New products for machining technicians

NEW WTX – HFDS

≤ 3xD | ≤ 5xD

The first four-edged drilling tool on the market. The innovative, pyramid geometry of the WTX – HFDS ensures extremely aggressive and precise drilling performance. Each cutting edge is optimally cooled by the four spiral coolant holes.

→ Page 34+59

NEW WTX – Speed VA

≤ 12xD

The renowned WTX – High-speed carbide drill is now also available in 12xD. Designed for high cutting speeds in Corrosion and acid-resistant steels.

→ Page 69–72

NEW WTX – Co-pilot deep hole twist drill

≤ 20xD

The WTX – Co-pilot deep hole twist drill ensures an even safer deep hole drilling process. The cutting time of the deep hole twist drill is reduced and optimal guidance up to > 30xD is guaranteed.

→ Page 75

NEW WTX – Stepped drill with thro' coolant

≤ 3xD

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

→ Page 88

NEW WTX – Feed drill reamer

≤ 3xD | ≤ 5xD

The new WTX – Feed drill reamer can be used for any application due to the new cutting edge geometry with 3 effective cutting edges and the Dragonskin DPX14S coating.

→ Page 84–86

NEW WTX – Micro

5xD - 30xD

The new WTX – Micro drills have been perfectly designed for miniature holes and feature a high level of process security. The special geometry and new DPX74M micro drill coating set new standards in the production of miniature holes up to 30xD.

→ Page 80–83

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

9 Turning Tools

10 Multifunctional Tools – EcoCut and FreeTurn

11 Grooving Tools

12 Miniature turning tools

Milling

13 HSS Milling Cutters

14 Solid Carbide milling cutters

15 Milling tools with indexable inserts

Catalogue – Clamping technology

16 Adaptors and Accessories

17 Workpiece clamping

18 Material examples and article no. Index

Table of contents

Symbol explanation	2
Toolfinder	3–5
List of contents	6–10
Product programme	11–106
Technical Information:	
Cutting Data	107–157
Type overview	158
Application notes: WTX drill, WTX – Change / Change Feed / deep hole twist and micro drill	159–163
Coatings	164

