20	12	118	71.0	56.0	45.0	65.36	112	68.29	112	65.36	112	68.29	112
11.25	12	118	71.0	56.0	45.0	65.36	912	65.36	912	88.35	11250		
11.30	12	118	71.0	56.0	45.0	65.36	113	68.29	113	65.36	113	68.29	113
11.40	12	118	71.0	56.0	45.0	65.36	114	68.29	114	65.36	114	68.29	114
11.50	12	118	71.0	56.0	45.0	65.36	115	68.29	115	65.36	115	68.29	115
11.60	12	118	71.0	56.0	45.0	65.36	116	68.29	116	65.36	116	68.29	116
11.70	12	118	71.0	56.0	45.0	65.36	117	68.29	117	65.36	117	68.29	117
11.80	12	118	71.0	56.0	45.0	65.36	118	68.29	118	65.36	118	68.29	118
11.90	12	118	71.0	56.0	45.0	65.36	119	68.29	119	65.36	119	68.29	119
12.00	12	118	71.0	56.0	45.0	65.36	120	68.29	120	65.36	120	68.29	120
12.25	14	124	77.0	60.0	45.0	88.61	122	88.61	122	122.13	12250		
12.50	14	124	77.0	60.0	45.0	88.61	125	92.97	125	88.61	125	92.97	125
12.70	14	124	77.0	60.0	45.0	88.61	127	92.97	127	88.61	127	92.97	127
12.80	14	124	77.0	60.0	45.0	88.61	128	88.61	128				
12.90	14	124	77.0	60.0	45.0	88.61	129	88.61	129				
13.00	14	124	77.0	60.0	45.0	88.61	130	92.97	130	88.61	130	92.97	130
13.10	14	124	77.0	60.0	45.0	88.61	131	88.61	131				
13.30	14	124	77.0	60.0	45.0	88.61	133	88.61	133				
13.50	14	124	77.0	60.0	45.0	88.61	135	92.97	135	88.61	135	92.97	135
13.70	14	124	77.0	60.0	45.0	88.61	137	92.97	137	88.61	137	92.97	137
13.80	14	124	77.0	60.0	45.0	88.61	138	88.61	138				
14.00	14	124	77.0	60.0	45.0	88.61	140	92.97	140	88.61	140	92.97	140

Steel	●	●	○	○
Stainless steel	○	○	●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys			●	●

WPC – High Performance Drill, DIN 6537



DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	UNI TiAlN HA		UNI TiAlN HB		VA TiAlN HA		VA TiAlN HB	
						Article no. 11 609 ...	Article no. 11 610 ...	Article no. 11 629 ...	Article no. 11 630 ...				
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£	£	£
14.20	16	133	83.0	63.0	48.0	110.41	142	110.41	142				
14.50	16	133	83.0	63.0	48.0	110.41	145	114.76	145	110.41	145	114.76	145
14.70	16	133	83.0	63.0	48.0	110.41	147	114.76	147	110.41	147	114.76	147
14.80	16	133	83.0	63.0	48.0	110.41	148	110.41	148				
15.00	16	133	83.0	63.0	48.0	110.41	150	114.76	150	110.41	150	114.76	150
15.10	16	133	83.0	63.0	48.0	110.41	151	110.41	151				
15.25	16	133	83.0	63.0	48.0	110.41	152	110.41	152				
15.30	16	133	83.0	63.0	48.0	110.41	153	110.41	153				
15.50	16	133	83.0	63.0	48.0	110.41	155	114.76	155	110.41	155	114.76	155
15.60	16	133	83.0	63.0	48.0	110.41	156	110.41	156				
15.70	16	133	83.0	63.0	48.0	110.41	157	114.76	157	110.41	157	114.76	157
15.80	16	133	83.0	63.0	48.0	110.41	158	110.41	158				
16.00	16	133	83.0	63.0	48.0	110.41	160	114.76	160	110.41	160	114.76	160
16.50	18	143	93.0	71.0	48.0	177.24	165	183.03	165	177.24	165	183.03	165
16.80	18	143	93.0	71.0	48.0	177.24	168	177.24	168				
16.90	18	143	93.0	71.0	48.0	177.24	169	177.24	169				
17.00	18	143	93.0	71.0	48.0	177.24	170	183.03	170	177.24	170	183.03	170
17.50	18	143	93.0	71.0	48.0	177.24	175	183.03	175	177.24	175	183.03	175
17.60	18	143	93.0	71.0	48.0	177.24	176	177.24	176				
17.80	18	143	93.0	71.0	48.0	177.24	178	177.24	178				
18.00	18	143	93.0	71.0	48.0	177.24	180	183.03	180	177.24	180	183.03	180
18.50	20	153	101.0	77.0	50.0	191.76	185	199.01	185	191.76	185	199.01	185
18.80	20	153	101.0	77.0	50.0	191.76	188	191.76	188				
18.90	20	153	101.0	77.0	50.0	191.76	189	191.76	189				
19.00	20	153	101.0	77.0	50.0	191.76	190	199.01	190	191.76	190	199.01	190
19.50	20	153	101.0	77.0	50.0	191.76	195	199.01	195	191.76	195	199.01	195
19.60	20	153	101.0	77.0	50.0	191.76	196	191.76	196				
19.80	20	153	101.0	77.0	50.0	191.76	198	191.76	198				
20.00	20	153	101.0	77.0	50.0	191.76	200	199.01	200	191.76	200	199.01	200

Steel	●	●	○	○
Stainless steel	○	○	●	●
Cast iron	●	●	○	○
Non ferrous metals	○	○	●	●
Heat resistant alloys			●	●

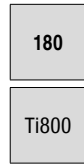
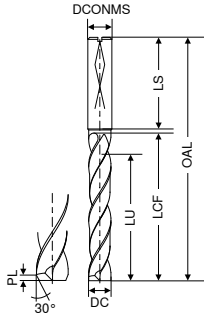
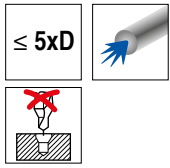
→ v_c Page 117+121

WTX – High Performance Drill, DIN 6537

▲ universal application
▲ four guidance lands

▲ polished chip flutes
▲ Type ALU 5xD (10 723 ...) on request

▲ PL = corner chamfers

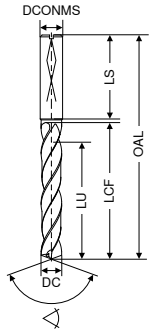
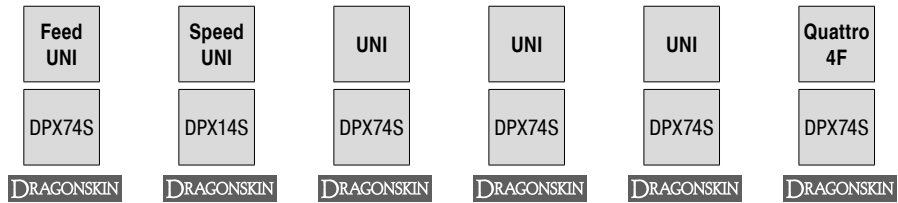
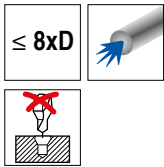


DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	PL	Article no. 10 721 ...	£
3.00	6	66	28	23	36	0.15	90.77	030
3.10	6	66	28	23	36	0.16	90.77	031
3.20	6	66	28	23	36	0.16	90.77	032
3.30	6	66	28	23	36	0.17	90.77	033
3.40	6	66	28	23	36	0.17	90.77	034
3.50	6	66	28	23	36	0.18	90.77	035
3.60	6	66	28	23	36	0.18	90.77	036
3.70	6	66	28	23	36	0.19	90.77	037
3.80	6	74	36	29	36	0.19	90.77	038
3.90	6	74	36	29	36	0.20	90.77	039
4.00	6	74	36	29	36	0.20	90.77	040
4.10	6	74	36	29	36	0.21	90.77	041
4.20	6	74	36	29	36	0.21	90.77	042
4.30	6	74	36	29	36	0.22	90.77	043
4.40	6	74	36	29	36	0.22	90.77	044
4.50	6	74	36	29	36	0.23	90.77	045
4.60	6	74	36	29	36	0.23	90.77	046
4.65	6	74	36	29	36	0.23	90.77	900
4.70	6	74	36	29	36	0.24	90.77	047
4.80	6	82	44	35	36	0.24	90.77	048
4.90	6	82	44	35	36	0.25	90.77	049
5.00	6	82	44	35	36	0.25	90.77	050
5.10	6	82	44	35	36	0.26	90.77	051
5.20	6	82	44	35	36	0.26	90.77	052
5.30	6	82	44	35	36	0.27	90.77	053
5.40	6	82	44	35	36	0.27	90.77	054
5.50	6	82	44	35	36	0.28	90.77	055
5.55	6	82	44	35	36	0.28	90.77	902
5.60	6	82	44	35	36	0.28	90.77	056
5.70	6	82	44	35	36	0.29	90.77	057
5.80	6	82	44	35	36	0.29	90.77	058
5.90	6	82	44	35	36	0.30	90.77	059
6.00	6	82	44	35	36	0.30	90.77	060
6.10	8	91	53	43	36	0.31	101.56	061
6.20	8	91	53	43	36	0.31	101.56	062
6.30	8	91	53	43	36	0.32	101.56	063
6.40	8	91	53	43	36	0.32	101.56	064
6.50	8	91	53	43	36	0.33	101.56	065
6.60	8	91	53	43	36	0.33	101.56	066
6.70	8	91	53	43	36	0.34	101.56	067
6.80	8	91	53	43	36	0.34	101.56	068
6.90	8	91	53	43	36	0.35	101.56	069
7.00	8	91	53	43	36	0.35	101.56	070
7.10	8	91	53	43	36	0.36	101.56	071
7.20	8	91	53	43	36	0.36	101.56	072
7.30	8	91	53	43	36	0.37	101.56	073
7.40	8	91	53	43	36	0.37	101.56	074
7.50	8	91	53	43	36	0.38	101.56	075
7.60	8	91	53	43	36	0.38	101.56	076
7.70	8	91	53	43	36	0.39	101.56	077
7.80	8	91	53	43	36	0.39	101.56	078
7.90	8	91	53	43	36	0.40	101.56	079
8.00	8	91	53	43	36	0.40	101.56	080
8.10	10	103	61	49	40	0.41	146.80	081

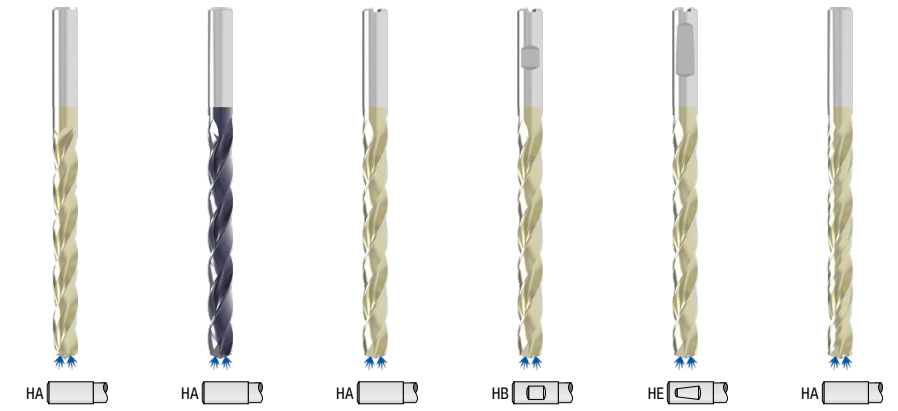
DC _{m7}	DCONMS _{h6}	OAL	LCF	LU	LS	PL	T4 Article no. 10 721 ...	£
8.20	10	103	61	49	40	0.41	146.80	082
8.30	10	103	61	49	40	0.42	146.80	083
8.40	10	103	61	49	40	0.42	146.80	084
8.50	10	103	61	49	40	0.43	146.80	085
8.60	10	103	61	49	40	0.43	146.80	086
8.70	10	103	61	49	40	0.44	146.80	087
8.80	10	103	61	49	40	0.44	146.80	088
8.90	10	103	61	49	40	0.45	146.80	089
9.00	10	103	61	49	40	0.45	146.80	090
9.10	10	103	61	49	40	0.46	146.80	091
9.20	10	103	61	49	40	0.46	146.80	092
9.30	10	103	61	49	40	0.47	146.80	093
9.40	10	103	61	49	40	0.47	146.80	094
9.50	10	103	61	49	40	0.48	146.80	095
9.60	10	103	61	49	40	0.48	146.80	096
9.70	10	103	61	49	40	0.49	146.80	097
9.80	10	103	61	49	40	0.49	146.80	098
9.90	10	103	61	49	40	0.50	146.80	099
10.00	10	103	61	49	40	0.50	146.80	100
10.10	12	116	69	54	45	0.51	205.31	101
10.20	12	116	69	54	45	0.51	205.31	102
10.30	12	116	69	54	45	0.52	205.31	103
10.40	12	116	69	54	45	0.52	205.31	104
10.50	12	116	69	54	45	0.53	205.31	105
10.60	12	116	69	54	45	0.53	205.31	106
10.70	12	116	69	54	45	0.54	205.31	107
10.80	12	116	69	54	45	0.54	205.31	108
10.90	12	116	69	54	45	0.55	205.31	109
11.00	12	116	69	54	45	0.55	205.31	110
11.10	12	116	69	54	45	0.56	205.31	111
11.20	12	116	69	54	45	0.56	205.31	112
11.30	12	116	69	54	45	0.57	205.31	113
11.40	12	116	69	54	45	0.57	205.31	114
11.50	12	116	69	54	45	0.58	205.31	115
11.60	12	116	69	54	45	0.58	205.31	116
11.70	12	116	69	54	45	0.59	205.31	117
11.80	12	116	69	54	45	0.59	205.31	118
11.90	12	116	69	54	45	0.60	205.31	119
12.00	12	116	69	54	45	0.60	205.31	120
12.50	14	122	75	58	45	0.63	279.19	125
12.80	14	122	75	58	45	0.64	279.19	128
13.00	14	122	75	58	45	0.65	279.19	130
13.50	14	122	75	58	45	0.68	279.19	135
13.80	14	122	75	58	45	0.69	279.19	138
14.00	14	122	75	58	45	0.70	279.19	140
14.50	16	131	81	61	48	0.73	348.50	145
14.80	16	131	81	61	48	0.74	348.50	148
15.00	16	131	81	61	48	0.75	348.50	150
15.50	16	131	81	61	48	0.78	348.50	155
15.80	16	131	81	61	48	0.79	348.50	158
16.00	16	131	81	61	48	0.80	348.50	160
16.50	18	141	91	69	48	0.83	459.47	165
16.80	18	141	91	69	48	0.84	459.47	168
17.00	18	141	91	69	48	0.85	459.47	170
17.50	18	141	91	69	48	0.88	459.47	175
17.80	18	141	91	69	48	0.89	459.47	178
18.00	18	141	91	69	48	0.90	459.47	180
18.50	20	151	99	75	50	0.93	594.21	185
18.80	20	151	99	75	50	0.94	594.21	188
19.00	20	151	99	75	50	0.95	594.21	190
19.50	20	151	99	75	50	0.98	594.21	195
19.80	20	151	99	75	50	0.99	594.21	198
20.00	20	151	99	75	50	1.00	594.21	200

Steel	●
Stainless steel	○
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	○
Hardened materials	○

WTX – High Performance Drill, factory standard



Feed UNI = Three Cutting Edges



HA \sphericalangle 135° Solid carbide
 HA \sphericalangle 145° Solid carbide
 HA \sphericalangle 135° Solid carbide
 HB \sphericalangle 135° Solid carbide
 HE \sphericalangle 135° Solid carbide
 HA \sphericalangle 140° Solid carbide

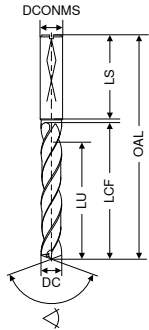
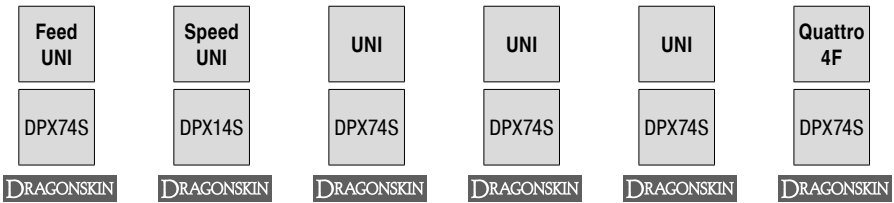
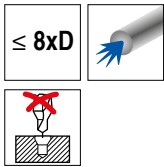
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no.	Article no.	Article no.	Article no.	Article no.	Article no.
mm	mm	mm	mm	mm	mm	NEW T4 10 794 ... £	NEW T4 10 782 ... £	T7 11 789 ... £	T7 11 790 ... £	T7 11 788 ... £	NEW T4 10 736 ... £
3.00	6	72	34	29	36		169.25 03000	123.63 030	123.63 030	123.63 030	185.53 03000
3.10	6	72	34	29	36		169.25 03100	123.63 031	123.63 031	123.63 031	185.53 03100
3.20	6	72	34	29	36		169.25 03200	123.63 032	123.63 032	123.63 032	185.53 03200
3.30	6	72	34	29	36		169.25 03300	123.63 033	123.63 033	123.63 033	185.53 03300
3.40	6	72	34	29	36		169.25 03400	123.63 034	123.63 034	123.63 034	185.53 03400
3.50	6	72	34	29	36		169.25 03500	123.63 035	123.63 035	123.63 035	185.53 03500
3.60	6	72	34	29	36		169.25 03600	123.63 036	123.63 036	123.63 036	185.53 03600
3.70	6	72	34	29	36		169.25 03700	123.63 037	123.63 037	123.63 037	185.53 03700
3.80	6	81	43	36	36		169.25 03800	123.63 038	123.63 038	123.63 038	185.53 03800
3.90	6	81	43	36	36		169.25 03900	123.63 039	123.63 039	123.63 039	185.53 03900
4.00	6	81	43	36	36		169.25 04000	123.63 040	123.63 040	123.63 040	185.53 04000
4.00	6	95	57	48	36	142.27 04000					
4.10	6	81	43	36	36		169.25 04100	123.63 041	123.63 041	123.63 041	185.53 04100
4.10	6	95	57	48	36	142.27 04100					
4.20	6	81	43	36	36		169.25 04200	123.63 042	123.63 042	123.63 042	185.53 04200
4.20	6	95	57	48	36	142.27 04200					
4.30	6	81	43	36	36		169.25 04300	123.63 043	123.63 043	123.63 043	185.53 04300
4.30	6	95	57	48	36	142.27 04300					
4.40	6	81	43	36	36		169.25 04400	123.63 044	123.63 044	123.63 044	185.53 04400
4.40	6	95	57	48	36	142.27 04400					
4.50	6	81	43	36	36		169.25 04500	123.63 045	123.63 045	123.63 045	185.53 04500
4.50	6	95	57	48	36	142.27 04500					
4.60	6	81	43	36	36		169.25 04600	123.63 046	123.63 046	123.63 046	185.53 04600
4.60	6	95	57	48	36	142.27 04600					
4.65	6	81	43	36	36		169.25 04650				
4.70	6	81	43	36	36		169.25 04700	123.63 047	123.63 047	123.63 047	185.53 04700
4.70	6	95	57	48	36	142.27 04700					
4.80	6	95	57	48	36	142.27 04800	169.25 04800	123.63 048	123.63 048	123.63 048	185.53 04800
4.90	6	95	57	48	36	142.27 04900	169.25 04900	123.63 049	123.63 049	123.63 049	185.53 04900
5.00	6	95	57	48	36	142.27 05000	169.25 05000	123.63 050	123.63 050	123.63 050	185.53 05000
5.10	6	95	57	48	36	142.27 05100	169.25 05100	123.63 051	123.63 051	123.63 051	185.53 05100
5.20	6	95	57	48	36	142.27 05200	169.25 05200	123.63 052	123.63 052	123.63 052	185.53 05200
5.30	6	95	57	48	36	142.27 05300	169.25 05300	123.63 053	123.63 053	123.63 053	185.53 05300
5.40	6	95	57	48	36	142.27 05400	169.25 05400	123.63 054	123.63 054	123.63 054	185.53 05400
5.50	6	95	57	48	36	142.27 05500	169.25 05500	123.63 055	123.63 055	123.63 055	185.53 05500
5.55	6	95	57	48	36	142.27 05550	169.25 05550				

Steel	●	●	●	●	●
Stainless steel	●	●	●	●	●
Cast iron	●	●	●	●	●
Non ferrous metals	○	○	○	○	○
Heat resistant alloys					
Hardened materials		○			○

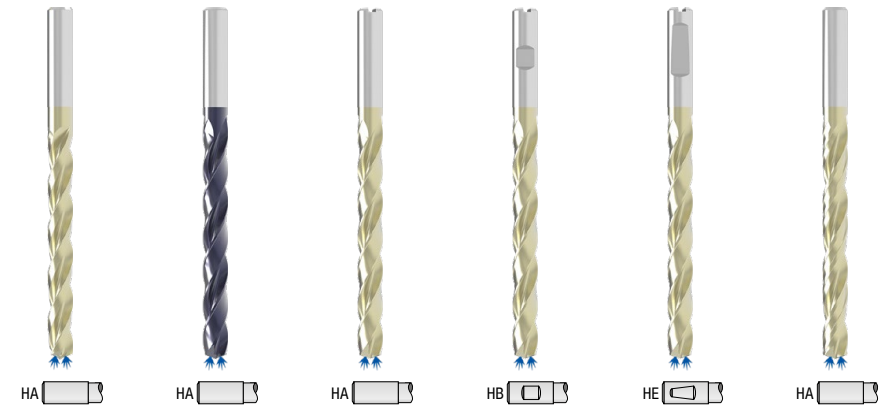
→ v_c Page 97-104

i Ø DC_{m7} for Type UNI, Feed UNI and Quattro 4F/ Ø DC_{h7} for Type Speed UNI

WTX – High Performance Drill, factory standard



Feed UNI = Three Cutting Edges



HA \sphericalangle 135° Solid carbide
 HA \sphericalangle 145° Solid carbide
 HA \sphericalangle 135° Solid carbide
 HB \sphericalangle 135° Solid carbide
 HE \sphericalangle 135° Solid carbide
 HA \sphericalangle 140° Solid carbide

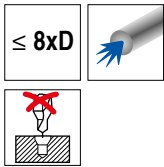
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	NEW T4 Article no. 10 794 ... £	NEW T4 Article no. 10 782 ... £	T7 Article no. 11 789 ... £	T7 Article no. 11 790 ... £	T7 Article no. 11 788 ... £	NEW T4 Article no. 10 736 ... £
5.60	6	95	57	48	36	142.27 05600	169.25 05600	123.63 056	123.63 056	123.63 056	185.53 05600
5.70	6	95	57	48	36	142.27 05700	169.25 05700	123.63 057	123.63 057	123.63 057	185.53 05700
5.80	6	95	57	48	36	142.27 05800	169.25 05800	123.63 058	123.63 058	123.63 058	185.53 05800
5.90	6	95	57	48	36	142.27 05900	169.25 05900	123.63 059	123.63 059	123.63 059	185.53 05900
6.00	6	95	57	48	36	142.27 06000	169.25 06000	123.63 060	123.63 060	123.63 060	185.53 06000
6.10	8	114	76	64	36	190.08 06100	227.13 06100	149.92 061	149.92 061	149.92 061	204.10 06100
6.20	8	114	76	64	36	190.08 06200	227.13 06200	149.92 062	149.92 062	149.92 062	204.10 06200
6.30	8	114	76	64	36	190.08 06300	227.13 06300	149.92 063	149.92 063	149.92 063	204.10 06300
6.40	8	114	76	64	36	190.08 06400	227.13 06400	149.92 064	149.92 064	149.92 064	204.10 06400
6.50	8	114	76	64	36	190.08 06500	227.13 06500	149.92 065	149.92 065	149.92 065	204.10 06500
6.60	8	114	76	64	36	190.08 06600	227.13 06600	149.92 066	149.92 066	149.92 066	204.10 06600
6.70	8	114	76	64	36	190.08 06700	227.13 06700	149.92 067	149.92 067	149.92 067	204.10 06700
6.80	8	114	76	64	36	190.08 06800	227.13 06800	149.92 068	149.92 068	149.92 068	204.10 06800
6.90	8	114	76	64	36	190.08 06900	227.13 06900	149.92 069	149.92 069	149.92 069	204.10 06900
7.00	8	114	76	64	36	190.08 07000	227.13 07000	149.92 070	149.92 070	149.92 070	204.10 07000
7.10	8	114	76	64	36	190.08 07100	227.13 07100	149.92 071	149.92 071	149.92 071	204.10 07100
7.20	8	114	76	64	36	190.08 07200	227.13 07200	149.92 072	149.92 072	149.92 072	204.10 07200
7.30	8	114	76	64	36	190.08 07300	227.13 07300	149.92 073	149.92 073	149.92 073	204.10 07300
7.40	8	114	76	64	36	190.08 07400	227.13 07400	149.92 074	149.92 074	149.92 074	204.10 07400
7.50	8	114	76	64	36	190.08 07500	227.13 07500	149.92 075	149.92 075	149.92 075	204.10 07500
7.60	8	114	76	64	36	190.08 07600	227.13 07600	149.92 076	149.92 076	149.92 076	204.10 07600
7.70	8	114	76	64	36	190.08 07700	227.13 07700	149.92 077	149.92 077	149.92 077	204.10 07700
7.80	8	114	76	64	36	190.08 07800	227.13 07800	149.92 078	149.92 078	149.92 078	204.10 07800
7.90	8	114	76	64	36	190.08 07900	227.13 07900	149.92 079	149.92 079	149.92 079	204.10 07900
8.00	8	114	76	64	36	190.08 08000	227.13 08000	149.92 080	149.92 080	149.92 080	204.10 08000
8.10	10	142	95	80	40	274.04 08100	328.09 08100	181.58 081	181.58 081	181.58 081	294.03 08100
8.20	10	142	95	80	40	274.04 08200	328.09 08200	181.58 082	181.58 082	181.58 082	294.03 08200
8.30	10	142	95	80	40	274.04 08300	328.09 08300	181.58 083	181.58 083	181.58 083	294.03 08300
8.40	10	142	95	80	40	274.04 08400	328.09 08400	181.58 084	181.58 084	181.58 084	294.03 08400
8.50	10	142	95	80	40	274.04 08500	328.09 08500	181.58 085	181.58 085	181.58 085	294.03 08500
8.60	10	142	95	80	40	274.04 08600	328.09 08600	181.58 086	181.58 086	181.58 086	294.03 08600
8.70	10	142	95	80	40	274.04 08700	328.09 08700	181.58 087	181.58 087	181.58 087	294.03 08700
8.80	10	142	95	80	40	274.04 08800	328.09 08800	181.58 088	181.58 088	181.58 088	294.03 08800
8.90	10	142	95	80	40	274.04 08900	328.09 08900	181.58 089	181.58 089	181.58 089	294.03 08900
9.00	10	142	95	80	40	274.04 09000	328.09 09000	181.58 090	181.58 090	181.58 090	294.03 09000
9.10	10	142	95	80	40	274.04 09100	328.09 09100	181.58 091	181.58 091	181.58 091	294.03 09100

Steel	●	●	●	●	●
Stainless steel	●	●	●	●	●
Cast iron	●	●	●	●	●
Non ferrous metals	○	○	○	○	○
Heat resistant alloys					
Hardened materials		○			○

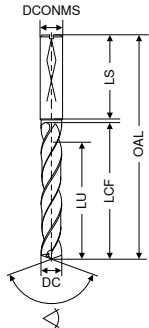
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i Ø DC_{m7} for Type UNI, Feed UNI and Quattro 4F/ Ø DC_{h7} for Type Speed UNI

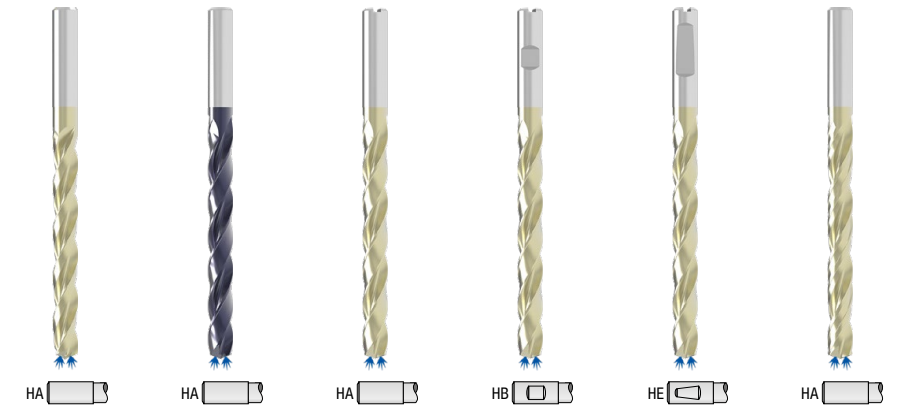
WTX – High Performance Drill, factory standard



Feed UNI	Speed UNI	UNI	UNI	UNI	Quattro 4F
DPX74S	DPX14S	DPX74S	DPX74S	DPX74S	DPX74S
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN



Feed UNI = Three Cutting Edges



HA \sphericalangle 135° Solid carbide
 HA \sphericalangle 145° Solid carbide
 HA \sphericalangle 135° Solid carbide
 HB \sphericalangle 135° Solid carbide
 HE \sphericalangle 135° Solid carbide
 HA \sphericalangle 140° Solid carbide

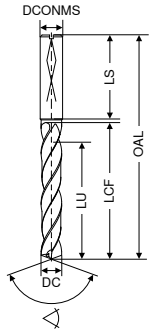
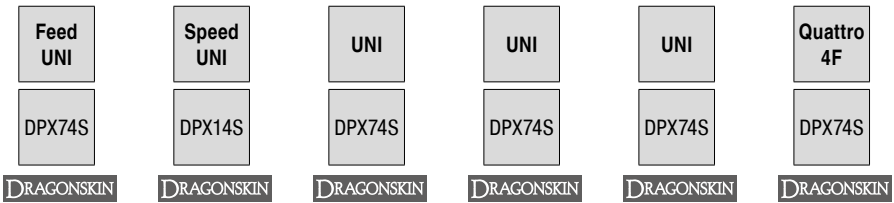
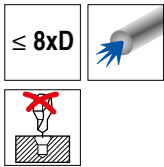
DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	NEW T4 Article no. 10 794 ...	NEW T4 Article no. 10 782 ...	T7 Article no. 11 789 ...	T7 Article no. 11 790 ...	T7 Article no. 11 788 ...	NEW T4 Article no. 10 736 ...
mm	mm	mm	mm	mm	mm	£	£	£	£	£	£
9.20	10	142	95	80	40	274.04 09200	328.09 09200	181.58 092	181.58 092	181.58 092	294.03 09200
9.30	10	142	95	80	40	274.04 09300	328.09 09300	181.58 093	181.58 093	181.58 093	294.03 09300
9.40	10	142	95	80	40	274.04 09400	328.09 09400	181.58 094	181.58 094	181.58 094	294.03 09400
9.50	10	142	95	80	40	274.04 09500	328.09 09500	181.58 095	181.58 095	181.58 095	294.03 09500
9.60	10	142	95	80	40	274.04 09600	328.09 09600	181.58 096	181.58 096	181.58 096	294.03 09600
9.70	10	142	95	80	40	274.04 09700	328.09 09700	181.58 097	181.58 097	181.58 097	294.03 09700
9.80	10	142	95	80	40	274.04 09800	328.09 09800	181.58 098	181.58 098	181.58 098	294.03 09800
9.90	10	142	95	80	40	274.04 09900	328.09 09900	181.58 099	181.58 099	181.58 099	294.03 09900
10.00	10	142	95	80	40	274.04 10000	328.09 10000	181.58 100	181.58 100	181.58 100	294.03 10000
10.10	12	162	114	96	45	354.52 10100	423.11 10100	239.69 101	239.69 101	239.69 101	377.98 10100
10.20	12	162	114	96	45	354.52 10200	423.11 10200	239.69 102	239.69 102	239.69 102	377.98 10200
10.30	12	162	114	96	45	354.52 10300	423.11 10300	239.69 103	239.69 103	239.69 103	377.98 10300
10.40	12	162	114	96	45	354.52 10400	423.11 10400	239.69 104	239.69 104	239.69 104	377.98 10400
10.50	12	162	114	96	45	354.52 10500	423.11 10500	239.69 105	239.69 105	239.69 105	377.98 10500
10.60	12	162	114	96	45	354.52 10600	423.11 10600	239.69 106	239.69 106	239.69 106	377.98 10600
10.70	12	162	114	96	45	354.52 10700	423.11 10700	239.69 107	239.69 107	239.69 107	377.98 10700
10.80	12	162	114	96	45	354.52 10800	423.11 10800	239.69 108	239.69 108	239.69 108	377.98 10800
10.90	12	162	114	96	45	354.52 10900	423.11 10900	239.69 109	239.69 109	239.69 109	377.98 10900
11.00	12	162	114	96	45	354.52 11000	423.11 11000	239.69 110	239.69 110	239.69 110	377.98 11000
11.10	12	162	114	96	45	354.52 11100	423.11 11100	239.69 111	239.69 111	239.69 111	377.98 11100
11.20	12	162	114	96	45	354.52 11200	423.11 11200	239.69 112	239.69 112	239.69 112	377.98 11200
11.30	12	162	114	96	45	354.52 11300	423.11 11300	239.69 113	239.69 113	239.69 113	377.98 11300
11.40	12	162	114	96	45	354.52 11400	423.11 11400	239.69 114	239.69 114	239.69 114	377.98 11400
11.50	12	162	114	96	45	354.52 11500	423.11 11500	239.69 115	239.69 115	239.69 115	377.98 11500
11.60	12	162	114	96	45	354.52 11600	423.11 11600	239.69 116	239.69 116	239.69 116	377.98 11600
11.70	12	162	114	96	45	354.52 11700	423.11 11700	239.69 117	239.69 117	239.69 117	377.98 11700
11.80	12	162	114	96	45	354.52 11800	423.11 11800	239.69 118	239.69 118	239.69 118	377.98 11800
11.90	12	162	114	96	45	354.52 11900	423.11 11900	239.69 119	239.69 119	239.69 119	377.98 11900
12.00	12	162	114	96	45	354.52 12000	423.11 12000	239.69 120	239.69 120	239.69 120	377.98 12000
12.50	14	178	133	112	45	425.64 12500	507.74 12500	294.03 125	294.03 125	294.03 125	518.66 12500
12.50	14	178	131	112	45			294.03 125			
12.80	14	178	133	112	45	425.64 12800	507.74 12800	294.03 128	294.03 128	294.03 128	518.66 12800
12.80	14	178	131	112	45			294.03 128			
13.00	14	178	133	112	45	425.64 13000	507.74 13000	294.03 130	294.03 130	294.03 130	518.66 13000
13.00	14	178	131	112	45			294.03 130			
13.50	14	178	131	112	45			294.03 135			

Steel	●	●	●	●	●
Stainless steel	●	●	●	●	●
Cast iron	●	●	●	●	●
Non ferrous metals	○	○	○	○	○
Heat resistant alloys					
Hardened materials		○			○

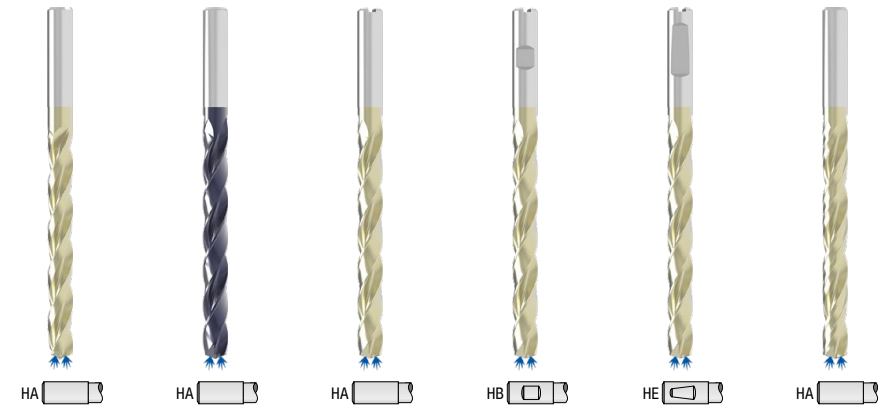
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i Ø DC_{m7} for Type UNI, Feed UNI and Quattro 4F/ Ø DC_{h7} for Type Speed UNI

WTX – High Performance Drill, factory standard



Feed UNI = Three Cutting Edges



DC _{m7/h7}	DCONMS _{h6}	OAL	LCF	LU	LS	NEW T4	NEW T4	T7	T7	T7	NEW T4
mm	mm	mm	mm	mm	mm	Article no.	Article no.	Article no.	Article no.	Article no.	Article no.
						10 794 ...	10 782 ...	11 789 ...	11 790 ...	11 788 ...	10 736 ...
						£	£	£	£	£	£
13.50	14	178	133	112	45	425.64 13500	507.74 13500		294.03 135	294.03 135	518.66 13500
13.80	14	178	133	112	45	425.64 13800	507.74 13800		294.03 138	294.03 138	518.66 13800
13.80	14	178	131	112	45			294.03 138			
14.00	14	178	133	112	45	425.64 14000	507.74 14000		294.03 140	294.03 140	518.66 14000
14.00	14	178	131	112	45			294.03 140			
14.50	16	203	152	128	48	573.74 14500	684.40 14500	364.90 145	364.90 145	364.90 145	654.11 14500
14.80	16	203	152	128	48	573.74 14800	684.40 14800	364.90 148	364.90 148	364.90 148	654.11 14800
15.00	16	203	152	128	48	573.74 15000	684.40 15000	364.90 150	364.90 150	364.90 150	654.11 15000
15.50	16	203	152	128	48	573.74 15500	684.40 15500	364.90 155	364.90 155	364.90 155	654.11 15500
15.80	16	203	152	128	48	573.74 15800	684.40 15800	364.90 158	364.90 158	364.90 158	654.11 15800
16.00	16	203	152	128	48	573.74 16000	684.40 16000	364.90 160	364.90 160	364.90 160	654.11 16000
16.50	18	222	171	144	48	804.63 16500	960.53 16500	462.26 165	462.26 165	462.26 165	939.09 16500
16.80	18	222	171	144	48	804.63 16800	960.53 16800	462.26 168	462.26 168	462.26 168	939.09 16800
17.00	18	222	171	144	48	804.63 17000	960.53 17000	462.26 170	462.26 170	462.26 170	939.09 17000
17.50	18	222	171	144	48	804.63 17500	960.53 17500	462.26 175	462.26 175	462.26 175	939.09 17500
17.80	18	222	171	144	48	804.63 17800	960.53 17800	462.26 178	462.26 178	462.26 178	939.09 17800
18.00	18	222	171	144	48	804.63 18000	960.53 18000	462.26 180	462.26 180	462.26 180	939.09 18000
18.50	20	243	190	160	50	1,013.38 18500	1,211.44 18500	542.57 185	542.57 185	542.57 185	1,184.95 18500
18.80	20	243	190	160	50	1,013.38 18800	1,211.44 18800	542.57 188	542.57 188	542.57 188	1,184.95 18800
19.00	20	243	190	160	50	1,013.38 19000	1,211.44 19000	542.57 190	542.57 190	542.57 190	1,184.95 19000
19.50	20	243	190	160	50	1,013.38 19500	1,211.44 19500	542.57 195	542.57 195	542.57 195	1,184.95 19500
19.80	20	243	190	160	50	1,013.38 19800	1,211.44 19800	542.57 198	542.57 198	542.57 198	1,184.95 19800
20.00	20	243	190	160	50	1,013.38 20000	1,211.44 20000	542.57 200	542.57 200	542.57 200	1,184.95 20000

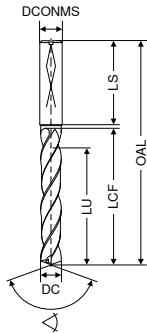
Steel	●	●	●	●	●
Stainless steel	●	●	●	●	●
Cast iron	●	●	●	●	●
Non ferrous metals	○	○	○	○	○
Heat resistant alloys					
Hardened materials		○			○