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

Tool types

An explanation of the tool types can be found on → **Page 158.**

Coolant supply version

Int. coolant supply

self-centering

▲ Pilot drilling
▲ min. 2xD

● = **Main Application**
○ = Extended application

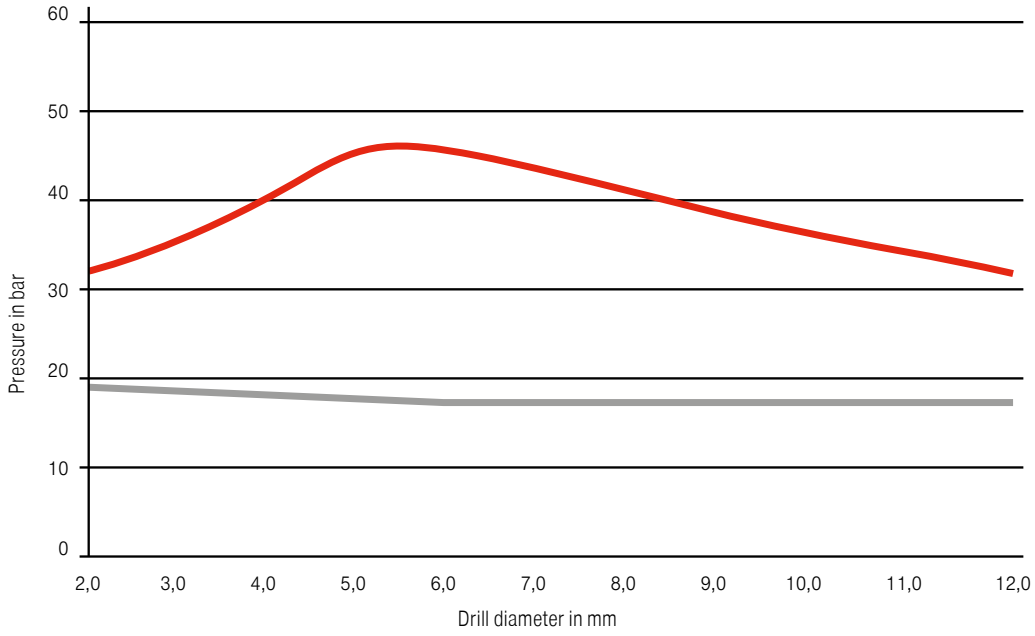
2

Recommended application – WTX Performance Tools

● = Main Application
○ = Extended application

	WTX – Type	Through-holes	Blind holes	Flat bottom hole	High-feed machining	High speed machining	Stack plate drilling	Drilling with a transverse hole	Angled hole entrance > 5 %	Angled drill exit > 5 %	drilling dowel holes	deep holes	miniature holes
Monobloc Tool	WTX – UNI	●	●				●	●					
	WTX – Speed	●	●			●	●						
	WTX – HFDS	●	●		●		●	●					
	WTX – Feed	●	●		●		●	●	●	●			
	WTX – Speed VA	●	●			●							
	WTX – VA	●	●										
	WTX – Ti	●	●					●					
	WTX – AL	●	●										
	WTX – 180	●	●	●				●	●	●			
	WTX – Quattro 4F	●	●							○			
	WTX – Feed BR	●	●		●		○	○	○	○	●		
	WTX – H	●	●										
	WTX – TB	●	●									●	
	WTX – Micro	●	●									●	●
Modular	WTX – Change Feed UNI	●	●		●				●	●			
	WTX – Change Drill heads	●	●										

Coolant diagram



Recommended coolant pressure
Minimum coolant Pressure

Toolfinder

	Product name	Tool type	Description	Int. coolant supply	Heads	1xD	3xD	5xD	8xD	12xD
Steel/Universal	**Solid carbide drilling**									
	WTX	Speed UNI	▲ high performance drill for high cutting speeds ▲ using new DPX14S Dragonskin coating ▲ new cutting geometry	✓			23–26	41–45	60–63	
	WTX	Feed UNI	▲ high feed drills with 3 cutting edges ▲ for difficult drilling conditions ▲ high positional accuracy	✓				58	68	74
	WTX	HFDS	▲ High-feed drill with four cutting edges ▲ Ultimate positioning accuracy of ~ 0.03 mm ▲ Optimal cooling with four spiral coolant holes	✓			34	59		
	WTX	UNI	▲ highest performance for all materials up to 1200 N/mm² ▲ suitable for volume production	✗ ✓			11–15 23–26	35–38 41–45	 60–63	
	WPC	UNI	▲ quality tools for standard applications	✗ ✓			16–19 27–30	39 53–56	 64	 73
	WTX	180	▲ for inclined surfaces up to 45° and flat bottom holes	✓			33	57		
	WTX	Quattro 4F	▲ with additional guide land for best alignment accuracy, concentricity and positional accuracy	✗ ✓				35–38 41–45	 60–63	 69–72
		N	▲ uncoated solid carbide drills ▲ universal application	✗			21	40		
	Mini-drill									
	WTX	MINI	▲ Standard shank Ø 3.0 mm for use in heat shrink adapters	✗				79		
	WTX	MICRO	▲ Universal high-performance micro drill ▲ Specialised geometry and coating ▲ WTX – Micro (5xD) pilot drill for deep hole twist drill	✓				80	80	81
	Drill Reamers									
	WTX	Feed BR/ BR100	▲ solid carbide high performance drill reamer ▲ excellent surface quality ▲ for blind and through holes	✓			84+86	85+86		
	Stepped drills									
	WTX	SB	▲ core hole plus countersink for thread forming and tapping	✗ ✓			87 88			
	NC Spot Drill									
		NC-A	▲ spiral fluted ▲ 90°, 120°, 142°	✗		89+90				
	Centre drills									
		ZB	▲ spiral fluted ▲ 120°	✗		91				
	Exchange head drill									
	WTX	Change Feed UNI	▲ 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)	✓	92+93		94	94	95	
	WTX	Change UNI	▲ exchangeable head drill with type UNI solid carbide drill head from Ø 12.0 mm to 41.0 mm ▲ for steels < 700 N/mm²	✓	96–101	102	102	103	103	104
	WTX	Change P	▲ exchangeable head drill with type P solid carbide drill head from Ø 12.0 mm to 41.0 mm ▲ for steels > 700 N/mm²	✓	96–101	102	102	103	103	104
	Exchangeable head NC spot drill									
		NC-A	▲ NC spot drill – exchange head system ▲ 90°, 120°, 142°	✗	106					

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

2

Toolfinder

	Product name	Tool type	Description	Int. coolant supply	Heads	1xD	3xD	5xD	8xD	12xD
Stainless steel	**Solid carbide drilling**									
	WTX	VA	▲ highest performance for corrosion and acid resistant steels and aluminium ▲ for volume production	✖ ✓			11–15 23–26	35–38 46–52	 65–67	
	WPC	VA	▲ quality tools for corrosion and acid-resistant steels and aluminum	✖ ✓			16–19 27–30	 53–56		
	WTX	Speed VA	▲ double the cutting speed in corrosion and acid-resistant steels and aluminum	✓				46–52		69–72
	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	✓	96–101	102	102	103	103	104
Cast iron	**Solid carbide drilling**									
	WTX	GG	▲ highest performance in cast materials to 250 HB	✓				46–52	65–67	
	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	✓	96–101	102	102	103	103	104
Non ferrous metals	**Solid carbide drilling**									
	WTX	AL	▲ solid carbide high performance drill, especially for the machining of aluminum, copper and brass ▲ for volume production	✓				46–52	65–67	69–72
	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	✓	96–101	102	102	103	103	104
Heat resistant	**Solid carbide drilling**									
	WTX	Ti	▲ highest performance in titanium, titanium alloys and heat resistant alloys	✓			31+32	46–52		
Hardened materials	**Solid carbide drilling**									
	WTX	H	▲ highest performance in hardened steel from 46 to 70 HRC	✖ ✓			20 22			

	Product name	Tool type	Description	Int. coolant supply	16xD	20xD	25xD	30xD	40xD	50xD
	Deep Hole Drills									
Steel/Universal	WTX	MICRO	▲ Universal high-performance micro deep hole twist drill ▲ Specialised geometry and coating ▲ Hole depths up to 30xD possible		81	82	82	83		
	WTX	CP 20 UNI	▲ Ensures an even safer deep hole drilling process ▲ Excellent alignment precision ▲ For optimal guidance of the deep hole twist drill for hole depths > 30xD	✓		75				
	WTX	TB UNI	▲ solid carbide deep hole drill to 50xD without peck ▲ 4 facet geometry for excellent alignment accuracy	✓	76	76	77	77	78	78
Non ferrous metals	WTX	TB ALU	▲ solid carbide deep hole drills, up to 30xD without pecking ▲ 6-facet head geometry for excellent alignment accuracy	✓	76	76	77	77		

✖ = without through coolant | ✓ = with thro' coolant

Overview Solid Carbide Drills

3xD without thro‘ coolant

	Product name	Tool type	Length	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
	WTX	UNI	≤ 3xD	3–25	●		●			○		HA HB HE	■		11–15	
	WTX	VA	≤ 3xD	2–20	○	●	○	○	●			HA HE	■		11–15	
	WPC	UNI	≤ 3xD	1–20	●		●					HA HB	■			16–19
	WPC	VA	≤ 3xD	1–20	○	●	●	●				HA HB	■			16–19
	WTX	H	≤ 3xD	2,55–14	○		●			●		HA	up to 70 HRC	■	20	
		N	≤ 3xD	0,5–20	○		●	●	○					□		21

3xD with thro‘ coolant

	Product name	Tool type	Length	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
	WTX	Speed UNI	≤ 3xD	3–20	●	●	●					HA		■	23–26	
	WTX	UNI	≤ 3xD	3–25	●		●			○		HA HB HE		■	23–26	
	WTX	VA	≤ 3xD	3–20	○	●	○	○	●			HA HE		■	23–26	
	WPC	UNI	≤ 3xD	1–20	●		●					HA HB		■		27–30
	WPC	VA	≤ 3xD	1–20	○	●	●	●				HA HE		■		27–30
	WTX	Ti	≤ 3xD	3–20	○	●			●			HA		■	31+32	
	WTX	180	≤ 3xD	3–20	●	●	●					HA		■	33	
	WTX	H	≤ 3xD	2,55–14	○		●		○	●		HA	up to 58 HRC	■	22	
	WTX	HFDS	≤ 3xD	6–16	●	○	●	○	○	○	○	HA	4 flute	■	34	