→ v. Page 97-104

i Ø DC_{m7} for Type UNI, Feed UNI and Quattro 4F/ Ø DC_{h7} for Type Speed UNI

WPC – High Performance Drill, factory standard

≤ 8xD



UNI
TiAlN



HA Solid carbide
135°

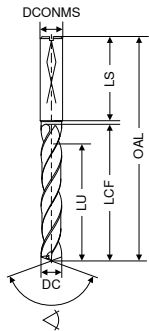
DC _{h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 11 612 ...	£
3.0	6	72	34	29	36	030	87.71
3.1	6	72	34	29	36	031	87.71
3.2	6	72	34	29	36	032	87.71
3.3	6	72	34	29	36	033	87.71
3.4	6	72	34	29	36	034	87.71
3.5	6	72	34	29	36	035	87.71
3.6	6	72	34	29	36	036	87.71
3.7	6	72	34	29	36	037	87.71
3.8	6	81	43	36	36	038	87.71
3.9	6	81	43	36	36	039	87.71
4.0	6	81	43	36	36	040	87.71
4.1	6	81	43	36	36	041	87.71
4.2	6	81	43	36	36	042	87.71
4.3	6	81	43	36	36	043	87.71
4.4	6	81	43	36	36	044	87.71
4.5	6	81	43	36	36	045	87.71
4.6	6	81	43	36	36	046	87.71
4.7	6	81	43	36	36	047	87.71
4.8	6	95	57	48	36	048	87.71
4.9	6	95	57	48	36	049	87.71
5.0	6	95	57	48	36	050	87.71
5.1	6	95	57	48	36	051	87.71
5.2	6	95	57	48	36	052	87.71
5.3	6	95	57	48	36	053	87.71
5.5	6	95	57	48	36	055	87.71
5.8	6	95	57	48	36	058	87.71
5.9	6	95	57	48	36	059	87.71
6.0	6	95	57	48	36	060	87.71
6.1	8	114	76	64	36	061	112.47
6.2	8	114	76	64	36	062	112.47
6.3	8	114	76	64	36	063	112.47
6.5	8	114	76	64	36	065	112.47
6.6	8	114	76	64	36	066	112.47
6.8	8	114	76	64	36	068	112.47
7.0	8	114	76	64	36	070	112.47
7.4	8	114	76	64	36	074	112.47
7.5	8	114	76	64	36	075	112.47
7.7	8	114	76	64	36	077	112.47
7.8	8	114	76	64	36	078	112.47
7.9	8	114	76	64	36	079	112.47
8.0	8	114	76	64	36	080	112.47
8.1	10	142	95	80	40	081	141.40
8.2	10	142	95	80	40	082	141.40
8.3	10	142	95	80	40	083	141.40
8.5	10	142	95	80	40	085	141.40
8.6	10	142	95	80	40	086	141.40
8.7	10	142	95	80	40	087	141.40
8.8	10	142	95	80	40	088	141.40
9.0	10	142	95	80	40	090	141.40
9.1	10	142	95	80	40	091	141.40
9.2	10	142	95	80	40	092	141.40
9.3	10	142	95	80	40	093	141.40
9.4	10	142	95	80	40	094	141.40

DC _{h7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 11 612 ...	£
9.5	10	142	95	80	40	095	141.40
9.7	10	142	95	80	40	097	141.40
9.8	10	142	95	80	40	098	141.40
9.9	10	142	95	80	40	099	141.40
10.0	10	142	95	80	40	100	141.40
10.2	12	162	114	96	45	102	188.17
10.5	12	162	114	96	45	105	188.17
10.8	12	162	114	96	45	108	188.17
11.0	12	162	114	96	45	110	188.17
11.2	12	162	114	96	45	112	188.17
11.5	12	162	114	96	45	115	188.17
11.8	12	162	114	96	45	118	188.17
12.0	12	162	114	96	45	120	188.17
12.5	14	178	131	112	45	125	276.15
13.0	14	178	131	112	45	130	276.15
13.5	14	178	131	112	45	135	276.15
14.0	14	178	131	112	45	140	276.15
14.5	16	203	152	128	48	145	360.75
15.0	16	203	152	128	48	150	360.75
15.5	16	203	152	128	48	155	360.75
16.0	16	203	152	128	48	160	360.75
16.5	18	222	171	144	48	165	448.72
17.0	18	222	171	144	48	170	448.72
17.5	18	222	171	144	48	175	448.72
18.0	18	222	171	144	48	180	448.72
18.5	20	243	190	160	50	185	499.95
19.0	20	243	190	160	50	190	499.95
20.0	20	243	190	160	50	200	499.95

Steel	●
Stainless steel	○
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	○

→ v_c Page 118

WTX – High Performance Drill, factory standard



Type GG = Straight Fluted



HA \sphericalangle 140° Solid carbide T4
 HA \sphericalangle 130° Solid carbide T4
 HA \sphericalangle 135° Solid carbide T4

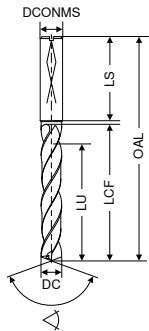
DC _{h7/m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 770 ...	Article no. 10 753 ...	Article no. NEW 10 792 ...
mm	mm	mm	mm	mm	mm	£	£	£
3.0	6	72	34	29	36	139.88 030	144.46 030	137.72 03000
3.1	6	72	34	29	36	139.88 031	144.46 031	137.72 03100
3.2	6	72	34	29	36	139.88 032	144.46 032	137.72 03200
3.3	6	72	34	29	36	139.88 033	144.46 033	137.72 03300
3.4	6	72	34	29	36	139.88 034	144.46 034	137.72 03400
3.5	6	72	34	29	36	139.88 035	144.46 035	137.72 03500
3.6	6	72	34	29	36	139.88 036	144.46 036	137.72 03600
3.7	6	72	34	29	36	139.88 037	144.46 037	137.72 03700
3.8	6	81	43	36	36	139.88 038	144.46 038	137.72 03800
3.9	6	81	43	36	36	139.88 039	144.46 039	137.72 03900
4.0	6	81	43	36	36	139.88 040	144.46 040	137.72 04000
4.1	6	81	43	36	36	139.88 041	144.46 041	137.72 04100
4.2	6	81	43	36	36	139.88 042	144.46 042	137.72 04200
4.3	6	81	43	36	36	139.88 043	144.46 043	137.72 04300
4.4	6	81	43	36	36	139.88 044	144.46 044	137.72 04400
4.5	6	81	43	36	36	139.88 045	144.46 045	137.72 04500
4.6	6	81	43	36	36	139.88 046	144.46 046	137.72 04600
4.7	6	81	43	36	36	139.88 047	144.46 047	137.72 04700
4.8	6	95	57	48	36	139.88 048	144.46 048	137.72 04800
4.9	6	95	57	48	36	139.88 049	144.46 049	137.72 04900
5.0	6	95	57	48	36	139.88 050	144.46 050	137.72 05000
5.1	6	95	57	48	36	139.88 051	144.46 051	137.72 05100
5.2	6	95	57	48	36	139.88 052	144.46 052	137.72 05200
5.3	6	95	57	48	36	139.88 053	144.46 053	137.72 05300
5.4	6	95	57	48	36	139.88 054	144.46 054	137.72 05400
5.5	6	95	57	48	36	139.88 055	144.46 055	137.72 05500
5.6	6	95	57	48	36	139.88 056	144.46 056	137.72 05600
5.7	6	95	57	48	36	139.88 057	144.46 057	137.72 05700
5.8	6	95	57	48	36	139.88 058	144.46 058	137.72 05800
5.9	6	95	57	48	36	139.88 059	144.46 059	137.72 05900
6.0	6	95	57	48	36	139.88 060	144.46 060	137.72 06000
6.1	8	114	76	64	36	168.44 061	151.09 061	173.02 06100
6.2	8	114	76	64	36	168.44 062	151.09 062	173.02 06200
6.3	8	114	76	64	36	168.44 063	151.09 063	173.02 06300
6.4	8	114	76	64	36	168.44 064	151.09 064	173.02 06400
6.5	8	114	76	64	36	168.44 065	151.09 065	173.02 06500
6.6	8	114	76	64	36	168.44 066	151.09 066	173.02 06600
6.7	8	114	76	64	36	168.44 067	151.09 067	173.02 06700
6.8	8	114	76	64	36	168.44 068	151.09 068	173.02 06800
6.9	8	114	76	64	36	168.44 069	151.09 069	173.02 06900
7.0	8	114	76	64	36	168.44 070	151.09 070	173.02 07000
7.1	8	114	76	64	36	168.44 071	151.09 071	173.02 07100
7.2	8	114	76	64	36	168.44 072	151.09 072	173.02 07200
7.3	8	114	76	64	36	168.44 073	151.09 073	173.02 07300
7.4	8	114	76	64	36	168.44 074	151.09 074	173.02 07400

Steel	○		
Stainless steel	●		
Cast iron	○	●	○
Non ferrous metals	●	●	●
Heat resistant alloys	○		

→ v_c Page 103–108

i Ø DC_{m7} for Type VA and GG / Ø DC_{h7} for Type AL

WTX – High Performance Drill, factory standard



Type GG = Straight Fluted



HA $\angle 140^\circ$ Solid carbide T4
 HA $\angle 130^\circ$ Solid carbide T4
 HA $\angle 135^\circ$ Solid carbide T4

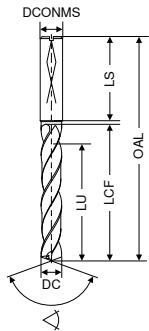
DC _{n7/m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 770 ...	Article no. 10 753 ...	Article no. NEW 10 792 ...
mm	mm	mm	mm	mm	mm	£	£	£
7.5	8	114	76	64	36	168.44 075	151.09 075	173.02 07500
7.6	8	114	76	64	36	168.44 076	151.09 076	173.02 07600
7.7	8	114	76	64	36	168.44 077	151.09 077	173.02 07700
7.8	8	114	76	64	36	168.44 078	151.09 078	173.02 07800
7.9	8	114	76	64	36	168.44 079	151.09 079	173.02 07900
8.0	8	114	76	64	36	168.44 080	151.09 080	173.02 08000
8.1	10	142	95	80	40	243.65 081	210.02 081	219.65 08100
8.2	10	142	95	80	40	243.65 082	210.02 082	219.65 08200
8.3	10	142	95	80	40	243.65 083	210.02 083	219.65 08300
8.4	10	142	95	80	40	243.65 084	210.02 084	219.65 08400
8.5	10	142	95	80	40	243.65 085	210.02 085	219.65 08500
8.6	10	142	95	80	40	243.65 086	210.02 086	219.65 08600
8.7	10	142	95	80	40	243.65 087	210.02 087	219.65 08700
8.8	10	142	95	80	40	243.65 088	210.02 088	219.65 08800
8.9	10	142	95	80	40	243.65 089	210.02 089	219.65 08900
9.0	10	142	95	80	40	243.65 090	210.02 090	219.65 09000
9.1	10	142	95	80	40	243.65 091	210.02 091	219.65 09100
9.2	10	142	95	80	40	243.65 092	210.02 092	219.65 09200
9.3	10	142	95	80	40	243.65 093	210.02 093	219.65 09300
9.4	10	142	95	80	40	243.65 094	210.02 094	219.65 09400
9.5	10	142	95	80	40	243.65 095	210.02 095	219.65 09500
9.6	10	142	95	80	40	243.65 096	210.02 096	219.65 09600
9.7	10	142	95	80	40	243.65 097	210.02 097	219.65 09700
9.8	10	142	95	80	40	243.65 098	210.02 098	219.65 09800
9.9	10	142	95	80	40	243.65 099	210.02 099	219.65 09900
10.0	10	142	95	80	40	243.65 100	210.02 100	219.65 10000
10.1	12	162	114	96	45	312.93 101	267.65 101	
10.2	12	162	114	96	45	312.93 102	267.65 102	280.37 10200
10.3	12	162	114	96	45	312.93 103	267.65 103	280.37 10300
10.4	12	162	114	96	45	312.93 104	267.65 104	280.37 10400
10.5	12	162	114	96	45	312.93 105	267.65 105	280.37 10500
10.6	12	162	114	96	45	312.93 106	267.65 106	
10.7	12	162	114	96	45	312.93 107	267.65 107	280.37 10700
10.8	12	162	114	96	45	312.93 108	267.65 108	280.37 10800
10.9	12	162	114	96	45	312.93 109	267.65 109	
11.0	12	162	114	96	45	312.93 110	267.65 110	280.37 11000
11.1	12	162	114	96	45	312.93 111	267.65 111	
11.2	12	162	114	96	45	312.93 112	267.65 112	280.37 11200
11.3	12	162	114	96	45	312.93 113	267.65 113	
11.4	12	162	114	96	45	312.93 114	267.65 114	
11.5	12	162	114	96	45	312.93 115	267.65 115	280.37 11500
11.6	12	162	114	96	45	312.93 116	267.65 116	280.37 11600
11.7	12	162	114	96	45	312.93 117	267.65 117	
11.8	12	162	114	96	45	312.93 118	267.65 118	280.37 11800
11.9	12	162	114	96	45	312.93 119	267.65 119	

Steel	<input type="radio"/>		
Stainless steel	<input checked="" type="radio"/>		
Cast iron	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Non ferrous metals	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Heat resistant alloys	<input type="radio"/>		

→ v_c Page 103–108

i Ø DC_{m7} for Type VA and GG / Ø DC_{n7} for Type AL

WTX – High Performance Drill, factory standard



Type GG = Straight Fluted



\sphericalangle 140° Solid carbide T4
 \sphericalangle 130° Solid carbide T4
 \sphericalangle 135° Solid carbide T4

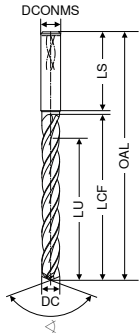
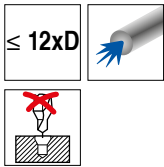
DC _{h7/m7}	DCONMS _{h6}	OAL	LCF	LU	LS	Article no. 10 770 ...	Article no. 10 753 ...	Article no. 10 792 ...
mm	mm	mm	mm	mm	mm	£	£	£
12.0	12	162	114	96	45	312.93	267.65	280.37
12.2	14	178	131	112	45			355.32
12.5	14	178	133	112	45	375.85	390.84	
12.5	14	178	131	112	45			355.32
12.8	14	178	131	112	45			355.32
12.8	14	178	133	112	45	375.85	390.84	
13.0	14	178	131	112	45			355.32
13.0	14	178	133	112	45	375.85	390.84	
13.2	14	178	131	112	45			355.32
13.5	14	178	131	112	45			355.32
13.5	14	178	133	112	45	375.85	390.84	
13.8	14	178	131	112	45			355.32
13.8	14	178	133	112	45	375.85	390.84	
14.0	14	178	133	112	45	375.85	390.84	
14.0	14	178	131	112	45			355.32
14.2	16	203	152	128	48			507.13
14.5	16	203	152	128	48	508.20	506.08	507.13
14.8	16	203	152	128	48	508.20	506.08	507.13
15.0	16	203	152	128	48	508.20	506.08	507.13
15.2	16	203	152	128	48			507.13
15.5	16	203	152	128	48	508.20	506.08	507.13
15.8	16	203	152	128	48	508.20	506.08	507.13
16.0	16	203	152	128	48	508.20	506.08	507.13
16.2	18	222	171	144	48			621.01
16.5	18	222	171	144	48	710.99	701.35	621.01
16.8	18	222	171	144	48	710.99	701.35	621.01
17.0	18	222	171	144	48	710.99	701.35	621.01
17.2	18	222	171	144	48			621.01
17.5	18	222	171	144	48	710.99	701.35	621.01
17.8	18	222	171	144	48	710.99	701.35	621.01
18.0	18	222	171	144	48	710.99	701.35	621.01
18.2	20	243	190	160	50			757.41
18.5	20	243	190	160	50	896.87	878.67	757.41
18.8	20	243	190	160	50	896.87	878.67	757.41
19.0	20	243	190	160	50	896.87	878.67	757.41
19.1	20	243	190	160	50			757.41
19.2	20	243	190	160	50			757.41
19.5	20	243	190	160	50	896.87	878.67	757.41
19.8	20	243	190	160	50	896.87	878.67	757.41
20.0	20	243	190	160	50	896.87	878.67	757.41

Steel	○
Stainless steel	●
Cast iron	○ ● ○
Non ferrous metals	● ● ●
Heat resistant alloys	○

→ v_c Page 103–108

i Ø DC_{m7} for Type VA and GG / Ø DC_{h7} for Type AL

WTX – High Performance Drill, factory standard



DC _{n7/m7}	DCONMS _{h6}	OAL	LCF	LU	LS
mm	mm	mm	mm	mm	mm
3.0	6	92	54	48	36
3.1	6	92	54	48	36
3.2	6	92	54	48	36
3.3	6	92	54	48	36
3.4	6	92	54	48	36
3.5	6	92	54	48	36
3.6	6	92	54	48	36
3.7	6	92	54	48	36
3.8	6	102	64	58	36
3.9	6	102	64	58	36
4.0	6	102	64	58	36
4.1	6	102	64	58	36
4.2	6	102	64	58	36
4.3	6	102	64	58	36
4.4	6	102	64	58	36
4.5	6	102	64	58	36
4.6	6	102	64	58	36
4.7	6	102	64	58	36
4.8	6	116	78	70	36
4.9	6	116	78	70	36
5.0	6	116	78	70	36
5.1	6	116	78	70	36
5.2	6	116	78	70	36
5.3	6	116	78	70	36
5.4	6	116	78	70	36
5.5	6	116	78	70	36
5.6	6	116	78	70	36
5.7	6	116	78	70	36
5.8	6	116	78	70	36
5.9	6	116	78	70	36
6.0	6	116	78	70	36
6.1	8	146	108	94	36
6.2	8	146	108	94	36
6.3	8	146	108	94	36
6.4	8	146	108	94	36
6.5	8	146	108	94	36
6.6	8	146	108	94	36
6.7	8	146	108	94	36
6.8	8	146	108	94	36
6.9	8	146	108	94	36
7.0	8	146	108	94	36
7.1	8	146	108	94	36
7.2	8	146	108	94	36

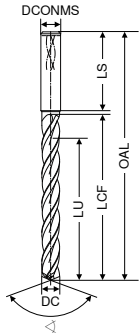
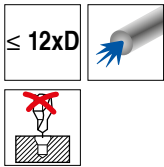
NEW T4	NEW T4	NEW T4
Article no.	Article no.	Article no.
10 796 ...	10 737 ...	10 793 ...
£	£	£
	226.62 03000	166.50 03000
	226.62 03100	166.50 03100
	226.62 03200	166.50 03200
	226.62 03300	166.50 03300
	226.62 03400	166.50 03400
	226.62 03500	166.50 03500
	226.62 03600	166.50 03600
	226.62 03700	166.50 03700
	226.62 03800	166.50 03800
	226.62 03900	166.50 03900
190.89 04000	226.62 04000	166.50 04000
190.89 04100	226.62 04100	166.50 04100
190.89 04200	226.62 04200	166.50 04200
190.89 04300	226.62 04300	166.50 04300
190.89 04400	226.62 04400	166.50 04400
190.89 04500	226.62 04500	166.50 04500
190.89 04600	226.62 04600	166.50 04600
190.89 04700	226.62 04700	166.50 04700
190.89 04800	226.62 04800	166.50 04800
190.89 04900	226.62 04900	166.50 04900
190.89 05000	226.62 05000	166.50 05000
190.89 05100	226.62 05100	166.50 05100
190.89 05200	226.62 05200	166.50 05200
190.89 05300	226.62 05300	166.50 05300
190.89 05400	226.62 05400	166.50 05400
190.89 05500	226.62 05500	166.50 05500
190.89 05600	226.62 05600	166.50 05600
190.89 05700	226.62 05700	166.50 05700
190.89 05800	226.62 05800	166.50 05800
190.89 05900	226.62 05900	166.50 05900
190.89 06000	226.62 06000	166.50 06000
245.84 06100	237.65 06100	230.12 06100
245.84 06200	237.65 06200	230.12 06200
245.84 06300	237.65 06300	230.12 06300
245.84 06400	237.65 06400	230.12 06400
245.84 06500	237.65 06500	230.12 06500
245.84 06600	237.65 06600	230.12 06600
245.84 06700	237.65 06700	230.12 06700
245.84 06800	237.65 06800	230.12 06800
245.84 06900	237.65 06900	230.12 06900
245.84 07000	237.65 07000	230.12 07000
245.84 07100	237.65 07100	230.12 07100
245.84 07200	237.65 07200	230.12 07200

Steel	●	●	
Stainless steel	●		
Cast iron	●	●	○
Non ferrous metals	○	○	●
Heat resistant alloys			

→ v_c Page 99-107

i Ø DC_{m7} for Type Feed UNI and Quattro 4F / Ø DC_{n7} for Type AL

WTX – High Performance Drill, factory standard



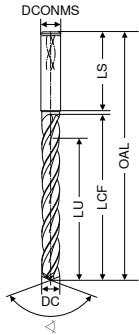
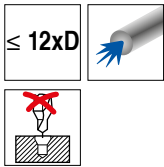
DC _{n7/m7}	DCONMS _{h6}	OAL	LCF	LU	LS	NEW T4	NEW T4	NEW T4
mm	mm	mm	mm	mm	mm	Article no.	Article no.	Article no.
						10 796 ...	10 737 ...	10 793 ...
						£	£	£
7.3	8	146	108	94	36	245.84 07300	237.65 07300	230.12 07300
7.4	8	146	108	94	36	245.84 07400	237.65 07400	230.12 07400
7.5	8	146	108	94	36	245.84 07500	237.65 07500	230.12 07500
7.6	8	146	108	94	36	245.84 07600	237.65 07600	230.12 07600
7.7	8	146	108	94	36	245.84 07700	237.65 07700	230.12 07700
7.8	8	146	108	94	36	245.84 07800	237.65 07800	230.12 07800
7.9	8	146	108	94	36	245.84 07900	237.65 07900	230.12 07900
8.0	8	146	108	94	36	245.84 08000	237.65 08000	230.12 08000
8.1	10	162	120	110	40	320.34 08100	323.80 08100	292.15 08100
8.2	10	162	120	110	40	320.34 08200	323.80 08200	292.15 08200
8.3	10	162	120	110	40	320.34 08300	323.80 08300	292.15 08300
8.4	10	162	120	110	40	320.34 08400	323.80 08400	292.15 08400
8.5	10	162	120	110	40	320.34 08500	323.80 08500	292.15 08500
8.6	10	162	120	110	40	320.34 08600	323.80 08600	292.15 08600
8.7	10	162	120	110	40	320.34 08700	323.80 08700	292.15 08700
8.8	10	162	120	110	40	320.34 08800	323.80 08800	292.15 08800
8.9	10	162	120	110	40	320.34 08900	323.80 08900	292.15 08900
9.0	10	162	120	110	40	320.34 09000	323.80 09000	292.15 09000
9.1	10	162	120	110	40	320.34 09100	323.80 09100	292.15 09100
9.2	10	162	120	110	40	320.34 09200	323.80 09200	292.15 09200
9.3	10	162	120	110	40	320.34 09300	323.80 09300	292.15 09300
9.4	10	162	120	110	40	320.34 09400	323.80 09400	292.15 09400
9.5	10	162	120	110	40	320.34 09500	323.80 09500	292.15 09500
9.6	10	162	120	110	40	320.34 09600	323.80 09600	292.15 09600
9.7	10	162	120	110	40	320.34 09700	323.80 09700	292.15 09700
9.8	10	162	120	110	40	320.34 09800	323.80 09800	292.15 09800
9.9	10	162	120	110	40	320.34 09900	323.80 09900	292.15 09900
10.0	10	162	120	110	40	320.34 10000	323.80 10000	292.15 10000
10.1	12	204	156	142	45	417.87 10100	400.48 10100	
10.2	12	204	156	142	45	417.87 10200	400.48 10200	395.86 10200
10.3	12	204	156	142	45	417.87 10300	400.48 10300	
10.4	12	204	156	142	45	417.87 10400	400.48 10400	
10.5	12	204	156	142	45	417.87 10500	400.48 10500	395.86 10500
10.6	12	204	156	142	45	417.87 10600	400.48 10600	
10.7	12	204	156	142	45	417.87 10700	400.48 10700	395.86 10700
10.8	12	204	156	142	45	417.87 10800	400.48 10800	395.86 10800
10.9	12	204	156	142	45	417.87 10900	400.48 10900	
11.0	12	204	156	142	45	417.87 11000	400.48 11000	395.86 11000
11.1	12	204	156	142	45	417.87 11100	400.48 11100	
11.2	12	204	156	142	45	417.87 11200	400.48 11200	395.86 11200
11.3	12	204	156	142	45	417.87 11300	400.48 11300	395.86 11300
11.4	12	204	156	142	45	417.87 11400	400.48 11400	
11.5	12	204	156	142	45	417.87 11500	400.48 11500	395.86 11500

Steel	●	●	
Stainless steel	●		
Cast iron	●	●	○
Non ferrous metals	○	○	●
Heat resistant alloys			

→ v_c Page 99-107

i Ø DC_{m7} for Type Feed UNI and Quattro 4F / Ø DC_{n7} for Type AL

WTX – High Performance Drill, factory standard



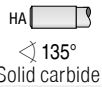
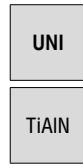
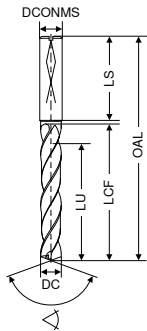
DC _{n7/m7}	DCONMS _{h6}	OAL	LCF	LU	LS	NEW T4		NEW T4		NEW T4	
						Article no.	£	Article no.	£	Article no.	£
11.6	12	204	156	142	45	10 796 ...	417.87	10 737 ...	400.48	10 793 ...	
11.7	12	204	156	142	45	10 796 ...	417.87	10 737 ...	400.48	10 793 ...	
11.8	12	204	156	142	45	10 796 ...	417.87	10 737 ...	400.48	10 793 ...	395.86
11.9	12	204	156	142	45	10 796 ...	417.87	10 737 ...	400.48	10 793 ...	
12.0	12	204	156	142	45	10 796 ...	417.87	10 737 ...	400.48	10 793 ...	
12.1	14	230	182	166	45						395.86
12.2	14	230	182	166	45						557.98
12.5	14	230	182	166	45	535.66	12500	585.57	12500	557.98	12500
12.8	14	230	182	166	45	535.66	12800	585.57	12800	557.98	12800
13.0	14	230	182	166	45	535.66	13000	585.57	13000	557.98	13000
13.2	14	230	182	166	45						557.98
13.5	14	230	182	166	45	535.66	13500	585.57	13500	557.98	13500
13.8	14	230	182	166	45	535.66	13800	585.57	13800	557.98	13800
14.0	14	230	182	166	45	535.66	14000	585.57	14000	557.98	14000
14.2	16	260	208	192	48						676.51
14.5	16	260	208	192	48	696.43	14500	765.25	14500	676.51	14500
14.7	16	260	208	192	48						676.51
14.8	16	260	208	192	48	696.43	14800	765.25	14800	676.51	14800
15.0	16	260	208	192	48	696.43	15000	765.25	15000	676.51	15000
15.2	16	260	208	192	48						676.51
15.5	16	260	208	192	48	696.43	15500	765.25	15500	676.51	15500
15.7	16	260	208	192	48						676.51
15.8	16	260	208	192	48	696.43	15800	765.25	15800	676.51	15800
16.0	16	260	208	192	48	696.43	16000	765.25	16000	676.51	16000
16.2	18	285	234	216	48						752.48
16.5	18	285	234	216	48	898.88	16500	1,057.08	16500	752.48	16500
16.8	18	285	234	216	48	898.88	16800	1,057.08	16800	752.48	16800
17.0	18	285	234	216	48	898.88	17000	1,057.08	17000	752.48	17000
17.2	18	285	234	216	48						752.48
17.5	18	285	234	216	48	898.88	17500	1,057.08	17500	752.48	17500
17.8	18	285	234	216	48	898.88	17800	1,057.08	17800	752.48	17800
18.0	18	285	234	216	48	898.88	18000	1,057.08	18000	752.48	18000
18.2	20	310	258	240	50						952.81
18.5	20	310	258	240	50	1,099.04	18500	1,335.84	18500	952.81	18500
18.7	20	310	258	240	50						952.81
18.8	20	310	258	240	50	1,099.04	18800	1,335.84	18800	952.81	18800
19.0	20	310	258	240	50	1,099.04	19000	1,335.84	19000	952.81	19000
19.2	20	310	258	240	50						952.81
19.5	20	310	258	240	50	1,099.04	19500	1,335.84	19500	952.81	19500
19.8	20	310	258	240	50	1,099.04	19800	1,335.84	19800	952.81	19800
20.0	20	310	258	240	50	1,099.04	20000	1,335.84	20000	952.81	20000

Steel	●	●	
Stainless steel	●		
Cast iron	●	●	○
Non ferrous metals	○	○	●
Heat resistant alloys			

→ v_c Page 99-107

i Ø DC_{m7} for Type Feed UNI and Quattro 4F / Ø DC_{n7} for Type AL

WPC – High Performance Drill, factory standard



DC _{h7}	DCONMS _{h6}	OAL	LCF	LU	LS	T1 Article no. 11 615 ... £	
14.0	14	230	182	166	45	377.33	140
15.0	16	260	208	192	48	498.57	150
16.0	16	260	208	192	48	498.57	160
18.0	18	285	234	216	48	570.32	180

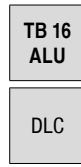
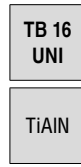
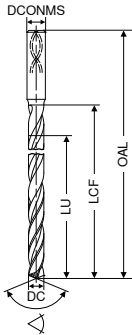
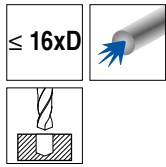
Steel	●
Stainless steel	○
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	

→ v_c Page 118

DC _{h7}	DCONMS _{h6}	OAL	LCF	LU	LS	T1 Article no. 11 615 ... £	
3.0	6	92	54	48	36	131.14	030
3.1	6	92	54	48	36	131.14	031
3.2	6	92	54	48	36	131.14	032
3.3	6	92	54	48	36	131.14	033
3.4	6	92	54	48	36	131.14	034
3.5	6	92	54	48	36	131.14	035
3.6	6	92	54	48	36	131.14	036
3.7	6	92	54	48	36	131.14	037
3.8	6	102	64	58	36	131.14	038
3.9	6	102	64	58	36	131.14	039
4.0	6	102	64	58	36	131.14	040
4.1	6	102	64	58	36	131.14	041
4.2	6	102	64	58	36	131.14	042
4.3	6	102	64	58	36	131.14	043
4.4	6	102	64	58	36	131.14	044
4.5	6	102	64	58	36	131.14	045
4.6	6	102	64	58	36	131.14	046
4.7	6	102	64	58	36	131.14	047
4.8	6	116	78	70	36	131.14	048
4.9	6	116	78	70	36	131.14	049
5.0	6	116	78	70	36	131.14	050
5.5	6	116	78	70	36	131.14	055
5.8	6	116	78	70	36	131.14	058
6.0	6	116	78	70	36	131.14	060
6.3	8	146	108	94	36	150.94	063
6.5	8	146	108	94	36	150.94	065
6.6	8	146	108	94	36	150.94	066
6.8	8	146	108	94	36	150.94	068
7.0	8	146	108	94	36	150.94	070
7.5	8	146	108	94	36	150.94	075
7.8	8	146	108	94	36	150.94	078
8.0	8	146	108	94	36	150.94	080
8.2	10	162	120	110	40	217.74	082
8.5	10	162	120	110	40	217.74	085
9.0	10	162	120	110	40	217.74	090
9.5	10	162	120	110	40	217.74	095
9.8	10	162	120	110	40	217.74	098
10.0	10	162	120	110	40	217.74	100
10.5	12	204	156	142	45	300.63	105
11.0	12	204	156	142	45	300.63	110
11.5	12	204	156	142	45	300.63	115
12.0	12	204	156	142	45	300.63	120
13.0	14	230	182	166	45	377.33	130

WTX – High performance deep hole drills

- ▲ up to 16xD without peck drilling
- ▲ pilot hole necessary
- ▲ excellent alignment precision
- ▲ secure chip evacuation



135°

135°

Solid carbide T7

Solid carbide T7

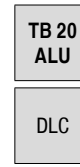
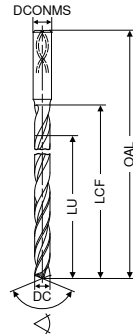
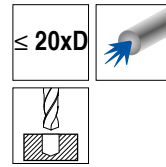
DC _{n7}	DCONMS _{n5}	OAL	LCF	LU	Article no. 11 016 ...		Article no. 11 017 ...	
mm	mm	mm	mm	mm	£		£	
2.0	4	84	42	39	100.29	020	100.29	020
2.2	4	84	42	39	100.29	022	100.29	022
2.3	4	84	42	39	100.29	023	100.29	023
2.4	4	96	54	50	111.95	024	111.95	024
2.5	4	96	54	50	111.95	025	111.95	025
2.7	4	96	54	50	111.95	027	111.95	027
2.8	4	96	54	50	111.95	028	111.95	028
3.0	6	100	60	55	142.27	030	142.27	030
3.2	6	100	60	55	142.27	032	142.27	032
3.3	6	100	60	55	142.27	033	142.27	033
3.5	6	100	60	55	142.27	035	142.27	035
3.8	6	115	75	69	148.10	038	148.10	038
4.0	6	115	75	69	148.10	040	148.10	040
4.2	6	115	75	69	159.76	042	159.76	042
4.5	6	130	90	83	159.76	045	159.76	045
4.8	6	130	90	83	169.09	048	169.09	048
5.0	6	130	90	83	169.09	050	169.09	050
5.5	6	150	108	99	176.09	055	176.09	055
5.8	6	150	108	99	176.09	058	176.09	058
6.0	6	150	108	99	176.09	060	176.09	060
6.5	8	165	125	115	187.75	065	187.75	065
6.8	8	165	125	115	201.75	068	201.75	068
7.0	8	165	125	115	201.75	070	201.75	070
7.5	8	180	140	128	226.24	075	226.24	075
7.8	8	180	140	128	226.24	078	226.24	078
8.0	8	180	140	128	226.24	080	226.24	080
8.5	10	205	160	147	249.55	085	249.55	085
8.8	10	205	160	147	277.55	088	277.55	088
9.0	10	205	160	147	277.55	090	277.55	090
9.8	10	225	180	165	277.55	098	277.55	098
10.0	10	225	180	165	277.55	100	277.55	100
10.2	12	240	190	174	310.19	102	310.19	102
10.8	12	240	190	174	310.19	108	299.71	108
11.8	12	265	215	197	310.19	118	310.19	118
12.0	12	265	215	197	310.19	120	299.71	120

Steel	●
Stainless steel	●
Cast iron	●
Non ferrous metals	●
Heat resistant alloys	●

→ v_c Page 122+124
→ Machining information: Page 134

WTX – High performance deep hole drills

- ▲ up to 20xD without peck drilling
- ▲ pilot hole necessary
- ▲ excellent alignment precision
- ▲ secure chip evacuation



135°

135°

Solid carbide T7

Solid carbide T7

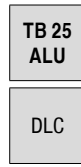
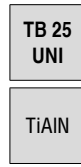
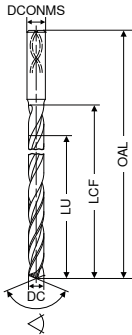
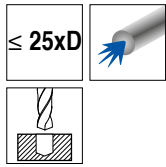
DC _{n7}	DCONMS _{n5}	OAL	LCF	LU	Article no. 11 020 ...		Article no. 11 021 ...	
mm	mm	mm	mm	mm	£		£	
2.0	4	92	50	47	106.11	020	106.11	020
2.2	4	92	50	47	102.52	022	106.11	022
2.3	4	92	50	47	106.11	023	106.11	023
2.4	4	112	70	66	114.92	024	118.94	024
2.5	4	112	70	66	118.94	025	118.94	025
2.7	4	112	70	66	114.92	027	118.94	027
2.8	4	112	70	66	118.94	028	118.94	028
3.0	6	120	80	75	153.23	030	158.59	030
3.2	6	120	80	75	158.59	032	158.59	032
3.3	6	120	80	75	153.23	033	158.59	033
3.5	6	120	80	75	158.59	035	158.59	035
3.8	6	130	90	84	159.99	038	165.58	038
4.0	6	130	90	84	165.58	040	165.58	040
4.2	6	160	110	103	171.25	042	177.25	042
4.5	6	160	110	103	177.25	045	177.25	045
4.8	6	160	120	113	181.39	048	187.75	048
5.0	6	160	120	113	187.75	050	187.75	050
5.5	6	185	140	131	189.29	055	195.92	055
5.8	6	185	140	131	195.92	058	195.92	058
6.0	6	185	140	131	195.92	060	195.92	060
6.5	8	210	160	150	208.74	065	208.74	065
6.8	8	210	160	150	225.07	068	225.07	068
7.0	8	210	160	150	225.07	070	225.07	070
7.5	8	230	180	168	250.72	075	250.72	075
7.8	8	230	180	168	250.72	078	250.72	078
8.0	8	230	180	168	250.72	080	250.72	080
8.5	10	260	195	182	276.37	085	276.37	085
8.8	10	290	230	216	310.19	088	310.19	088
9.0	10	290	230	216	310.19	090	310.19	090
9.8	10	290	230	216	310.19	098	310.19	098
10.0	10	290	230	216	310.19	100	310.19	100
10.2	12	315	268	251	340.51	102	340.51	102
10.8	12	315	268	251	340.51	108	340.51	108
11.8	12	315	268	251	340.51	118	340.51	118
12.0	12	315	268	251	340.51	120	340.51	120

Steel	●
Stainless steel	●
Cast iron	●
Non ferrous metals	●
Heat resistant alloys	●

→ v_c Page 122+124
→ Machining information: Page 134

WTX – High performance deep hole drills

- ▲ up to 25xD without peck drilling
- ▲ pilot hole necessary
- ▲ excellent alignment precision
- ▲ secure chip evacuation



135°
Solid carbide
T7

135°
Solid carbide
T7

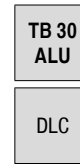
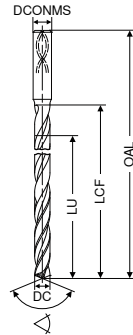
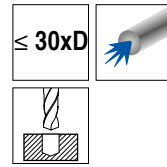
DC _{n7}	DCONMS _{n5}	OAL	LCF	LU	Article no. 11 025 ...		Article no. 11 026 ...	
mm	mm	mm	mm	mm	£		£	
2.0	4	104	60	57	113.12	020	113.12	020
2.2	4	104	60	57	113.12	022	113.12	022
2.3	4	104	60	57	113.12	023	113.12	023
2.4	4	125	80	76	128.28	024	128.28	024
2.5	4	125	80	76	128.28	025	128.28	025
2.7	4	125	80	76	128.28	027	128.28	027
2.8	4	125	80	76	128.28	028	128.28	028
3.0	6	135	98	93	184.25	030	184.25	030
3.2	6	135	98	93	184.25	032	184.25	032
3.3	6	150	110	105	204.07	033	202.92	033
3.5	6	150	110	105	204.07	035	202.92	035
3.8	6	160	120	114	209.90	038	209.90	038
4.0	6	160	120	114	209.90	040	209.90	040
4.2	6	160	120	114	209.90	042	209.90	042
4.5	6	180	135	128	219.24	045	219.24	045
4.8	6	180	135	128	219.24	048	219.24	048
5.0	6	180	135	128	219.24	050	219.24	050
5.5	6	205	168	159	235.56	055	235.56	055
5.8	6	205	168	159	235.56	058	235.56	058
6.0	6	205	168	159	235.56	060	235.56	060
6.5	8	240	200	190	262.39	065	262.39	065
6.8	8	240	200	190	262.39	068	262.39	068
7.0	8	240	200	190	262.39	070	262.39	070
7.5	8	260	220	208	291.54	075	291.54	075
7.8	8	260	220	208	291.54	078	291.54	078
8.0	8	260	220	208	291.54	080	291.54	080
8.5	10	285	240	227	328.84	085	328.84	085
8.8	10	310	268	254	356.84	088	356.84	088
9.0	10	310	268	254	356.84	090	356.84	090
9.8	10	310	268	254	356.84	098	356.84	098
10.0	10	310	268	254	356.84	100	356.84	100
10.2	12	375	325	308	429.15	102	429.15	102
10.8	12	375	325	308	429.15	108	429.15	108
11.8	12	375	325	308	429.15	118	429.15	118
12.0	12	375	325	308	429.15	120	429.15	120

Steel	●
Stainless steel	●
Cast iron	●
Non ferrous metals	●
Heat resistant alloys	

→ v_c Page 122+124
→ Machining information: Page 134

WTX – High performance deep hole drills

- ▲ up to 30xD without peck drilling
- ▲ pilot hole necessary
- ▲ excellent alignment precision
- ▲ secure chip evacuation



135°
Solid carbide
T7

135°
Solid carbide
T7

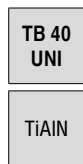
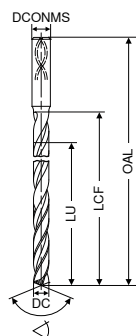
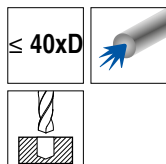
DC _{n7}	DCONMS _{n5}	OAL	LCF	LU	Article no. 11 030 ...		Article no. 11 031 ...	
mm	mm	mm	mm	mm	£		£	
2.0	4	115	70	67	120.12	020	120.12	020
2.2	4	115	70	67	120.12	022	120.12	022
2.3	4	115	70	67	120.12	023	120.12	023
2.4	4	138	90	86	139.94	024	139.94	024
2.5	4	138	90	86	139.94	025	139.94	025
2.7	4	138	90	86	139.94	027	139.94	027
2.8	4	138	90	86	139.94	028	139.94	028
3.0	6	150	105	100	235.56	030	235.56	030
3.2	6	150	105	100	235.56	032	235.56	032
3.3	6	185	135	130	242.57	033	242.57	033
3.5	6	185	135	130	242.57	035	242.57	035
3.8	6	185	135	130	242.57	038	242.57	038
4.0	6	185	135	130	242.57	040	242.57	040
4.2	6	185	135	130	242.57	042	242.57	042
4.5	6	215	165	158	249.55	045	249.55	045
4.8	6	215	165	158	249.55	048	249.55	048
5.0	6	215	165	158	249.55	050	249.55	050
5.5	6	230	180	171	261.22	055	261.22	055
5.8	6	230	180	171	261.22	058	261.22	058
6.0	6	230	180	171	261.22	060	261.22	060
6.5	8	280	215	205	286.87	065	286.87	065
6.8	8	280	230	220	299.69	068	299.69	068
7.0	8	280	230	220	299.69	070	299.69	070
7.5	8	280	230	220	299.69	075	299.69	075
7.8	8	315	265	253	333.51	078	333.51	078
8.0	8	315	265	253	333.51	080	333.51	080
8.5	10	350	295	282	384.84	085	384.84	085
8.8	10	380	330	316	404.65	088	404.65	088
9.0	10	380	330	316	404.65	090	404.65	090
9.8	10	380	330	316	404.65	098	404.65	098
10.0	10	380	330	316	404.65	100	404.65	100
10.2	12	430	380	365	516.61	102	516.61	102
10.8	12	430	380	365	516.61	108	516.61	108
11.8	12	430	380	365	516.61	118	516.61	118
12.0	12	430	380	365	516.61	120	516.61	120

Steel	●
Stainless steel	●
Cast iron	●
Non ferrous metals	●
Heat resistant alloys	

→ v_c Page 122+124
→ Machining information: Page 134

WTX – High performance deep hole drills

- ▲ up to 40xD without peck drilling
- ▲ pilot hole necessary
- ▲ excellent alignment precision
- ▲ secure chip evacuation



135°

Solid carbide

T7

DC _{fg6}	DCONMS _{h5}	OAL	LCF	LU	Article no.	
mm	mm	mm	mm	mm	11 040 ...	£
3.0	6	195	150	146		299.69 030
4.0	6	220	175	169		299.69 040
4.2	6	245	200	194		331.19 042
4.5	6	245	200	194		331.19 045
4.8	6	275	230	223		353.34 048
5.0	6	275	230	223		353.34 050
5.5	6	305	260	251		380.16 055
5.8	6	305	260	251		380.16 058
6.0	6	305	260	251		380.16 060
6.5	8	345	300	290		409.32 065
6.8	8	345	300	290		409.32 068
7.0	8	345	300	290		409.32 070
7.5	8	385	340	328		454.79 075
7.8	8	385	340	328		454.79 078
8.0	8	385	340	328		454.79 080
8.5	10	430	380	367		501.44 085
8.8	10	430	380	367		501.44 088
9.0	10	430	380	367		501.44 090

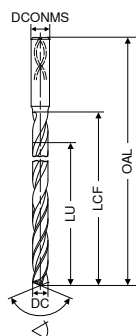
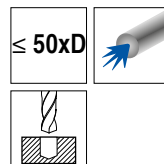
Steel	●
Stainless steel	●
Cast iron	●
Non ferrous metals	
Heat resistant alloys	

→ v_c Page 123

→ Machining information: Page 134

WTX – High performance deep hole drills

- ▲ up to 50xD without peck drilling
- ▲ pilot hole necessary
- ▲ excellent alignment precision
- ▲ secure chip evacuation



135°

Solid carbide

T7

DC _{fg6}	DCONMS _{h5}	OAL	LCF	LU	Article no.	
mm	mm	mm	mm	mm	11 050 ...	£
3.0	6	220	175	170		406.99 030
4.0	6	265	220	214		406.99 040
4.2	6	290	245	238		452.46 042
4.5	6	290	245	238		452.46 045
4.8	6	320	275	268		510.77 048
5.0	6	320	275	268		510.77 050
5.5	6	355	310	302		574.91 055
5.8	6	355	315	306		583.08 058
6.0	6	355	315	306		583.08 060
6.5	8	395	350	340		648.38 065
6.8	8	425	380	370		703.19 068

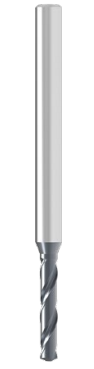
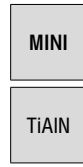
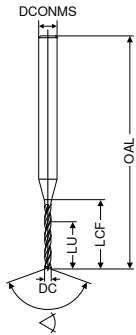
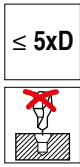
Steel	●
Stainless steel	●
Cast iron	●
Non ferrous metals	
Heat resistant alloys	

→ v_c Page 123

→ Machining information: Page 134

WTX – High Performance Drills

▲ standard shank Ø 3 mm h6 for use in heat shrink adapters



140°

Solid carbide

T7

Article no.