Overview Solid Carbide Drills

2

5xD without thro‘ coolant

	Product name	Tool type	Length	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
	WTX	UNI	≤ 5xD	3–20	● HA		● HB			○		HE	■		35–38	
	WTX	Quattro 4F	≤ 5xD	3–20	● HA		●			○			■		35–38	
	WTX	VA	≤ 5xD	3–20	○ HA	●	○	○	● HE				■		35–38	
	WPC	UNI	≤ 5xD	3–20	● HA		● HB						■			39
		N	≤ 5xD	0,5–16	○		●	●	○					□		40

5xD with thro‘ coolant

	Product name	Tool type	Length	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
	WTX	Feed UNI	≤ 5xD	4–20	● HA	●	●	○				3 flute	■		58	
	WTX	Speed UNI	≤ 5xD	3–20	● HA	●	●						■		41–45	
	WTX	UNI	≤ 5xD	3–25	● HA		● HB			○		HE	■		41–45	
	WTX	Quattro 4F	≤ 5xD	3–20	● HA		●			○			■		41–45	
	WTX	Speed VA	≤ 5xD	3–20	● HA	●	●	○	●				■		46–52	
	WTX	VA	≤ 5xD	3–20	○ HA	●	○	○	● HE				■		46–52	
	WTX	GG	≤ 5xD	3–20	HA		●	○					■		46–52	
	WTX	AL	≤ 5xD	2,5–20	HA			●					■		46–52	
	WTX	Ti	≤ 5xD	3–20	○ HA	●			●				■		46–52	
	WPC	UNI	≤ 5xD	1–20	● HA		● HB						■			53–56
	WPC	VA	≤ 5xD	1–20	○ HA	●	●	● HB					■			53–56
	WTX	180	≤ 5xD	3–20	● HA	●	●						■		57	
	WTX	HFDS	≤ 5xD	6–16	● HA	○	●	○	○	○	○	4 flute	■		59	

Overview Solid Carbide Drills

8xD with thro‘ coolant

	Product name	Tool type	Length	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
	WTX	Feed UNI	≤ 8xD	4–20	●	●	●	○				3 flute	■		68	
	WTX	Speed UNI	≤ 8xD	3–20	●	●	●						■		60–63	
	WTX	UNI	≤ 8xD	3–20	●		●			○			■		60–63	
	WTX	Quattro 4F	≤ 8xD	3–20	●		●			○			■		60–63	
	WPC	UNI	≤ 8xD	3–20	●		●						■			64
	WTX	VA	≤ 8xD	3–20	○	●	○	○	●				■		65–67	
	WTX	GG	≤ 8xD	3–20			●	○					■		65–67	
	WTX	AL	≤ 8xD	3–20				●					■		65–67	

12xD with thro‘ coolant

	Product name	Tool type	Length	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
	WTX	Feed UNI	≤ 12xD	4–20	●	●	●	○				3 flute	■		74	
	WTX	Speed VA	≤ 12xD	3–17,5	●	●	●	○	●				■		69–72	
	WTX	Quattro 4F	≤ 12xD	3–20	●		●			○			■		69–72	
	WTX	AL	≤ 12xD	3–20				●					■		69–72	
	WPC	UNI	≤ 12xD	3–18	●		●						■			73

Overview Solid Carbide Drills

2

Deep Hole Drills 16xD / 20xD / 25xD / 30xD / 40xD / 50xD

Product name	Tool type	Length	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
WTX	CP 20 UNI	≤ 20xD	3–9	● HA	●	●		○				■		75	
WTX	TB UNI	≤ 16xD ≤ 20xD	2–12	● HA	●	●		○				■		76	
WTX	TB UNI	≤ 25xD ≤ 30xD	2–12	● HA	●	●		○				■		77	
WTX	TB UNI	≤ 40xD	3–9	● HA	●	●		○				■		78	
WTX	TB UNI	≤ 50xD	3–6,8	● HA	●	●		○				■		78	
WTX	TB ALU	≤ 16xD ≤ 20xD	2–12	HA			●					■		76	
WTX	TB ALU	≤ 25xD ≤ 30xD	2–12	HA			●					■		77	