11 770 ...

£

DC _{+0,004}	DCONMS _{h6}	OAL	LCF	LU	Article no.	£
mm	mm	mm	mm	mm	11 770 ...	
0.10	3	38	1.2	1.0	37.96	00100
0.15	3	38	2.0	1.7	33.52	00150
0.20	3	38	3.5	3.0	29.31	00200
0.25	3	38	3.5	3.0	24.97	00250
0.30	3	38	5.5	5.0	20.53	00300
0.35	3	38	5.5	5.0	20.53	00350
0.40	3	38	7.0	6.0	20.53	00400
0.45	3	38	7.0	6.0	20.53	00450
0.50	3	38	7.0	6.0	20.53	00500
0.55	3	38	7.0	6.0	20.53	00550
0.60	3	38	7.0	6.0	20.53	00600
0.65	3	38	7.0	6.0	20.53	00650
0.70	3	38	10.5	8.0	20.53	00700
0.75	3	38	10.5	8.0	20.53	00750
0.80	3	38	10.5	8.0	20.53	00800
0.85	3	38	10.5	8.0	20.53	00850
0.90	3	38	10.5	8.0	20.53	00900
0.95	3	38	10.5	8.0	20.53	00950
0.97	3	38	10.5	8.0	20.53	00970
0.98	3	38	10.5	8.0	20.53	00980
0.99	3	38	10.5	8.0	20.53	00990
1.00	3	38	10.5	8.0	20.53	01000
1.01	3	38	10.5	8.0	20.53	01010
1.02	3	38	10.5	8.0	20.53	01020
1.03	3	38	10.5	8.0	20.53	01030
1.05	3	38	10.5	8.0	20.53	01050
1.10	3	38	10.5	8.0	20.53	01100
1.15	3	38	10.5	8.0	20.53	01150
1.20	3	38	10.5	8.0	20.53	01200
1.25	3	38	10.5	8.0	20.53	01250
1.30	3	38	10.5	8.0	20.53	01300
1.35	3	38	10.5	8.0	20.53	01350
1.40	3	38	10.5	8.0	20.53	01400
1.45	3	38	10.5	8.0	20.53	01450
1.47	3	38	10.5	8.0	20.53	01470
1.48	3	38	10.5	8.0	20.53	01480
1.49	3	38	10.5	8.0	20.53	01490
1.50	3	38	10.5	8.0	20.53	01500
1.51	3	38	10.5	8.0	20.53	01510
1.52	3	38	10.5	8.0	20.53	01520
1.53	3	38	10.5	8.0	20.53	01530
1.55	3	38	10.5	8.0	20.53	01550
1.60	3	38	10.5	8.0	20.53	01600
1.65	3	38	10.5	8.0	20.53	01650

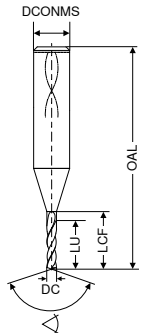
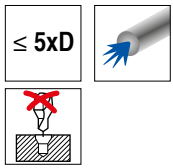
DC _{+0,004}	DCONMS _{h6}	OAL	LCF	LU	Article no.	£
mm	mm	mm	mm	mm	11 770 ...	
1.70	3	38	10.5	8.0	20.53	01700
1.75	3	38	10.5	8.0	20.53	01750
1.80	3	38	10.5	8.0	20.53	01800
1.85	3	38	12.0	8.0	20.53	01850
1.90	3	38	12.0	8.0	20.53	01900
1.95	3	38	12.0	8.0	20.53	01950
1.97	3	38	12.0	8.0	20.53	01970
1.98	3	38	12.0	8.0	20.53	01980
1.99	3	38	12.0	8.0	20.53	01990
2.00	3	42	13.0	9.0	29.44	02000
2.01	3	42	13.0	9.0	29.44	02010
2.02	3	42	13.0	9.0	29.44	02020
2.03	3	42	13.0	9.0	29.44	02030
2.05	3	42	13.0	9.0	29.44	02050
2.10	3	42	13.0	9.0	29.44	02100
2.15	3	42	13.0	9.0	29.44	02150
2.20	3	46	15.0	10.0	33.15	02200
2.25	3	46	15.0	10.0	33.15	02250
2.30	3	46	15.0	10.0	33.15	02300
2.35	3	46	15.0	10.0	33.15	02350
2.40	3	46	15.0	10.0	33.15	02400
2.45	3	46	15.0	10.0	33.15	02450
2.47	3	46	15.0	10.0	33.15	02470
2.48	3	46	15.0	10.0	33.15	02480
2.49	3	46	15.0	10.0	33.15	02490
2.50	3	46	15.0	10.0	33.15	02500
2.51	3	46	15.0	10.0	33.15	02510
2.52	3	46	15.0	10.0	33.15	02520
2.53	3	46	15.0	10.0	33.15	02530
2.60	3	46	15.0	10.0	33.15	02600
2.70	3	46	15.0	10.0	33.15	02700
2.80	3	46	15.0	10.0	33.15	02800
2.90	3	46	15.0	10.0	33.15	02900

Material	Availability
Steel	●
Stainless steel	○
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	○

→ v. Page 110

WTX – High Performance Drill, factory standard

- ▲ WTX flute geometry, optimises swarf control and chip evacuation
- ▲ all diameters with standard shank 3 mm



~HA
140°
Solid carbide
T4

DC ^{+0,004}	DCONMS ^{-0,002/-0,005}	OAL	LCF	LU	Article no.	
mm	mm	mm	mm	mm	10 775 ...	£
1.0	3	55	8	5	129.73	010
1.1	3	55	12	8	129.73	011
1.2	3	55	12	8	129.73	012
1.3	3	55	12	8	129.73	013
1.4	3	55	12	8	129.73	014
1.5	3	55	12	8	129.73	015
1.6	3	68	16	11	138.29	016
1.7	3	68	16	11	138.29	017
1.8	3	68	16	11	138.29	018
1.9	3	68	16	11	138.29	019
2.0	3	68	16	11	138.29	020
2.1	3	74	20	14	141.78	021
2.2	3	74	20	14	141.78	022
2.3	3	74	20	14	141.78	023
2.4	3	74	20	14	141.78	024
2.5	3	74	20	14	141.78	025
2.6	3	81	23	16	147.00	026
2.7	3	81	23	16	147.00	027
2.8	3	81	23	16	147.00	028
2.9	3	81	23	16	147.00	029

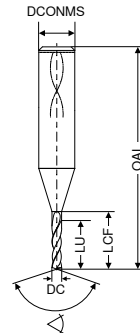
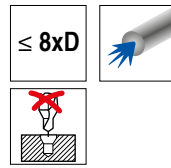
Steel	●
Stainless steel	●
Cast iron	●
Non ferrous metals	●
Heat resistant alloys	●

→ v_c Page 109

i Coolant pressure 20–50 bar

WTX – High Performance Drill, factory standard

- ▲ WTX flute geometry, optimises swarf control and chip evacuation
- ▲ all diameters with standard shank 3 mm



~HA
140°
Solid carbide
T4

DC ^{+0,004}	DCONMS ^{-0,002/-0,005}	OAL	LCF	LU	Article no.	
mm	mm	mm	mm	mm	10 778 ...	£
1.0	3	55	11	8	138.29	010
1.1	3	55	17	13	138.29	011
1.2	3	55	17	13	138.29	012
1.3	3	55	17	13	138.29	013
1.4	3	55	17	13	138.29	014
1.5	3	55	17	13	138.29	015
1.6	3	68	22	17	147.00	016
1.7	3	68	22	17	147.00	017
1.8	3	68	22	17	147.00	018
1.9	3	68	22	17	147.00	019
2.0	3	68	22	17	147.00	020
2.1	3	74	28	22	150.36	021
2.2	3	74	28	22	150.36	022
2.3	3	74	28	22	150.36	023
2.4	3	74	28	22	150.36	024
2.5	3	74	28	22	150.36	025
2.6	3	81	32	25	155.43	026
2.7	3	81	32	25	155.43	027
2.8	3	81	32	25	155.43	028
2.9	3	81	32	25	155.43	029

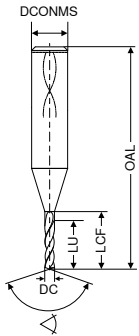
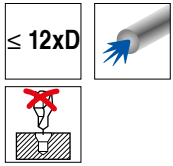
Steel	●
Stainless steel	●
Cast iron	●
Non ferrous metals	●
Heat resistant alloys	●

→ v_c Page 109

i Coolant pressure 20–50 bar

WTX – High Performance Drill, factory standard

- ▲ WTX flute geometry guarantees optimum swarf control and chip evacuation
- ▲ all diameters with standard shank 3 mm



MINI
Ti700



~HA
140°
Solid carbide
T4

DC _{+0,004}	DCONMS _{-0,002/-0,005}	OAL	LCF	LU	Article no.	£
1.0	3	55	15	12	10 779 ...	155.43 010
1.1	3	55	23	19		155.43 011
1.2	3	55	23	19		155.43 012
1.3	3	55	23	19		155.43 013
1.4	3	55	23	19		155.43 014
1.5	3	55	23	19		155.43 015
1.6	3	68	30	25		164.14 016
1.7	3	68	30	25		164.14 017
1.8	3	68	30	25		164.14 018
1.9	3	68	30	25		164.14 019
2.0	3	68	30	25		164.14 020
2.1	3	74	38	32		167.64 021
2.2	3	74	38	32		167.64 022
2.3	3	74	38	32		167.64 023
2.4	3	74	38	32		167.64 024
2.5	3	74	38	32		167.64 025
2.6	3	81	44	37		172.88 026
2.7	3	81	44	37		172.88 027
2.8	3	81	44	37		172.88 028
2.9	3	81	44	37		172.88 029

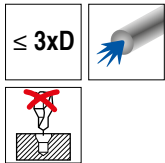
Steel	●
Stainless steel	
Cast iron	●
Non ferrous metals	●
Heat resistant alloys	

→ v_c Page 109

i Coolant pressure 20-50 bar

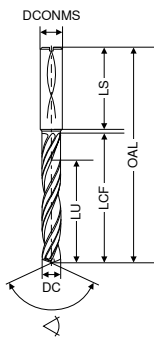
WTX – Drill-Reamer -1/100

- ▲ solid carbide high-performance drill-reaming tool
- ▲ drilling and reaming in one operation
- ▲ 2 drilling edges
- ▲ 4 reaming edges
- ▲ high feed rates
- ▲ good surface quality
- ▲ for blind holes and through holes



Finish
BR100

Ti700



HA \sphericalangle 140°
Solid carbide
T4

DC $_{\pm 0.003}$	DCONMS $_{h6}$	OAL	LCF	LU	LS	Article no.
mm	mm	mm	mm	mm	mm	10 761 ...
3.97	6	66	24	17	36	135.26 03970
3.98	6	66	24	17	36	135.26 03980
3.99	6	66	24	17	36	135.26 03990
4.00	6	66	24	17	36	135.26 04000
4.01	6	66	24	17	36	135.26 04010
4.02	6	66	24	17	36	135.26 04020
4.97	6	66	24	17	36	135.26 04970
4.98	6	66	24	17	36	135.26 04980
4.99	6	66	24	17	36	135.26 04990
5.00	6	79	34	24	36	135.26 05000
5.01	6	79	34	24	36	135.26 05010
5.02	6	79	34	24	36	135.26 05020
5.97	6	79	34	24	36	135.26 05970
5.98	6	79	34	24	36	135.26 05980
5.99	6	79	34	24	36	135.26 05990
6.00	6	79	34	24	36	135.26 06000
6.01	6	79	34	24	36	135.26 06010
6.02	6	79	34	24	36	135.26 06020
7.97	8	79	34	24	36	135.26 07970
7.98	8	79	34	24	36	135.26 07980
7.99	8	79	34	24	36	135.26 07990
8.00	8	79	34	24	36	135.26 08000
8.01	8	79	34	24	36	135.26 08010
8.02	8	79	34	24	36	135.26 08020
9.97	10	89	47	35	40	156.77 09970
9.98	10	89	47	35	40	156.77 09980
9.99	10	89	47	35	40	156.77 09990
10.00	10	89	47	35	40	156.77 10000
10.01	10	89	47	35	40	156.77 10010
10.02	10	89	47	35	40	156.77 10020
11.97	12	102	55	40	45	223.27 11970
11.98	12	102	55	40	45	223.27 11980
11.99	12	102	55	40	45	223.27 11990
12.00	12	102	55	40	45	223.27 12000
12.01	12	102	55	40	45	223.27 12010
12.02	12	102	55	40	45	223.27 12020

Steel	●
Stainless steel	●
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	○

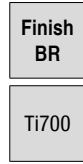
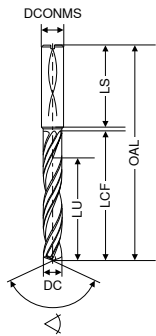
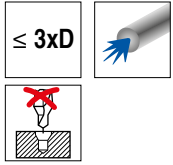
Tolerances
e.g. $\varnothing 8$ F7 = 8.02 mm

Drill Diameter	DC	DCONMS	OAL	LCF	LU	LS	Tolerance Class
Ø 4	3.97	6	66	24	17	36	U 7 X 7
	3.98	6	66	24	17	36	N 10 N 11 R 7
	3.99	6	66	24	17	36	M 8 N 7 N 8 N 9
	4.00	6	66	24	17	36	J 7 J 8 JS 7 JS 8 JS 9
	4.01	6	66	24	17	36	G 7 H 8
	4.02	6	66	24	17	36	F 8 H 9
Ø 5	4.97	6	66	24	17	36	U 7 X 7
	4.98	6	66	24	17	36	N 10 N 11 R 7
	4.99	6	66	24	17	36	M 8 N 7 N 8 N 9
	5.00	6	66	24	17	36	J 7 J 8 JS 7 JS 8 JS 9
	5.01	6	66	24	17	36	G 7 H 8
	5.02	6	66	24	17	36	F 8 H 9
Ø 6	5.97	6	66	24	17	36	U 7 X 7
	5.98	6	66	24	17	36	N 10 N 11 R 7
	5.99	6	66	24	17	36	M 8 N 7 N 8 N 9
	6.00	6	66	24	17	36	J 7 J 8 JS 7 JS 8 JS 9
	6.01	6	66	24	17	36	G 7 H 8
	6.02	6	66	24	17	36	F 8 H 9
Ø 8	7.97	8	79	34	24	36	S 7 U 7
	7.98	8	79	34	24	36	N 8 N 10 N 11 P 7 R 7
	7.99	8	79	34	24	36	K 8 M 6 M 7 M 8 N 9
	8.00	8	79	34	24	36	J 7 J 8 JS 7 JS 8 JS 9
	8.01	8	79	34	24	36	G 7 H 8
	8.02	8	79	34	24	36	F 7 F 8 H 9
Ø 10	9.97	10	89	47	35	40	S 7 U 7
	9.98	10	89	47	35	40	N 8 N 10 N 11 P 7 R 7
	9.99	10	89	47	35	40	K 8 M 6 M 7 M 8 N 9
	10.00	10	89	47	35	40	J 7 J 8 JS 7 JS 8 JS 9
	10.01	10	89	47	35	40	G 7 H 8
	10.02	10	89	47	35	40	F 7 F 8 H 9
Ø 12	11.97	12	102	55	40	45	N 11 R 7 S 7
	11.98	12	102	55	40	45	N 8 N 9 N 10 P 7
	11.99	12	102	55	40	45	K 8 M 6 M 7 M 8 N 7
	12.00	12	102	55	40	45	J 7 J 8 JS 7 JS 8 JS 9
	12.01	12	102	55	40	45	G 6 H 7 H 8
	12.02	12	102	55	40	45	F 7

i Tolerance classes written in standard print are not optimally positioned in the tolerance field.

WTX – Drill-Reamer

- ▲ solid carbide high-performance drill-reaming tool
- ▲ drilling and reaming to tolerance H7 in one operation
- ▲ 2 drilling edges
- ▲ 4 reaming edges
- ▲ high feed rates
- ▲ good surface quality
- ▲ for blind holes and through holes
- ▲ optimum roundness – tolerance H7



140°
Solid carbide
T4

DC _{H7}	DCONMS _{H6}	OAL	LCF	LU	LS	Article no.	
4	6	66	24	17	36	10 760 ...	040
5	6	79	34	24	36	135.26	050
6	6	79	34	24	36	135.26	060
8	8	79	34	24	36	135.26	080
10	10	89	47	35	40	156.77	100
12	12	102	55	40	45	223.27	120
14	14	107	60	43	45	295.18	140
16	16	115	65	45	48	408.35	160

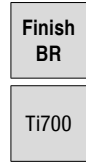
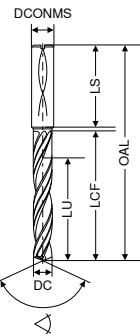
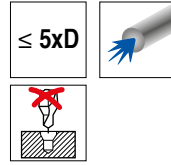
Steel	●
Stainless steel	○
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	○

→ v_c Page 112

i Special dimensions available upon request

WTX – Drill-Reamer

- ▲ solid carbide high-performance drill-reaming tool
- ▲ drilling and reaming to tolerance H7 in one operation
- ▲ 2 drilling edges
- ▲ 4 reaming edges
- ▲ high feed rates
- ▲ good surface quality
- ▲ for blind holes and through holes
- ▲ optimum roundness – tolerance H7



140°
Solid carbide
T4

DC _{H7}	DCONMS _{H6}	OAL	LCF	LU	LS	Article no.	
4	6	74	36	29	36	10 762 ...	040
5	6	91	53	43	36	162.12	050
6	6	91	53	43	36	162.12	060
8	8	91	53	43	36	162.12	080
10	10	103	61	49	40	232.28	100
12	12	118	71	56	45	329.16	120
14	14	124	77	60	45	444.51	140
16	16	133	83	63	48	554.19	160
18	18	143	93	71	48	734.87	180
20	20	153	101	77	50	884.82	200

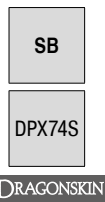
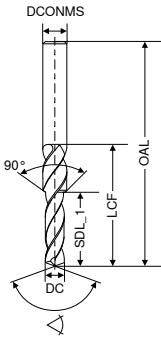
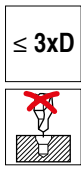
Steel	●
Stainless steel	○
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	○

→ v_c Page 113

i Special dimensions available upon request

WTX – Short 90° step drill

▲ for core hole plus countersink for thread cutting



∠ 140°

Solid carbide

NEW T4

Article no.

10 767 ...

£

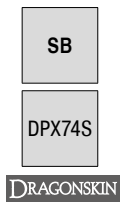
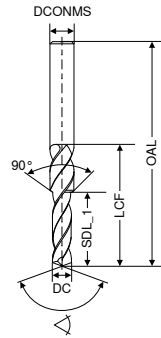
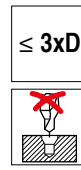
For threads	DC _{m7}	DCONMS _{h6}	OAL	SDL_1	LCF	Article no.	£
M3	2.5	6	62	8.8	20	10 767 02500	51.47
M4	3.3	6	62	11.4	24	10 767 03300	63.06
M5	4.2	6	66	13.6	28	10 767 04200	64.95
M6	5.0	8	79	16.5	34	10 767 05000	91.92
M8	6.8	10	89	21.0	47	10 767 06800	133.23
M10	8.5	12	102	25.5	55	10 767 08500	176.33
M12	10.2	14	107	30.0	60	10 767 10200	226.91
M14	12.0	16	115	34.5	65	10 767 12000	259.14
M16	14.0	18	123	38.5	73	10 767 14000	291.56

Steel	●
Stainless steel	○
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	○

→ v_c Page 110

WTX – Short 90° step drill

▲ for core hole plus countersink for thread forming



∠ 140°

Solid carbide

NEW T4

Article no.

10 772 ...

£

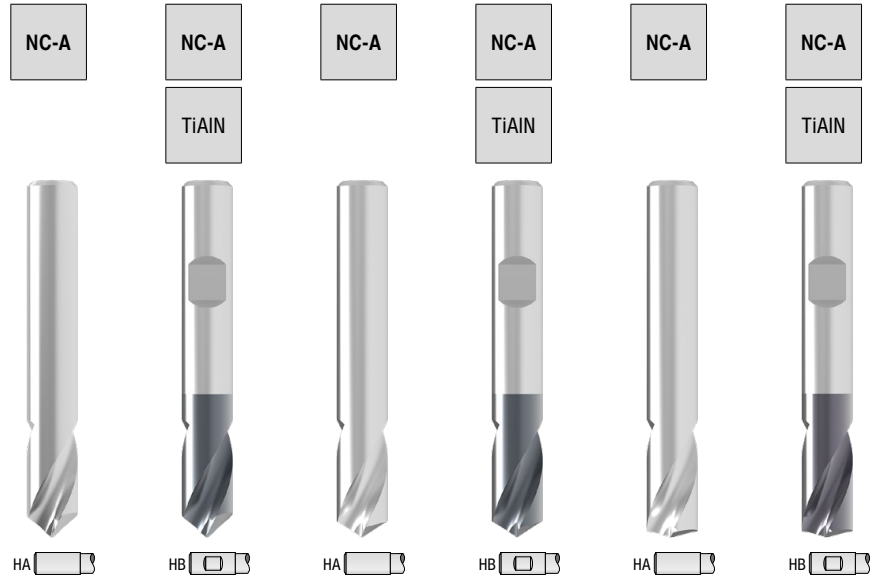
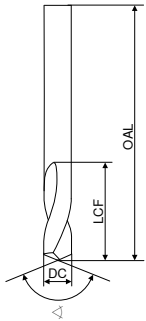
For threads	DC _{m7}	DCONMS _{h6}	OAL	SDL_1	LCF	Article no.	£
M3	2.80	6	62	8.8	20	10 772 02800	51.47
M4	3.70	6	62	11.4	24	10 772 03700	63.06
M5	4.65	6	66	13.6	28	10 772 04650	64.95
M6	5.55	8	79	16.5	34	10 772 05550	91.92
M8	7.45	10	89	21.0	47	10 772 07450	133.23
M10	9.30	12	102	25.5	55	10 772 09300	176.33
M12	11.20	14	107	30.0	60	10 772 11200	226.91
M14	13.00	16	115	34.5	65	10 772 13000	259.14
M16	15.00	18	123	38.5	73	10 772 15000	291.56

Steel	●
Stainless steel	○
Cast iron	●
Non ferrous metals	○
Heat resistant alloys	○

→ v_c Page 110

NC Spot Drill, factory standard

▲ spiral flute

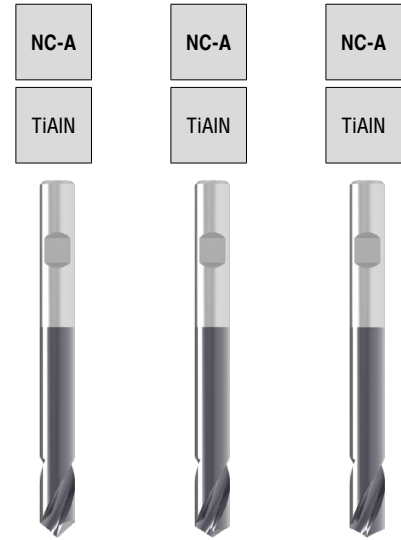
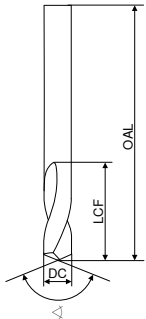


DC _{h5}	OAL	LCF	NC-A		NC-A		NC-A		NC-A		NC-A		NC-A	
			HA	HB	HA	HB	HA	HB	HA	HB	HA	HB	HA	HB
mm	mm	mm	Solid carbide T3		Solid carbide T3		Solid carbide T3		Solid carbide T3		Solid carbide T3		Solid carbide T3	
			Article no. 10 702 ...		Article no. 10 716 ...		Article no. 10 703 ...		Article no. 10 717 ...		Article no. 10 704 ...		Article no. 10 718 ...	
			£		£		£		£		£		£	
2	32	6	22.00	002	21.63	002 ¹⁾	22.00	002	21.63	002 ¹⁾	22.00	002	21.63	002 ¹⁾
3	32	8	22.00	003	21.63	003 ¹⁾	22.00	003	21.63	003 ¹⁾	22.00	003	21.63	003 ¹⁾
4	40	10	17.25	004	22.81	004 ¹⁾	17.25	004	22.81	004 ¹⁾	17.25	004	22.81	004 ¹⁾
5	50	13	19.82	005	25.23	005 ¹⁾	19.82	005	25.23	005 ¹⁾	19.82	005	25.23	005 ¹⁾
6	50	13	22.11	006	27.62	006	22.11	006	27.62	006	22.11	006	27.62	006
8	60	23	33.98	008	38.43	008	33.98	008	38.43	008	33.98	008	38.43	008
10	70	24	47.66	010	50.45	010	47.66	010	50.45	010	47.66	010	50.45	010
12	70	24	68.73	012	66.06	012	68.73	012	66.06	012	68.73	012	66.06	012
14	75	26	79.03	014	97.28	014	79.03	014	97.28	014	79.03	014	97.28	014
16	75	29	115.35	016	112.91	016	115.35	016	112.91	016	115.35	016	112.91	016
18	100	35	223.72	018	202.99	018	223.72	018	202.99	018	223.72	018	202.99	018
20	100	35	187.82	020	213.80	020	187.82	020	213.80	020	187.82	020	213.80	020
Steel			●		●		●		●		●		●	
Stainless steel			●		●		●		●		●		●	
Cast iron			●		●		●		●		●		●	
Non ferrous metals			●		●		●		●		●		●	
Heat resistant alloys			●		●		●		●		●		●	

1) DIN 6535 HA Shank

NC Spot Drill, factory standard, long

▲ spiral flutes



90° Solid carbide T3	120° Solid carbide T3	142° Solid carbide T3
Article no. 10 724 ...	Article no. 10 726 ...	Article no. 10 727 ...
£	£	£
22.81 003 ¹⁾	22.81 003 ¹⁾	22.81 003 ¹⁾
26.42 004 ¹⁾	26.42 004 ¹⁾	26.42 004 ¹⁾
33.63 006	33.63 006	33.63 006
49.25 008	49.25 008	49.25 008
68.47 010	68.47 010	68.47 010
103.30 012	103.30 012	103.30 012
193.38 016	193.38 016	193.38 016

DC _{hs}	OAL	LCF
mm	mm	mm
3	66	8
4	74	10
6	82	13
8	91	23
10	103	24
12	118	24
16	133	29

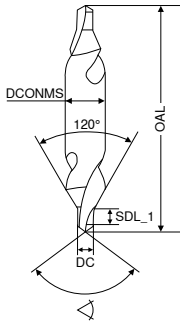
Steel	•	•	•
Stainless steel			
Cast iron	•	•	•
Non ferrous metals			
Heat resistant alloys			

1) DIN 6535 HA Shank

Centre drills, DIN 333, form A

▲ spiral flutes

ZB



120°

Solid carbide
T3

Article no.
10 708 ...

DC _{k13}	DCONMS _{h6}	OAL	SDL_1	£	
mm	mm	mm	mm		
0.50	3.15	20.0	0.76	37.28	050 ¹⁾
0.80	3.15	20.0	1.07	37.28	080 ¹⁾
1.00	3.15	31.5	1.31	36.33	100
1.25	3.15	31.5	1.54	36.33	125
1.60	4.00	35.5	1.94	38.50	160
2.00	5.00	40.0	2.32	40.65	200
2.50	6.30	45.0	2.88	45.81	250
3.15	8.00	50.0	3.49	53.47	315
4.00	10.00	56.0	4.45	64.37	400
5.00	12.50	63.0	5.46	95.74	500
6.30	16.00	71.0	6.78	145.57	630

Steel	●
Stainless steel	
Cast iron	●
Non ferrous metals	●
Heat resistant alloys	

1) Single ended

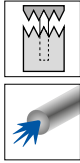
→ v_c Page 125

WTX – Drilling Head for Exchangeable drills

- ▲ extra long head type
- ▲ three-edged

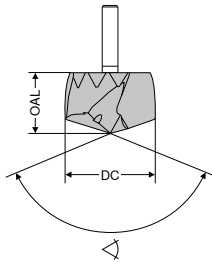
Scope of supply:

Drill head incl. differential screw



Change Feed UNI

Ti750



140°
Solid carbide
W2

DC _{m7}	OAL	Article no.	£
mm	mm	10 925 ...	
14.0	13.5	102.22	140
14.1	13.5	102.22	141
14.2	13.5	102.22	142
14.3	13.5	102.22	143
14.4	13.5	102.22	144
14.5	14.0	102.22	145
14.6	14.0	102.22	146
14.7	14.0	102.22	147
14.8	14.0	102.22	148
14.9	14.0	102.22	149
15.0	14.4	102.22	150
15.1	14.4	102.22	151
15.2	14.4	102.22	152
15.3	14.4	102.22	153
15.4	14.4	102.22	154
15.5	15.4	114.49	155
15.6	15.4	114.49	156
15.7	15.4	114.49	157
15.8	15.4	114.49	158
15.9	15.4	114.49	159
16.0	15.4	114.49	160
16.1	15.4	114.49	161
16.2	15.4	114.49	162
16.3	15.4	114.49	163
16.4	15.4	114.49	164
16.5	16.3	114.49	165
16.6	16.3	114.49	166
16.7	16.3	114.49	167
16.8	16.3	114.49	168
16.9	16.3	114.49	169
17.0	16.3	114.49	170
17.1	16.3	114.49	171
17.2	16.3	114.49	172
17.3	16.3	114.49	173
17.4	16.3	114.49	174
17.5	17.2	129.95	175
17.6	17.2	129.95	176
17.7	17.2	129.95	177
17.8	17.2	129.95	178
17.9	17.2	129.95	179
18.0	17.2	129.95	180
18.1	17.2	129.95	181
18.2	17.2	129.95	182
18.3	17.2	129.95	183
18.4	17.2	129.95	184
18.5	18.2	129.95	185
18.6	18.2	129.95	186
18.7	18.2	129.95	187
18.8	18.2	129.95	188
18.9	18.2	129.95	189
19.0	18.2	129.95	190

DC _{m7}	OAL	Article no.	£
mm	mm	10 925 ...	
19.1	18.2	129.95	191
19.2	18.2	129.95	192
19.3	18.2	129.95	193
19.4	18.2	129.95	194
19.5	19.1	149.10	195
19.6	19.1	149.10	196
19.7	19.1	149.10	197
19.8	19.1	149.10	198
19.9	19.1	149.10	199
20.0	19.1	149.10	200
20.1	19.1	149.10	201
20.2	19.1	149.10	202
20.3	19.1	149.10	203
20.4	19.1	149.10	204
20.5	20.0	149.10	205
20.6	20.0	149.10	206
20.7	20.0	149.10	207
20.8	20.0	149.10	208
20.9	20.0	149.10	209
21.0	20.0	149.10	210
21.1	20.0	149.10	211
21.2	20.0	149.10	212
21.3	20.0	149.10	213
21.4	20.0	149.10	214
21.5	21.0	149.10	215
21.6	21.0	149.10	216
21.7	21.0	149.10	217
21.8	21.0	149.10	218
21.9	21.0	149.10	219
22.0	21.0	149.10	220
22.1	21.0	149.10	221
22.2	21.0	149.10	222
22.3	21.0	149.10	223
22.4	21.0	149.10	224
22.5	21.9	165.88	225
22.6	21.9	165.88	226
22.7	21.9	165.88	227
22.8	21.9	165.88	228
22.9	21.9	165.88	229
23.0	21.9	165.88	230
23.1	21.9	165.88	231
23.2	21.9	165.88	232
23.3	21.9	165.88	233
23.4	21.9	165.88	234
23.5	22.8	165.88	235
23.6	22.8	165.88	236
23.7	22.8	165.88	237
23.8	22.8	165.88	238
23.9	22.8	165.88	239
24.0	22.8	165.88	240
24.1	22.8	165.88	241
24.2	22.8	165.88	242
24.3	22.8	165.88	243
24.4	22.8	165.88	244
24.5	23.8	188.02	245
24.6	23.8	188.02	246
24.7	23.8	188.02	247
24.8	23.8	188.02	248
24.9	23.8	188.02	249
25.0	23.8	188.02	250

Steel	●
Stainless steel	
Cast iron	●
Non ferrous metals	
Heat resistant alloys	

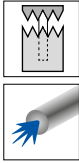
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WTX – Drilling Head for Exchangeable drills

- ▲ extra long head type
- ▲ three-edged

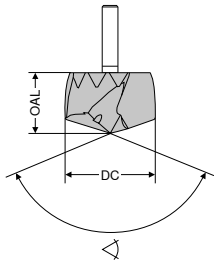
Scope of supply:

Drill head incl. differential screw



Change Feed UNI

Ti750



140°
Solid carbide
W2

DC _{m7}	OAL	Article no.	£
mm	mm	10 925 ...	
25.1	23.8	188.02	251
25.2	23.8	188.02	252
25.3	23.8	188.02	253
25.4	23.8	188.02	254
25.5	24.7	188.02	255
25.6	24.7	188.02	256
25.7	24.7	188.02	257
25.8	24.7	188.02	258
25.9	24.7	188.02	259
26.0	24.7	188.02	260
26.1	24.7	188.02	261
26.2	24.7	188.02	262
26.3	24.7	188.02	263
26.4	24.7	188.02	264
26.5	25.6	202.82	265
26.6	25.6	202.82	266
26.7	25.6	202.82	267
26.8	25.6	202.82	268
26.9	25.6	202.82	269
27.0	25.6	202.82	270
27.1	25.6	202.82	271
27.2	25.6	202.82	272
27.3	25.6	202.82	273
27.4	25.6	202.82	274
27.5	26.6	202.82	275
27.6	26.6	202.82	276
27.7	26.6	202.82	277
27.8	26.6	202.82	278
27.9	26.6	202.82	279
28.0	26.6	202.82	280
28.1	26.6	202.82	281
28.2	26.6	202.82	282
28.3	26.6	202.82	283
28.4	26.6	202.82	284
28.5	27.5	223.71	285
28.6	27.5	223.71	286
28.7	27.5	223.71	287
28.8	27.5	223.71	288
28.9	27.5	223.71	289
29.0	27.5	223.71	290
29.1	27.5	223.71	291
29.2	27.5	223.71	292
29.3	27.5	223.71	293
29.4	27.5	223.71	294
29.5	28.4	223.71	295
29.6	28.4	223.71	296
29.7	28.4	223.71	297
29.8	28.4	223.71	298
29.9	28.4	223.71	299
30.0	28.4	223.71	300
30.1	28.4	223.71	301

DC _{m7}	OAL	Article no.	£
mm	mm	10 925 ...	
30.2	28.4	223.71	302
30.3	28.4	223.71	303
30.4	28.4	223.71	304
30.5	29.3	244.23	305
30.6	29.3	244.23	306
30.7	29.3	244.23	307
30.8	29.3	244.23	308
30.9	29.3	244.23	309
31.0	29.3	244.23	310
31.1	29.3	244.23	311
31.2	29.3	244.23	312
31.3	29.3	244.23	313
31.4	29.3	244.23	314
31.5	30.3	244.23	315
31.6	30.3	244.23	316
31.7	30.3	244.23	317
31.8	30.3	244.23	318
31.9	30.3	244.23	319
32.0	30.3	244.23	320

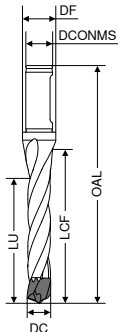
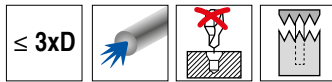
Material	Availability
Steel	●
Stainless steel	
Cast iron	●
Non ferrous metals	
Heat resistant alloys	

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WTX – Holder for Exchangeable drills

Scope of supply:

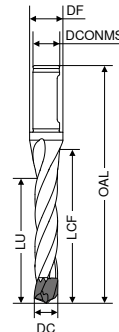
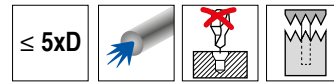
Holder incl. blade holder and interchangeable blade



WTX – Holder for Exchangeable drills

Scope of supply:

Holder incl. blade holder and interchangeable blade



DC	DCONMS _{h6}	OAL	LCF	LU	DF	torque moment	W1	
							Article no. 10 914 ...	£
14,00 - 14,49	16	120	72	48	20	0,7	266.86	140
14,50 - 14,99	16	122	74	49	20	0,7	266.86	145
15,00 - 15,49	16	124	76	51	25	0,7	266.86	150
15,50 - 16,49	20	131	81	54	25	0,7	275.73	155
16,50 - 17,49	20	135	85	58	25	0,7	275.73	165
17,50 - 18,49	20	140	90	61	25	1,3	275.73	175
18,50 - 19,49	25	150	94	64	31	1,3	324.82	185
19,50 - 20,49	25	155	99	68	31	2,0	327.74	195
20,50 - 21,49	25	159	103	71	31	2,0	358.88	205
21,50 - 22,49	25	164	108	74	31	2,0	358.88	215
22,50 - 23,49	25	168	112	78	31	2,0	393.27	225
23,50 - 24,49	25	173	117	81	31	2,0	393.27	235
24,50 - 25,49	32	182	122	84	38	3,1	442.57	245
25,50 - 26,49	32	186	126	87	38	3,1	442.57	255
26,50 - 27,49	32	191	131	91	38	3,1	442.57	265
27,50 - 28,49	32	195	135	94	38	3,1	442.57	275
28,50 - 29,49	32	200	140	97	38	5,6	510.05	285
29,50 - 30,49	32	204	144	101	38	5,6	510.05	295
30,50 - 31,49	32	209	149	104	38	5,6	557.95	305
31,50 - 32,49	32	213	153	107	38	5,6	557.95	315

DC	DCONMS _{h6}	OAL	LCF	LU	DF	torque moment	W1	
							Article no. 10 916 ...	£
14,00 - 14,49	16	149	101	77	20	0,7	294.76	140
14,50 - 14,99	16	152	104	79	20	0,7	294.76	145
15,00 - 15,49	16	155	107	82	25	0,7	294.76	150
15,50 - 16,49	20	164	114	87	25	0,7	319.20	155
16,50 - 17,49	20	170	120	93	25	0,7	319.20	165
17,50 - 18,49	20	177	127	98	25	1,3	319.20	175
18,50 - 19,49	25	189	133	103	31	1,3	365.15	185
19,50 - 20,49	25	196	140	109	31	2,0	367.97	195
20,50 - 21,49	25	202	146	114	31	2,0	401.59	205
21,50 - 22,49	25	209	153	119	31	2,0	401.59	215
22,50 - 23,49	25	215	159	124	31	2,0	432.52	225
23,50 - 24,49	25	222	166	130	31	2,0	432.52	235
24,50 - 25,49	32	233	173	135	38	3,1	480.85	245
25,50 - 26,49	32	239	179	140	38	3,1	480.85	255
26,50 - 27,49	32	246	186	146	38	3,1	480.85	265
27,50 - 28,49	32	252	192	151	38	3,1	480.85	275
28,50 - 29,49	32	259	199	156	38	5,6	547.13	285
29,50 - 30,49	32	265	205	162	38	5,6	547.13	295
30,50 - 31,49	32	272	212	167	38	5,6	594.18	305
31,50 - 32,49	32	278	218	172	38	5,6	594.18	315

Spare parts DC

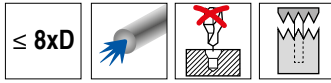
DC	W1		Y7		W1		W2	
	Article no. 80 022 ...	£	Article no. 80 020 ...	£	Article no. 80 023 ...	£	Article no. 10 950 ...	£
14,00 - 14,49	20.49	007	33.52	025	342.19	012	6.71	064
14,50 - 14,99	20.49	007	33.52	025	342.19	012	6.71	064
15,00 - 15,49	20.49	007	33.52	025	342.19	012	6.71	064
15,50 - 16,49	20.49	007	33.52	025	342.19	012	6.71	064
16,50 - 17,49	20.49	007	33.52	025	342.19	012	6.71	064
17,50 - 18,49	20.49	008	33.52	025	366.26	060	6.71	065
18,50 - 19,49	20.49	008	33.52	025	366.26	060	6.71	065
19,50 - 20,49	23.84	010	33.52	025	366.26	060	6.71	066
20,50 - 21,49	23.84	010	33.52	025	366.26	060	6.71	066
21,50 - 22,49	23.84	010	33.52	025	366.26	060	6.71	066
22,50 - 23,49	23.84	010	33.52	025	366.26	060	6.71	066
23,50 - 24,49	23.84	010	33.52	025	366.26	060	6.71	066
24,50 - 25,49	38.51	015	33.52	025	366.26	060	6.71	067
25,50 - 26,49	38.51	015	33.52	025	366.26	060	6.71	067
26,50 - 27,49	38.51	015	33.52	025	366.26	060	6.71	067
27,50 - 28,49	38.51	015	33.52	025	366.26	060	6.71	067
28,50 - 29,49	38.51	015	33.52	025	366.26	060	6.71	068
29,50 - 30,49	38.51	015	33.52	025	366.26	060	6.71	068
30,50 - 31,49	38.51	015	33.52	025	366.26	060	6.71	068
31,50 - 32,49	38.51	015	33.52	025	366.26	060	6.71	068



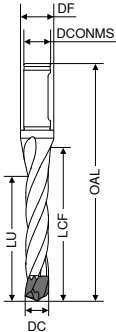
WTX – Holder for Exchangeable drills

Scope of supply:

Holder incl. blade holder and interchangeable blade



Change Feed



DC	DCONMS _{h6}	OAL	LCF	LU	DF	torque moment	NEW W1	
							Article no.	10 917 ...
mm	mm	mm	mm	mm	mm	Nm	£	
14,00 - 14,49	16	192	121	116	20	0,7	385.70	14000
14,50 - 14,99	16	197	125	120	20	0,7	385.70	14500
15,00 - 15,49	16	202	129	124	25	0,7	385.70	15000
15,50 - 16,49	20	213	137	132	25	0,7	414.36	15500
16,50 - 17,49	20	223	146	140	25	0,7	414.36	16500
17,50 - 18,49	20	232	154	148	25	1,3	414.36	17500
18,50 - 19,49	25	248	162	156	31	1,3	466.53	18500
19,50 - 20,49	25	257	171	164	31	2,0	472.93	19500
20,50 - 21,49	25	267	179	172	31	2,0	504.74	20500
21,50 - 22,49	25	276	187	180	31	2,0	504.74	21500
22,50 - 23,49	25	286	195	188	31	2,0	559.86	22500
23,50 - 24,49	25	295	204	196	31	2,0	559.86	23500
24,50 - 25,49	32	309	212	204	38	3,1	604.26	24500
25,50 - 26,49	32	319	220	212	38	3,1	604.26	25500
26,50 - 27,49	32	328	229	220	38	3,1	604.26	26500
27,50 - 28,49	32	338	237	228	38	3,1	604.26	27500
28,50 - 29,49	32	342	245	236	38	5,6	693.50	28500
29,50 - 30,49	32	352	254	244	38	5,6	693.50	29500
30,50 - 31,49	32	361	262	252	38	5,6	764.88	30500
31,50 - 32,49	32	371	270	260	38	5,6	764.88	31500

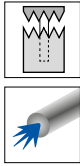
W1	Y7	W1	W2
Interchangeable blade	Blade holder	Torque handle	Differential screw
Article no. 80 022 ...	Article no. 80 020 ...	Article no. 80 023 ...	Article no. 10 950 ...
£	£	£	£

Spare parts DC

DC	£		£		£		£	
14,00 - 14,49	20.49	007	33.52	025	342.19	012	6.71	064
14,50 - 14,99	20.49	007	33.52	025	342.19	012	6.71	064
15,00 - 15,49	20.49	007	33.52	025	342.19	012	6.71	064
15,50 - 16,49	20.49	007	33.52	025	342.19	012	6.71	064
16,50 - 17,49	20.49	007	33.52	025	342.19	012	6.71	064
17,50 - 18,49	20.49	008	33.52	025	366.26	060	6.71	065
18,50 - 19,49	20.49	008	33.52	025	366.26	060	6.71	065
19,50 - 20,49	23.84	010	33.52	025	366.26	060	6.71	066
20,50 - 21,49	23.84	010	33.52	025	366.26	060	6.71	066
21,50 - 22,49	23.84	010	33.52	025	366.26	060	6.71	066
22,50 - 23,49	23.84	010	33.52	025	366.26	060	6.71	066
23,50 - 24,49	23.84	010	33.52	025	366.26	060	6.71	066
24,50 - 25,49	38.51	015	33.52	025	366.26	060	6.71	067
25,50 - 26,49	38.51	015	33.52	025	366.26	060	6.71	067
26,50 - 27,49	38.51	015	33.52	025	366.26	060	6.71	067
27,50 - 28,49	38.51	015	33.52	025	366.26	060	6.71	067
28,50 - 29,49	38.51	015	33.52	025	366.26	060	6.71	068
29,50 - 30,49	38.51	015	33.52	025	366.26	060	6.71	068
30,50 - 31,49	38.51	015	33.52	025	366.26	060	6.71	068
31,50 - 32,49	38.51	015	33.52	025	366.26	060	6.71	068

WTX – Drilling Head for Exchangeable drills

▲ extra long head type



Change
UNI
DPX74S

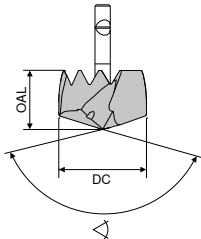
Change
P
Ti750

Change
VA
Ti700

Change
GG
TiSi

Change
AL
TiB

DRAGONSKIN



DC _{h7/m7} mm	OAL mm	NEW Solid carbide W2 Article no. 10 919 ... £		Solid carbide W2 Article no. 10 923 ... £		Solid carbide W2 Article no. 10 921 ... £		Solid carbide W2 Article no. 10 924 ... £		Solid carbide W2 Article no. 10 922 ... £	
		140°	12000	138°	120	138°	120	140°	120	140°	120
12.0	10.7	120.57	12000	120.57	120	120.57	120	120.57	120	120.57	120
12.1	10.7	120.57	12100	120.57	121	120.57	121	120.57	121	120.57	121
12.2	10.7	120.57	12200	120.57	122	120.57	122	120.57	122	120.57	122
12.3	10.7	120.57	12300	120.57	123	120.57	123	120.57	123	120.57	123
12.4	10.7	120.57	12400	120.57	124	120.57	124	120.57	124	120.57	124
12.5	10.7	120.57	12500	120.57	125	120.57	125	120.57	125	120.57	125
12.6	10.7	120.57	12600	120.57	126	120.57	126	120.57	126	120.57	126
12.7	10.7	120.57	12700	120.57	127	120.57	127	120.57	127	120.57	127
12.8	10.7	120.57	12800	120.57	128	120.57	128	120.57	128	120.57	128
12.9	10.7	120.57	12900	120.57	129	120.57	129	120.57	129	120.57	129
13.0	10.7	120.57	13000	120.57	130	120.57	130	120.57	130	120.57	130
13.1	10.7	120.57	13100	120.57	131	120.57	131	120.57	131	120.57	131
13.2	10.7	120.57	13200	120.57	132	120.57	132	120.57	132	120.57	132
13.3	10.7	120.57	13300	120.57	133	120.57	133	120.57	133	120.57	133
13.4	10.7	120.57	13400	120.57	134	120.57	134	120.57	134	120.57	134
13.5	11.3	120.57	13500	120.57	135	120.57	135	120.57	135	120.57	135
13.6	11.3	120.57	13600	120.57	136	120.57	136	120.57	136	120.57	136
13.7	11.3	120.57	13700	120.57	137	120.57	137	120.57	137	120.57	137
13.8	11.3	120.57	13800	120.57	138	120.57	138	120.57	138	120.57	138
13.9	11.3	120.57	13900	120.57	139	120.57	139	120.57	139	120.57	139
14.0	11.3	120.57	14000	120.57	140	120.57	140	120.57	140	120.57	140
14.1	11.3	120.57	14100	120.57	141	120.57	141	120.57	141	120.57	141
14.2	11.3	120.57	14200	120.57	142	120.57	142	120.57	142	120.57	142
14.3	11.3	120.57	14300	120.57	143	120.57	143	120.57	143	120.57	143
14.4	11.3	120.57	14400	120.57	144	120.57	144	120.57	144	120.57	144
14.5	11.3	120.57	14500	120.57	145	120.57	145	120.57	145	120.57	145
14.6	11.3	120.57	14600	120.57	146	120.57	146	120.57	146	120.57	146
14.7	11.3	120.57	14700	120.57	147	120.57	147	120.57	147	120.57	147
14.8	11.3	120.57	14800	120.57	148	120.57	148	120.57	148	120.57	148
14.9	11.3	120.57	14900	120.57	149	120.57	149	120.57	149	120.57	149
15.0	11.3	120.57	15000	120.57	150	120.57	150	120.57	150	120.57	150
15.1	11.3	120.57	15100	120.57	151	120.57	151	120.57	151	120.57	151
15.2	11.3	120.57	15200	120.57	152	120.57	152	120.57	152	120.57	152
15.3	11.3	120.57	15300	120.57	153	120.57	153	120.57	153	120.57	153
15.4	11.3	120.57	15400	120.57	154	120.57	154	120.57	154	120.57	154
15.5	11.9	120.57	15500	120.57	155	120.57	155	120.57	155	120.57	155
15.6	11.9	120.57	15600	120.57	156	120.57	156	120.57	156	120.57	156
15.7	11.9	120.57	15700	120.57	157	120.57	157	120.57	157	120.57	157

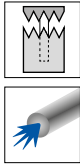
Steel	●	●	○		
Stainless steel			●		
Cast iron	●	●	○	●	
Non ferrous metals					●
Heat resistant alloys					

→ v_c Page 128-131

! Ø DC_{h7} for Type UNI, P, GG und AL / Ø DC_{h7} for Type VA

WTX – Drilling Head for Exchangeable drills

▲ extra long head type



Change
UNI
DPX74S

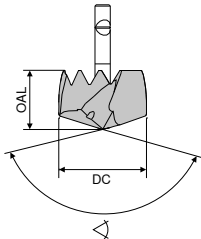
Change
P
Ti750

Change
VA
Ti700

Change
GG
TiSi

Change
AL
TiB

DRAGONSKIN



DC _{h7/m7} mm	OAL mm	NEW Solid carbide W2 Article no. 10 919 ... £		Solid carbide W2 Article no. 10 923 ... £		Solid carbide W2 Article no. 10 921 ... £		Solid carbide W2 Article no. 10 924 ... £		Solid carbide W2 Article no. 10 922 ... £	
		140°	15800	138°	158	138°	158	140°	158	140°	158
15.8	11.9	120.57	15800	120.57	158	120.57	158	120.57	158	120.57	158
15.9	11.9	120.57	15900	120.57	159	120.57	159	120.57	159	120.57	159
16.0	11.9	120.57	16000	120.57	160	120.57	160	120.57	160	120.57	160
16.1	11.9	120.57	16100	120.57	161	120.57	161	120.57	161	120.57	161
16.2	11.9	120.57	16200	120.57	162	120.57	162	120.57	162	120.57	162
16.3	11.9	120.57	16300	120.57	163	120.57	163	120.57	163	120.57	163
16.4	11.9	120.57	16400	120.57	164	120.57	164	120.57	164	120.57	164
16.5	13.4	120.57	16500	120.57	165	120.57	165	120.57	165	120.57	165
16.6	13.4	120.57	16600	120.57	166	120.57	166	120.57	166	120.57	166
16.7	13.4	120.57	16700	120.57	167	120.57	167	120.57	167	120.57	167
16.8	13.4	120.57	16800	120.57	168	120.57	168	120.57	168	120.57	168
16.9	13.4	120.57	16900	120.57	169	120.57	169	120.57	169	120.57	169
17.0	13.4	120.57	17000	120.57	170	120.57	170	120.57	170	120.57	170
17.1	13.4	120.57	17100	120.57	171	120.57	171	120.57	171	120.57	171
17.2	13.4	120.57	17200	120.57	172	120.57	172	120.57	172	120.57	172
17.3	13.4	120.57	17300	120.57	173	120.57	173	120.57	173	120.57	173
17.4	13.4	120.57	17400	120.57	174	120.57	174	120.57	174	120.57	174
17.5	13.4	120.57	17500	120.57	175	120.57	175	120.57	175	120.57	175
17.6	13.4	120.57	17600	120.57	176	120.57	176	120.57	176	120.57	176
17.7	13.4	120.57	17700	120.57	177	120.57	177	120.57	177	120.57	177
17.8	13.4	120.57	17800	120.57	178	120.57	178	120.57	178	120.57	178
17.9	13.4	120.57	17900	120.57	179	120.57	179	120.57	179	120.57	179
18.0	13.4	120.57	18000	120.57	180	120.57	180	120.57	180	120.57	180
18.1	13.4	131.19	18100	131.19	181	131.19	181	131.19	181	131.19	181
18.2	13.4	131.19	18200	131.19	182	131.19	182	131.19	182	131.19	182
18.3	13.4	131.19	18300	131.19	183	131.19	183	131.19	183	131.19	183
18.4	13.4	131.19	18400	131.19	184	131.19	184	131.19	184	131.19	184
18.5	13.4	131.19	18500	131.19	185	131.19	185	131.19	185	131.19	185
18.6	13.4	131.19	18600	131.19	186	131.19	186	131.19	186	131.19	186
18.7	13.4	131.19	18700	131.19	187	131.19	187	131.19	187	131.19	187
18.8	13.4	131.19	18800	131.19	188	131.19	188	131.19	188	131.19	188
18.9	13.4	131.19	18900	131.19	189	131.19	189	131.19	189	131.19	189
19.0	13.4	131.19	19000	131.19	190	131.19	190	131.19	190	131.19	190
19.1	13.4	131.19	19100	131.19	191	131.19	191	131.19	191	131.19	191
19.2	13.4	131.19	19200	131.19	192	131.19	192	131.19	192	131.19	192
19.3	13.4	131.19	19300	131.19	193	131.19	193	131.19	193	131.19	193
19.4	13.4	131.19	19400	131.19	194	131.19	194	131.19	194	131.19	194
19.5	13.4	131.19	19500	131.19	195	131.19	195	131.19	195	131.19	195

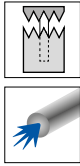
Steel	●	●	○		
Stainless steel			●		
Cast iron	●	●	○	●	
Non ferrous metals					●
Heat resistant alloys					

→ v_c Page 128-131

ⓘ Ø DC_{h7} for Type UNI, P, GG und AL / Ø DC_{h7} for Type VA

WTX – Drilling Head for Exchangeable drills

▲ extra long head type



Change
UNI
DPX74S

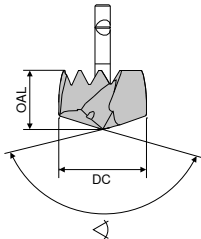
Change
P
Ti750

Change
VA
Ti700

Change
GG
TiSi

Change
AL
TiB

DRAGONSKIN



DC _{h7/m7} mm	OAL mm	NEW Solid carbide W2 Article no. 10 919 ... £		Solid carbide W2 Article no. 10 923 ... £		Solid carbide W2 Article no. 10 921 ... £		Solid carbide W2 Article no. 10 924 ... £		Solid carbide W2 Article no. 10 922 ... £	
		140°	19600	138°	196	138°	196	140°	196	140°	196
19.6	13.4	131.19	19600	131.19	196	131.19	196	131.19	196	131.19	196
19.7	13.4	131.19	19700	131.19	197	131.19	197	131.19	197	131.19	197
19.8	13.4	131.19	19800	131.19	198	131.19	198	131.19	198	131.19	198
19.9	13.4	131.19	19900	131.19	199	131.19	199	131.19	199	131.19	199
20.0	13.4	131.19	20000	131.19	200	131.19	200	131.19	200	131.19	200
20.1	13.4	144.98	20100	144.98	201	144.98	201	144.98	201	109.31	201
20.2	13.4	144.98	20200	144.98	202	144.98	202	144.98	202	144.98	202
20.3	13.4	144.98	20300	144.98	203	144.98	203	144.98	203	144.98	203
20.4	13.4	144.98	20400	144.98	204	144.98	204	144.98	204	144.98	204
20.5	15.4	144.98	20500	144.98	205	144.98	205	144.98	205	144.98	205
20.6	15.4	144.98	20600	144.98	206	144.98	206	144.98	206	144.98	206
20.7	15.4	144.98	20700	144.98	207	144.98	207	144.98	207	144.98	207
20.8	15.4	144.98	20800	144.98	208	144.98	208	144.98	208	144.98	208
20.9	15.4	144.98	20900	144.98	209	144.98	209	144.98	209	144.98	209
21.0	15.4	144.98	21000	144.98	210	144.98	210	144.98	210	144.98	210
21.1	15.4	144.98	21100	144.98	211	144.98	211	144.98	211	144.98	211
21.2	15.4	144.98	21200	144.98	212	144.98	212	144.98	212	144.98	212
21.3	15.4	144.98	21300	144.98	213	144.98	213	144.98	213	144.98	213
21.4	15.4	144.98	21400	144.98	214	144.98	214	144.98	214	144.98	214
21.5	15.4	144.98	21500	144.98	215	144.98	215	144.98	215	144.98	215
21.6	15.4	144.98	21600	144.98	216	144.98	216	144.98	216	144.98	216
21.7	15.4	144.98	21700	144.98	217	144.98	217	144.98	217	144.98	217
21.8	15.4	144.98	21800	144.98	218	144.98	218	144.98	218	144.98	218
21.9	15.4	144.98	21900	144.98	219	144.98	219	144.98	219	144.98	219
22.0	15.4	144.98	22000	144.98	220	144.98	220	144.98	220	144.98	220
22.1	15.4	155.59	22100	155.59	221	155.59	221	155.59	221	155.59	221
22.2	15.4	155.59	22200	155.59	222	155.59	222	155.59	222	155.59	222
22.3	15.4	155.59	22300	155.59	223	155.59	223	155.59	223	155.59	223
22.4	15.4	155.59	22400	155.59	224	155.59	224	155.59	224	155.59	224
22.5	15.4	155.59	22500	155.59	225	155.59	225	155.59	225	155.59	225
22.6	15.4	155.59	22600	155.59	226	155.59	226	155.59	226	155.59	226
22.7	15.4	155.59	22700	155.59	227	155.59	227	155.59	227	155.59	227
22.8	15.4	155.59	22800	155.59	228	155.59	228	155.59	228	155.59	228
22.9	15.4	155.59	22900	155.59	229	155.59	229	155.59	229	155.59	229
23.0	15.4	155.59	23000	155.59	230	155.59	230	155.59	230	155.59	230
23.1	15.4	155.59	23100	155.59	231	155.59	231	155.59	231	155.59	231
23.2	15.4	155.59	23200	155.59	232	155.59	232	155.59	232	155.59	232
23.3	15.4	155.59	23300	155.59	233	155.59	233	155.59	233	155.59	233

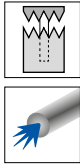
Steel	●	●	○		
Stainless steel			●		
Cast iron	●	●	○	●	
Non ferrous metals					●
Heat resistant alloys					

→ v_c Page 128-131

! Ø DC_{h7} for Type UNI, P, GG und AL / Ø DC_{h7} for Type VA

WTX – Drilling Head for Exchangeable drills

▲ extra long head type



Change
UNI
DPX74S

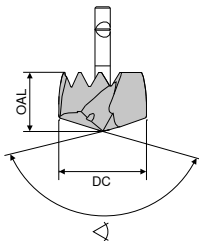
Change
P
Ti750

Change
VA
Ti700

Change
GG
TiSi

Change
AL
TiB

DRAGONSKIN



DC _{h7/m7}	OAL	140° Solid carbide NEW W2		138° Solid carbide W2		138° Solid carbide W2		140° Solid carbide W2		140° Solid carbide W2	
		Article no. 10 919 ...	£	Article no. 10 923 ...	£	Article no. 10 921 ...	£	Article no. 10 924 ...	£	Article no. 10 922 ...	£
23.4	15.4	155.59 23400	155.59	234	155.59	234	155.59	234	155.59	234	
23.5	15.4	155.59 23500	155.59	235	155.59	235	155.59	235	155.59	235	
23.6	15.4	155.59 23600	155.59	236	155.59	236	155.59	236	155.59	236	
23.7	15.4	155.59 23700	155.59	237	155.59	237	155.59	237	155.59	237	
23.8	15.4	155.59 23800	155.59	238	155.59	238	155.59	238	155.59	238	
23.9	15.4	155.59 23900	155.59	239	155.59	239	155.59	239	155.59	239	
24.0	15.4	155.59 24000	155.59	240	155.59	240	155.59	240	155.59	240	
24.1	15.4	169.39 24100	162.99	241	179.99	241	162.99	241	179.99	241	
24.2	15.4	169.39 24200	162.99	242	179.99	242	162.99	242	179.99	242	
24.3	15.4	169.39 24300	162.99	243	179.99	243	162.99	243	179.99	243	
24.4	15.4	169.39 24400	162.99	244	179.99	244	162.99	244	179.99	244	
24.5	17.4	169.39 24500	169.39	245	179.99	245	169.39	245	179.99	245	
24.6	17.4	169.39 24600	169.39	246	179.99	246	169.39	246	179.99	246	
24.7	17.4	169.39 24700	169.39	247	179.99	247	169.39	247	179.99	247	
24.8	17.4	169.39 24800	169.39	248	179.99	248	169.39	248	179.99	248	
24.9	17.4	169.39 24900	169.39	249	179.99	249	169.39	249	179.99	249	
25.0	17.4	169.39 25000	169.39	250	179.99	250	169.39	250	179.99	250	
25.1	17.4	169.39 25100	169.39	251	179.99	251	169.39	251	179.99	251	
25.2	17.4	169.39 25200	169.39	252	179.99	252	169.39	252	179.99	252	
25.3	17.4	169.39 25300	169.39	253	179.99	253	169.39	253	179.99	253	
25.4	17.4	169.39 25400	169.39	254	179.99	254	169.39	254	179.99	254	
25.5	17.4	169.39 25500	169.39	255	179.99	255	169.39	255	179.99	255	
25.6	17.4	179.99 25600	179.99	256	179.99	256	179.99	256	179.99	256	
25.7	17.4	179.99 25700	179.99	257	179.99	257	179.99	257	179.99	257	
25.8	17.4	179.99 25800	179.99	258	179.99	258	179.99	258	179.99	258	
25.9	17.4	179.99 25900	179.99	259	179.99	259	179.99	259	179.99	259	
26.0	17.4	179.99 26000	179.99	260	179.99	260	179.99	260	179.99	260	
26.1	17.4	179.99 26100	179.99	261	179.99	261	179.99	261	179.99	261	
26.2	17.4	179.99 26200	179.99	262	179.99	262	179.99	262	179.99	262	
26.3	17.4	179.99 26300	179.99	263	179.99	263	179.99	263	179.99	263	
26.4	17.4	179.99 26400	179.99	264	179.99	264	179.99	264	179.99	264	
26.5	17.4	179.99 26500	179.99	265	179.99	265	179.99	265	179.99	265	
26.6	17.4	179.99 26600	179.99	266	179.99	266	179.99	266	179.99	266	
26.7	17.4	179.99 26700	179.99	267	179.99	267	179.99	267	179.99	267	
26.8	17.4	179.99 26800	179.99	268	179.99	268	179.99	268	179.99	268	
26.9	17.4	179.99 26900	179.99	269	179.99	269	179.99	269	179.99	269	
27.0	17.4	179.99 27000	179.99	270	179.99	270	179.99	270	179.99	270	
27.1	17.4	179.99 27100	179.99	271	179.99	271	179.99	271	179.99	271	

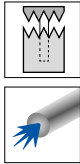
Steel	●	●	○		
Stainless steel			●		
Cast iron	●	●	○	●	
Non ferrous metals					●
Heat resistant alloys					

→ v. Page 128-131

! Ø DC_{h7} for Type UNI, P, GG und AL / Ø DC_{h7} for Type VA

WTX – Drilling Head for Exchangeable drills

▲ extra long head type



Change
UNI
DPX74S

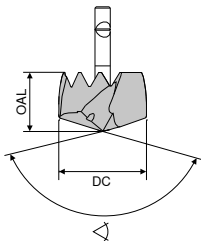
Change
P
Ti750

Change
VA
Ti700

Change
GG
TiSi

Change
AL
TiB

DRAGONSKIN



DC _{h7/m7} mm	OAL mm	NEW W2 Solid carbide Article no. 10 919 ... £		W2 Solid carbide Article no. 10 923 ... £		W2 Solid carbide Article no. 10 921 ... £		W2 Solid carbide Article no. 10 924 ... £		W2 Solid carbide Article no. 10 922 ... £	
27.2	17.4	179.99	27200	179.99	272	179.99	272	179.99	272	179.99	272
27.3	17.4	179.99	27300	179.99	273	179.99	273	179.99	273	179.99	273
27.4	17.4	179.99	27400	179.99	274	179.99	274	179.99	274	179.99	274
27.5	17.4	179.99	27500	179.99	275	179.99	275	179.99	275	179.99	275
27.6	17.4	179.99	27600	179.99	276	179.99	276	179.99	276	179.99	276
27.7	17.4	179.99	27700	179.99	277	179.99	277	179.99	277	179.99	277
27.8	17.4	179.99	27800	179.99	278	179.99	278	179.99	278	179.99	278
27.9	17.4	179.99	27900	179.99	279	179.99	279	179.99	279	179.99	279
28.0	17.4	179.99	28000	179.99	280	179.99	280	179.99	280	179.99	280
28.1	17.4	196.85	28100	196.85	281	196.85	281	196.85	281	196.85	281
28.2	17.4	196.85	28200	196.85	282	196.85	282	196.85	282	196.85	282
28.3	17.4	196.85	28300	196.85	283	196.85	283	196.85	283	196.85	283
28.4	17.4	196.85	28400	196.85	284	196.85	284	196.85	284	196.85	284
28.5	18.4	196.85	28500	196.85	285	196.85	285	196.85	285	196.85	285
28.6	18.4	196.85	28600	196.85	286	196.85	286	196.85	286	196.85	286
28.7	18.4	196.85	28700	196.85	287	196.85	287	196.85	287	196.85	287
28.8	18.4	196.85	28800	196.85	288	196.85	288	196.85	288	196.85	288
28.9	18.4	196.85	28900	196.85	289	196.85	289	196.85	289	196.85	289
29.0	18.4	196.85	29000	196.85	290	196.85	290	196.85	290	196.85	290
29.1	18.4	196.85	29100	196.85	291	196.85	291	196.85	291	196.85	291
29.2	18.4	196.85	29200	196.85	292	196.85	292	196.85	292	196.85	292
29.3	18.4	196.85	29300	196.85	293	196.85	293	196.85	293	196.85	293
29.4	18.4	196.85	29400	196.85	294	196.85	294	196.85	294	196.85	294
29.5	18.4	196.85	29500	196.85	295	196.85	295	196.85	295	196.85	295
29.6	18.4	196.85	29600	196.85	296	196.85	296	196.85	296	196.85	296
29.7	18.4	196.85	29700	196.85	297	196.85	297	196.85	297	196.85	297
29.8	18.4	196.85	29800	196.85	298	196.85	298	196.85	298	196.85	298
29.9	18.4	196.85	29900	196.85	299	196.85	299	196.85	299	196.85	299
30.0	18.4	196.85	30000	196.85	300	196.85	300	196.85	300	196.85	300
30.1	18.4	219.65	30100	219.65	301	219.65	301	219.65	301	219.65	301
30.2	18.4	219.65	30200	219.65	302	219.65	302	219.65	302	219.65	302
30.3	18.4	219.65	30300	219.65	303	219.65	303	219.65	303	219.65	303
30.4	18.4	219.65	30400	219.65	304	219.65	304	219.65	304	219.65	304
30.5	18.4	219.65	30500	219.65	305	219.65	305	219.65	305	219.65	305
30.6	18.4	219.65	30600	219.65	306	219.65	306	219.65	306	219.65	306
30.7	18.4	219.65	30700	219.65	307	219.65	307	219.65	307	219.65	307
30.8	18.4	219.65	30800	219.65	308	219.65	308	219.65	308	219.65	308
30.9	18.4	219.65	30900	219.65	309	219.65	309	219.65	309	219.65	309

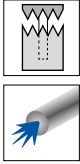
Steel	●	●	○		
Stainless steel			●		
Cast iron	●	●	○	●	
Non ferrous metals					●
Heat resistant alloys					

→ v_c Page 128-131

i Ø DC_{m7} for Type UNI, P, GG und AL / Ø DC_{h7} for Type VA

WTX – Drilling Head for Exchangeable drills

▲ extra long head type



Change
UNI

DPX74S

Change
P

Ti750

Change
VA

Ti700

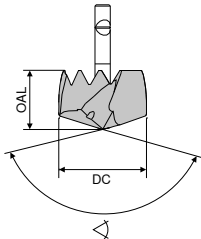
Change
GG

TiSi

Change
AL

TiB

DRAGONSKIN



DC _{h7/m7}	OAL	140° Solid carbide NEW W2		138° Solid carbide W2		138° Solid carbide W2		140° Solid carbide W2		140° Solid carbide W2	
		Article no. 10 919 ...	Article no. 10 923 ...	Article no. 10 921 ...	Article no. 10 924 ...	Article no. 10 922 ...					
mm	mm	£	£	£	£	£	£	£	£		
31.0	18.4	219.65 31000	219.65 310	219.65 310	219.65 310	219.65 310					
31.1	18.4	219.65 31100	219.65 311	219.65 311	219.65 311	219.65 311					
31.2	18.4	219.65 31200	219.65 312	219.65 312	219.65 312	219.65 312					
31.3	18.4	219.65 31300	219.65 313	219.65 313	219.65 313	219.65 313					
31.4	18.4	219.65 31400	219.65 314	219.65 314	219.65 314	219.65 314					
31.5	18.4	219.65 31500	219.65 315	219.65 315	219.65 315	219.65 315					
31.6	18.4	219.65 31600	219.65 316	219.65 316	219.65 316	219.65 316					
31.7	18.4	219.65 31700	219.65 317	219.65 317	219.65 317	219.65 317					
31.8	18.4	219.65 31800	219.65 318	219.65 318	219.65 318	219.65 318					
31.9	18.4	219.65 31900	219.65 319	219.65 319	219.65 319	219.65 319					
32.0	18.4	219.65 32000	219.65 320	219.65 320	219.65 320	219.65 320					
32.5	24.3	235.11 32500	235.11 325								
33.0	24.3	235.11 33000	235.11 330								
33.5	24.3	235.11 33500	235.11 335								
34.0	24.3	235.11 34000	235.11 340								
34.5	24.3	235.11 34500	235.11 345								
35.0	24.3	235.11 35000	235.11 350								
35.5	26.3	268.90 35500	268.90 355								
36.0	26.3	268.90 36000	268.90 360								
36.5	26.3	268.90 36500	268.90 365								
37.0	26.3	268.90 37000	268.90 370								
37.5	26.3	268.90 37500	268.90 375								
38.0	26.3	268.90 38000	268.90 380								
38.5	26.3	292.29 38500	292.29 385								
39.0	26.3	292.29 39000	292.29 390								
39.5	26.3	292.29 39500	292.29 395								
40.0	26.3	292.29 40000	292.29 400								
40.5	26.3	292.29 40500	292.29 405								
41.0	26.3	292.29 41000	292.29 410								

Steel	●	●	○		
Stainless steel			●		
Cast iron	●	●	○	●	
Non ferrous metals					●
Heat resistant alloys					

→ v_c Page 128-131

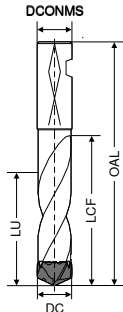
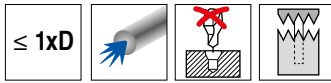
i Ø DC_{m7} for Type UNI, P, GG und AL / Ø DC_{h7} for Type VA

WTX – Holder for Exchangeable drills

▲ with radial teeth

Scope of supply:

Holder incl. screw driver



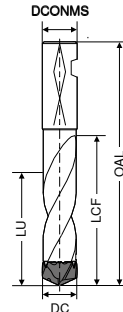
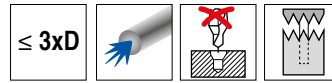
DC	DCONMS _{h6}	OAL	LCF	LU	torque moment	W1	
						Article no.	£
12,00 - 12,49	14	81	29	12,5	1,0	235.11	120
12,50 - 12,99	14	81	29	13,0	1,0	235.11	125
13,00 - 13,49	14	81	31	13,5	1,0	235.11	130
13,50 - 13,99	16	86	32	14,0	1,3	235.11	135
14,00 - 14,49	16	86	33	14,5	1,3	235.11	140
14,50 - 14,99	16	91	34	15,0	1,3	235.11	145
15,00 - 15,49	16	91	36	15,5	1,3	235.11	150
15,50 - 16,49	18	92	38	16,5	1,3	242.92	160
15,50 - 16,49	20	97	38	16,5	1,3	242.92	161
16,50 - 17,49	18	94	40	17,5	3,5	242.92	165
16,50 - 17,49	20	99	40	17,5	3,5	242.92	166
17,50 - 18,49	18	99	43	18,5	3,5	242.92	175
17,50 - 18,49	20	104	43	18,5	3,5	242.92	176
18,50 - 19,49	20	99	45	19,5	3,5	287.09	185
19,50 - 20,49	20	104	47	20,5	3,5	287.09	195
20,50 - 21,49	25	111	49	21,5	3,5	318.26	205
21,50 - 22,49	25	116	52	22,5	3,5	318.26	215
22,50 - 23,49	25	116	54	23,5	3,5	348.15	225
23,50 - 24,49	25	121	56	24,5	4,0	348.15	235
24,50 - 25,49	25	123	59	25,5	4,0	378.01	245
25,50 - 26,49	25	123	61	26,5	4,0	378.01	255
26,50 - 27,49	25	128	63	27,5	4,0	378.01	265
27,50 - 28,49	25	128	66	28,5	4,0	378.01	275
28,50 - 29,49	32	134	68	29,5	4,0	439.07	285
29,50 - 30,49	32	139	70	30,5	4,0	439.07	295
30,50 - 31,49	32	139	75	31,5	4,0	484.52	305
31,50 - 32,49	32	139	75	32,5	4,0	484.52	315
32,50 - 33,49	32	150	78	33,5	6,0	522.20	325
33,50 - 34,49	32	150	79	34,5	6,0	522.20	335
34,50 - 35,49	32	150	82	35,5	6,0	522.20	345
35,50 - 37,49	32	152	86	37,5	6,0	601.44	355
37,50 - 39,49	32	157	91	39,5	6,0	623.53	375
39,50 - 41,00	32	167	95	41,5	6,0	639.12	395

WTX – Holder for Exchangeable drills

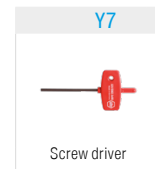
▲ with radial teeth

Scope of supply:

Holder incl. screw driver

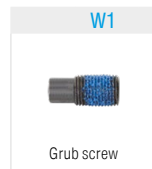


DC	DCONMS _{h6}	OAL	LCF	LU	torque moment	W1	
						Article no.	£
12,00 - 12,49	14	100	53	38,0	1,0	265.84	120
12,50 - 12,99	14	105	55	39,0	1,0	265.84	125
13,00 - 13,49	14	105	57	40,0	1,0	265.84	130
13,50 - 13,99	16	110	59	42,0	1,3	265.84	135
14,00 - 14,49	16	115	61	43,0	1,3	265.84	140
14,50 - 14,99	16	115	63	45,0	1,3	265.84	145
15,00 - 15,49	16	115	65	46,0	1,3	265.84	150
15,50 - 16,49	18	120	70	50,0	1,3	259.31	160
15,50 - 16,49	20	125	70	50,0	1,3	259.31	161
16,50 - 17,49	18	125	74	53,0	3,5	259.31	165
16,50 - 17,49	20	130	74	50,0	3,5	259.31	166
17,50 - 18,49	18	130	78	55,0	3,5	259.31	175
17,50 - 18,49	20	135	78	50,0	3,5	259.31	176
18,50 - 19,49	20	135	82	58,0	3,5	306.66	185
19,50 - 20,49	20	140	87	62,0	3,5	306.66	195
20,50 - 21,49	25	150	91	65,0	3,5	338.63	205
21,50 - 22,49	25	155	95	67,0	3,5	338.63	215
22,50 - 23,49	25	160	99	70,0	3,5	370.72	225
23,50 - 24,49	25	165	103	73,0	3,5	370.72	235
24,50 - 25,49	25	165	108	77,0	4,0	402.66	245
25,50 - 26,49	25	175	112	80,0	4,0	402.66	255
26,50 - 27,49	25	175	116	82,0	4,0	402.66	265
27,50 - 28,49	25	180	120	85,0	4,0	402.66	275
28,50 - 29,49	32	190	124	88,0	4,0	466.75	285
29,50 - 30,49	32	195	129	92,0	4,0	466.75	295
30,50 - 31,49	32	195	133	94,0	4,0	515.55	305
31,50 - 32,49	32	200	137	97,0	4,0	515.55	315
32,50 - 33,49	32	210	144	100,5	6,0	607.94	325
33,50 - 34,49	32	215	148	103,5	6,0	607.94	335
34,50 - 35,49	32	220	153	106,5	6,0	607.94	345
35,50 - 37,49	32	227	161	112,5	6,0	698.88	355
37,50 - 39,49	32	237	170	118,5	6,0	724.86	375
39,50 - 41,00	32	247	178	124,5	6,0	743.05	395



Article no.
80 950 ...

£	
3.59	132
3.59	132
4.67	133
4.67	133
4.45	134
4.45	134
4.17	135
4.17	135
4.17	136
4.17	136
4.17	136



Article no.
10 950 ...