Micro drill 5xD / 8xD / 12xD / 16xD / 20xD / 25xD / 30xD

Product name	Tool type	Length	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
WTX	MINI	≤ 5xD	0,1–2,9	○ HA		●	●	○				■		79	
WTX	MICRO	≤ 5xD	0,8–2,9	● HA	●	●		○			with thro' coolant	■		80	
WTX	MICRO	≤ 8xD	0,8–2,9	● HA	●	●		○			with thro' coolant	■		80	
WTX	MICRO	≤ 12xD	0,8–2,9	● HA	●	●		○			with thro' coolant	■		81	
WTX	MICRO	≤ 16xD	0,8–2,9	● HA	●	●					with thro' coolant	■		81	
WTX	MICRO	≤ 20xD	0,8–2,9	● HA	●	●					with thro' coolant	■		82	
WTX	MICRO	≤ 25xD	1,0–2,9	● HA	●	●					with thro' coolant	■		82	
WTX	MICRO	≤ 30xD	1,0–2,9	● HA	●	●					with thro' coolant	■		83	

Drill Reamers

Product name	Tool type	Length	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
WTX	Feed BR100	≤ 3xD ≤ 5xD	3,97–12,02	● HA	●	●					1/100 3 flute	■		84+85	
WTX	Feed BR	≤ 3xD	4–16	● HA	●	●					Tolerance H7 3 flute	■		86	
WTX	Feed BR	≤ 5xD	4–20	● HA	●	●					Tolerance H7 3 flute	■		86	

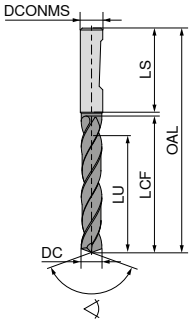
Overview Solid Carbide Drills

	Product name	Tool type	Point angle	Diameter in mm Ø DC	P Steel	M Stainless steel	K Cast iron	N Non ferrous metals	S Heat resistant	H Hardened materials	O Non metal materials		coated	uncoated	WNT \ Performance	WNT \ Standard
Stepped drills																
	WTX	SB		2,5–14	● HA		●			○		Thread cutting	■		87	
	WTX	SB		2,8–15	● HA		●			○		Thread forming	■		87	
	WTX	SB		3,3–14	● HA		●			○		Thread cutting with thro' coolant	■		88	
	WTX	SB		3,7–15	● HA		●			○		Thread forming with thro' coolant	■		88	
NC Spot Drill																
		NC–A	◁ 90° ◁ 120° ◁ 142°	2–20	○ HA		●	●						□		89
		NC–A	◁ 90° ◁ 120° ◁ 142°	2–20	○ HB		●	●		○			■			89
		NC–A	◁ 90° ◁ 120° ◁ 142°	3–16	○ HA		●	●		○	HB	Long version	■			90
Centre drills																
		ZB	◁ 120°	0,5–6,3	○		●	●						□	91	
Exchangeable head system – heads																
	WTX	Change Feed		14–32	●		●						■		92+93	
	WTX	Change UNI		12–41	●		●						■		96–101	
	WTX	Change P		12–41	●		●						■		96–101	
	WTX	Change VA		12–32	○	●	●		●				■		96–101	
	WTX	Change GG		12–32			●						■		96–101	
	WTX	Change ALU		12–32				●					■		96–101	
Exchangeable head system – holders 1xD / 3xD / 5xD / 8xD / 12xD																
	WTX	Change Feed		14–32	HB										94+95	
	WTX	Change		12–41	HB										102–104	
MultiChange NC spot drill																
		NC–A	◁ 90° ◁ 120° ◁ 142°	8–20	●	●	●	●					■		106	

WTX – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



UNI	UNI	UNI	VA	VA
DPX74S	DPX74S	DPX74S	Ti700	Ti700
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		

HA	HB	HE	HA	HE
140°	140°	140°	140°	140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
11 777 ...	**11 778 ...**	**11 776 ...**	**10 731 ...**	**10 732 ...**