£	
4.16	025
4.16	026
4.16	031
4.29	030
4.29	040
4.29	041
4.29	050
4.29	051
7.67	060
7.67	061
7.67	062

Spare parts for Exchangeable Head Drill-Ø

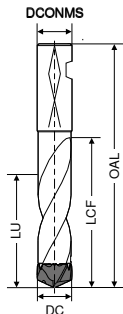
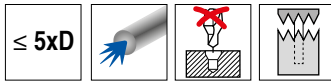
DC	SW	£	Article no.	DC	Grub screw	£	Article no.
12,00 - 12,49	SW 1,3	3.59	132	M2,5 x 0,45 x 5	4.16	025	
12,50 - 13,49	SW 1,3	3.59	132	M2,5 x 0,45 x 6	4.16	026	
13,50 - 14,49	SW 1,5	4.67	133	M3 x 0,5 x 6	4.16	031	
14,50 - 16,49	SW 1,5	4.67	133	M3 x 0,5 x 7	4.29	030	
16,50 - 20,49	SW 2	4.45	134	M4 x 0,5 x 7,5	4.29	040	
20,50 - 24,49	SW 2	4.45	134	M4 x 0,5 x 10	4.29	041	
24,50 - 28,49	SW 2,5	4.17	135	M5 x 0,5 x 11	4.29	050	
28,50 - 32,49	SW 2,5	4.17	135	M5 x 0,5 x 14	4.29	051	
32,50 - 35,49	SW 3	4.17	136	M6 x 0,5 x 16	7.67	060	
35,50 - 39,49	SW 3	4.17	136	M6 x 0,5 x 18	7.67	061	
39,50 - 41,00	SW 3	4.17	136	M6 x 0,5 x 20	7.67	062	

WTX – Holder for Exchangeable drills

▲ with radial teeth

Scope of supply:

Holder incl. screw driver



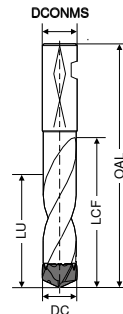
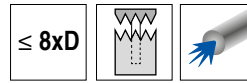
						W1	
DC	DCONMS _{h6}	OAL	LCF	LU	torque moment	Article no.	
mm	mm	mm	mm	mm	Nm	10 915 ...	£
12,00 - 12,49	14	125	78	62.0	1,0	299.26	120
12,50 - 12,99	14	130	81	65.0	1,0	299.26	125
13,00 - 13,49	14	130	84	67.0	1,0	299.26	130
13,50 - 13,99	16	140	88	70.0	1,3	299.26	135
14,00 - 14,49	16	140	90	72.0	1,3	299.26	140
14,50 - 14,99	16	145	94	75.0	1,3	299.26	145
15,00 - 15,49	16	145	96	77.0	1,3	299.26	150
15,50 - 16,49	18	155	103	82.0	1,3	306.66	160
15,50 - 16,49	20	160	103	82.0	1,3	306.66	161
16,50 - 17,49	18	160	109	87.0	3,5	306.66	165
16,50 - 17,49	20	165	109	87.0	3,5	306.66	166
17,50 - 18,49	18	165	115	92.0	3,5	306.66	175
17,50 - 18,49	20	170	115	92.0	3,5	306.66	176
18,50 - 19,49	20	175	121	97.0	3,5	355.47	185
19,50 - 20,49	20	180	128	102.0	3,5	355.47	195
20,50 - 21,49	25	195	134	107.0	3,5	385.98	205
21,50 - 22,49	25	200	140	112.0	3,5	385.98	215
22,50 - 23,49	25	205	146	117.0	3,5	419.52	225
23,50 - 24,49	25	210	152	122.0	3,5	419.52	235
24,50 - 25,49	25	220	159	127.0	4,0	451.50	245
25,50 - 26,49	25	225	165	132.0	4,0	451.50	255
26,50 - 27,49	25	230	171	137.0	4,0	451.50	265
27,50 - 28,49	25	240	177	142.0	4,0	451.50	275
28,50 - 29,49	32	250	183	146.0	4,0	515.55	285
29,50 - 30,49	32	255	190	152.0	4,0	515.55	295
30,50 - 31,49	32	260	196	157.0	4,0	562.89	305
31,50 - 32,49	32	265	202	162.0	4,0	562.89	315
32,50 - 33,49	32	275	210	167.5	6,0	687.18	325
33,50 - 34,49	32	285	217	172.5	6,0	687.18	335
34,50 - 35,49	32	290	224	177.5	6,0	687.18	345
35,50 - 37,49	32	302	236	187.5	6,0	772.90	355
37,50 - 39,49	32	317	249	197.5	6,0	801.51	375
39,50 - 41,00	32	327	261	207.5	6,0	819.67	395

WTX – Holder for Exchangeable drills

▲ with radial teeth

Scope of supply:

Holder incl. screw driver



						W1	
DC	DCONMS _{h6}	OAL	LCF	LU	torque moment	Article no.	
mm	mm	mm	mm	mm	Nm	10 918 ...	£
12,00 - 12,49	14	165	116	100	1,0	380.60	120
12,50 - 12,99	14	170	121	104	1,0	380.60	125
13,00 - 13,49	14	175	126	108	1,0	380.60	130
13,50 - 13,99	16	180	129	111	1,3	380.60	135
14,00 - 14,49	16	185	134	115	1,3	380.60	140
14,50 - 14,99	16	190	139	120	1,3	380.60	145
15,00 - 15,49	16	195	144	124	1,3	380.60	150
15,50 - 16,49	18	205	152	131	1,3	387.87	160
15,50 - 16,49	20	210	152	131	1,3	387.87	161
16,50 - 17,49	18	215	161	138	3,5	387.87	165
16,50 - 17,49	20	220	161	138	3,5	387.87	166
17,50 - 18,49	18	220	171	147	3,5	387.87	175
17,50 - 18,49	20	225	171	147	3,5	387.87	176
18,50 - 19,49	20	235	180	155	3,5	445.97	185
19,50 - 20,49	20	240	189	163	3,5	445.97	195
20,50 - 21,49	25	260	198	170	3,5	485.19	205
21,50 - 22,49	25	270	207	178	3,5	485.19	215
22,50 - 23,49	25	275	217	187	3,5	544.75	225
23,50 - 24,49	25	285	226	194	3,5	544.75	235
24,50 - 25,49	25	295	235	202	4,0	623.17	245
25,50 - 26,49	25	305	244	210	4,0	623.17	255
26,50 - 27,49	25	315	253	218	4,0	623.17	265
27,50 - 28,49	25	325	263	226	4,0	623.17	275
28,50 - 29,49	32	340	272	234	4,0	720.51	285
29,50 - 30,49	32	345	281	242	4,0	720.51	295
30,50 - 31,49	32	355	290	249	4,0	798.97	305
31,50 - 32,00	32	360	299	257	4,0	798.97	315

Spare parts for Exchangeable Head Drill-Ø

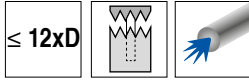
		Y7		W1	
		Article no.	£	Article no.	£
		80 950 ...		10 950 ...	
12,00 - 12,49	SW 1,3	3.59	132	M2,5 x 0,45 x 5	4.16 025
12,50 - 13,49	SW 1,3	3.59	132	M2,5 x 0,45 x 6	4.16 026
13,50 - 14,49	SW 1,5	4.67	133	M3 x 0,5 x 6	4.16 031
14,50 - 16,49	SW 1,5	4.67	133	M3 x 0,5 x 7	4.29 030
16,50 - 20,49	SW 2	4.45	134	M4 x 0,5 x 7,5	4.29 040
20,50 - 24,49	SW 2	4.45	134	M4 x 0,5 x 10	4.29 041
24,50 - 28,49	SW 2,5	4.17	135	M5 x 0,5 x 11	4.29 050
28,50 - 32,49	SW 2,5	4.17	135	M5 x 0,5 x 14	4.29 051
32,50 - 35,49	SW 3	4.17	136	M6 x 0,5 x 16	7.67 060
35,50 - 39,49	SW 3	4.17	136	M6 x 0,5 x 18	7.67 061
39,50 - 41,00	SW 3	4.17	136	M6 x 0,5 x 20	7.67 062

WTX – Holder for Exchangeable drills

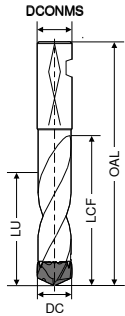
▲ with radial teeth

Scope of supply:

Holder incl. screw driver

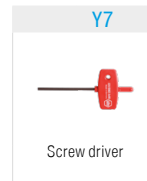


Change

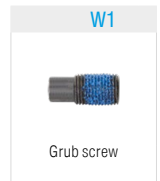


HB

DC	DCONMS _{h6}	OAL	LCF	LU	torque moment Nm	NEW W1	
						Article no.	£
12,00 - 12,49	14	210	162	150	1,0	502.79	12000
12,50 - 12,99	14	216	168	156	1,0	502.79	12500
13,00 - 13,49	14	223	175	162	1,0	502.79	13000
13,50 - 13,99	16	235	182	168	1,3	502.79	13500
14,00 - 14,49	16	242	189	174	1,3	502.79	14000
14,50 - 14,99	16	248	195	180	1,3	502.79	14500
15,00 - 15,49	16	255	202	186	1,3	502.79	15000
15,50 - 16,49	18	262	209	198	1,3	547.71	15500
16,50 - 17,49	18	275	222	210	3,5	547.71	16500
17,50 - 18,49	18	289	236	222	3,5	547.71	17500
18,50 - 19,49	20	304	249	234	3,5	663.65	18500
19,50 - 20,49	20	318	236	246	3,5	663.65	19500
20,50 - 21,49	25	337	276	258	3,5	716.89	20500
21,50 - 22,49	25	351	290	270	3,5	716.89	21500
22,50 - 23,49	25	364	303	282	3,5	796.57	22500
23,50 - 24,49	25	378	317	294	3,5	796.57	23500
24,50 - 25,49	25	391	330	306	4,0	902.92	24500
25,50 - 26,49	25	405	344	318	4,0	902.92	25500
26,50 - 27,49	25	418	357	330	4,0	902.92	26500
27,50 - 28,49	25	432	371	342	4,0	902.92	27500
28,50 - 29,49	32	449	384	354	4,0	1,035.49	28500
29,50 - 30,49	32	463	398	366	4,0	1,035.49	29500
30,50 - 31,49	32	476	411	378	4,0	1,141.96	30500
31,50 - 32,00	32	490	425	390	4,0	1,141.96	31500



Article no.
80 950 ...



Article no.
10 950 ...

Spare parts for Exchangeable Head Drill-Ø

DC	SW	£	Article no.	Metric	£	Article no.
12,00 - 12,49	SW 1,3	3.59	132	M2,5 x 0,45 x 5	4.16	025
12,50 - 13,49	SW 1,3	3.59	132	M2,5 x 0,45 x 6	4.16	026
13,50 - 14,49	SW 1,5	4.67	133	M3 x 0,5 x 6	4.16	031
14,50 - 16,49	SW 1,5	4.67	133	M3 x 0,5 x 7	4.29	030
16,50 - 20,49	SW 2	4.45	134	M4 x 0,5 x 7,5	4.29	040
20,50 - 24,49	SW 2	4.45	134	M4 x 0,5 x 10	4.29	041
24,50 - 28,49	SW 2,5	4.17	135	M5 x 0,5 x 11	4.29	050
28,50 - 32,49	SW 2,5	4.17	135	M5 x 0,5 x 14	4.29	051
32,50 - 35,49	SW 3	4.17	136	M6 x 0,5 x 16	7.67	060
35,50 - 39,49	SW 3	4.17	136	M6 x 0,5 x 18	7.67	061
39,50 - 41,00	SW 3	4.17	136	M6 x 0,5 x 20	7.67	062

MultiChange Programme Overview

The highly stable „MultiChange“ exchangeable head system enables an extremely fast tool change. Designed to be durable and for a very high radial run-out accuracy, this exchangeable head system is probably the most stable and precise exchangeable head system on the market. The following chapters contain suitable exchangeable heads for almost every application.

Reaming and countersinking

- ▲ Through hole reamers
Ø 8–30.2 mm incl. special diameters / ZEFP* 4–6
- ▲ Blind hold reamers
Ø 12.2–30.2 mm incl. special diameters / ZEFP* 6

→ **Chapter 4, Reaming and countersinking**

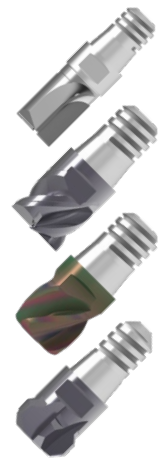


*ZEFP = Number of teeth

Solid carbide milling cutters

- ▲ PCD shoulder mills
Ø 8, 10, 12, 16, 20 mm / ZEFP* 2
- ▲ Solid carbide shoulder mills
Type N, PCR-UNI, PCR-ALU / Ø 8, 10, 12, 16, 20 mm / ZEFP* 3+4
- ▲ Solid carbide rough and finish milling cutters
Ø 8, 10, 12, 16, 20 mm / ZEFP* 4–6
- ▲ Solid carbide finish milling cutters
Ø 8, 10, 12, 16, 20 mm / ZEFP* 6
- ▲ Solid carbide high-feed cutters
Ø 8, 10, 12, 16, 20 mm / ZEFP* 6
- ▲ Solid carbide ball-nosed end mills
Ø 10, 12, 16, 20 mm / ZEFP* 4
- ▲ Solid carbide torus bull nose milling cutters
Ø 8, 10, 12, 16, 20 mm / ZEFP* 3+4
- ▲ Solid carbide quarter round cutter
Ø 8, 10, 12, 16, 20 mm
- ▲ Solid carbide deburring cutters
Ø 10, 12, 16, 20 mm / ZEFP* 4+6

→ **Chapter 14, Solid carbide milling cutters**



*ZEFP = Number of teeth

Tool holder



- ▲ Steel holder, extra short
Cylindrical / Tapered 87°
Length 60–90 mm
for KLG: 8, 10, 12, 16, 20 mm



- ▲ Short holder steel/Solid carbide
Cylindrical
Length 85–120 mm
for KLG: 8, 10, 12, 16, 20 mm



- ▲ Holder steel/Solid carbide, short
87° taper
Length 85–120 mm
for KLG: 8, 10, 12, 16, 20 mm



- ▲ Solid carbide holder, medium
Cylindrical / Tapered 87°
Length 110–150 mm
for KLG: 8, 10, 12, 16, 20 mm



- ▲ Holder steel/Solid carbide, long
Cylindrical
Length 150–200 mm
for KLG: 8, 10, 12, 16, 20 mm



- ▲ Holder steel/Solid carbide, long
87° taper
Length 150–200 mm
for KLG: 8, 10, 12, 16, 20 mm

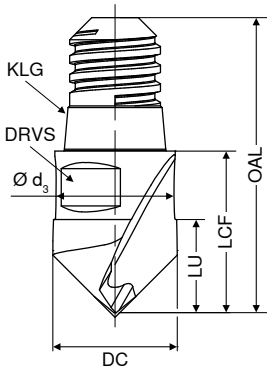


- ▲ Steel/Solid carbide holder, extra long
Cylindrical
Length 200–250 mm
for KLG: 16 and 20 mm

→ **Chapter 17, Accessories**

MultiChange – NC Spot Drill

- ▲ KLG = Coupling Size
- ▲ TQX = Torque Moment
- ▲ NOF = No. of cutting edges



DC mm	KLG	LU mm	d ₃ mm	LCF mm	OAL mm	NOF	DRVS mm	TQX Nm	a _{p max} mm	∠ 90° Solid carbide T7		∠ 120° Solid carbide T7		∠ 142° Solid carbide T7	
										Article no. 10 709 ...	£	Article no. 10 712 ...	£	Article no. 10 714 ...	£
8	06	6.0	7.8	11	20.4	2	6	5.0	4	32.30	080	32.30	080	32.30	080
10	08	7.5	9.8	13	26.9	2	8	12.5	5	35.80	100	35.80	100	35.80	100
12	10	9.0	11.8	16	30.1	2	10	15.0	6	45.93	120	45.93	120	45.93	120
16	12	12.0	15.8	20	37.3	2	13	20.0	8	64.97	160	64.97	160	64.97	160
20	16	15.0	19.8	25	47.2	2	16	25.0	10	94.50	200	94.50	200	94.50	200
Steel										•	•	•	•	•	•
Stainless steel										•	•	•	•	•	•
Cast iron										•	•	•	•	•	•
Non ferrous metals										•	•	•	•	•	•
Heat resistant alloys															

→ v_c Page 125

i Torque wrench should be used for coupling sizes 06 and 08.

i For unstable applications, the cutting data should be reduced.

Material examples referring to the cutting data tables

	Index	Material	Strength N/mm ² / HB / HRC	Material number	Material designation	Material number	Material designation	Material number	Material designation
P	1.1	General construction steel	< 800 N/mm ²	1.0402	EN3B				
	1.2	Free cutting steel	< 800 N/mm ²	1.0711	EN1A				
	1.3	Hardened steel, non alloyed	< 800 N/mm ²	1.0401	EN32C				
	1.4	Alloyed hardened steel	< 1000 N/mm ²	1.7325	25 CD4				
	1.5	Tempering steel, unalloyed	< 850 N/mm ²	1.5752	EN36	1.0535	EN9		
	1.6	Tempering steel, unalloyed	< 1000 N/mm ²	1.6582	EN24				
	1.7	Tempering steel, alloyed	< 800 N/mm ²	1.7225	EN19				
	1.8	Tempering steel, alloyed	< 1300 N/mm ²	1.8515	EN40B				
	1.9	Steel castings	< 850 N/mm ²	0.9650	G-X 260 Cr 27	1.6750	GS-20 NiCrMo 3.7	1.6582	GS-34 CrNiMo 6
	1.10	Nitriding steel	< 1000 N/mm ²	1.8509	EN41B				
	1.11	Nitriding steel	< 1200 N/mm ²	1.1186	EN8	1.1160	EN14A		
	1.12	Roller bearing steel	< 1200 N/mm ²	1.3505	534A99				
	1.13	Spring steel	< 1200 N/mm ²		EN45		EN47		EN43
	1.14	High-speed steel	< 1300 N/mm ²	1.3343	M2	1.3249	M34		
	1.15	Cold working tool steel	< 1300 N/mm ²	1.2379	D2	1.2311	P20		
	1.16	Hot working tool steel	< 1300 N/mm ²	1.2344	H13				
M	2.1	Cast steel and sulphured stainless steel	< 850 N/mm ²	1.4581	318				
	2.2	Stainless steel, ferritic	< 750 N/mm ²	1.4000	403				
	2.3	Stainless steel, martensitic	< 900 N/mm ²	1.4057	EN57				
	2.4	Stainless steel, ferritic / martensitic	< 1100 N/mm ²	1.4028	EN56B				
	2.5	Stainless steel, austenitic / ferritic	< 850 N/mm ²	1.4542	17-4PH				
	2.6	Stainless steel, austenitic	< 750 N/mm ²	1.4305	303	1.4401	316	1.4301	304
	2.7	Heat resistant steel	< 1100 N/mm ²	1.4876	Incoloy 800				
K	3.1	Grey cast iron with lamellar graphite	100–350 N/mm ²	0.6015	Grade 150	0.6020	Grade 220	0.6025	Grade 260
	3.2	Grey cast iron with lamellar graphite	300–500 N/mm ²	0.6030	Grade 300	0.6035	Grade 350	0.6040	Grade 400
	3.3	Gray cast iron with spheroidal graphite	300–500 N/mm ²	0.7040	SG 400-12	0.7043	SG 370-17	0.7050	SG 500-7
	3.4	Gray cast iron with spheroidal graphite	500–900 N/mm ²	0.7060	SG 600-3	0.7070	SG 700-2	0.7080	SG 800-2
	3.5	White malleable cast iron	270–450 N/mm ²	0.8035	GTW-35	0.8045	GTW-45		
	3.6	White malleable cast iron	500–650 N/mm ²	0.8055	GTW-55	0.8065	GTW-65		
	3.7	Black malleable cast iron	300–450 N/mm ²	0.8135	GTS-35	0.8145	GTS-45		
	3.8	Black malleable cast iron	500–800 N/mm ²	0.8155	GTS-55	0.8170	GTS-70		
N	4.1	Aluminium (non alloyed, low alloyed)	< 350 N/mm ²	3.0255	1050 A	3.0275	1070 A	3.0285	1080 A (A8)
	4.2	Aluminium alloys < 0.5 % Si	< 500 N/mm ²	3.1325	2017 A (AU4G)	3.4335	7005 (AZ5G)	3.4365	7075 (AZ5GU)
	4.3	Aluminium alloy 0.5–10 % Si	< 400 N/mm ²	3.2315	A-G S1	3.2373	A-S9 G	3.2151	A-S6 U4
	4.4	Aluminium alloys 10–15 % Si	< 400 N/mm ²	3.2581	A-S12	3.2583	A-S12 U		
	4.5	Aluminum alloys > 15 % Si	< 400 N/mm ²		A-S18		A-S17 U4		
	4.6	Copper (non alloyed, low alloyed)	< 350 N/mm ²	2.0040	Cu-c1	2.0060	Cu-a1	2.0090	Cu-b1
	4.7	Copper wrought alloys	< 700 N/mm ²	2.1247	Cub2 (Beryllium Copper)	2.0855	CuN2S (Nickel Copper)	2.1310	CU-Fe2P
	4.8	Special copper alloys	< 200 HB	2.0916	Cu-A5	2.1525	Cu-S3 M		Ampco 8 (Cu-A6Fe2)
	4.9	Special copper alloys	< 300 HB	2.0978	Cu-Ai11 Fe5 Ni5		Ampco 18 (Cu-A10 Fe3)		
	4.10	Special copper alloys	> 300 HB	2.1247	Cu Be2		Ampco M4		
	4.11	Short-chipping brass, bronze, red bronze	< 600 N/mm ²	2.0331	Cu Zn36 Pb1,5	2.0380	Cu Zn39 Pb2 (Ms 56)	2.0410	Cu Zn44 Pb2
	4.12	Long-chipping brass	< 600 N/mm ²	2.0335	Cu Zn 36 (Ms63)	2.1293	Cu Cr1 Zr		
	4.13	Thermoplastics			PE		PS		Plexiglas
	4.14	Duroplastics			PF		Bakelite		Pertinax
	4.15	Fibre-reinforced plastics			Carbon Fibre		Fibreglass		Aramid Fibre (Kevlar)
	4.16	Magnesium and magnesium alloys	< 850 N/mm ²	3.5812	Mg A7 Z1	3.5662	Mg A9	3.5105	Mg Tr3 Z2 Zn 1
	4.17	Graphite			R8500X		R8650		Technograph 15
	4.18	Tungsten and tungsten alloys			W-Ni Fe (Densimet)		W- Ni Cu (Inermet)		Denal
	4.19	Molybdenum and molybdenum alloys			TZM		MHO		Mo W
S	5.1	Pure nickel		2.4066	Ni99 (Nickel 200)	2.4068	Lc Ni99 (Nickel 201)		
	5.2	Nickel alloys		1.3912	Fe-Ni36 (Invar)	1.3917	Fe-Ni42 (N42)	1.3922	Fe-Ni48 (N48)
	5.3	Nickel alloys	< 850 N/mm ²	2.4375	Ni Cu30 Al (Monel K500)	2.4360	Ni Cu30Fe (Monel 400)	2.4668	
	5.4	Nickel molybdenum alloys		2.4600	Ni Mo30Cr2 (Hastelloy B4)	2.4617	Ni Mo28 (Hastelloy B2)	2.4819	Ni Mo16Cr16 Hastell. C276
	5.5	Nickel-chromium alloys	< 1300 N/mm ²	2.4951	Ni Cr20TiAl (Nimonic 80A)	2.4858	Ni Cr21Mo (Inconel 825)	2.4856	Ni Cr22Mo9Nb Inconel 625
	5.6	Cobalt Chrome Alloys	< 1300 N/mm ²	2.4964	Co Cr20 W15 Ni10		Co Cr20 Ni16 Mo7		Co Cr28 Mo 6
	5.7	Heat resistant alloys	< 1300 N/mm ²	1.4718	Z45 C S 9-3	1.4747	Z80 CSN 20-02	1.4845	Z12 CN 25-20
	5.8	Nickel-cobalt-chromium alloys	< 1400 N/mm ²	2.4851	Ni Cr23Fe (Inconel 601)	2.4668	Ni Cr19NbMo (Inconel 718)	2.4602	Ni Cr21Mo14 Hastelloy C22
	5.9	Pure titanium	< 900 N/mm ²	3.7025	T35 (Titanium Grade 1)	3.7034	T40 (Titanium Grade 2)	3.7064	T60 (Titanium Grade 4)
	5.10	Titanium alloys	< 700 N/mm ²		T-A6-Nb7 (367)		T-A5-Sn2-Mo4-Cr4 (Ti17)		T-A3-V2,5 (Gr18)
	5.11	Titanium alloys	< 1200 N/mm ²	3.7165	T-A6-V4 (Ta6V)		T-A4-3V-Mo2-Fe2 (SP700)		T-A5-Sn1-Zr1-V1-Mo (Gr32)
H	6.1		< 45 HRC						
	6.2		46–55 HRC						
	6.3	Tempered steel	56–60 HRC						
	6.4		61–65 HRC						
	6.5		65–70 HRC						

Cutting data standard values – WTX – Ti

Index	Drilling depth 3xD Ti 10 786 ...						Drilling depth 5xD Ti 10 787 ...					
	v_c m/min with through coolant	Ø 4-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20	v_c m/min with through coolant	Ø 4-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1												
1.2												
1.3												
1.4												
1.5												
1.6												
1.7												
1.8												
1.9												
1.10												
1.11												
1.12												
1.13												
1.14												
1.15												
1.16												
2.1	75	0,08	0,12	0,15	0,2	0,25	75	0,08	0,12	0,15	0,2	0,25
2.2	75	0,08	0,12	0,15	0,2	0,25	75	0,08	0,12	0,15	0,2	0,25
2.3	65	0,08	0,12	0,15	0,2	0,25	65	0,08	0,12	0,15	0,2	0,25
2.4	65	0,08	0,12	0,15	0,2	0,25	65	0,08	0,12	0,15	0,2	0,25
2.5	70	0,08	0,12	0,15	0,2	0,25	70	0,08	0,12	0,15	0,2	0,25
2.6	70	0,08	0,12	0,15	0,2	0,25	70	0,08	0,12	0,15	0,2	0,25
2.7	40	0,04	0,08	0,12	0,16	0,2	40	0,04	0,08	0,12	0,16	0,2
3.1												
3.2												
3.3												
3.4												
3.5												
3.6												
3.7												
3.8												
4.1												
4.2												
4.3												
4.4												
4.5												
4.6												
4.7												
4.8												
4.9												
4.10												
4.11												
4.12												
4.13												
4.14												
4.15												
4.16												
4.17												
4.18												
4.19												
5.1	35	0,04	0,08	0,12	0,16	0,2	35	0,04	0,08	0,12	0,16	0,2
5.2	35	0,04	0,08	0,12	0,16	0,2	35	0,04	0,08	0,12	0,16	0,2
5.3	35	0,04	0,08	0,12	0,16	0,2	35	0,04	0,08	0,12	0,16	0,2
5.4	35	0,04	0,08	0,12	0,16	0,2	35	0,04	0,08	0,12	0,16	0,2
5.5	35	0,04	0,08	0,12	0,16	0,2	35	0,04	0,08	0,12	0,16	0,2
5.6	35	0,04	0,08	0,12	0,16	0,2	35	0,04	0,08	0,12	0,16	0,2
5.7	35	0,04	0,08	0,12	0,16	0,2	35	0,04	0,08	0,12	0,16	0,2
5.8	35	0,04	0,08	0,12	0,16	0,2	35	0,04	0,08	0,12	0,16	0,2
5.9	45	0,04	0,08	0,12	0,16	0,2	45	0,04	0,08	0,12	0,16	0,2
5.10	40	0,04	0,08	0,12	0,16	0,2	40	0,04	0,08	0,12	0,16	0,2
5.11	35	0,04	0,08	0,12	0,16	0,2	35	0,04	0,08	0,12	0,16	0,2
6.1												
6.2												
6.3												
6.4												
6.5												

i 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 – WTX – Speed

Index	Drilling depth 3xD Speed UNI 10 781 ...						Drilling depth 5xD Speed UNI 10 771 ...					
	v_c m/min	\emptyset 3-5	\emptyset 5-8	\emptyset 8-12	\emptyset 12-16	\emptyset 16-20	v_c m/min	\emptyset 3-5	\emptyset 5-8	\emptyset 8-12	\emptyset 12-16	\emptyset 16-20
	with through coolant	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	with through coolant	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	200	0,15	0,20	0,26	0,31	0,35	200	0,14	0,19	0,24	0,29	0,32
1.2	240	0,25	0,33	0,42	0,50	0,56	240	0,23	0,30	0,38	0,46	0,52
1.3	200	0,19	0,25	0,33	0,39	0,44	200	0,18	0,23	0,30	0,36	0,40
1.4	160	0,17	0,22	0,29	0,35	0,39	160	0,15	0,20	0,26	0,32	0,36
1.5	180	0,19	0,25	0,33	0,39	0,44	180	0,18	0,23	0,30	0,36	0,40
1.6	160	0,17	0,22	0,29	0,35	0,39	160	0,15	0,20	0,26	0,32	0,36
1.7	160	0,17	0,22	0,29	0,35	0,39	160	0,15	0,20	0,26	0,32	0,36
1.8	120	0,14	0,18	0,23	0,28	0,31	120	0,13	0,17	0,22	0,26	0,29
1.9	180	0,19	0,25	0,33	0,39	0,44	180	0,18	0,23	0,30	0,36	0,40
1.10	120	0,14	0,18	0,23	0,28	0,31	120	0,13	0,17	0,22	0,26	0,29
1.11	100	0,12	0,16	0,21	0,25	0,28	100	0,11	0,15	0,19	0,23	0,26
1.12	120	0,14	0,18	0,23	0,28	0,31	120	0,13	0,17	0,22	0,26	0,29
1.13	120	0,14	0,18	0,23	0,28	0,31	120	0,13	0,17	0,22	0,26	0,29
1.14	100	0,12	0,16	0,21	0,25	0,28	100	0,11	0,15	0,19	0,23	0,26
1.15	100	0,14	0,18	0,23	0,28	0,31	100	0,13	0,17	0,22	0,26	0,29
1.16	100	0,14	0,18	0,23	0,28	0,31	100	0,13	0,17	0,22	0,26	0,29
2.1	65	0,09	0,12	0,15	0,19	0,23	65	0,09	0,12	0,15	0,19	0,23
2.2	65	0,09	0,12	0,15	0,19	0,23	65	0,09	0,12	0,15	0,19	0,23
2.3	65	0,09	0,12	0,15	0,19	0,23	65	0,09	0,12	0,15	0,19	0,23
2.4	65	0,09	0,12	0,15	0,19	0,23	65	0,09	0,12	0,15	0,19	0,23
2.5	60	0,08	0,10	0,13	0,16	0,20	60	0,08	0,10	0,13	0,16	0,20
2.6	65	0,09	0,12	0,15	0,19	0,23	65	0,09	0,12	0,15	0,19	0,23
2.7	60	0,08	0,10	0,13	0,16	0,20	60	0,08	0,10	0,13	0,16	0,20
3.1	140	0,24	0,31	0,39	0,47	0,54	140	0,24	0,31	0,39	0,47	0,54
3.2	100	0,21	0,27	0,35	0,42	0,47	100	0,21	0,27	0,35	0,42	0,47
3.3	120	0,27	0,35	0,45	0,54	0,60	120	0,27	0,35	0,45	0,54	0,60
3.4	75	0,21	0,27	0,35	0,42	0,47	75	0,21	0,27	0,35	0,42	0,47
3.5	170	0,30	0,39	0,49	0,59	0,67	170	0,30	0,39	0,49	0,59	0,67
3.6	140	0,27	0,35	0,45	0,54	0,60	140	0,27	0,35	0,45	0,54	0,60
3.7	170	0,27	0,35	0,45	0,54	0,60	170	0,27	0,35	0,45	0,54	0,60
3.8	140	0,21	0,27	0,35	0,42	0,47	140	0,21	0,27	0,35	0,42	0,47
4.1												
4.2												
4.3												
4.4												
4.5												
4.6												
4.7												
4.8												
4.9												
4.10												
4.11	200	0,24	0,31	0,39	0,47	0,54	200	0,24	0,31	0,39	0,47	0,54
4.12	200	0,21	0,27	0,35	0,42	0,47	200	0,21	0,27	0,35	0,42	0,47
4.13												
4.14												
4.15												
4.16												
4.17												
4.18												
4.19												
5.1												
5.2												
5.3												
5.4												
5.5												
5.6												
5.7												
5.8												
5.9												
5.10												
5.11												
6.1	50	0,10	0,13	0,17	0,20	0,23	50	0,09	0,12	0,15	0,19	0,21
6.2	40	0,06	0,08	0,11	0,13	0,15	40	0,06	0,08	0,10	0,12	0,13
6.3												
6.4												
6.5												

i 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 – WTX – Feed

Index	v _c m/min with through coolant	Drilling depth 5xD Feed UNI 10 789 ...							
		Ø 4-6	Ø 6-7	Ø 7-8	Ø 8-10	Ø 10-12	Ø 12-15	Ø 15-17	Ø 17-20
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	100	0,27	0,31	0,35	0,40	0,44	0,49	0,54	0,56
1.2	120	0,45	0,51	0,57	0,64	0,71	0,78	0,86	0,90
1.3	100	0,35	0,40	0,44	0,50	0,55	0,61	0,67	0,70
1.4	80	0,30	0,35	0,39	0,44	0,49	0,54	0,59	0,62
1.5	90	0,35	0,40	0,44	0,50	0,55	0,61	0,67	0,70
1.6	80	0,30	0,35	0,39	0,44	0,49	0,54	0,59	0,62
1.7	80	0,30	0,35	0,39	0,44	0,49	0,54	0,59	0,62
1.8	60	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50
1.9	90	0,35	0,40	0,44	0,50	0,55	0,61	0,67	0,70
1.10	60	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50
1.11	50	0,22	0,25	0,28	0,32	0,35	0,39	0,43	0,45
1.12	60	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50
1.13	60	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50
1.14	50	0,22	0,25	0,28	0,32	0,35	0,39	0,43	0,45
1.15	50	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50
1.16	50	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50
2.1	65	0,14	0,16	0,18	0,21	0,23	0,26	0,28	0,30
2.2	55	0,12	0,14	0,16	0,18	0,20	0,22	0,25	0,27
2.3	65	0,11	0,13	0,14	0,17	0,18	0,20	0,23	0,24
2.4	45	0,11	0,13	0,14	0,17	0,18	0,20	0,23	0,24
2.5	40	0,11	0,13	0,14	0,17	0,18	0,20	0,23	0,24
2.6	55	0,12	0,14	0,16	0,18	0,20	0,22	0,25	0,27
2.7	40	0,10	0,12	0,13	0,15	0,17	0,18	0,20	0,21
3.1	120	0,38	0,42	0,47	0,53	0,59	0,65	0,71	0,76
3.2	85	0,33	0,38	0,42	0,48	0,52	0,58	0,64	0,67
3.3	110	0,43	0,48	0,54	0,61	0,67	0,74	0,81	0,86
3.4	75	0,33	0,38	0,42	0,48	0,52	0,58	0,64	0,67
3.5	140	0,47	0,53	0,59	0,67	0,73	0,81	0,89	0,95
3.6	115	0,43	0,48	0,54	0,61	0,67	0,74	0,81	0,86
3.7	140	0,43	0,48	0,54	0,61	0,67	0,74	0,81	0,86
3.8	115	0,33	0,38	0,42	0,48	0,52	0,58	0,64	0,67
4.1	300	0,32	0,34	0,36	0,42	0,46	0,50	0,55	0,60
4.2	300	0,32	0,34	0,36	0,42	0,46	0,50	0,55	0,60
4.3	250	0,40	0,44	0,48	0,54	0,58	0,65	0,71	0,79
4.4	220	0,40	0,44	0,48	0,54	0,58	0,65	0,71	0,79
4.5	180	0,40	0,44	0,48	0,54	0,58	0,65	0,71	0,79
4.6									
4.7									
4.8	120	0,29	0,31	0,35	0,40	0,44	0,48	0,52	0,58
4.9	200	0,38	0,48	0,56	0,66	0,72	0,78	0,84	1,00
4.10	200	0,38	0,48	0,56	0,66	0,72	0,78	0,84	1,00
4.11	200	0,38	0,48	0,56	0,66	0,72	0,78	0,84	1,00
4.12	200	0,38	0,48	0,56	0,66	0,72	0,78	0,84	1,00
4.13									
4.14									
4.15									
4.16									
4.17									
4.18									
4.19									
5.1									
5.2									
5.3									
5.4									
5.5									
5.6									
5.7									
5.8									
5.9									
5.10									
5.11									
6.1									
6.2									
6.3									
6.4									
6.5									



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.

		Hole depth 8xD and 12xD Feed UNI 10 794 ..., 10 796 ...								
Index	v _c m/min with through coolant	Ø 4-6	Ø 6-7	Ø 7-8	Ø 8-10	Ø 10-12	Ø 12-15	Ø 15-17	Ø 17-20	
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	
1.1	90	0,27	0,31	0,35	0,40	0,44	0,49	0,54	0,56	
1.2	110	0,45	0,51	0,57	0,64	0,71	0,78	0,86	0,90	
1.3	90	0,35	0,40	0,44	0,50	0,55	0,61	0,67	0,70	
1.4	70	0,30	0,35	0,39	0,44	0,49	0,54	0,59	0,62	
1.5	80	0,35	0,40	0,44	0,50	0,55	0,61	0,67	0,70	
1.6	70	0,30	0,35	0,39	0,44	0,49	0,54	0,59	0,62	
1.7	70	0,30	0,35	0,39	0,44	0,49	0,54	0,59	0,62	
1.8	55	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50	
1.9	80	0,35	0,40	0,44	0,50	0,55	0,61	0,67	0,70	
1.10	55	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50	
1.11	45	0,22	0,25	0,28	0,32	0,35	0,39	0,43	0,45	
1.12	55	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50	
1.13	55	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50	
1.14	45	0,22	0,25	0,28	0,32	0,35	0,39	0,43	0,45	
1.15	45	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50	
1.16	45	0,25	0,28	0,32	0,36	0,40	0,44	0,48	0,50	
2.1	60	0,14	0,16	0,18	0,21	0,23	0,26	0,28	0,30	
2.2	50	0,12	0,14	0,16	0,18	0,20	0,22	0,25	0,27	
2.3	60	0,11	0,13	0,14	0,17	0,18	0,20	0,23	0,24	
2.4	40	0,11	0,13	0,14	0,17	0,18	0,20	0,23	0,24	
2.5	35	0,11	0,13	0,14	0,17	0,18	0,20	0,23	0,24	
2.6	50	0,12	0,14	0,16	0,18	0,20	0,22	0,25	0,27	
2.7	35	0,10	0,12	0,13	0,15	0,17	0,18	0,20	0,21	
3.1	110	0,38	0,42	0,47	0,53	0,59	0,65	0,71	0,76	
3.2	75	0,33	0,38	0,42	0,48	0,52	0,58	0,64	0,67	
3.3	100	0,43	0,48	0,54	0,61	0,67	0,74	0,81	0,86	
3.4	65	0,33	0,38	0,42	0,48	0,52	0,58	0,64	0,67	
3.5	130	0,47	0,53	0,59	0,67	0,73	0,81	0,89	0,95	
3.6	110	0,43	0,48	0,54	0,61	0,67	0,74	0,81	0,86	
3.7	130	0,43	0,48	0,54	0,61	0,67	0,74	0,81	0,86	
3.8	110	0,33	0,38	0,42	0,48	0,52	0,58	0,64	0,67	
4.1	300	0,32	0,34	0,36	0,42	0,46	0,50	0,55	0,60	
4.2	300	0,32	0,34	0,36	0,42	0,46	0,50	0,55	0,60	
4.3	250	0,40	0,44	0,48	0,54	0,58	0,65	0,71	0,79	
4.4	220	0,40	0,44	0,48	0,54	0,58	0,65	0,71	0,79	
4.5	180	0,40	0,44	0,48	0,54	0,58	0,65	0,71	0,79	
4.6										
4.7										
4.8	120	0,29	0,31	0,35	0,40	0,44	0,48	0,52	0,58	
4.9	200	0,38	0,48	0,56	0,66	0,72	0,78	0,84	1,00	
4.10	200	0,38	0,48	0,56	0,66	0,72	0,78	0,84	1,00	
4.11	200	0,38	0,48	0,56	0,66	0,72	0,78	0,84	1,00	
4.12	200	0,38	0,48	0,56	0,66	0,72	0,78	0,84	1,00	
4.13										
4.14										
4.15										
4.16										
4.17										
4.18										
4.19										
5.1										
5.2										
5.3										
5.4										
5.5										
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5.7										
5.8										
5.9										
5.10										
5.11										
6.1										
6.2										
6.3										
6.4										
6.5										

Cutting data standard values – WTX – UNI

Index	Drilling depth 3xD UNI 11 776 ..., 11 777 ..., 11 778 ..., 11 779 ..., 11 780 ..., 11 781 ...							
	V _c m/min without through coolant	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20	Ø 20-25
	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	110	125	0,14	0,17	0,22	0,26	0,30	0,32
1.2	130	150	0,23	0,28	0,35	0,42	0,48	0,51
1.3	110	125	0,18	0,21	0,28	0,33	0,37	0,40
1.4	90	100	0,15	0,19	0,24	0,29	0,33	0,35
1.5	100	115	0,18	0,21	0,28	0,33	0,37	0,40
1.6	90	100	0,15	0,19	0,24	0,29	0,33	0,35
1.7	90	100	0,15	0,19	0,24	0,29	0,33	0,35
1.8	65	75	0,12	0,15	0,20	0,24	0,27	0,28
1.9	100	115	0,18	0,21	0,28	0,33	0,37	0,40
1.10	65	75	0,12	0,15	0,20	0,24	0,27	0,28
1.11	55	65	0,11	0,14	0,18	0,21	0,24	0,26
1.12	65	75	0,12	0,15	0,20	0,24	0,27	0,28
1.13	65	75	0,12	0,15	0,20	0,24	0,27	0,28
1.14	55	65	0,11	0,14	0,18	0,21	0,24	0,26
1.15	55	65	0,12	0,15	0,20	0,24	0,27	0,28
1.16	55	65	0,12	0,15	0,20	0,24	0,27	0,28
2.1		50	0,10	0,12	0,15	0,19	0,21	0,23
2.2		45	0,08	0,10	0,13	0,16	0,19	0,21
2.3		45	0,07	0,09	0,12	0,15	0,17	0,18
2.4		35	0,07	0,09	0,12	0,15	0,17	0,18
2.5		35	0,07	0,09	0,12	0,15	0,17	0,18
2.6		50	0,08	0,10	0,13	0,16	0,19	0,21
2.7		35	0,07	0,08	0,11	0,13	0,15	0,16
3.1	70	90	0,20	0,24	0,31	0,37	0,42	0,46
3.2	50	60	0,18	0,21	0,28	0,33	0,37	0,40
3.3	60	80	0,23	0,28	0,35	0,42	0,48	0,51
3.4	45	55	0,18	0,21	0,28	0,33	0,37	0,40
3.5	90	110	0,25	0,30	0,39	0,46	0,53	0,58
3.6	75	90	0,23	0,28	0,35	0,42	0,48	0,51
3.7	90	110	0,23	0,28	0,35	0,42	0,48	0,51
3.8	75	90	0,18	0,21	0,28	0,33	0,37	0,40
4.1								
4.2								
4.3								
4.4								
4.5								
4.6								
4.7								
4.8								
4.9								
4.10								
4.11	120	200	0,18	0,22	0,28	0,34	0,38	0,42
4.12	120	200	0,16	0,20	0,25	0,30	0,34	0,36
4.13								
4.14								
4.15								
4.16								
4.17	240		0,12	0,15	0,20	0,24	0,27	0,29
4.18								
4.19								
5.1								
5.2								
5.3								
5.4								
5.5								
5.6								
5.7								
5.8								
5.9								
5.10								
5.11								
6.1	40	55	0,09	0,11	0,14	0,17	0,19	0,21
6.2	25	35	0,06	0,08	0,10	0,12	0,13	0,14
6.3								
6.4								
6.5								

i 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.

Index	Drilling depth 5xD UNI 11 782 ..., 11 783 ..., 11 784 ..., 11 785 ..., 11 786 ..., 11 787 ...								Drilling depth 8xD UNI 11 788 ..., 11 789 ..., 11 790 ...					
	V _c m/min without through coolant	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20	Ø 20-25	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	90	125	0,13	0,17	0,22	0,26	0,30	0,32	110	0,13	0,17	0,22	0,26	0,30
1.2	110	150	0,21	0,28	0,35	0,42	0,48	0,51	130	0,21	0,28	0,35	0,42	0,48
1.3	90	125	0,16	0,21	0,28	0,33	0,37	0,40	110	0,16	0,21	0,28	0,33	0,37
1.4	75	100	0,14	0,19	0,24	0,29	0,33	0,35	90	0,14	0,19	0,24	0,29	0,33
1.5	80	115	0,16	0,21	0,28	0,33	0,37	0,40	100	0,16	0,21	0,28	0,33	0,37
1.6	75	100	0,14	0,19	0,24	0,29	0,33	0,35	90	0,14	0,19	0,24	0,29	0,33
1.7	75	100	0,14	0,19	0,24	0,29	0,33	0,35	90	0,14	0,19	0,24	0,29	0,33
1.8	55	75	0,12	0,15	0,20	0,24	0,27	0,28	65	0,12	0,15	0,20	0,24	0,27
1.9	80	115	0,16	0,21	0,28	0,33	0,37	0,40	100	0,16	0,21	0,28	0,33	0,37
1.10	55	75	0,12	0,15	0,20	0,24	0,27	0,28	65	0,12	0,15	0,20	0,24	0,27
1.11	45	65	0,10	0,14	0,18	0,21	0,24	0,26	55	0,10	0,14	0,18	0,21	0,24
1.12	55	75	0,12	0,15	0,20	0,24	0,27	0,28	65	0,12	0,15	0,20	0,24	0,27
1.13	55	75	0,12	0,15	0,20	0,24	0,27	0,28	65	0,12	0,15	0,20	0,24	0,27
1.14	45	65	0,10	0,14	0,18	0,21	0,24	0,26	55	0,10	0,14	0,18	0,21	0,24
1.15	45	65	0,12	0,15	0,20	0,24	0,27	0,28	55	0,12	0,15	0,20	0,24	0,27
1.16	45	65	0,12	0,15	0,20	0,24	0,27	0,28	55	0,12	0,15	0,20	0,24	0,27
2.1		50	0,09	0,12	0,15	0,19	0,21	0,23						
2.2		45	0,08	0,10	0,13	0,16	0,19	0,21						
2.3		45	0,07	0,09	0,12	0,15	0,17	0,18						
2.4		35	0,07	0,09	0,12	0,15	0,17	0,18						
2.5		35	0,07	0,09	0,12	0,15	0,17	0,18						
2.6		50	0,08	0,10	0,13	0,16	0,19	0,21						
2.7		35	0,06	0,08	0,11	0,13	0,15	0,16						
3.1	75	90	0,17	0,22	0,28	0,34	0,38	0,42	80	0,17	0,22	0,28	0,34	0,38
3.2	55	60	0,15	0,20	0,25	0,30	0,34	0,36	55	0,15	0,20	0,25	0,30	0,34
3.3	70	80	0,19	0,25	0,32	0,38	0,43	0,47	70	0,19	0,25	0,32	0,38	0,43
3.4	45	55	0,15	0,20	0,25	0,30	0,34	0,36	50	0,15	0,20	0,25	0,30	0,34
3.5	90	110	0,22	0,28	0,35	0,42	0,48	0,52	95	0,22	0,28	0,35	0,42	0,48
3.6	75	90	0,19	0,25	0,32	0,38	0,43	0,47	80	0,19	0,25	0,32	0,38	0,43
3.7	90	110	0,19	0,25	0,32	0,38	0,43	0,47	95	0,19	0,25	0,32	0,38	0,43
3.8	75	90	0,15	0,20	0,25	0,30	0,34	0,36	80	0,15	0,20	0,25	0,30	0,34
4.1														
4.2														
4.3														
4.4														
4.5														
4.6														
4.7														
4.8														
4.9														
4.10														
4.11	100	200	0,17	0,22	0,28	0,34	0,38	0,42	200	0,17	0,22	0,28	0,34	0,38
4.12	100	200	0,15	0,20	0,25	0,30	0,34	0,36	200	0,15	0,20	0,25	0,30	0,34
4.13														
4.14														
4.15														
4.16														
4.17														
4.18														
4.19														
5.1														
5.2														
5.3														
5.4														
5.5														
5.6														
5.7														
5.8														
5.9														
5.10														
5.11														
6.1		55	0,08	0,11	0,14	0,17	0,19	0,21						
6.2														
6.3														
6.4														
6.5														

Cutting data standard values – WTX – VA

Index	Drilling depth 3xD VA 10 731 ..., 10 732 ..., 10 733 ..., 10 734 ...							Drilling depth 5xD VA 10 740 ..., 10 741 ..., 10 745 ..., 10 746 ...						
	v_c m/min without through coolant	v_c m/min with through coolant	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	v_c m/min without through coolant	v_c m/min with through coolant	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
	$\varnothing 2-5$	$\varnothing 5-8$	$\varnothing 8-12$	$\varnothing 12-16$	$\varnothing 16-20$	$\varnothing 2-5$	$\varnothing 5-8$	$\varnothing 8-12$	$\varnothing 12-16$	$\varnothing 16-20$				
1.1	90	90	0,09	0,12	0,16	0,19	0,22	90	90	0,09	0,12	0,16	0,19	0,22
1.2	105	105	0,15	0,20	0,26	0,31	0,35	105	105	0,15	0,20	0,26	0,31	0,35
1.3	90	90	0,11	0,16	0,20	0,24	0,27	90	90	0,11	0,16	0,20	0,24	0,27
1.4	70	70	0,10	0,14	0,18	0,21	0,24	70	70	0,10	0,14	0,18	0,21	0,24
1.5	80	80	0,11	0,16	0,20	0,24	0,27	80	80	0,11	0,16	0,20	0,24	0,27
1.6	70	70	0,10	0,14	0,18	0,21	0,24	70	70	0,10	0,14	0,18	0,21	0,24
1.7	70	70	0,10	0,14	0,18	0,21	0,24	70	70	0,10	0,14	0,18	0,21	0,24
1.8	55	55	0,08	0,11	0,14	0,17	0,19	55	55	0,08	0,11	0,14	0,17	0,19
1.9	80	80	0,11	0,16	0,20	0,24	0,27	80	80	0,11	0,16	0,20	0,24	0,27
1.10	55	55	0,08	0,11	0,14	0,17	0,19	55	55	0,08	0,11	0,14	0,17	0,19
1.11	45	45	0,07	0,10	0,13	0,15	0,17	45	45	0,07	0,10	0,13	0,15	0,17
1.12	55	55	0,08	0,11	0,14	0,17	0,19	55	55	0,08	0,11	0,14	0,17	0,19
1.13	55	55	0,08	0,11	0,14	0,17	0,19	55	55	0,08	0,11	0,14	0,17	0,19
1.14	45	45	0,07	0,10	0,13	0,15	0,17	45	45	0,07	0,10	0,13	0,15	0,17
1.15	45	45	0,08	0,11	0,14	0,17	0,19	45	45	0,08	0,11	0,14	0,17	0,19
1.16	45	45	0,08	0,11	0,14	0,17	0,19	45	45	0,08	0,11	0,14	0,17	0,19
2.1	30	60	0,08	0,11	0,14	0,17	0,19	30	60	0,08	0,11	0,14	0,17	0,19
2.2	25	50	0,06	0,09	0,12	0,15	0,17	25	50	0,06	0,09	0,12	0,15	0,17
2.3	30	60	0,06	0,08	0,11	0,13	0,15	30	60	0,06	0,08	0,11	0,13	0,15
2.4	20	40	0,06	0,08	0,11	0,13	0,15	20	40	0,06	0,08	0,11	0,13	0,15
2.5	18	35	0,06	0,08	0,11	0,13	0,15	18	35	0,06	0,08	0,11	0,13	0,15
2.6	25	50	0,06	0,09	0,12	0,15	0,17	25	50	0,06	0,09	0,12	0,15	0,17
2.7	18	35	0,05	0,08	0,10	0,12	0,13	18	35	0,05	0,08	0,10	0,12	0,13
3.1	90	100	0,16	0,22	0,28	0,34	0,38	80	100	0,16	0,22	0,28	0,34	0,38
3.2	65	70	0,14	0,20	0,25	0,30	0,34	60	70	0,14	0,20	0,25	0,30	0,34
3.3	80	90	0,18	0,25	0,32	0,38	0,43	70	90	0,18	0,25	0,32	0,38	0,43
3.4	50	60	0,14	0,20	0,25	0,30	0,34	50	60	0,14	0,20	0,25	0,30	0,34
3.5	110	120	0,20	0,28	0,35	0,42	0,48	100	120	0,20	0,28	0,35	0,42	0,48
3.6	90	100	0,18	0,25	0,32	0,38	0,43	80	100	0,18	0,25	0,32	0,38	0,43
3.7	110	120	0,18	0,25	0,32	0,38	0,43	95	120	0,18	0,25	0,32	0,38	0,43
3.8	90	100	0,14	0,20	0,25	0,30	0,34	80	100	0,14	0,20	0,25	0,30	0,34
4.1	240	320	0,11	0,15	0,20	0,24	0,27	160	320	0,11	0,15	0,20	0,24	0,27
4.2	180	240	0,11	0,15	0,20	0,24	0,27	120	240	0,11	0,15	0,20	0,24	0,27
4.3	150	200	0,14	0,20	0,25	0,30	0,34	100	200	0,14	0,20	0,25	0,30	0,34
4.4	120	160	0,11	0,15	0,20	0,24	0,27	80	160	0,11	0,15	0,20	0,24	0,27
4.5	90	120	0,10	0,14	0,18	0,22	0,24	60	120	0,10	0,14	0,18	0,22	0,24
4.6	240	320	0,10	0,14	0,18	0,22	0,24	200	320	0,10	0,14	0,18	0,22	0,24
4.7	210	280	0,10	0,14	0,18	0,22	0,24	175	280	0,10	0,14	0,18	0,22	0,24
4.8	120	160	0,10	0,14	0,18	0,22	0,24	100	160	0,10	0,14	0,18	0,22	0,24
4.9	150	200	0,10	0,14	0,18	0,22	0,24	125	200	0,10	0,14	0,18	0,22	0,24
4.10	120	160	0,10	0,14	0,18	0,22	0,24	100	160	0,10	0,14	0,18	0,22	0,24
4.11	120	160	0,16	0,22	0,28	0,34	0,38	120	160	0,16	0,22	0,28	0,34	0,38
4.12	120	160	0,14	0,20	0,25	0,30	0,34	120	160	0,14	0,20	0,25	0,30	0,34
4.13	80	120	0,05	0,08	0,10	0,12	0,13	60	120	0,05	0,08	0,10	0,12	0,13
4.14	100	150	0,09	0,12	0,16	0,19	0,22	75	150	0,09	0,12	0,16	0,19	0,22
4.15	80	120	0,09	0,12	0,16	0,19	0,22	60	120	0,09	0,12	0,16	0,19	0,22
4.16	150	300	0,11	0,15	0,20	0,24	0,27	300	300	0,11	0,15	0,20	0,24	0,27
4.17	400		0,11	0,15	0,20	0,24	0,27	400		0,11	0,15	0,20	0,24	0,27
4.18		40	0,06	0,09	0,12	0,15	0,17		40	0,06	0,09	0,12	0,15	0,17
4.19		40	0,05	0,08	0,10	0,12	0,13		40	0,05	0,08	0,10	0,12	0,13
5.1		40	0,05	0,08	0,10	0,12	0,13		40	0,05	0,08	0,10	0,12	0,13
5.2		20	0,05	0,08	0,10	0,12	0,13		20	0,05	0,08	0,10	0,12	0,13
5.3		20	0,05	0,08	0,10	0,12	0,13		20	0,05	0,08	0,10	0,12	0,13
5.4		20	0,05	0,08	0,10	0,12	0,13		20	0,05	0,08	0,10	0,12	0,13
5.5		20	0,05	0,08	0,10	0,12	0,13		20	0,05	0,08	0,10	0,12	0,13
5.6		18	0,05	0,08	0,10	0,12	0,13		18	0,05	0,08	0,10	0,12	0,13
5.7		15	0,05	0,08	0,10	0,12	0,13		15	0,05	0,08	0,10	0,12	0,13
5.8		10	0,05	0,08	0,10	0,12	0,13		10	0,05	0,08	0,10	0,12	0,13
5.9		20	0,05	0,08	0,10	0,12	0,13		20	0,05	0,08	0,10	0,12	0,13
5.10		25	0,05	0,08	0,10	0,12	0,13		25	0,05	0,08	0,10	0,12	0,13
5.11		20	0,05	0,08	0,10	0,12	0,13		20	0,05	0,08	0,10	0,12	0,13
6.1	30		0,05	0,08	0,10	0,10	0,10	20		0,05	0,08	0,10	0,10	0,10
6.2	22		0,04	0,06	0,07	0,07	0,07	15		0,04	0,06	0,07	0,07	0,07
6.3														
6.4														
6.5														

i 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.

Index	Drilling depth 8xD VA 10 770 ...					
	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	75	0,09	0,12	0,16	0,19	0,22
1.2	90	0,15	0,20	0,26	0,31	0,35
1.3	75	0,11	0,16	0,20	0,24	0,27
1.4	60	0,10	0,14	0,18	0,21	0,24
1.5	70	0,11	0,16	0,20	0,24	0,27
1.6	60	0,10	0,14	0,18	0,21	0,24
1.7	60	0,10	0,14	0,18	0,21	0,24
1.8	45	0,08	0,11	0,14	0,17	0,19
1.9	70	0,11	0,16	0,20	0,24	0,27
1.10	45	0,08	0,11	0,14	0,17	0,19
1.11	40	0,07	0,10	0,13	0,15	0,17
1.12	45	0,08	0,11	0,14	0,17	0,19
1.13	45	0,08	0,11	0,14	0,17	0,19
1.14	40	0,07	0,10	0,13	0,15	0,17
1.15	40	0,08	0,11	0,14	0,17	0,19
1.16	40	0,08	0,11	0,14	0,17	0,19
2.1	50	0,08	0,11	0,14	0,17	0,19
2.2	45	0,06	0,09	0,12	0,15	0,17
2.3	50	0,06	0,08	0,11	0,13	0,15
2.4	35	0,06	0,08	0,11	0,13	0,15
2.5	30	0,06	0,08	0,11	0,13	0,15
2.6	45	0,06	0,09	0,12	0,15	0,17
2.7	30	0,05	0,08	0,10	0,12	0,13
3.1	85	0,16	0,22	0,28	0,34	0,38
3.2	60	0,14	0,20	0,25	0,30	0,34
3.3	75	0,18	0,25	0,32	0,38	0,43
3.4	50	0,14	0,20	0,25	0,30	0,34
3.5	100	0,20	0,28	0,35	0,42	0,48
3.6	85	0,18	0,25	0,32	0,38	0,43
3.7	100	0,18	0,25	0,32	0,38	0,43
3.8	85	0,14	0,20	0,25	0,30	0,34
4.1	270	0,11	0,15	0,20	0,24	0,27
4.2	205	0,11	0,15	0,20	0,24	0,27
4.3	170	0,14	0,20	0,25	0,30	0,34
4.4	135	0,11	0,15	0,20	0,24	0,27
4.5	100	0,10	0,14	0,18	0,22	0,24
4.6	270	0,10	0,14	0,18	0,22	0,24
4.7	240	0,10	0,14	0,18	0,22	0,24
4.8	135	0,10	0,14	0,18	0,22	0,24
4.9	170	0,10	0,14	0,18	0,22	0,24
4.10	135	0,10	0,14	0,18	0,22	0,24
4.11	135	0,16	0,22	0,28	0,34	0,38
4.12	135	0,14	0,20	0,25	0,30	0,34
4.13	100	0,05	0,08	0,10	0,12	0,13
4.14	130	0,09	0,12	0,16	0,19	0,22
4.15	100	0,09	0,12	0,16	0,19	0,22
4.16	255	0,11	0,15	0,20	0,24	0,27
4.17						
4.18	35	0,06	0,09	0,12	0,15	0,17
4.19	35	0,05	0,08	0,10	0,12	0,13
5.1	35	0,05	0,08	0,10	0,12	0,13
5.2	15	0,05	0,08	0,10	0,12	0,13
5.3	15	0,05	0,08	0,10	0,12	0,13
5.4	15	0,05	0,08	0,10	0,12	0,13
5.5	15	0,05	0,08	0,10	0,12	0,13
5.6	15	0,05	0,08	0,10	0,12	0,13
5.7	15	0,05	0,08	0,10	0,12	0,13
5.8	10	0,05	0,08	0,10	0,12	0,13
5.9	15	0,05	0,08	0,10	0,12	0,13
5.10	20	0,05	0,08	0,10	0,12	0,13
5.11	15	0,05	0,08	0,10	0,12	0,13
6.1						
6.2						
6.3						
6.4						
6.5						

Cutting data standard values – WTX – Quattro 4F

Index	Drilling depth 5xD Quattro 4F 10 730 ..., 10 735...							Drilling depth 8xD Quattro 4F 10 736 ...						
	v_c m/min without through coolant	v_c m/min with through coolant	ϕ 3-5	ϕ 5-8	ϕ 8-12	ϕ 12-16	ϕ 16-20	v_c m/min with through coolant	ϕ 3-5	ϕ 5-8	ϕ 8-12	ϕ 12-16	ϕ 16-20	
	f	f	f	f	f	f	f	f	f	f	f	f	f	
1.1	90	125	0,13	0,17	0,22	0,26	0,30	110	0,13	0,17	0,22	0,26	0,30	
1.2	110	150	0,21	0,28	0,35	0,42	0,48	130	0,21	0,28	0,35	0,42	0,48	
1.3	90	125	0,16	0,21	0,28	0,33	0,37	110	0,16	0,21	0,28	0,33	0,37	
1.4	75	100	0,14	0,19	0,24	0,29	0,33	90	0,14	0,19	0,24	0,29	0,33	
1.5	80	115	0,16	0,21	0,28	0,33	0,37	100	0,16	0,21	0,28	0,33	0,37	
1.6	75	100	0,14	0,19	0,24	0,29	0,33	90	0,14	0,19	0,24	0,29	0,33	
1.7	75	100	0,14	0,19	0,24	0,29	0,33	90	0,14	0,19	0,24	0,29	0,33	
1.8	55	75	0,12	0,15	0,20	0,24	0,27	65	0,12	0,15	0,20	0,24	0,27	
1.9	80	115	0,16	0,21	0,28	0,33	0,37	100	0,16	0,21	0,28	0,33	0,37	
1.10	55	75	0,12	0,15	0,20	0,24	0,27	65	0,12	0,15	0,20	0,24	0,27	
1.11	45	65	0,10	0,14	0,18	0,21	0,24	55	0,10	0,14	0,18	0,21	0,24	
1.12	55	75	0,12	0,15	0,20	0,24	0,27	65	0,12	0,15	0,20	0,24	0,27	
1.13	55	75	0,12	0,15	0,20	0,24	0,27	65	0,12	0,15	0,20	0,24	0,27	
1.14	45	65	0,10	0,14	0,18	0,21	0,24	55	0,10	0,14	0,18	0,21	0,24	
1.15	45	65	0,12	0,15	0,20	0,24	0,27	55	0,12	0,15	0,20	0,24	0,27	
1.16	45	65	0,12	0,15	0,20	0,24	0,27	55	0,12	0,15	0,20	0,24	0,27	
2.1		50	0,09	0,12	0,15	0,19	0,21							
2.2		45	0,08	0,10	0,13	0,16	0,19							
2.3		45	0,07	0,09	0,12	0,15	0,17							
2.4		35	0,07	0,09	0,12	0,15	0,17							
2.5		35	0,07	0,09	0,12	0,15	0,17							
2.6		50	0,08	0,10	0,13	0,16	0,19							
2.7		35	0,06	0,08	0,11	0,13	0,15							
3.1	75	90	0,17	0,22	0,28	0,34	0,38	80	0,17	0,22	0,28	0,34	0,38	
3.2	55	60	0,15	0,20	0,25	0,30	0,34	55	0,15	0,20	0,25	0,30	0,34	
3.3	70	80	0,19	0,25	0,32	0,38	0,43	70	0,19	0,25	0,32	0,38	0,43	
3.4	45	55	0,15	0,20	0,25	0,30	0,34	50	0,15	0,20	0,25	0,30	0,34	
3.5	90	110	0,22	0,28	0,35	0,42	0,48	95	0,22	0,28	0,35	0,42	0,48	
3.6	75	90	0,19	0,25	0,32	0,38	0,43	80	0,19	0,25	0,32	0,38	0,43	
3.7	90	110	0,19	0,25	0,32	0,38	0,43	95	0,19	0,25	0,32	0,38	0,43	
3.8	75	90	0,15	0,20	0,25	0,30	0,34	80	0,15	0,20	0,25	0,30	0,34	
4.1														
4.2														
4.3														
4.4														
4.5														
4.6														
4.7														
4.8														
4.9														
4.10														
4.11	120	200	0,17	0,22	0,28	0,34	0,38	200	0,17	0,22	0,28	0,34	0,38	
4.12	120	200	0,15	0,20	0,25	0,30	0,34	200	0,15	0,20	0,25	0,30	0,34	
4.13														
4.14														
4.15														
4.16														
4.17	240		0,12	0,15	0,20	0,24	0,27							
4.18														
4.19														
5.1														
5.2														
5.3														
5.4														
5.5														
5.6														
5.7														
5.8														
5.9														
5.10														
5.11														
6.1	40	55	0,08	0,11	0,14	0,17	0,19	55	0,08	0,11	0,14	0,17	0,19	
6.2	20	35	0,06	0,08	0,10	0,12	0,13							
6.3														
6.4														
6.5														

i 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.

		Drilling depth 12xD Quattro 4F 10 737 ...				
Index	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	100	0,12	0,15	0,20	0,24	0,27
1.2	120	0,19	0,25	0,32	0,38	0,43
1.3	100	0,15	0,20	0,25	0,30	0,34
1.4	80	0,13	0,17	0,22	0,27	0,30
1.5	90	0,15	0,20	0,25	0,30	0,34
1.6	80	0,13	0,17	0,22	0,27	0,30
1.7	80	0,13	0,17	0,22	0,27	0,30
1.8	60	0,10	0,14	0,18	0,22	0,24
1.9	90	0,15	0,20	0,25	0,30	0,34
1.10	60	0,10	0,14	0,18	0,22	0,24
1.11	50	0,09	0,12	0,16	0,19	0,22
1.12	60	0,10	0,14	0,18	0,22	0,24
1.13	60	0,10	0,14	0,18	0,22	0,24
1.14	50	0,09	0,12	0,16	0,19	0,22
1.15	50	0,10	0,14	0,18	0,22	0,24
1.16	50	0,10	0,14	0,18	0,22	0,24
2.1						
2.2						
2.3						
2.4						
2.5						
2.6						
2.7						
3.1	80	0,17	0,22	0,28	0,34	0,38
3.2	55	0,15	0,20	0,25	0,30	0,34
3.3	70	0,19	0,25	0,32	0,38	0,43
3.4	50	0,15	0,20	0,25	0,30	0,34
3.5	95	0,22	0,28	0,35	0,42	0,48
3.6	80	0,19	0,25	0,32	0,38	0,43
3.7	95	0,19	0,25	0,32	0,38	0,43
3.8	80	0,15	0,20	0,25	0,30	0,34
4.1						
4.2						
4.3						
4.4						
4.5						
4.6						
4.7						
4.8						
4.9						
4.10						
4.11	200	0,17	0,22	0,28	0,34	0,38
4.12	200	0,15	0,20	0,25	0,30	0,34
4.13						
4.14						
4.15						
4.16						
4.17						
4.18						
4.19						
5.1						
5.2						
5.3						
5.4						
5.5						
5.6						
5.7						
5.8						
5.9						
5.10						
5.11						
6.1						
6.2						
6.3						
6.4						
6.5						

Cutting data standard values – WTX – AL

Index	Drilling depth 5xD AL 10 791 ...						Drilling depth 8xD AL 10 792 ...					
	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1												
1.2												
1.3												
1.4												
1.5												
1.6												
1.7												
1.8												
1.9												
1.10												
1.11												
1.12												
1.13												
1.14												
1.15												
1.16												
2.1												
2.2												
2.3												
2.4												
2.5												
2.6												
2.7												
3.1	105	0,23	0,33	0,42	0,52	0,58	105	0,23	0,33	0,42	0,52	0,58
3.2	100	0,23	0,33	0,42	0,52	0,58	100	0,23	0,33	0,42	0,52	0,58
3.3	105	0,2	0,25	0,35	0,4	0,46	105	0,2	0,25	0,35	0,4	0,46
3.4	100	0,2	0,25	0,35	0,4	0,46	100	0,2	0,25	0,35	0,4	0,46
3.5	105	0,2	0,25	0,35	0,4	0,46	105	0,2	0,25	0,35	0,4	0,46
3.6	100	0,2	0,25	0,35	0,4	0,46	100	0,2	0,25	0,35	0,4	0,46
3.7	105	0,2	0,25	0,35	0,4	0,46	105	0,2	0,25	0,35	0,4	0,46
3.8	100	0,2	0,25	0,35	0,4	0,46	100	0,2	0,25	0,35	0,4	0,46
4.1	360	0,3	0,4	0,5	0,6	0,65	330	0,3	0,4	0,5	0,6	0,65
4.2	400	0,3	0,4	0,5	0,6	0,65	360	0,3	0,4	0,5	0,6	0,65
4.3	360	0,35	0,45	0,55	0,65	0,7	330	0,35	0,45	0,55	0,65	0,7
4.4	350	0,3	0,4	0,5	0,6	0,65	320	0,3	0,4	0,5	0,6	0,65
4.5	300	0,3	0,4	0,5	0,6	0,65	300	0,3	0,4	0,5	0,6	0,65
4.6	160	0,23	0,3	0,38	0,45	0,52	130	0,23	0,3	0,38	0,45	0,52
4.7	200	0,23	0,3	0,38	0,45	0,52	170	0,23	0,3	0,38	0,45	0,52
4.8												
4.9												
4.10												
4.11	200	0,23	0,3	0,38	0,45	0,52	170	0,23	0,3	0,38	0,45	0,52
4.12	160	0,23	0,3	0,38	0,45	0,52	130	0,23	0,3	0,38	0,45	0,52
4.13												
4.14												
4.15												
4.16												
4.17												
4.18												
4.19												
5.1												
5.2												
5.3												
5.4												
5.5												
5.6												
5.7												
5.8												
5.9												
5.10												
5.11												
6.1												
6.2												
6.3												
6.4												
6.5												

i 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.

Index	Drilling depth 12xD AL 10 793...					
	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						
1.10						
1.11						
1.12						
1.13						
1.14						
1.15						
1.16						
2.1						
2.2						
2.3						
2.4						
2.5						
2.6						
2.7						
3.1	105	0,23	0,33	0,42	0,52	0,58
3.2	100	0,23	0,33	0,42	0,52	0,58
3.3	105	0,2	0,25	0,35	0,4	0,46
3.4	100	0,2	0,25	0,35	0,4	0,46
3.5	105	0,2	0,25	0,35	0,4	0,46
3.6	100	0,2	0,25	0,35	0,4	0,46
3.7	105	0,2	0,25	0,35	0,4	0,46
3.8	100	0,2	0,25	0,35	0,4	0,46
4.1	330	0,3	0,4	0,5	0,6	0,65
4.2	360	0,3	0,4	0,5	0,6	0,65
4.3	330	0,35	0,45	0,55	0,65	0,7
4.4	320	0,3	0,4	0,5	0,6	0,65
4.5	300	0,3	0,4	0,5	0,6	0,65
4.6	130	0,23	0,3	0,38	0,45	0,52
4.7	170	0,23	0,3	0,38	0,45	0,52
4.8						
4.9						
4.10						
4.11	170	0,23	0,3	0,38	0,45	0,52
4.12	130	0,23	0,3	0,38	0,45	0,52
4.13						
4.14						
4.15						
4.16						
4.17						
4.18						
4.19						
5.1						
5.2						
5.3						
5.4						
5.5						
5.6						
5.7						
5.8						
5.9						
5.10						
5.11						
6.1						
6.2						
6.3						
6.4						
6.5						

Cutting data standard values – WTX – GG

Index	Drilling depth 5xD GG 10 749 ...						Drilling depth 8xD GG 10 753 ...					
	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1												
1.2												
1.3												
1.4												
1.5												
1.6												
1.7												
1.8												
1.9												
1.10												
1.11												
1.12												
1.13												
1.14												
1.15												
1.16												
2.1												
2.2												
2.3												
2.4												
2.5												
2.6												
2.7												
3.1	100	0,15	0,18	0,25	0,30	0,34	100	0,14	0,16	0,22	0,27	0,31
3.2	70	0,13	0,16	0,23	0,27	0,30	70	0,12	0,14	0,20	0,24	0,27
3.3	90	0,17	0,21	0,29	0,35	0,39	90	0,16	0,18	0,26	0,31	0,35
3.4	60	0,13	0,16	0,23	0,27	0,30	60	0,12	0,14	0,20	0,24	0,27
3.5	120	0,19	0,23	0,32	0,38	0,43	120	0,17	0,20	0,28	0,34	0,38
3.6	100	0,17	0,21	0,29	0,35	0,39	100	0,16	0,18	0,26	0,31	0,35
3.7	120	0,17	0,21	0,29	0,35	0,39	120	0,16	0,18	0,26	0,31	0,35
3.8	100	0,13	0,16	0,23	0,27	0,30	100	0,12	0,14	0,20	0,24	0,27
4.1												
4.2	300	0,12	0,14	0,20	0,24	0,27	300	0,12	0,14	0,20	0,24	0,27
4.3	250	0,15	0,18	0,25	0,30	0,34	250	0,15	0,18	0,25	0,30	0,34
4.4	200	0,12	0,14	0,20	0,24	0,27	200	0,12	0,14	0,20	0,24	0,27
4.5	150	0,10	0,13	0,18	0,22	0,24	150	0,10	0,13	0,18	0,22	0,24
4.6												
4.7												
4.8	200	0,10	0,13	0,18	0,22	0,24	200	0,10	0,13	0,18	0,22	0,24
4.9	250	0,10	0,13	0,18	0,22	0,24	250	0,10	0,13	0,18	0,22	0,24
4.10	200	0,10	0,13	0,18	0,22	0,24	200	0,10	0,13	0,18	0,22	0,24
4.11	200	0,17	0,20	0,28	0,34	0,38	200	0,17	0,20	0,28	0,34	0,38
4.12	200	0,15	0,18	0,25	0,30	0,34	200	0,15	0,18	0,25	0,30	0,34
4.13	120	0,06	0,07	0,10	0,12	0,13	120	0,06	0,07	0,10	0,12	0,13
4.14	150	0,09	0,11	0,16	0,19	0,22	150	0,09	0,11	0,16	0,19	0,22
4.15	120	0,09	0,11	0,16	0,19	0,22	120	0,09	0,11	0,16	0,19	0,22
4.16	300	0,12	0,14	0,20	0,24	0,27	300	0,12	0,14	0,20	0,24	0,27
4.17	400	0,12	0,14	0,20	0,24	0,27	400	0,12	0,14	0,20	0,24	0,27
4.18												
4.19												
5.1												
5.2												
5.3												
5.4												
5.5												
5.6												
5.7												
5.8												
5.9												
5.10												
5.11												
6.1												
6.2												
6.3												
6.4												
6.5												

i 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 – WTX – Mini

Index	Drilling depth 5xD MINI 10 775 ...				Drilling depth 8xD MINI 10 778 ...				Drilling depth 12xD MINI 10 779 ...			
	V _c m/min	Ø 1,0-1,5	Ø 1,6-2,0	Ø 2,1-2,9	V _c m/min	Ø 1,0-1,5	Ø 1,6-2,0	Ø 2,1-2,9	V _c m/min	Ø 1,0-1,5	Ø 1,6-2,0	Ø 2,1-2,9
	with through coolant	f mm/rev.	f mm/rev.	f mm/rev.	with through coolant	f mm/rev.	f mm/rev.	f mm/rev.	with through coolant	f mm/rev.	f mm/rev.	f mm/rev.
1.1	80	0,07	0,08	0,09	80	0,06	0,07	0,08	70	0,06	0,06	0,07
1.2	95	0,12	0,14	0,16	95	0,11	0,12	0,14	85	0,10	0,11	0,13
1.3	90	0,09	0,10	0,12	90	0,08	0,09	0,11	70	0,07	0,08	0,10
1.4	65	0,08	0,09	0,10	65	0,07	0,08	0,09	60	0,06	0,07	0,08
1.5	70	0,09	0,10	0,12	70	0,08	0,09	0,11	65	0,07	0,08	0,10
1.6	65	0,08	0,09	0,10	65	0,07	0,08	0,09	55	0,06	0,07	0,08
1.7	65	0,08	0,09	0,10	65	0,07	0,08	0,09	55	0,06	0,07	0,08
1.8	50	0,06	0,07	0,08	50	0,06	0,06	0,07	40	0,05	0,06	0,07
1.9	70	0,09	0,10	0,12	70	0,08	0,09	0,11	60	0,07	0,08	0,10
1.10	50	0,06	0,07	0,08	50	0,06	0,06	0,07	40	0,05	0,06	0,07
1.11	40	0,06	0,06	0,07	40	0,05	0,06	0,07	35	0,04	0,05	0,06
1.12	50	0,06	0,07	0,08	50	0,06	0,06	0,07	40	0,05	0,06	0,07
1.13	50	0,06	0,07	0,08	50	0,06	0,06	0,07	40	0,05	0,06	0,07
1.14	40	0,06	0,06	0,07	40	0,05	0,06	0,07	35	0,04	0,05	0,06
1.15	40	0,06	0,07	0,08	40	0,06	0,06	0,07	35	0,05	0,06	0,07
1.16	40	0,06	0,07	0,08	40	0,06	0,06	0,07	35	0,05	0,06	0,07
2.1	50	0,05	0,06	0,06	50	0,04	0,05	0,06				
2.2	40	0,04	0,05	0,06	40	0,04	0,04	0,05				
2.3	50	0,04	0,04	0,05	50	0,03	0,04	0,05				
2.4	32	0,04	0,04	0,05	32	0,03	0,04	0,05				
2.5	28	0,04	0,04	0,05	28	0,03	0,04	0,05				
2.6	40	0,04	0,05	0,06	40	0,04	0,04	0,05				
2.7	28	0,03	0,04	0,05	28	0,03	0,04	0,04				
3.1	90	0,11	0,12	0,14	90	0,10	0,11	0,13	80	0,09	0,10	0,11
3.2	65	0,09	0,10	0,12	65	0,08	0,09	0,11	55	0,07	0,08	0,10
3.3	80	0,12	0,14	0,16	80	0,11	0,12	0,14	70	0,10	0,11	0,13
3.4	55	0,09	0,10	0,12	55	0,08	0,09	0,11	50	0,07	0,08	0,10
3.5	100	0,14	0,16	0,18	100	0,13	0,14	0,16	95	0,11	0,13	0,14
3.6	90	0,12	0,14	0,16	90	0,11	0,12	0,14	80	0,10	0,11	0,13
3.7	105	0,12	0,14	0,16	105	0,11	0,12	0,14	95	0,10	0,11	0,13
3.8	90	0,09	0,10	0,12	90	0,08	0,09	0,11	80	0,07	0,08	0,10
4.1												
4.2	180	0,07	0,08	0,09	180	0,06	0,07	0,08	180	0,06	0,06	0,07
4.3	150	0,09	0,10	0,12	150	0,08	0,09	0,11	150	0,07	0,08	0,10
4.4	120	0,07	0,08	0,09	120	0,06	0,07	0,08	120	0,06	0,06	0,07
4.5	90	0,06	0,07	0,08	90	0,06	0,06	0,07	90	0,05	0,06	0,07
4.6												
4.7												
4.8	120	0,06	0,07	0,08	120	0,06	0,06	0,07	120	0,05	0,06	0,07
4.9	150	0,06	0,07	0,08	150	0,06	0,06	0,07	150	0,05	0,06	0,07
4.10	120	0,06	0,07	0,08	120	0,06	0,06	0,07	120	0,05	0,06	0,07
4.11	120	0,11	0,12	0,14	120	0,10	0,11	0,13	160	0,09	0,10	0,11
4.12	120	0,09	0,10	0,12	120	0,08	0,09	0,11	160	0,07	0,08	0,10
4.13	100	0,03	0,04	0,05	100	0,03	0,04	0,04	96	0,03	0,03	0,04
4.14	125	0,06	0,06	0,07	125	0,05	0,06	0,07	120	0,04	0,05	0,06
4.15	120	0,06	0,06	0,07	110	0,05	0,06	0,07	95	0,04	0,05	0,06
4.16	180	0,07	0,08	0,09	180	0,06	0,07	0,08	180	0,06	0,06	0,07
4.17									320	0,06	0,06	0,07
4.18	30	0,04	0,05	0,06	30	0,04	0,04	0,05				
4.19	32	0,03	0,04	0,05	32	0,03	0,04	0,04				
5.1	35	0,03	0,04	0,05	35	0,03	0,04	0,04				
5.2	16	0,03	0,04	0,05	16	0,03	0,04	0,04				
5.3	16	0,03	0,04	0,05	16	0,03	0,04	0,04				
5.4	16	0,03	0,04	0,05	16	0,03	0,04	0,04				
5.5	16	0,03	0,04	0,05	16	0,03	0,04	0,04				
5.6	15	0,03	0,04	0,05	15	0,03	0,04	0,04				
5.7	12	0,03	0,04	0,05	12	0,03	0,04	0,04				
5.8	8	0,03	0,04	0,05	8	0,03	0,04	0,04				
5.9	16	0,03	0,04	0,05	16	0,03	0,04	0,04				
5.10	20	0,03	0,04	0,05	20	0,03	0,04	0,04				
5.11	16	0,03	0,04	0,05	16	0,03	0,04	0,04				
6.1												
6.2												
6.3												
6.4												
6.5												

i Coolant pressure 20–50 bar. High coolant pressure can lead to stiffening of the tool and may result in tool breakage with minimum radial force. The coolant system should be operated with a filter of 20–25 microns in order to avoid a possible blockage of the coolant channels. The cutting values are highly dependent on the external conditions, the material and the machine. The values shown represent possible cutting data which may have to be corrected up or down depending on application.