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T7		£ T7		£ T7		£ T5		£ T5	
2.00	6	58	16	11	36							46.85	020	46.85	020
2.10	6	58	16	11	36							46.85	021	46.85	021
2.20	6	58	16	11	36							46.85	022	46.85	022
2.30	6	58	16	11	36							46.85	023	46.85	023
2.33	6	58	16	11	36							46.85	823		
2.40	6	58	16	11	36							46.85	024	46.85	024
2.43	6	58	16	11	36							46.85	824		
2.50	6	58	16	11	36							46.85	025	46.85	025
2.55	6	58	16	11	36							46.85	825		
2.60	6	58	16	11	36							46.85	026	46.85	026
2.62	6	58	16	11	36							46.85	826		
2.70	6	58	16	11	36							46.85	027	46.85	027
2.80	6	58	16	11	36							46.85	028	46.85	028
2.90	6	58	16	11	36							46.85	029	46.85	029
3.00	6	62	20	14	36	30.25	03000	30.25	03000	30.25	03000	61.89	030	61.89	030
3.10	6	62	20	14	36	30.25	03100	30.25	03100	30.25	03100	61.89	031	61.89	031
3.15	6	62	20	14	36	30.25	03150	30.25	03150	30.25	03150	61.89	831		
3.20	6	62	20	14	36	30.25	03200	30.25	03200	30.25	03200	61.89	032	61.89	032
3.22	6	62	20	14	36	30.25	03220	30.25	03220	30.25	03220	61.89	832		
3.25	6	62	20	14	36	30.25	03250	30.25	03250	30.25	03250	61.89	890		
3.30	6	62	20	14	36	30.25	03300	30.25	03300	30.25	03300	61.89	033	61.89	033
3.40	6	62	20	14	36	30.25	03400	30.25	03400	30.25	03400	61.89	034	61.89	034
3.50	6	62	20	14	36	30.25	03500	30.25	03500	30.25	03500	61.89	035	61.89	035
3.60	6	62	20	14	36	30.25	03600	30.25	03600	30.25	03600	61.89	036	61.89	036
3.70	6	62	20	14	36	30.25	03700	30.25	03700	30.25	03700	61.89	037	61.89	037
3.80	6	66	24	17	36	30.25	03800	30.25	03800	30.25	03800	61.89	038	61.89	038
3.85	6	66	24	17	36	30.25	03850	30.25	03850	30.25	03850	61.89	838		
3.90	6	66	24	17	36	30.25	03900	30.25	03900	30.25	03900	61.89	039	61.89	039
4.00	6	66	24	17	36	30.25	04000	30.25	04000	30.25	04000	61.89	040	61.89	040
4.10	6	66	24	17	36	30.25	04100	30.25	04100	30.25	04100	61.89	041	61.89	041
4.20	6	66	24	17	36	30.25	04200	30.25	04200	30.25	04200	61.89	042	61.89	042
4.25	6	66	24	17	36	30.25	04250	30.25	04250	30.25	04250				
4.30	6	66	24	17	36	30.25	04300	30.25	04300	30.25	04300	61.89	043	61.89	043
4.35	6	66	24	17	36	30.25	04350	30.25	04350	30.25	04350	61.89	843		
4.40	6	66	24	17	36	30.25	04400	30.25	04400	30.25	04400	61.89	044	61.89	044
4.45	6	66	24	17	36	30.25	04450	30.25	04450	30.25	04450	61.89	844		
4.50	6	66	24	17	36	30.25	04500	30.25	04500	30.25	04500	61.89	045	61.89	045
4.60	6	66	24	17	36	30.25	04600	30.25	04600	30.25	04600	61.89	046	61.89	046
4.65	6	66	24	17	36	30.25	04650	30.25	04650	30.25	04650	61.89	900	61.89	900
4.70	6	66	24	17	36	30.25	04700	30.25	04700	30.25	04700	61.89	047	61.89	047
4.80	6	66	28	20	36	30.25	04800	30.25	04800	30.25	04800	61.89	048	61.89	048

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

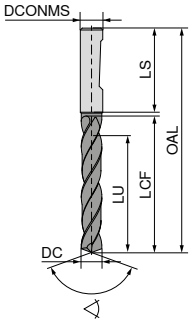
→ v_c Page 112+114

Continued on next page

WTX – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



	UNI	UNI	UNI	VA	VA
	DPX74S	DPX74S	DPX74S	Ti700	Ti700
	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		
	HA	HB	HE	HA	HE
	140° Solid carbide	140° Solid carbide	140° Solid carbide	140° Solid carbide	140° Solid carbide
	11 777 ...	11 778 ...	11 776 ...	10 731 ...	10 732 ...

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T7		£ T7		£ T7		£ T5		£ T5	
4.90	6	66	28	20	36	30.25	04900	30.25	04900	30.25	04900	61.89	049	61.89	049
4.95	6	66	28	20	36	30.25	04950	30.25	04950	30.25	04950				
5.00	6	66	28	20	36	30.25	05000	30.25	05000	30.25	05000	61.89	050	61.89	050
5.05	6	66	28	20	36	30.25	05050	30.25	05050	30.25	05050				
5.10	6	66	28	20	36	30.25	05100	30.25	05100	30.25	05100	61.89	051	61.89	051
5.20	6	66	28	20	36	30.25	05200	30.25	05200	30.25	05200	61.89	052	61.89	052
5.30	6	66	28	20	36	30.25	05300	30.25	05300	30.25	05300	61.89	053	61.89	053
5.40	6	66	28	20	36	30.25	05400	30.25	05400	30.25	05400	61.89	054	61.89	054
5.50	6	66	28	20	36	30.25	05500	30.25	05500	30.25	05500	61.89	055	61.89	055
5.55	6	66	28	20	36	30.25	05550	30.25	05550	30.25	05550	61.89	902	61.89	902
5.60	6	66	28	20	36	30.25	05600	30.25	05600	30.25	05600	61.89	056	61.89	056
5.70	6	66	28	20	36	30.25	05700	30.25	05700	30.25	05700	61.89	057	61.89	057
5.75	6	66	28	20	36	30.25	05750	30.25	05750	30.25	05750	61.89	916		
5.80	6	66	28	20	36	30.25	05800	30.25	05800	30.25	05800	61.89	058	61.89	058
5.90	6	66	28	20	36	30.25	05900	30.25	05900	30.25	05900	61.89	059	61.89	059
5.95	6	66	28	20	36	30.25	05950	30.25	05950	30.25	05950	61.89	959		
6.00	6	66	28	20	36	30.25	06000	30.25	06000	30.25	06000	61.89	060	61.89	060
6.10	8	79	34	24	36	32.63	06100	32.63	06100	32.63	06100	78.61	061	78.61	061
6.20	8	79	34	24	36	32.63	06200	32.63	06200	32.63	06200	78.61	062	78.61	062
6.30	8	79	34	24	36	32.63	06300	32.63	06300	32.63	06300	78.61	063	78.61	063
6.40	8	79	34	24	36	32.63	06400	32.63	06400	32.63	06400	78.61	064	78.61	064
6.50	8	79	34	24	36	32.63	06500	32.63	06500	32.63	06500	78.61	065	78.61	065
6.60	8	79	34	24	36	32.63	06600	32.63	06600	32.63	06600	78.61	066	78.61	066
6.70	8	79	34	24	36	32.63	06700	32.63	06700	32.63	06700	78.61	067	78.61	067
6.80	8	79	34	24	36	32.63	06800	32.63	06800	32.63	06800	78.61	068	78.61	068
6.90	8	79	34	24	36	32.63	06900	32.63	06900	32.63	06900	78.61	069	78.61	069
7.00	8	79	34	24	36	32.63	07000	32.63	07000	32.63	07000	78.61	070	78.61	070
7.10	8	79	41	29	36	32.63	07100	32.63	07100	32.63	07100	78.61	071	78.61	071
7.20	8	79	41	29	36	32.63	07200	32.63	07200	32.63	07200	78.61	072	78.61	072
7.30	8	79	41	29	36	32.63	07300	32.63	07300	32.63	07300	78.61	073	78.61	073
7.40	8	79	41	29	36	32.63	07400	32.63	07400	32.63	07400	78.61	074	78.61	074
7.45	8	79	41	29	36	32.63	07450	32.63	07450	32.63	07450	78.61	924		
7.50	8	79	41	29	36	32.63	07500	32.63	07500	32.63	07500	78.61	075	78.61	075
7.60	8	79	41	29	36	32.63	07600	32.63	07600	32.63	07600	78.61	076	78.61	076
7.70	8	79	41	29	36	32.63	07700	32.63	07700	32.63	07700	78.61	077	78.61	077
7.80	8	79	41	29	36	32.63	07800	32.63	07800	32.63	07800	78.61	078	78.61	078
7.90	8	79	41	29	36	32.63	07900	32.63	07900	32.63	07900	78.61	079	78.61	079
8.00	8	79	41	29	36	32.63	08000	32.63	08000	32.63	08000	78.61	080	78.61	080
8.10	10	89	47	35	40	35.79	08100	35.79	08100	35.79	08100	93.70	081	93.70	081
8.20	10	89	47	35	40	35.79	08200	35.79	08200	35.79	08200	93.70	082	93.70	082
8.30	10	89	47	35	40	35.79	08300	35.79	08300	35.79	08300	93.70	083	93.70	083