Cutting data standard values – WTX – Mini, WTX – SB

Drilling depth 5xD Mini 11 770 ...						Drilling depth 3xD SB 10 767 ..., 10 772 ...					
Index	V _c m/min without through coolant	< Ø 1,0	> Ø 1,0-1,5	> Ø 1,5-2,0	> Ø 2,0-2,9	Index	V _c m/min without through coolant	Ø 2-5	Ø 5-8	Ø 8-12	Ø 12-16
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.			f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	70	0,01	0,015	0,03	0,05	1.1	100	0,11	0,15	0,20	0,24
1.2	70	0,01	0,015	0,03	0,05	1.2	120	0,19	0,25	0,32	0,38
1.3	75	0,01	0,015	0,03	0,05	1.3	100	0,14	0,20	0,25	0,30
1.4	65	0,01	0,015	0,03	0,05	1.4	80	0,12	0,17	0,22	0,27
1.5	65	0,02	0,03	0,04	0,06	1.5	90	0,14	0,20	0,25	0,30
1.6	65	0,01	0,015	0,03	0,05	1.6	80	0,12	0,17	0,22	0,27
1.7	65	0,02	0,03	0,04	0,06	1.7	80	0,12	0,17	0,22	0,27
1.8	50	0,01	0,015	0,03	0,05	1.8	60	0,10	0,14	0,18	0,22
1.9						1.9	90	0,14	0,20	0,25	0,30
1.10	65	0,01	0,015	0,03	0,05	1.10	60	0,10	0,14	0,18	0,22
1.11	65	0,01	0,015	0,03	0,05	1.11	50	0,09	0,12	0,16	0,19
1.12	50	0,01	0,015	0,03	0,05	1.12	60	0,10	0,14	0,18	0,22
1.13						1.13	60	0,10	0,14	0,18	0,22
1.14						1.14	50	0,09	0,12	0,16	0,19
1.15	50	0,01	0,015	0,03	0,05	1.15	50	0,10	0,14	0,18	0,22
1.16	50	0,01	0,015	0,03	0,05	1.16	50	0,10	0,14	0,18	0,22
2.1						2.1					
2.2						2.2					
2.3						2.3					
2.4						2.4					
2.5						2.5					
2.6						2.6					
2.7						2.7					
3.1	70	0,01	0,015	0,03	0,05	3.1	70	0,17	0,22	0,28	0,34
3.2	70	0,01	0,015	0,03	0,05	3.2	50	0,14	0,20	0,25	0,30
3.3	70	0,01	0,015	0,03	0,05	3.3	60	0,19	0,25	0,32	0,38
3.4	70	0,01	0,015	0,03	0,05	3.4	45	0,14	0,20	0,25	0,30
3.5	70	0,01	0,015	0,03	0,05	3.5	90	0,21	0,28	0,35	0,42
3.6	70	0,01	0,015	0,03	0,05	3.6	75	0,19	0,25	0,32	0,38
3.7	70	0,01	0,015	0,03	0,05	3.7	90	0,19	0,25	0,32	0,38
3.8	70	0,01	0,015	0,03	0,05	3.8	75	0,14	0,20	0,25	0,30
4.1	200	0,01	0,015	0,03	0,05	4.1					
4.2	200	0,01	0,015	0,03	0,05	4.2					
4.3	160	0,01	0,015	0,03	0,05	4.3					
4.4	130	0,01	0,015	0,03	0,05	4.4					
4.5	130	0,01	0,015	0,03	0,05	4.5					
4.6	100	0,01	0,015	0,03	0,05	4.6					
4.7	100	0,01	0,015	0,03	0,05	4.7					
4.8						4.8					
4.9						4.9					
4.10						4.10					
4.11	70	0,01	0,015	0,03	0,05	4.11	120	0,17	0,22	0,28	0,34
4.12	120	0,01	0,015	0,03	0,05	4.12	120	0,14	0,20	0,25	0,30
4.13						4.13					
4.14						4.14					
4.15						4.15					
4.16	200	0,01	0,015	0,03	0,05	4.16					
4.17						4.17	240	0,11	0,15	0,20	0,24
4.18						4.18					
4.19						4.19					
5.1						5.1					
5.2						5.2					
5.3						5.3					
5.4						5.4					
5.5						5.5					
5.6						5.6					
5.7						5.7					
5.8						5.8					
5.9	30	0,01	0,015	0,03	0,05	5.9					
5.10	20	0,01	0,015	0,03	0,05	5.10					
5.11	20	0,01	0,015	0,03	0,05	5.11					
6.1						6.1					
6.2						6.2					
6.3						6.3					
6.4						6.4					
6.5						6.5					

i 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 – WTX – H

Index	Drilling depth 3xD H 10 776 ...								Drilling depth 3xD H 10 777 ...							
	v_c m/min with through coolant	\emptyset 2-3 f	\emptyset 3-4 f	\emptyset 4-5 f	\emptyset 5-6 f	\emptyset 6-8 f	\emptyset 8-12 f	\emptyset 12-16 f	v_c m/min without through coolant	\emptyset 2-3 f	\emptyset 3-4 f	\emptyset 4-5 f	\emptyset 5-6 f	\emptyset 6-8 f	\emptyset 8-12 f	\emptyset 12-16 f
	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.	mm/rev.
1.1	120	0,1	0,14	0,18	0,21	0,24	0,3	0,35								
1.2	120	0,1	0,14	0,18	0,21	0,24	0,3	0,35								
1.3	120	0,1	0,14	0,18	0,21	0,24	0,3	0,35								
1.4	100	0,09	0,13	0,16	0,19	0,22	0,28	0,34								
1.5	110	0,09	0,13	0,16	0,19	0,22	0,28	0,34								
1.6	100	0,08	0,12	0,15	0,18	0,21	0,27	0,32								
1.7	100	0,09	0,13	0,16	0,19	0,22	0,28	0,34								
1.8	85	0,08	0,12	0,15	0,18	0,21	0,27	0,32								
1.9																
1.10	100	0,08	0,12	0,15	0,18	0,21	0,27	0,32								
1.11	100	0,08	0,12	0,15	0,18	0,21	0,27	0,32								
1.12																
1.13	30	0,045	0,06	0,08	0,1	0,12	0,15	0,2								
1.14																
1.15	60	0,045	0,06	0,08	0,1	0,12	0,15	0,2								
1.16	80	0,08	0,12	0,15	0,18	0,21	0,27	0,32								
2.1																
2.2																
2.3																
2.4																
2.5																
2.6																
2.7																
3.1	115	0,15	0,19	0,23	0,27	0,335	0,425	0,52								
3.2	95	0,15	0,19	0,23	0,27	0,335	0,425	0,52								
3.3	95	0,125	0,155	0,18	0,2	0,25	0,35	0,4								
3.4	90	0,125	0,155	0,18	0,2	0,25	0,35	0,4								
3.5	95	0,125	0,155	0,18	0,2	0,25	0,35	0,4								
3.6	90	0,125	0,155	0,18	0,2	0,25	0,35	0,4								
3.7	95	0,125	0,155	0,18	0,2	0,25	0,35	0,4								
3.8	90	0,125	0,155	0,18	0,2	0,25	0,35	0,4								
4.1																
4.2																
4.3																
4.4																
4.5																
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5.4																
5.5																
5.6																
5.7																
5.8																
5.9																
5.10																
5.11																
6.1	28	0,02	0,03	0,04	0,055	0,08	0,12	0,16	28	0,05	0,06	0,07	0,08	0,09	0,11	0,13
6.2	20	0,02	0,03	0,04	0,055	0,08	0,12	0,16	28	0,05	0,06	0,07	0,08	0,09	0,11	0,13
6.3	20	0,02	0,03	0,04	0,055	0,08	0,12	0,16	20	0,05	0,06	0,07	0,08	0,09	0,11	0,13
6.4									16	0,04	0,04	0,049	0,055	0,065	0,075	0,09
6.5									10	0,04	0,04	0,049	0,055	0,065	0,075	0,09

i 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 – WTX – BR

Index	V _c m/min with through coolant	Drilling depth 3xD BR 10 760 ... , 10 761 ...							
		Ø 4	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1									
1.2	90	0,13	0,16	0,19	0,23	0,26	0,28	0,31	0,33
1.3	75	0,10	0,12	0,15	0,18	0,20	0,22	0,24	0,26
1.4	60	0,09	0,11	0,13	0,15	0,18	0,20	0,21	0,23
1.5	70	0,10	0,12	0,15	0,18	0,20	0,22	0,24	0,26
1.6	60	0,09	0,11	0,13	0,15	0,18	0,20	0,21	0,23
1.7	60	0,09	0,11	0,13	0,15	0,18	0,20	0,21	0,23
1.8	45	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
1.9	70	0,10	0,12	0,15	0,18	0,20	0,22	0,24	0,26
1.10	45	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
1.11	40	0,06	0,08	0,09	0,11	0,13	0,14	0,15	0,16
1.12	45	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
1.13	45	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
1.14	35	0,06	0,08	0,09	0,11	0,13	0,14	0,15	0,16
1.15	35	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
1.16	35	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
2.1									
2.2									
2.3									
2.4									
2.5									
2.6									
2.7									
3.1	80	0,11	0,14	0,17	0,20	0,22	0,25	0,27	0,29
3.2	55	0,10	0,12	0,15	0,18	0,20	0,22	0,24	0,26
3.3	70	0,13	0,16	0,19	0,23	0,26	0,28	0,31	0,33
3.4	50	0,10	0,12	0,15	0,18	0,20	0,22	0,24	0,26
3.5	90	0,14	0,18	0,21	0,25	0,28	0,31	0,34	0,36
3.6	80	0,13	0,16	0,19	0,23	0,26	0,28	0,31	0,33
3.7	95	0,13	0,16	0,19	0,23	0,26	0,28	0,31	0,33
3.8	80	0,10	0,12	0,15	0,18	0,20	0,22	0,24	0,26
4.1									
4.2									
4.3	125	0,10	0,12	0,15	0,18	0,20	0,22	0,24	0,26
4.4	100	0,08	0,10	0,12	0,14	0,16	0,18	0,19	0,21
4.5	75	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
4.6									
4.7									
4.8	100	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
4.9	125	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
4.10	100	0,07	0,09	0,11	0,13	0,14	0,16	0,17	0,18
4.11	100	0,11	0,14	0,17	0,20	0,22	0,25	0,27	0,29
4.12									
4.13									
4.14									
4.15									
4.16									
4.17									
4.18									
4.19									
5.1									
5.2									
5.3									
5.4									
5.5									
5.6									
5.7									
5.8									
5.9									
5.10									
5.11									
6.1									
6.2									
6.3									
6.4									
6.5									

i 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!

		Drilling depth 5xD BR 10 762 ...									
Index	V _c m/min with through coolant	Ø 4	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 18	Ø 20
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1											
1.2	90	0,13	0,15	0,18	0,23	0,26	0,28	0,31	0,33	0,36	0,40
1.3	75	0,11	0,13	0,15	0,18	0,20	0,22	0,24	0,26	0,27	0,30
1.4	60	0,09	0,10	0,12	0,15	0,18	0,20	0,21	0,23	0,24	0,27
1.5	70	0,11	0,13	0,15	0,18	0,20	0,22	0,24	0,26	0,27	0,30
1.6	60	0,09	0,10	0,12	0,15	0,18	0,20	0,21	0,23	0,24	0,27
1.7	60	0,09	0,10	0,12	0,15	0,18	0,20	0,21	0,23	0,24	0,27
1.8	45	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
1.9	70	0,11	0,13	0,15	0,18	0,20	0,22	0,24	0,26	0,27	0,30
1.10	45	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
1.11	40	0,07	0,08	0,09	0,11	0,13	0,14	0,15	0,16	0,16	0,18
1.12	45	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
1.13	45	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
1.14	35	0,07	0,08	0,09	0,11	0,13	0,14	0,15	0,16	0,16	0,18
1.15	35	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
1.16	35	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
2.1											
2.2											
2.3											
2.4											
2.5											
2.6											
2.7											
3.1	80	0,12	0,13	0,16	0,20	0,22	0,25	0,27	0,29	0,31	0,34
3.2	55	0,11	0,13	0,15	0,18	0,20	0,22	0,24	0,26	0,27	0,30
3.3	70	0,13	0,15	0,18	0,23	0,26	0,28	0,31	0,33	0,36	0,40
3.4	50	0,11	0,13	0,15	0,18	0,20	0,22	0,24	0,26	0,27	0,30
3.5	90	0,13	0,15	0,18	0,25	0,28	0,31	0,34	0,36	0,39	0,43
3.6	80	0,13	0,15	0,18	0,23	0,26	0,28	0,31	0,33	0,36	0,40
3.7	95	0,13	0,15	0,18	0,23	0,26	0,28	0,31	0,33	0,36	0,40
3.8	80	0,11	0,13	0,15	0,18	0,20	0,22	0,24	0,26	0,27	0,30
4.1											
4.2											
4.3	125	0,11	0,13	0,15	0,18	0,20	0,22	0,24	0,26	0,27	0,30
4.4	100	0,09	0,10	0,12	0,14	0,16	0,18	0,19	0,21	0,23	0,25
4.5	75	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
4.6											
4.7											
4.8	100	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
4.9	125	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
4.10	100	0,08	0,09	0,11	0,13	0,14	0,16	0,17	0,18	0,19	0,21
4.11	100	0,12	0,13	0,16	0,20	0,22	0,25	0,27	0,29	0,31	0,34
4.12											
4.13											
4.14											
4.15											
4.16											
4.17											
4.18											
4.19											
5.1											
5.2											
5.3											
5.4											
5.5											
5.6											
5.7											
5.8											
5.9											
5.10											
5.11											
6.1											
6.2											
6.3											
6.4											
6.5											

Cutting data standard values – WTX – 180

Index	V _c m/min with through coolant	Drilling depth 3xD Type 180 10 720 ...					
		Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20	Ø 20-25
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	100	0,12	0,15	0,20	0,24	0,27	0,29
1.2	120	0,21	0,25	0,32	0,38	0,43	0,47
1.3	100	0,16	0,20	0,25	0,30	0,34	0,36
1.4	80	0,14	0,17	0,22	0,27	0,30	0,32
1.5	90	0,16	0,20	0,25	0,30	0,34	0,36
1.6	80	0,14	0,17	0,22	0,27	0,30	0,32
1.7	80	0,14	0,17	0,22	0,27	0,30	0,32
1.8	60	0,11	0,14	0,18	0,22	0,24	0,26
1.9	90	0,16	0,20	0,25	0,30	0,34	0,36
1.10	60	0,11	0,14	0,18	0,22	0,24	0,26
1.11	50	0,10	0,12	0,16	0,19	0,22	0,23
1.12	60	0,11	0,14	0,18	0,22	0,24	0,26
1.13	60	0,11	0,14	0,18	0,22	0,24	0,26
1.14	50	0,10	0,12	0,16	0,19	0,22	0,23
1.15	50	0,11	0,14	0,18	0,22	0,24	0,26
1.16	50	0,11	0,14	0,18	0,22	0,24	0,26
2.1	60	0,09	0,11	0,14	0,17	0,19	0,21
2.2	50	0,07	0,09	0,12	0,15	0,17	0,19
2.3	60	0,07	0,08	0,11	0,13	0,15	0,17
2.4	40	0,07	0,08	0,11	0,13	0,15	0,17
2.5	35	0,07	0,08	0,11	0,13	0,15	0,17
2.6	50	0,07	0,09	0,12	0,15	0,17	0,19
2.7	35	0,06	0,08	0,10	0,12	0,13	0,14
3.1	90	0,18	0,22	0,28	0,34	0,38	0,42
3.2	65	0,16	0,20	0,25	0,30	0,34	0,36
3.3	80	0,21	0,25	0,32	0,38	0,43	0,47
3.4	55	0,16	0,20	0,25	0,30	0,34	0,36
3.5	110	0,23	0,28	0,35	0,42	0,48	0,52
3.6	90	0,21	0,25	0,32	0,38	0,43	0,47
3.7	110	0,21	0,25	0,32	0,38	0,43	0,47
3.8	90	0,16	0,20	0,25	0,30	0,34	0,36
4.1							
4.2							
4.3							
4.4							
4.5							
4.6							
4.7							
4.8							
4.9							
4.10							
4.11	160	0,18	0,22	0,28	0,34	0,38	0,42
4.12	160	0,16	0,20	0,25	0,30	0,34	0,36
4.13							
4.14							
4.15							
4.16							
4.17							
4.18							
4.19							
5.1							
5.2							
5.3							
5.4							
5.5							
5.6							
5.7							
5.8							
5.9							
5.10							
5.11							
6.1	50	0,07	0,09	0,11	0,14	0,15	0,17
6.2	30	0,05	0,06	0,08	0,10	0,11	0,12
6.3							
6.4							
6.5							

		Drilling depth 5xD Type 180 10 721 ...					
Index	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20	
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	
1.1	90	0,09	0,12	0,16	0,19	0,22	
1.2	110	0,16	0,20	0,26	0,31	0,35	
1.3	90	0,12	0,16	0,20	0,24	0,27	
1.4	75	0,10	0,14	0,18	0,21	0,24	
1.5	80	0,12	0,16	0,20	0,24	0,27	
1.6	75	0,10	0,14	0,18	0,21	0,24	
1.7	75	0,10	0,14	0,18	0,21	0,24	
1.8	55	0,08	0,11	0,14	0,17	0,19	
1.9	85	0,12	0,16	0,20	0,24	0,27	
1.10	60	0,08	0,11	0,14	0,17	0,19	
1.11	50	0,07	0,10	0,13	0,15	0,17	
1.12	60	0,08	0,11	0,14	0,17	0,19	
1.13	60	0,08	0,11	0,14	0,17	0,19	
1.14	50	0,07	0,10	0,13	0,15	0,17	
1.15	50	0,08	0,11	0,14	0,17	0,19	
1.16	50	0,08	0,11	0,14	0,17	0,19	
2.1	60	0,07	0,09	0,11	0,14	0,15	
2.2	50	0,06	0,07	0,10	0,12	0,14	
2.3	60	0,05	0,07	0,09	0,11	0,12	
2.4	40	0,05	0,07	0,09	0,11	0,12	
2.5	35	0,05	0,07	0,09	0,11	0,12	
2.6	50	0,06	0,07	0,10	0,12	0,14	
2.7	35	0,05	0,06	0,08	0,10	0,11	
3.1	90	0,14	0,18	0,22	0,27	0,31	
3.2	65	0,12	0,16	0,20	0,24	0,27	
3.3	80	0,16	0,20	0,26	0,31	0,35	
3.4	55	0,12	0,16	0,20	0,24	0,27	
3.5	110	0,17	0,22	0,28	0,34	0,38	
3.6	90	0,16	0,20	0,26	0,31	0,35	
3.7	110	0,16	0,20	0,26	0,31	0,35	
3.8	90	0,12	0,16	0,20	0,24	0,27	
4.1							
4.2							
4.3							
4.4							
4.5							
4.6							
4.7							
4.8							
4.9							
4.10							
4.11	160	0,17	0,22	0,28	0,34	0,38	
4.12	160	0,15	0,20	0,25	0,30	0,34	
4.13							
4.14							
4.15							
4.16							
4.17							
4.18							
4.19							
5.1							
5.2							
5.3							
5.4							
5.5							
5.6							
5.7							
5.8							
5.9							
5.10							
5.11							
6.1	50	0,06	0,08	0,10	0,12	0,13	
6.2	30	0,04	0,05	0,07	0,08	0,09	
6.3							
6.4							
6.5							

i Application Note:

Spot drilling with reduced feedrate

1. Feedrate f [mm/U] should be multiplied by correction factor A_k
2. Drill with reduced feed rate until tool is fully engaged in workpiece by approximately 0.25xD
3. Retract from the hole at double the feed rate f in mm/U – only with inclined surfaces

This operation is necessary in order to achieve maximum performance of the drill!
4. Drill the hole with feed rate f [mm/U] without pecking for chip evacuation

Correction factor A _k for f [mm/U] when spot drilling		
Inclination workpiece surface	A _k to 3xD (10 720 ...)	A _k to 5xD (10 721 ...)
15°	0,5	0,25
30°	0,4	not recommended
45°	0,25	not recommended

i For drilling on flat surfaces (inclination 0°) with the WTX – 180 5xD, we recommend the use of a pilot drill (WTX – UNI 3xD).

Cutting data standard values – WPC – UNI

Index	Drilling depth 3xD UNI 11 600 ..., 11 601 ..., 11 603 ..., 11 604 ...									
	v_c m/min without through coolant	v_c m/min with through coolant	Ø 1-1,5	Ø 1,5-2	Ø 2-3	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	100	100	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
1.2	120	120	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
1.3	100	100	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
1.4	80	80	0,05	0,07	0,09	0,13	0,18	0,24	0,29	0,31
1.5	90	90	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
1.6	80	80	0,05	0,07	0,09	0,13	0,18	0,24	0,29	0,31
1.7	80	80	0,05	0,07	0,09	0,13	0,18	0,24	0,29	0,31
1.8	60	60	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
1.9	90	90	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
1.10	60	60	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
1.11	50	50	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22
1.12	60	60	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
1.13	60	60	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
1.14	50	50	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22
1.15	50	50	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
1.16	50	50	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
2.1		45	0,04	0,04	0,06	0,08	0,12	0,16	0,18	0,20
2.2		40	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
2.3		45	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16
2.4		30	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16
2.5		25	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16
2.6		40	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
2.7		25	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
3.1	70	80	0,09	0,10	0,13	0,17	0,24	0,31	0,37	0,40
3.2	50	55	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
3.3	60	70	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
3.4	45	50	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
3.5	90	95	0,11	0,13	0,16	0,21	0,30	0,39	0,46	0,49
3.6	75	80	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
3.7	90	95	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
3.8	75	80	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
4.1										
4.2										
4.3										
4.4										
4.5										
4.6										
4.7										
4.8										
4.9										
4.10										
4.11	120	200	0,09	0,10	0,13	0,17	0,24	0,31	0,37	0,40
4.12	120	200	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
4.13										
4.14										
4.15										
4.16										
4.17	240		0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.18										
4.19										
5.1										
5.2										
5.3										
5.4										
5.5										
5.6										
5.7										
5.8										
5.9										
5.10										
5.11										
6.1										
6.2										
6.3										
6.4										
6.5										

i 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.

		Drilling depth 5xD UNI 11 606 ..., 11 607 ..., 11 609 ..., 11 610 ...									
Index	v_c m/min	v_c m/min	\emptyset 1-1,5	\emptyset 1,5-2	\emptyset 2-3	\emptyset 3-5	\emptyset 5-8	\emptyset 8-12	\emptyset 12-16	\emptyset 16-20	
	without through coolant	with through coolant	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	
1.1	80	100	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28	
1.2	96	120	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45	
1.3	80	100	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35	
1.4	64	80	0,05	0,07	0,09	0,13	0,18	0,24	0,29	0,31	
1.5	72	90	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35	
1.6	64	80	0,05	0,07	0,09	0,13	0,18	0,24	0,29	0,31	
1.7	64	80	0,05	0,07	0,09	0,13	0,18	0,24	0,29	0,31	
1.8	48	60	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25	
1.9	72	90	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35	
1.10	48	60	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25	
1.11	40	50	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22	
1.12	48	60	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25	
1.13	48	60	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25	
1.14	40	50	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22	
1.15	40	50	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25	
1.16	40	50	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25	
2.1		45	0,04	0,04	0,06	0,08	0,12	0,16	0,18	0,20	
2.2		40	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18	
2.3		45	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16	
2.4		30	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16	
2.5		25	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16	
2.6		40	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18	
2.7		25	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14	
3.1	65	80	0,09	0,10	0,13	0,17	0,24	0,31	0,37	0,40	
3.2	46	55	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35	
3.3	59	70	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45	
3.4	40	50	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35	
3.5	78	95	0,11	0,13	0,16	0,21	0,30	0,39	0,46	0,49	
3.6	65	80	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45	
3.7	78	95	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45	
3.8	65	80	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35	
4.1											
4.2											
4.3											
4.4											
4.5											
4.6											
4.7											
4.8											
4.9											
4.10											
4.11	100	200	0,09	0,10	0,13	0,17	0,24	0,31	0,37	0,40	
4.12	100	200	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35	
4.13											
4.14											
4.15											
4.16											
4.17	240		0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28	
4.18											
4.19											
5.1											
5.2											
5.3											
5.4											
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5.9											
5.10											
5.11											
6.1											
6.2											
6.3											
6.4											
6.5											

Cutting data standard values – WPC – UNI

Index	Drilling depth 8xD UNI 11 612 ...						Drilling depth 12xD UNI 11 615 ...					
	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20	V _c m/min with through coolant	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-18
	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	90	0,10	0,14	0,18	0,22	0,24	80	0,10	0,14	0,18	0,22	0,24
1.2	110	0,17	0,23	0,29	0,35	0,39	100	0,17	0,23	0,29	0,35	0,38
1.3	90	0,13	0,18	0,23	0,27	0,30	80	0,13	0,18	0,23	0,27	0,30
1.4	70	0,12	0,15	0,20	0,24	0,27	65	0,12	0,15	0,20	0,24	0,26
1.5	80	0,13	0,18	0,23	0,27	0,30	70	0,13	0,18	0,23	0,27	0,30
1.6	70	0,12	0,15	0,20	0,24	0,27	65	0,12	0,15	0,20	0,24	0,26
1.7	70	0,12	0,15	0,20	0,24	0,27	65	0,12	0,15	0,20	0,24	0,26
1.8	55	0,09	0,13	0,16	0,19	0,22	50	0,09	0,13	0,16	0,19	0,21
1.9	80	0,13	0,18	0,23	0,27	0,30	70	0,13	0,18	0,23	0,27	0,30
1.10	55	0,09	0,13	0,16	0,19	0,22	50	0,09	0,13	0,16	0,19	0,21
1.11	45	0,08	0,11	0,14	0,17	0,19	40	0,08	0,11	0,14	0,17	0,19
1.12	55	0,09	0,13	0,16	0,19	0,22	50	0,09	0,13	0,16	0,19	0,21
1.13	55	0,09	0,13	0,16	0,19	0,22	50	0,09	0,13	0,16	0,19	0,21
1.14	45	0,08	0,11	0,14	0,17	0,19	40	0,08	0,11	0,14	0,17	0,19
1.15	45	0,09	0,13	0,16	0,19	0,22	40	0,09	0,13	0,16	0,19	0,21
1.16	45	0,09	0,13	0,16	0,19	0,22	40	0,09	0,13	0,16	0,19	0,21
2.1	45	0,07	0,10	0,13	0,15	0,17	40	0,07	0,10	0,13	0,15	0,17
2.2	40	0,06	0,08	0,11	0,13	0,15	35	0,06	0,08	0,11	0,13	0,15
2.3	45	0,06	0,08	0,10	0,12	0,14	40	0,06	0,08	0,10	0,12	0,13
2.4	30	0,06	0,08	0,10	0,12	0,14	25	0,06	0,08	0,10	0,12	0,13
2.5	25	0,06	0,08	0,10	0,12	0,14	25	0,06	0,08	0,10	0,12	0,13
2.6	40	0,06	0,08	0,11	0,13	0,15	35	0,06	0,08	0,11	0,13	0,15
2.7	25	0,05	0,07	0,09	0,11	0,12	25	0,05	0,07	0,09	0,11	0,12
3.1	80	0,15	0,20	0,25	0,30	0,34	70	0,15	0,20	0,25	0,30	0,33
3.2	55	0,13	0,18	0,23	0,27	0,30	50	0,13	0,18	0,23	0,27	0,30
3.3	70	0,17	0,23	0,29	0,35	0,39	65	0,17	0,23	0,29	0,35	0,38
3.4	50	0,13	0,18	0,23	0,27	0,30	45	0,13	0,18	0,23	0,27	0,30
3.5	95	0,19	0,25	0,32	0,38	0,43	85	0,19	0,25	0,32	0,38	0,42
3.6	80	0,17	0,23	0,29	0,35	0,39	70	0,17	0,23	0,29	0,35	0,38
3.7	95	0,17	0,23	0,29	0,35	0,39	85	0,17	0,23	0,29	0,35	0,38
3.8	80	0,13	0,18	0,23	0,27	0,30	70	0,13	0,18	0,23	0,27	0,30
4.1												
4.2												
4.3												
4.4												
4.5												
4.6												
4.7												
4.8												
4.9												
4.10												
4.11	200	0,17	0,22	0,28	0,34	0,38	180	0,17	0,22	0,28	0,34	0,37
4.12	200	0,15	0,20	0,25	0,30	0,34	180	0,15	0,20	0,25	0,30	0,33
4.13												
4.14												
4.15												
4.16												
4.17												
4.18												
4.19												
5.1												
5.2												
5.3												
5.4												
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5.6												
5.7												
5.8												
5.9												
5.10												
5.11												
6.1												
6.2												
6.3												
6.4												
6.5												

i Recommended application for WPC 8xD and 12xD

The following application notes should be observed for optimum machining results.

- For 8xD and 12xD tools a pilot hole is recommended. The pilot hole can be drilled with the WPC 3xD drills. The tolerance of the 3xD drill (m7) and the tolerance of the 8xD and 12xD drill (h7) are matched accordingly.
- Alternatively, with cutting speed and feedrate both reduced by 50 % the 8xD and 12xD tool can drill to a depth of 1xD. Then, with normal feed and speed values continue drilling.
Note: when accelerating to normal speed, the spindle must not stop for gear changes!
- 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 !

Cutting data standard values – Type N – Twist drills

Index	Drilling depth 3xD Type N (similar DIN 1897) 10 700 ...							Drilling depth 5xD Type N (similar DIN 338) 10 710 ...						
	v_c m/min without through coolant	Ø 0,5-3	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20	v_c m/min without through coolant	Ø 0,5-3	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	
	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	
1.1	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	
1.2	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	
1.3	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	
1.4	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	
1.5	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	
1.6	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	
1.7	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,08	0,08-0,13	0,1-0,15	0,15-0,2	
1.8														
1.9														
1.10														
1.11														
1.12														
1.13	25	0,01-0,03	0,02-0,05	0,04-0,06	0,05-0,08	0,08-0,1	0,08-0,1	25	0,01-0,03	0,02-0,05	0,04-0,06	0,05-0,08	0,08-0,1	
1.14														
1.15														
1.16														
2.1	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	0,1-0,16	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	
2.2	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	0,1-0,16	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	
2.3	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	0,1-0,16	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	
2.4	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	0,1-0,16	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	
2.5	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	0,1-0,16	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	
2.6	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	0,1-0,16	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	
2.7	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	0,1-0,16	20-30	0,01-0,05	0,04-0,06	0,05-0,1	0,08-0,12	0,1-0,16	
3.1	40-80	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	0,15-0,2	40-80	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	
3.2	40-80	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	0,15-0,2	40-80	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	
3.3	40-80	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	0,15-0,2	40-80	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	
3.4	40-80	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	0,15-0,2	40-80	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	
3.5	40-60	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	
3.6	40-60	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	
3.7	40-60	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	
3.8	40-60	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	0,15-0,2	40-60	0,01-0,06	0,05-0,07	0,06-0,12	0,1-0,16	0,15-0,2	
4.1	200	0,01	0,03	0,07	0,11	0,15	0,2	200	0,01	0,03	0,07	0,11	0,15	
4.2	200	0,01	0,03	0,07	0,11	0,15	0,2	200	0,01	0,03	0,07	0,11	0,15	
4.3	180	0,01	0,03	0,07	0,11	0,15	0,2	180	0,01	0,03	0,07	0,11	0,15	
4.4	160	0,01	0,03	0,07	0,11	0,15	0,2	160	0,01	0,03	0,07	0,11	0,15	
4.5	130	0,01	0,03	0,07	0,11	0,15	0,2	130	0,01	0,03	0,07	0,11	0,15	
4.6	100	0,007	0,02	0,06	0,11	0,16	0,2	100	0,007	0,02	0,06	0,11	0,16	
4.7	120	0,007	0,02	0,06	0,11	0,16	0,2	120	0,007	0,02	0,06	0,11	0,16	
4.8														
4.9														
4.10														
4.11	160	0,007	0,02	0,06	0,11	0,16	0,2	160	0,007	0,02	0,06	0,11	0,16	
4.12	120	0,007	0,02	0,06	0,11	0,16	0,2	120	0,007	0,02	0,06	0,11	0,16	
4.13	50	0,013	0,04	0,08	0,12	0,16	0,2	50	0,013	0,04	0,08	0,12	0,16	
4.14	70	0,013	0,04	0,08	0,12	0,16	0,2	70	0,013	0,04	0,08	0,12	0,16	
4.15														
4.16	200	0,01	0,03	0,07	0,11	0,15	0,2	200	0,01	0,03	0,07	0,11	0,15	
4.17														
4.18														
4.19														
5.1														
5.2														
5.3														
5.4														
5.5														
5.6														
5.7														
5.8														
5.9	30	0,003	0,01	0,03	0,06	0,08	0,1	30	0,003	0,01	0,03	0,06	0,08	
5.10	20	0,003	0,01	0,03	0,06	0,08	0,1	20	0,003	0,01	0,03	0,06	0,08	
5.11	20	0,003	0,01	0,03	0,06	0,08	0,1	20	0,003	0,01	0,03	0,06	0,08	
6.1														
6.2														
6.3														
6.4														
6.5														

i 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!

Cutting data standard values – WPC – VA

Index	Drilling depth 3xD VA 11 620 ..., 11 621 ..., 11 623 ..., 11 624 ...									
	v_c m/min without through coolant	v_c m/min with through coolant	Ø 1-1,5	Ø 1,5-2	Ø 2-3	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
			f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	90	90	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22
1.2	105	105	0,08	0,09	0,11	0,15	0,22	0,28	0,33	0,36
1.3	90	90	0,06	0,07	0,09	0,12	0,17	0,22	0,26	0,28
1.4	70	70	0,04	0,06	0,07	0,10	0,15	0,19	0,23	0,25
1.5	80	80	0,06	0,07	0,09	0,12	0,17	0,22	0,26	0,28
1.6	70	70	0,04	0,06	0,07	0,10	0,15	0,19	0,23	0,25
1.7	70	70	0,04	0,06	0,07	0,10	0,15	0,19	0,23	0,25
1.8	55	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.9	80	80	0,06	0,07	0,09	0,12	0,17	0,22	0,26	0,28
1.10	55	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.11	45	45	0,03	0,04	0,05	0,07	0,11	0,14	0,17	0,18
1.12	55	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.13	55	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.14	45	45	0,03	0,04	0,05	0,07	0,11	0,14	0,17	0,18
1.15	45	45	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.16	45	45	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
2.1	30	60	0,04	0,04	0,06	0,08	0,12	0,16	0,18	0,20
2.2	25	50	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
2.3	30	60	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16
2.4	20	40	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16
2.5	18	35	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16
2.6	25	50	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
2.7	18	35	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
3.1	90	100	0,09	0,10	0,13	0,17	0,24	0,31	0,37	0,40
3.2	65	70	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
3.3	80	90	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
3.4	50	60	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
3.5	110	120	0,11	0,13	0,16	0,21	0,30	0,39	0,46	0,49
3.6	90	100	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
3.7	110	120	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
3.8	90	100	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
4.1	240	320	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.2	180	240	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.3	150	200	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
4.4	120	160	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.5	90	120	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.6	240	320	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.7	210	280	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.8	120	160	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.9	150	200	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.10	120	160	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.11	120	160	0,09	0,10	0,13	0,17	0,24	0,31	0,37	0,40
4.12	120	160	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
4.13	80	120	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
4.14	100	150	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22
4.15	80	120	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22
4.16	150	300	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.17	400		0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.18		40	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
4.19		40	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.1		40	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.2		20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.3		20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.4		20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.5		20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.6		18	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.7		15	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.8		10	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.9		20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.10		25	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.11		20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
6.1	30		0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
6.2	22		0,02	0,02	0,03	0,04	0,06	0,08	0,09	0,10
6.3										
6.4										
6.5										

i The cutting data depends extremely on the external conditions, such as stability of the tool and workpiece clamping, 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

2

Index	V _c m/min with through coolant	Drilling depth 5xD VA 11 629 ..., 11 630 ...							
		Ø 1-1,5	Ø 1,5-2	Ø 2-3	Ø 3-5	Ø 5-8	Ø 8-12	Ø 12-16	Ø 16-20
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	90	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22
1.2	105	0,08	0,09	0,11	0,15	0,22	0,28	0,33	0,36
1.3	90	0,06	0,07	0,09	0,12	0,17	0,22	0,26	0,28
1.4	70	0,04	0,06	0,07	0,10	0,15	0,19	0,23	0,25
1.5	80	0,06	0,07	0,09	0,12	0,17	0,22	0,26	0,28
1.6	70	0,04	0,06	0,07	0,10	0,15	0,19	0,23	0,25
1.7	70	0,04	0,06	0,07	0,10	0,15	0,19	0,23	0,25
1.8	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.9	80	0,06	0,07	0,09	0,12	0,17	0,22	0,26	0,28
1.10	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.11	45	0,03	0,04	0,05	0,07	0,11	0,14	0,17	0,18
1.12	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.13	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.14	45	0,03	0,04	0,05	0,07	0,11	0,14	0,17	0,18
1.15	45	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
1.16	45	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,20
2.1	60	0,04	0,04	0,06	0,08	0,12	0,16	0,18	0,20
2.2	50	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
2.3	60	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16
2.4	40	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16
2.5	35	0,03	0,03	0,04	0,06	0,09	0,12	0,15	0,16
2.6	50	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
2.7	35	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
3.1	100	0,09	0,10	0,13	0,17	0,24	0,31	0,37	0,40
3.2	70	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
3.3	90	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
3.4	60	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
3.5	120	0,11	0,13	0,16	0,21	0,30	0,39	0,46	0,49
3.6	100	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
3.7	120	0,10	0,11	0,14	0,19	0,27	0,35	0,42	0,45
3.8	100	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
4.1	320	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.2	240	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.3	200	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
4.4	160	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.5	120	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.6	320	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.7	280	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.8	160	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.9	200	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.10	160	0,04	0,06	0,07	0,10	0,15	0,20	0,24	0,25
4.11	160	0,09	0,10	0,13	0,17	0,24	0,31	0,37	0,40
4.12	160	0,07	0,09	0,11	0,15	0,21	0,28	0,33	0,35
4.13	120	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
4.14	150	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22
4.15	120	0,04	0,05	0,06	0,09	0,13	0,18	0,21	0,22
4.16	300	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.17	300	0,05	0,06	0,08	0,12	0,17	0,22	0,26	0,28
4.18	40	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
4.19	40	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.1	40	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.2	20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.3	20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.4	20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.5	20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.6	18	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.7	15	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.8	10	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.9	20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.10	25	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
5.11	20	0,02	0,03	0,04	0,06	0,08	0,11	0,13	0,14
6.1									
6.2									
6.3									
6.4									
6.5									



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!

Cutting data standard values – WTX – TB UNI

Index	WTX-TB16 UNI	WTX-TB20 UNI	WTX-TB25 UNI	WTX-TB30 UNI	Hole depth TB UNI 11 016 ..., 11 020 ..., 11 025 ..., 11 030 ...			
	v _c m/min	v _c m/min	v _c m/min	v _c m/min	Ø 2-3	Ø > 3-5	Ø > 5-8	Ø > 8-12
					f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	100	95	85	80	0,075	0,1	0,15	0,2
1.2	100	95	85	80	0,075	0,1	0,15	0,2
1.3	105	100	90	85	0,1	0,14	0,2	0,275
1.4	95	90	80	75	0,075	0,1	0,15	0,2
1.5	95	90	80	75	0,1	0,14	0,2	0,275
1.6	95	90	80	75	0,075	0,1	0,15	0,2
1.7	95	90	80	75	0,1	0,14	0,2	0,275
1.8	75	70	65	60	0,075	0,1	0,15	0,2
1.9	75	70	65	60	0,075	0,1	0,15	0,2
1.10	95	90	80	75	0,075	0,1	0,15	0,2
1.11	95	90	80	75	0,075	0,1	0,15	0,2
1.12	75	70	65	60	0,075	0,1	0,15	0,2
1.13								
1.14								
1.15								
1.16	75	70	65	60	0,075	0,1	0,15	0,2
2.1	75	70	65	60	0,05	0,08	0,12	0,15
2.2	75	70	65	60	0,05	0,08	0,12	0,15
2.3	50	45	45	40	0,05	0,08	0,12	0,15
2.4	50	45	45	40	0,05	0,08	0,12	0,15
2.5	55	50	50	45	0,05	0,08	0,12	0,15
2.6	55	50	50	45	0,05	0,08	0,12	0,15
2.7								
3.1	105	100	90	85	0,15	0,23	0,335	0,425
3.2	100	95	85	80	0,15	0,23	0,335	0,425
3.3	105	100	90	85	0,125	0,2	0,25	0,35
3.4	100	95	85	80	0,125	0,2	0,25	0,35
3.5	105	100	90	85	0,125	0,2	0,25	0,35
3.6	100	95	85	80	0,125	0,2	0,25	0,35
3.7	105	100	90	85	0,125	0,2	0,25	0,35
3.8	100	95	85	80	0,125	0,2	0,25	0,35
4.1								
4.2								
4.3								
4.4								
4.5								
4.6								
4.7								
4.8								
4.9								
4.10								
4.11								
4.12								
4.13								
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4.17								
4.18								
4.19								
5.1								
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5.3								
5.4								
5.5								
5.6								
5.7								
5.8								
5.9								
5.10								
5.11								
6.1								
6.2								
6.3								
6.4								
6.5								

Cutting data standard values – WTX – TB UNI

Index	WTX-TB40 UNI	WTX-TB50 UNI	Hole depth 40xD / 50xD TB UNI 11 040 ..., 11 050 ...			
	v _c m/min	v _c m/min	Ø 2-3	Ø > 3-5	Ø > 5-8	Ø > 8-9
			f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	65	55	0,05	0,08	0,12	0,15
1.2	65	55	0,05	0,08	0,12	0,15
1.3	70	60	0,075	0,1	0,15	0,2
1.4	60	50	0,05	0,08	0,12	0,15
1.5	60	50	0,075	0,1	0,15	0,2
1.6	60	50	0,05	0,08	0,12	0,15
1.7	60	50	0,075	0,1	0,15	0,2
1.8	50	45	0,05	0,08	0,12	0,15
1.9	50	55	0,05	0,08	0,12	0,15
1.10	60	50	0,05	0,08	0,12	0,15
1.11	60	50	0,05	0,08	0,12	0,15
1.12	50	45	0,05	0,08	0,12	0,15
1.13						
1.14						
1.15						
1.16	50	45	0,05	0,08	0,12	0,15
2.1	50	45	0,04	0,06	0,09	0,11
2.2	50	45	0,04	0,06	0,09	0,11
2.3	35	30	0,04	0,06	0,09	0,11
2.4	35	30	0,04	0,06	0,09	0,11
2.5	40	35	0,04	0,06	0,09	0,11
2.6	40	35	0,04	0,06	0,09	0,11
2.7						
3.1	70	60	0,125	0,2	0,25	0,35
3.2	65	55	0,125	0,2	0,25	0,35
3.3	70	60	0,1	0,14	0,2	0,275
3.4	65	55	0,1	0,14	0,2	0,275
3.5	70	60	0,1	0,14	0,2	0,275
3.6	65	55	0,1	0,14	0,2	0,275
3.7	70	60	0,1	0,14	0,2	0,275
3.8	65	55	0,1	0,14	0,2	0,275
4.1						
4.2						
4.3						
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6.5						

i 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.

i All solid carbide WTX deep hole drills must be used with a pilot bore. The tool must never be run at high speed while not engaged in a material. Please refer to the strategy for the production of deep holes on → **Page 134**

Cutting data standard values – WTX – TB ALU

Index	WTX-TB16	WTX-TB20	WTX-TB25	Hole depth 16xD / 20xD / 25xD TB ALU 11 017 ..., 11 021 ..., 11 026 ...				WTX-TB30	Hole depth TB ALU 11 031 ...			
	ALU	ALU	ALU	∅ 2-3	∅ > 3-5	∅ > 5-8	∅ > 8-12	ALU	∅ 2-3	∅ > 3-5	∅ > 5-8	∅ > 8-12
	v _c m/min	v _c m/min	v _c m/min	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	v _c m/min	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1												
1.2												
1.3												
1.4												
1.5												
1.6												
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1.8												
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1.11												
1.12												
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1.14												
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1.16												
2.1												
2.2												
2.3												
2.4												
2.5												
2.6												
2.7												
3.1												
3.2												
3.3												
3.4												
3.5												
3.6												
3.7												
3.8												
4.1	160	150	130	0,125	0,2	0,25	0,35	120	0,08	0,15	0,21	0,27
4.2	160	150	130	0,125	0,2	0,25	0,35	120	0,08	0,15	0,21	0,27
4.3	160	150	130	0,15	0,23	0,3	0,38	120	0,15	0,23	0,3	0,38
4.4	140	130	120	0,125	0,2	0,25	0,35	110	0,08	0,15	0,21	0,27
4.5	140	130	120	0,125	0,2	0,25	0,35	110	0,08	0,15	0,21	0,27
4.6	90	80	75	0,125	0,2	0,25	0,35	70	0,08	0,15	0,21	0,27
4.7	90	80	75	0,125	0,2	0,25	0,35	70	0,08	0,15	0,21	0,27
4.8												
4.9												
4.10												
4.11	115	100	90	0,125	0,2	0,25	0,35	80	0,08	0,15	0,21	0,27
4.12	115	100	90	0,125	0,2	0,25	0,35	80	0,08	0,15	0,21	0,27
4.13												
4.14												
4.15												
4.16												
4.17												
4.18												
4.19												
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6.5												

i 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.

i All solid carbide WTX deep hole drills must be used with a pilot bore. The tool must never be run at high speed while not engaged in a material. Please refer to the strategy for the production of deep holes on → **Page 134**

Cutting data standard values – Solid Carbide NC Spot Drills, Centre Drills

Solid Carbide NC Spot Drills MultiChange 10 709 ..., 10 712 ..., 10 714 ...							Solid Carbide NC Spot Drills ZB & NC-A 10 708 ..., 10 704 ..., 10 703 ..., 10 702 ...				
Index	V _c m/min	Ø 8	Ø 10	Ø 12	Ø 16	Ø 20	V _c m/min without through coolant	Ø 2-5	Ø 5-8	Ø 8-12	Ø 12-20
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	40-130	0,180	0,200	0,220	0,280	0,300	80	0,14	0,2	0,27	0,35
1.2	40-130	0,215	0,235	0,260	0,330	0,355	80	0,14	0,2	0,27	0,35
1.3	40-130	0,180	0,200	0,220	0,280	0,300	75	0,14	0,2	0,27	0,35
1.4	40-130	0,165	0,180	0,200	0,255	0,275	70	0,14	0,2	0,27	0,35
1.5	40-130	0,195	0,220	0,240	0,305	0,325	65	0,14	0,2	0,27	0,35
1.6	40-130	0,165	0,180	0,200	0,255	0,275	65	0,1	0,15	0,2	0,26
1.7	40-130	0,195	0,220	0,240	0,305	0,325	65	0,14	0,2	0,27	0,35
1.8	40-130	0,130	0,145	0,160	0,205	0,220	65	0,1	0,15	0,2	0,26
1.9	40-130	0,180	0,200	0,220	0,280	0,300					
1.10	40-130	0,130	0,145	0,160	0,205	0,220	65	0,1	0,15	0,2	0,26
1.11	40-130	0,115	0,125	0,140	0,180	0,190	65	0,1	0,15	0,2	0,26
1.12	40-130	0,130	0,145	0,160	0,205	0,220					
1.13	40-130	0,130	0,145	0,160	0,205	0,220					
1.14	40-130	0,000	0,000	0,000	0,000	0,000					
1.15	40-130	0,115	0,125	0,140	0,180	0,190	50	0,1	0,15	0,2	0,26
1.16	40-130	0,115	0,125	0,140	0,180	0,190	50	0,1	0,15	0,2	0,26
2.1	20-40	0,145	0,165	0,180	0,230	0,245					
2.2	20-40	0,130	0,145	0,160	0,205	0,220					
2.3	20-40	0,130	0,145	0,160	0,205	0,220					
2.4	20-40	0,100	0,110	0,120	0,155	0,165					
2.5	20-40	0,115	0,125	0,140	0,180	0,190					
2.6	20-40	0,115	0,125	0,140	0,180	0,190					
2.7	20-40	0,100	0,110	0,120	0,155	0,165					
3.1	60-80	0,215	0,235	0,260	0,330	0,355	70	0,12	0,17	0,22	0,3
3.2	60-80	0,180	0,200	0,220	0,280	0,300	70	0,1	0,15	0,2	0,26
3.3	60-80	0,195	0,220	0,240	0,305	0,325	70	0,1	0,15	0,2	0,26
3.4	60-80	0,165	0,180	0,200	0,255	0,275	70	0,1	0,15	0,2	0,26
3.5	60-80	0,195	0,220	0,240	0,305	0,325	70	0,1	0,15	0,2	0,26
3.6	60-80	0,180	0,200	0,220	0,280	0,300	70	0,1	0,15	0,2	0,26
3.7	60-80	0,195	0,220	0,240	0,305	0,325	70	0,1	0,15	0,2	0,26
3.8	60-80	0,165	0,180	0,200	0,255	0,275	70	0,1	0,15	0,2	0,26
4.1	90-300	0,310	0,345	0,380	0,485	0,520	200	0,03	0,07	0,11	0,15
4.2	90-300	0,310	0,345	0,380	0,485	0,520	200	0,03	0,07	0,11	0,15
4.3	90-300	0,295	0,325	0,360	0,460	0,490	180	0,03	0,07	0,11	0,15
4.4	90-300	0,280	0,310	0,340	0,435	0,465	160	0,03	0,07	0,11	0,15
4.5	90-300	0,245	0,275	0,300	0,380	0,410	130	0,03	0,07	0,11	0,15
4.6	90-300	0,195	0,220	0,240	0,305	0,325	100	0,02	0,06	0,11	0,15
4.7	90-300	0,180	0,200	0,220	0,280	0,300	120	0,02	0,06	0,11	0,15
4.8	90-300	0,145	0,165	0,180	0,230	0,245					
4.9	90-300	0,115	0,125	0,140	0,180	0,190					
4.10	90-300	0,115	0,125	0,140	0,180	0,190					
4.11	90-300	0,215	0,235	0,260	0,330	0,355	160	0,02	0,06	0,11	0,15
4.12	90-300	0,215	0,235	0,260	0,330	0,355	120	0,02	0,06	0,11	0,15
4.13											
4.14											
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i 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!

Cutting data standard values – Solid Carbide NC-A TiAlN

Index	Solid Carbide NC Spot Drill Type NC-A TiAlN 10 716 ..., 10 717 ..., 10 718 ...					Solid Carbide NC Spot Drills, long Type NC-A TiAlN 10 724 ..., 10 726 ..., 10 727 ...				
	V _c m/min	> Ø 2-5	> Ø 5-8	> Ø 8-12	> Ø 12-20	V _c m/min	> Ø 2-5	> Ø 5-8	> Ø 8-12	> Ø 12-20
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	70	0,1	0,15	0,2	0,26	70	0,1	0,15	0,2	0,26
1.2	70	0,1	0,15	0,2	0,26	70	0,1	0,15	0,2	0,26
1.3	75	0,14	0,2	0,275	0,35	75	0,14	0,2	0,275	0,35
1.4	65	0,14	0,2	0,275	0,35	65	0,14	0,2	0,275	0,35
1.5	65	0,14	0,2	0,275	0,35	65	0,14	0,2	0,275	0,35
1.6	65	0,1	0,15	0,2	0,26	65	0,1	0,15	0,2	0,26
1.7	65	0,14	0,2	0,275	0,35	65	0,14	0,2	0,275	0,35
1.8	50	0,1	0,15	0,2	0,26	50	0,1	0,15	0,2	0,26
1.9										
1.10	65	0,1	0,15	0,2	0,26	65	0,1	0,15	0,2	0,26
1.11	65	0,1	0,15	0,2	0,26	65	0,1	0,15	0,2	0,26
1.12	50	0,1	0,15	0,2	0,26	50	0,1	0,15	0,2	0,26
1.13										
1.14										
1.15	50	0,1	0,15	0,2	0,26	50	0,1	0,15	0,2	0,26
1.16	50	0,1	0,15	0,2	0,26	50	0,1	0,15	0,2	0,26
2.1										
2.2										
2.3										
2.4										
2.5										
2.6										
2.7										
3.1	70	0,125	0,175	0,225	0,3	70	0,125	0,175	0,225	0,3
3.2	70	0,1	0,15	0,2	0,26	70	0,1	0,15	0,2	0,26
3.3	70	0,1	0,15	0,2	0,26	70	0,1	0,15	0,2	0,26
3.4	70	0,1	0,15	0,2	0,26	70	0,1	0,15	0,2	0,26
3.5	70	0,1	0,15	0,2	0,26	70	0,1	0,15	0,2	0,26
3.6	70	0,1	0,15	0,2	0,26	70	0,1	0,15	0,2	0,26
3.7	70	0,1	0,15	0,2	0,26	70	0,1	0,15	0,2	0,26
3.8	70	0,1	0,15	0,2	0,26	70	0,1	0,15	0,2	0,26
4.1										
4.2										
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5.11										
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6.4										
6.5										

i 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!

Cutting data standard values – WTX – Change Feed

Index	Change Feed UNI 10 925 ...							
	v_c m/min	v_c m/min	v_c m/min	> Ø 14,0	> Ø 17,5	> Ø 21,5	> Ø 26,0	Ø 32,0
	with through coolant	With external coolant	MMS	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	90	80	80	0,42	0,46	0,51	0,54	0,55
1.2	90	80	80	0,42	0,46	0,51	0,54	0,55
1.3	90	80	80	0,42	0,46	0,51	0,54	0,55
1.4	90	75	75	0,49	0,55	0,60	0,64	0,66
1.5	90	80	80	0,42	0,46	0,51	0,54	0,55
1.6	80	70	70	0,52	0,58	0,64	0,68	0,69
1.7	90	75	75	0,49	0,55	0,60	0,64	0,66
1.8	65	55	55	0,39	0,43	0,48	0,50	0,51
1.9	90	75	75	0,49	0,55	0,60	0,64	0,66
1.10	90	75	75	0,49	0,55	0,60	0,64	0,66
1.11	65	55	55	0,39	0,43	0,48	0,50	0,51
1.12	70	60	60	0,44	0,49	0,54	0,58	0,59
1.13	55	50	50	0,36	0,40	0,44	0,47	0,48
1.14	55	50	50	0,36	0,40	0,44	0,47	0,48
1.15	55	50	50	0,36	0,40	0,44	0,47	0,48
1.16	70	60	60	0,44	0,49	0,54	0,58	0,59
2.1								
2.2								
2.3								
2.4								
2.5								
2.6								
2.7								
3.1	110	75	75	0,69	0,77	0,85	0,91	0,93
3.2	90	70	70	0,55	0,61	0,67	0,72	0,73
3.3	145	90	110	0,64	0,71	0,78	0,83	0,85
3.4	90	70	70	0,55	0,61	0,67	0,72	0,73
3.5	80	70	70	0,59	0,66	0,72	0,77	0,78
3.6	70	65	65	0,47	0,52	0,57	0,61	0,62
3.7	80	70	70	0,59	0,66	0,72	0,77	0,78
3.8	70	65	65	0,47	0,52	0,57	0,61	0,62
4.1								
4.2								
4.3								
4.4								
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4.6								
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i 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!

Cutting data standard values – WTX – Change

Index	v _c m/min	Change UNI 10 919 ...				
		> Ø 12-15,7	> Ø 15,7-20	> Ø 20-25	> Ø 25-32	> Ø 32-41
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	100	0,22	0,26	0,29	0,32	0,40
1.2	120	0,35	0,41	0,47	0,51	0,64
1.3	100	0,28	0,32	0,36	0,40	0,50
1.4	80	0,24	0,28	0,32	0,35	0,44
1.5	90	0,28	0,32	0,36	0,40	0,50
1.6	80	0,24	0,28	0,32	0,35	0,44
1.7	80	0,24	0,28	0,32	0,35	0,44
1.8	60	0,20	0,23	0,26	0,28	0,35
1.9	90	0,28	0,32	0,36	0,40	0,50
1.10	60	0,20	0,23	0,26	0,28	0,35
1.11	50	0,18	0,21	0,23	0,26	0,32
1.12	60	0,20	0,23	0,26	0,28	0,35
1.13	60	0,20	0,23	0,26	0,28	0,35
1.14	50	0,18	0,21	0,23	0,26	0,32
1.15	50	0,20	0,23	0,26	0,28	0,35
1.16	50	0,20	0,23	0,26	0,28	0,35
2.1						
2.2						
2.3						
2.4						
2.5						
2.6						
2.7						
3.1	90	0,34	0,40	0,46	0,51	0,64
3.2	60	0,30	0,35	0,40	0,44	0,55
3.3	80	0,39	0,45	0,51	0,57	0,71
3.4	55	0,30	0,35	0,40	0,44	0,55
3.5	110	0,43	0,50	0,58	0,63	0,78
3.6	90	0,39	0,45	0,51	0,57	0,71
3.7	110	0,39	0,45	0,51	0,57	0,71
3.8	90	0,30	0,35	0,40	0,44	0,55
4.1						
4.2						
4.3						
4.4						
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i 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!

Index	V _c m/min	Change P 10 923 ...				
		> Ø 12-15,7	> Ø 15,7-20	> Ø 20-25	> Ø 25-32	> Ø 32-41
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	110	0,25	0,28	0,33	0,40	0,46
1.2	130	0,40	0,45	0,54	0,64	0,73
1.3	110	0,32	0,35	0,41	0,49	0,57
1.4	90	0,28	0,31	0,37	0,44	0,50
1.5	100	0,32	0,35	0,41	0,49	0,57
1.6	90	0,28	0,31	0,37	0,44	0,50
1.7	90	0,28	0,31	0,37	0,44	0,50
1.8	65	0,23	0,25	0,30	0,35	0,40
1.9	100	0,32	0,35	0,41	0,49	0,57
1.10	65	0,23	0,25	0,30	0,35	0,40
1.11	55	0,21	0,23	0,26	0,31	0,37
1.12	65	0,23	0,25	0,30	0,35	0,40
1.13	65	0,23	0,25	0,30	0,35	0,40
1.14	55	0,21	0,23	0,26	0,31	0,37
1.15	55	0,21	0,23	0,26	0,31	0,37
1.16	55	0,21	0,23	0,26	0,31	0,37
2.1						
2.2						
2.3						
2.4						
2.5						
2.6						
2.7						
3.1	100	0,37	0,42	0,51	0,60	0,70
3.2	65	0,33	0,37	0,44	0,52	0,60
3.3	90	0,43	0,47	0,56	0,67	0,78
3.4	60	0,33	0,37	0,44	0,52	0,60
3.5	120	0,47	0,53	0,64	0,76	0,86
3.6	100	0,43	0,47	0,56	0,67	0,78
3.7	120	0,43	0,47	0,56	0,67	0,78
3.8	100	0,33	0,37	0,44	0,52	0,60
4.1						
4.2						
4.3						
4.4						
4.5						
4.6						
4.7						
4.8						
4.9						
4.10						
4.11						
4.12						
4.13						
4.14						
4.15						
4.16						
4.17						
4.18						
4.19						
5.1						
5.2						
5.3						
5.4						
5.5						
5.6						
5.7						
5.8						
5.9						
5.10						
5.11						
6.1						
6.2						
6.3						
6.4						
6.5						

i For through holes, the feed must be reduced by approx. 30 % when exiting the hole. For more accurate positioning, precentre with a 142° NC spot drill. With Type VA 5xD and 8xD, enter the hole with reduced feed of 0.05–0.06 mm/revolution.

Cutting data standard values – WTX – Change

Index	Change VA 10 921 ...					Change GG 10 924 ...				
	V _c m/min	> Ø 12-15,7	> Ø 15,7-20	> Ø 20-25	> Ø 25-32	V _c m/min	> Ø 12-15,7	> Ø 15,7-20	> Ø 20-25	> Ø 25-32
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
1.1	100	0,22	0,26	0,29	0,32					
1.2	120	0,35	0,41	0,47	0,51					
1.3	100	0,28	0,32	0,36	0,40					
1.4	80	0,24	0,28	0,32	0,35					
1.5	90	0,28	0,32	0,36	0,40					
1.6	80	0,24	0,28	0,32	0,35					
1.7	80	0,24	0,28	0,32	0,35					
1.8	60	0,20	0,23	0,26	0,28					
1.9	90	0,28	0,32	0,36	0,40					
1.10	60	0,20	0,23	0,26	0,28					
1.11	50	0,18	0,21	0,23	0,26					
1.12	60	0,20	0,23	0,26	0,28					
1.13	60	0,20	0,23	0,26	0,28					
1.14	50	0,18	0,21	0,23	0,26					
1.15	50	0,20	0,23	0,26	0,28					
1.16	50	0,20	0,23	0,26	0,28					
2.1	60	0,17	0,19	0,23	0,27					
2.2	50	0,15	0,17	0,20	0,24					
2.3	60	0,13	0,15	0,18	0,22					
2.4	40	0,13	0,15	0,18	0,22					
2.5	35	0,13	0,15	0,18	0,22					
2.6	50	0,15	0,17	0,20	0,24					
2.7	35	0,12	0,13	0,16	0,19					
3.1	90	0,34	0,40	0,46	0,51	110	0,44	0,49	0,60	0,71
3.2	60	0,30	0,35	0,40	0,44	75	0,39	0,43	0,52	0,62
3.3	80	0,39	0,45	0,51	0,57	100	0,51	0,56	0,66	0,79
3.4	55	0,30	0,35	0,40	0,44	70	0,39	0,43	0,52	0,62
3.5	110	0,43	0,50	0,58	0,63	135	0,56	0,62	0,75	0,89
3.6	90	0,39	0,45	0,51	0,57	110	0,51	0,56	0,66	0,79
3.7	110	0,39	0,45	0,51	0,57	135	0,51	0,56	0,66	0,79
3.8	90	0,30	0,35	0,40	0,44	110	0,39	0,43	0,52	0,62
4.1										
4.2										
4.3										
4.4										
4.5										
4.6										
4.7										
4.8										
4.9										
4.10										
4.11										
4.12										
4.13										
4.14										
4.15										
4.16										
4.17										
4.18										
4.19										
5.1										
5.2										
5.3										
5.4										
5.5										
5.6										
5.7										
5.8										
5.9										
5.10										
5.11										
6.1										
6.2										
6.3										
6.4										
6.5										

i 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!

Index	Change AL 10 922 ...				
	V_c m/min	> Ø 12-15,7 f mm/rev.	> Ø 15,7-20 f mm/rev.	> Ø 20-25 f mm/rev.	> Ø 25-32 f mm/rev.
	1.1				
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
1.10					
1.11					
1.12					
1.13					
1.14					
1.15					
1.16					
2.1					
2.2					
2.3					
2.4					
2.5					
2.6					
2.7					
3.1					
3.2					
3.3					
3.4					
3.5					
3.6					
3.7					
3.8					
4.1	350	0,30	0,37	0,50	0,65
4.2	300	0,30	0,37	0,50	0,65
4.3	250	0,37	0,46	0,63	0,82
4.4	200	0,30	0,37	0,50	0,65
4.5	150	0,27	0,33	0,45	0,59
4.6	180	0,27	0,33	0,45	0,59
4.7	140	0,27	0,33	0,45	0,59
4.8	140	0,27	0,33	0,45	0,59
4.9	130	0,27	0,33	0,45	0,59
4.10	120	0,27	0,33	0,45	0,59
4.11	200	0,42	0,52	0,71	0,93
4.12	200	0,37	0,46	0,63	0,82
4.13					
4.14					
4.15					
4.16					
4.17					
4.18					
4.19					
5.1					
5.2					
5.3					
5.4					
5.5					
5.6					
5.7					
5.8					
5.9					
5.10					
5.11					
6.1					
6.2					
6.3					
6.4					
6.5					













i With through-holes the feedrate should be reduced at the break out by approx. 30 %. Use 142° NC Spot Drill to ensure positional accuracy. Use reduced feedrate of 0.05–0.06 mm/U when using type VA 5xD and 8xD drill.

Type overview – WTX high performance drilling tools

- ▲ good self-centring
- ▲ optimum swarf control
- ▲ precise radial run-out
- ▲ excellent alignment precision
- ▲ high-quality surface finish
- ▲ close drilling tolerances
- ▲ limited hardening of peripheral zones of the material
- ▲ good chip evacuation even with large drilling depths

For all products that are marked with the video icon, a relevant product video can be viewed at cutting.tools/uk/type-overview-wtx/



<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">UNI</div> <div style="border: 1px solid black; padding: 2px; width: 60px; text-align: center; margin-bottom: 5px;">DRAGONSKIN</div>			<ul style="list-style-type: none"> ▲ high-performance solid carbide drill for universal application, for all materials up to 1200 N/mm² 	<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">Feed UNI</div> <div style="border: 1px solid black; padding: 2px; width: 60px; text-align: center; margin-bottom: 5px;">DRAGONSKIN</div>			<ul style="list-style-type: none"> ▲ solid carbide high feed drills with 3 cutting edges ▲ very good positional accuracy
<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">Speed UNI</div> <div style="border: 1px solid black; padding: 2px; width: 60px; text-align: center; margin-bottom: 5px;">DRAGONSKIN</div>			<ul style="list-style-type: none"> ▲ for double the cutting speed ▲ asymmetric point geometry permits performance improvement when drilling steel and cast iron by up to 60 % 	<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">Quattro 4F</div> <div style="border: 1px solid black; padding: 2px; width: 60px; text-align: center; margin-bottom: 5px;">DRAGONSKIN</div>		<ul style="list-style-type: none"> ▲ with additional guide land for best alignment accuracy, concentricity and positional accuracy 	
<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">180</div>		<ul style="list-style-type: none"> ▲ for inclined surfaces up to 45° and flat bottom holes 	<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">TB</div>		<ul style="list-style-type: none"> ▲ solid carbide deep hole drill, up to 50xD without peck drilling ▲ 4 or 6 facet head geometry for excellent alignment accuracy 		
<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">VA</div>		<ul style="list-style-type: none"> ▲ first choice for corrosion and acid resistant steels ▲ for volume production 	<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">AL</div>		<ul style="list-style-type: none"> ▲ solid carbide high performance drill specially for the machining of aluminium, copper and brass ▲ 6 facet geometry for excellent hole quality 		
<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">GG</div>		<ul style="list-style-type: none"> ▲ for cast materials to 250 HB ▲ straight flutes 	<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">Ti</div> <div style="border: 1px solid black; padding: 2px; width: 60px; text-align: center; margin-bottom: 5px;">DRAGONSKIN</div>		<ul style="list-style-type: none"> ▲ specialist for cost effective machining of Titanium, Titanium Alloys and Heat Resistant Alloys 		
<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">H</div> <div style="border: 1px solid black; padding: 2px; width: 60px; text-align: center; margin-bottom: 5px;">DRAGONSKIN</div>			<ul style="list-style-type: none"> ▲ high-performance drill for hardened steels from 45 to 70 HRC 	<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">MINI</div>			<ul style="list-style-type: none"> ▲ solid carbide micro drill for the precise manufacture of very small holes from Ø 0.1 mm to 2.9 mm
<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">Change</div>			<ul style="list-style-type: none"> ▲ replaceable head drills with the performance level of a solid carbide drill, from Ø 12.0 mm to 41.0 mm 	<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">BR</div>		<ul style="list-style-type: none"> ▲ solid carbide high performance drill reamer ▲ drill and ream in one operation 	
<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">Change Feed</div>			<ul style="list-style-type: none"> ▲ exchangeable head drill with three cutting edges for even greater performance, from Ø 14.0 mm to 32.0 mm 	<div style="border: 1px solid black; padding: 2px; width: 40px; text-align: center; margin-bottom: 5px;">SB</div> <div style="border: 1px solid black; padding: 2px; width: 60px; text-align: center; margin-bottom: 5px;">DRAGONSKIN</div>		<ul style="list-style-type: none"> ▲ core hole plus countersink for tapping and thread forming 	

Important application criteria for WTX drills

Axial offset

The axial run-out of the axis between a rotating work piece and a stationary tool must not exceed 0.04 mm. A larger run-out reduces tool life and drilling quality and can lead to tool breakage.

Run-out

The concentricity error when the tool is rotating should not exceed 0.015 mm.

With internally cooled tools the coolant pressure should be min. 20 bar – see diagram bottom right

High-quality semi-synthetic or emulsion coolants with min. 10 % oil content and EP additives are recommended. This allows better life, and achieves higher tolerance accuracy and better surface quality. A fine filter system is recommended to prevent possible clogging of the coolant channels.

Drilling into solid

Due to the geometric design of the solid carbide drills, they are suitable for drilling into solid material.

With solid carbide drills $\leq 12xD$ drilling can be carried out in solid material without the need for centering and spot drilling operations.

Flute run-out

When using WTX drills a safety margin of at least 1 to 1.5xD must be maintained between the work piece and the flute outlet groove of the drill to ensure optimum chip evacuation and prevent chip clogging and tool fracture.

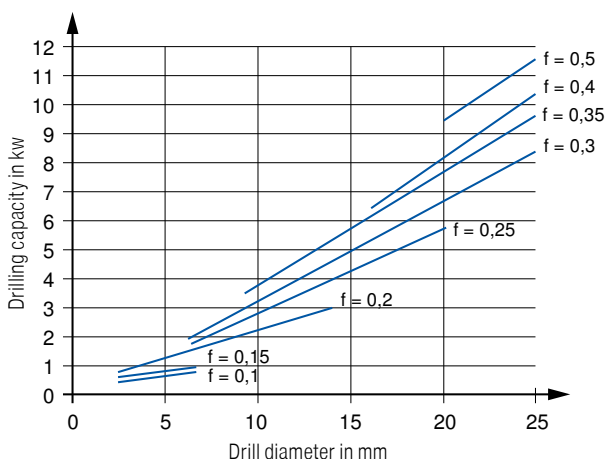
Peck drilling

Pecking should be avoided as there is a very high risk of fracture caused by chips left behind or flushed into the hole.

Feed rate f in mm/rev.

Drilling capacity relative to the diameter: $v_c = 80$ m/min.

Tensile strength of the material = 600 N/mm²



Secondary tools

If a smaller diameter WTX drill is used as a following tool in the same hole, it should have a smaller drill point angle to ensure that it centres properly.

Interrupted Cuts

Reduce the feedrate on entry to and from cross holes

Drill exit

To avoid severe burr formation, reduce v_c and f .

Workpiece clamping

To avoid tool breakages, care must be taken to ensure a proper workpiece clamping without vibration or workpiece deflection.

Tool holding

With optimum clamping high alignment accuracy and tolerances (IT7-8) are possible.

Due to the high surface quality reaming operations can often be dispensed with.

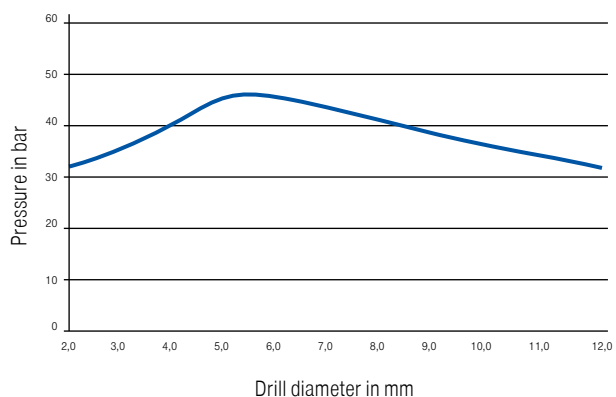
Machine Requirements

Please note the performance diagram (below left)

Cutting data table

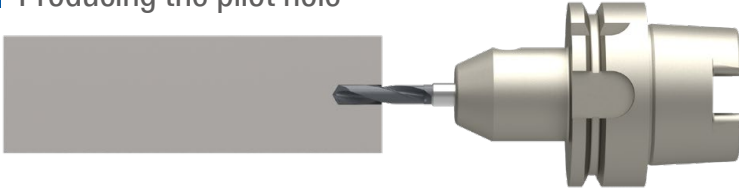
To control the chip length (comma chip) the feed rates should be no lower than the lower limits quoted in the cutting data table.

Coolant pressure



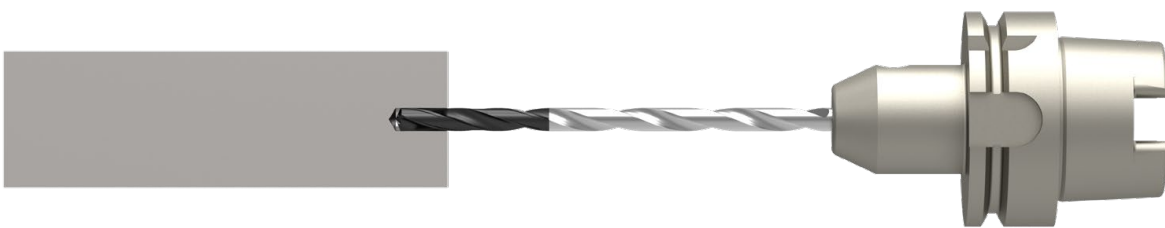
Strategy for the production of deep holes with the WTX solid carbide deep hole drill

1 Producing the pilot hole



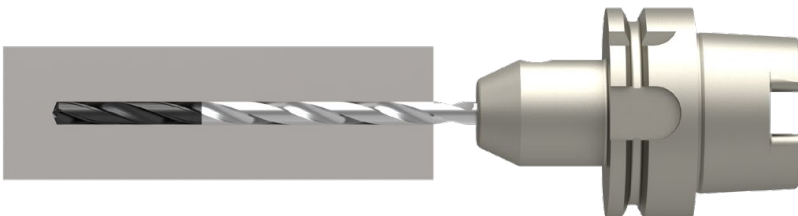
- ▲ For the pilot hole, we recommend a WTX drill 3xD / 5xD with the same nominal diameter
- ▲ The pilot hole should be 0.01–0.03 mm larger in diameter and at least 3xD deep.
- ▲ From a hole depth of 40xD, we recommend a pilot hole of 12xD with our WTX Quattro 4F.

2 Movement of the deep hole drill into the pilot hole



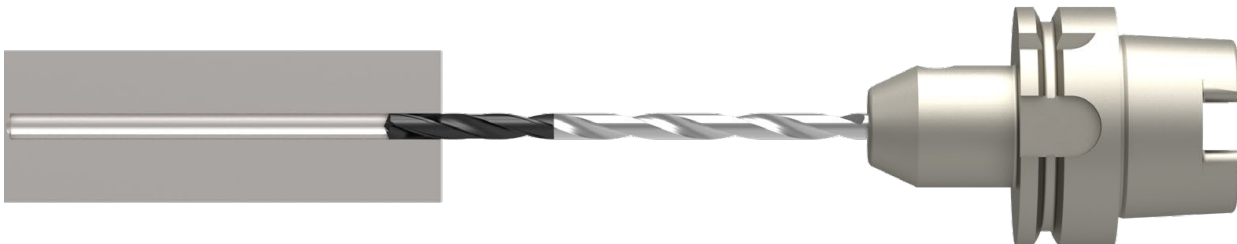
- ▲ Move the WTX deep hole drill without coolant pressure and with reduced speed ($n = 200\text{--}300$ rpm) into the pilot hole at a feed of $v_f = 1000$ mm/min
- ▲ Approx. 2 mm before reaching the bottom of the hole (end of the pilot hole), stop the feed, switch on the coolant and wait for a short time until the recommended pressure is reached. Then increase the spindle speed to the recommended speed as smoothly as possible.

3 Drilling to required depth without pecking



- ▲ Reduce feed rate for cross holes and at drill exit by 50 %.

4 Retracting the drill



- ▲ Retract the drill to approximately the depth of the pilot hole.
- ▲ Reduce the rpm to a low speed ($n = 200\text{--}300$ U/min).
- ▲ Use normal rapid feed ($V_f = 3000$ mm/min) when exiting the hole.

i For horizontal deep drilling operations from 40xD, move the deep hole drill into the hole counter-clockwise at 200 rpm. This prevents sagging of the deep hole drill.

i It is essential to ensure that deep hole drills never run unsupported at full speed in the machine!

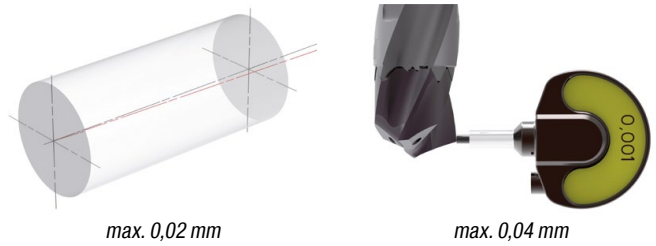
Application notes for WTX – Change Feed and WTX – Change exchangeable head drills

Coolant conditions

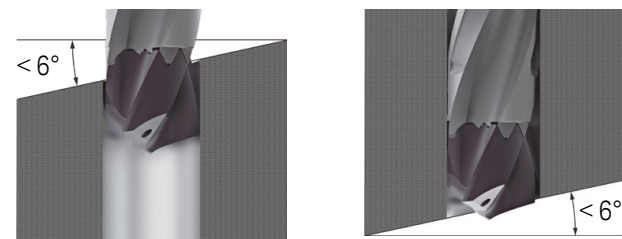
Coolant pressure dependent on drilling depth:

with thro' coolant	with external cooling	without coolant supply
1xD: 8 bar ✓	1xD: 8 bar ✓	max. bore depth: 3xD
3xD: 8 bar ✓	3xD: 8 bar ✓	
5xD: 12 bar ✓	5xD: 12 bar ✗	
8xD: 25 bar ✓	8xD: 25 bar ✗	
12xD: 25 bar ✓	12xD: 25 bar ✗	

Runout accuracy

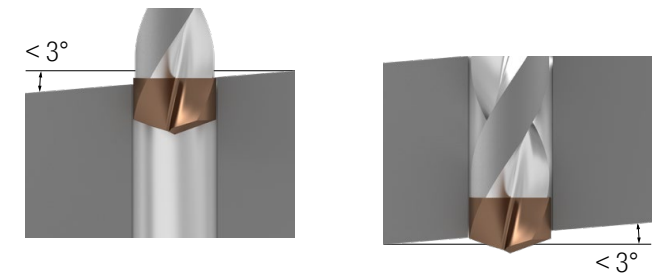


Max. entry and exit angle for the WTX – Change Feed



When entering and exiting angled surfaces, reduce v_f by 50 %.

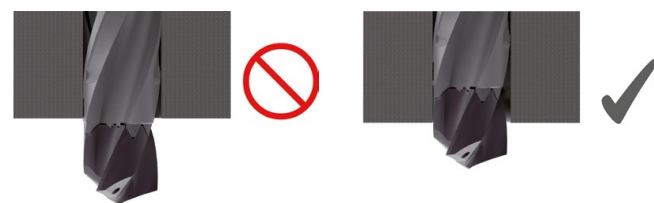
Max. entry and exit angle for the WTX – Change



When entering and exiting angled surfaces, reduce v_f by 50 %.

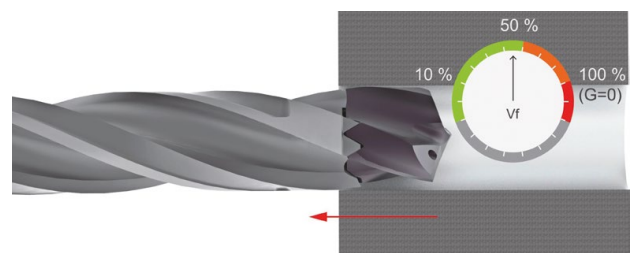
Exiting a through hole

▲ WTX Change Feed and WTX Change



Do not retract at rapid feedrate

For withdrawal, a rate of 5 times the value of the feed rate is recommended.



Machining situations

Offset cross hole point is engaged	Offset cross hole point is not engaged	Breakthrough at counterbore	Hole on centre and smaller Ø	Hole on centre and same Ø	Hole on centre and larger Ø
WTX – Change Feed ✓	WTX – Change Feed ✗	WTX – Change Feed ✓	WTX – Change Feed ✓	WTX – Change Feed ✗	WTX – Change Feed ✗
WTX – Change ✓	WTX – Change ✗	WTX – Change ✗	WTX – Change ✓	WTX – Change ✗	WTX – Change ✗


Recommendations for solid carbide drilling operations

Reasons for ...

Solutions ...


... Built-up edge

v_c too low
Too much material taken off at main cutting edge
Uncoated cutting edge

 Increase v_c
Reduce cut
Coating


... Corners broken off

Unstable conditions
Run out too high
Interrupted cut

 Change clamping
Optimize radial run-out
Reduce feed rate


... Heavy flank wear

v_c too low
Feed rate too low
Clearance angle too small

 Reduce v_c
Increase feed rate
Increase clearance angle


... Scoring on the tool flanks

Unstable conditions
Run out too high
Interrupted cut
Abrasive materials

 Change clamping
Correct radial run-out
Reduce feed rate
Thicker emulsion or oil


... Round chamfer wear

Unstable conditions
Run out too high
Back taper too small
Wrong emulsion or too thin emulsion

 More stable clamping
Check radial run-out
Increase back taper
Thicker emulsion or oil


... Material broken off at main cutting edge

Unstable conditions
Interrupted cut
Wrong type of tool
Max. tool life has been exceeded

 More stable clamping
Reduce feed rate
Optimize tool
Change tool earlier


... Heavy wear at chisel edge

v_c too low
Feed rate too high
Too much material taken off at main cutting edge

 Increase v_c
Reduce feed rate
Optimize cutting edge


... Material broken off at intersections, drill point and main cutting edge

Clearance angle too small
Too much material taken off at main cutting edge
Wrong tool

 Increase clearance angle
Optimize cutting edge
Other tool


... Plastic deformation of cutting corner

v_c too high
Insufficient emulsion
Wrong or no corner chamfer

 Reduce v_c
Increase amount of coolant
Correct corner chamfer


... Poor surface quality

Run out too high
Insufficient cooling
Unstable conditions

 Check radial run-out
More emulsion
Change toolholding

... Heavy burring on hole exit

Feed too high
Excessive honing of main cutting edge

 Reduce feed rate
Reduce cutting edge

Coatings

Ti800

- ▲ AlTiN nanolayer coating
- ▲ Maximum application temperature: 1100 °C

Ti700

- ▲ TiAlN multilayer coating
- ▲ Maximum application temperature: 1100 °C

TiAlN

- ▲ TiAlN multilayer coating
- ▲ Maximum application temperature: 900 °C

TiB

- ▲ TiB monolayer coating
- ▲ Specially for aluminium machining
- ▲ Maximum application temperature: 900 °C

TiSi

- ▲ TiSi multilayer coating
- ▲ Maximum application temperature: 800 °C

Ti1050

- ▲ Ti multilayer coating
- ▲ HV0.005 = 3300
- ▲ Coefficient of friction (against steel) = 0.3–0.5
- ▲ Maximum application temperature: 900 °C

Ti750

- ▲ TiAlN nanolayer coating
- ▲ Maximum application temperature: 1000 °C

DLC

- ▲ Diamond-like carbon coating
- ▲ Specially for machining non-ferrous metals
- ▲ Maximum application temperature: 400 °C

DPX74S

- ▲ Special TiAlN nanolayer coating
- ▲ Maximum application temperature: 1000 °C

DRAGONSKIN

DPA54

- ▲ Special multilayer coating
- ▲ High hardness and heat resistance
- ▲ Maximum application temperature: 800 °C

DRAGONSKIN

DPX64S

- ▲ TiAlN monolayer coating
- ▲ Perfected for hardened materials
- ▲ Optimised coating and surface structure
- ▲ Maximum application temperature: 800 °C

DRAGONSKIN

DPX14S

- ▲ TiAlN nanolayer coating
- ▲ Coefficient of friction (dry, against steel) = 0.35
- ▲ Maximum application temperature: 1000 °C

DRAGONSKIN

DPX64U

- ▲ Special TiAlN monolayer coating
- ▲ Perfected for hardened materials
- ▲ Optimised coating and surface structure
- ▲ Maximum application temperature: 800 °C

DRAGONSKIN