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

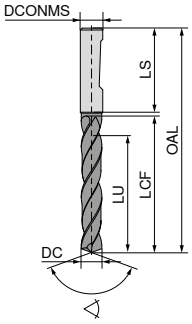
→ v_c Page 112+114

Continued on next page

WTX – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



UNI	UNI	UNI	VA	VA
DPX74S	DPX74S	DPX74S	Ti700	Ti700
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		

HA	HB	HE	HA	HE
140°	140°	140°	140°	140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
11 777 ...	**11 778 ...**	**11 776 ...**	**10 731 ...**	**10 732 ...**

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T7		£ T7		£ T7		£ T5		£ T5	
8.40	10	89	47	35	40	35.79	08400	35.79	08400	35.79	08400	93.70	084	93.70	084
8.50	10	89	47	35	40	35.79	08500	35.79	08500	35.79	08500	93.70	085	93.70	085
8.60	10	89	47	35	40	35.79	08600	35.79	08600	35.79	08600	93.70	086	93.70	086
8.70	10	89	47	35	40	35.79	08700	35.79	08700	35.79	08700	93.70	087	93.70	087
8.80	10	89	47	35	40	35.79	08800	35.79	08800	35.79	08800	93.70	088	93.70	088
8.90	10	89	47	35	40	35.79	08900	35.79	08900	35.79	08900	93.70	089	93.70	089
9.00	10	89	47	35	40	35.79	09000	35.79	09000	35.79	09000	93.70	090	93.70	090
9.10	10	89	47	35	40	35.79	09100	35.79	09100	35.79	09100	93.70	091	93.70	091
9.20	10	89	47	35	40	35.79	09200	35.79	09200	35.79	09200	93.70	092	93.70	092
9.30	10	89	47	35	40	35.79	09300	35.79	09300	35.79	09300	93.70	093	93.70	093
9.35	10	89	47	35	40	35.79	09350	35.79	09350	35.79	09350	93.70	930		
9.40	10	89	47	35	40	35.79	09400	35.79	09400	35.79	09400	93.70	094	93.70	094
9.45	10	89	47	35	40	35.79	09450	35.79	09450	35.79	09450	93.70	994		
9.50	10	89	47	35	40	35.79	09500	35.79	09500	35.79	09500	93.70	095	93.70	095
9.60	10	89	47	35	40	35.79	09600	35.79	09600	35.79	09600	93.70	096	93.70	096
9.70	10	89	47	35	40	35.79	09700	35.79	09700	35.79	09700	93.70	097	93.70	097
9.80	10	89	47	35	40	35.79	09800	35.79	09800	35.79	09800	93.70	098	93.70	098
9.90	10	89	47	35	40	35.79	09900	35.79	09900	35.79	09900	93.70	099	93.70	099
10.00	10	89	47	35	40	35.79	10000	35.79	10000	35.79	10000	93.70	100	93.70	100
10.10	12	102	55	40	45	51.86	10100	51.86	10100	51.86	10100	132.93	101	132.93	101
10.20	12	102	55	40	45	51.86	10200	51.86	10200	51.86	10200	132.93	102	132.93	102
10.30	12	102	55	40	45	51.86	10300	51.86	10300	51.86	10300	132.93	103	132.93	103
10.40	12	102	55	40	45	51.86	10400	51.86	10400	51.86	10400	132.93	104	132.93	104
10.50	12	102	55	40	45	51.86	10500	51.86	10500	51.86	10500	132.93	105	132.93	105
10.55	12	102	55	40	45	51.86	10550	51.86	10550	51.86	10550	132.93	932		
10.60	12	102	55	40	45	51.86	10600	51.86	10600	51.86	10600	132.93	106	132.93	106
10.70	12	102	55	40	45	51.86	10700	51.86	10700	51.86	10700	132.93	107	132.93	107
10.75	12	102	55	40	45	51.86	10750	51.86	10750	51.86	10750				
10.80	12	102	55	40	45	51.86	10800	51.86	10800	51.86	10800	132.93	108	132.93	108
10.90	12	102	55	40	45	51.86	10900	51.86	10900	51.86	10900	132.93	109	132.93	109
11.00	12	102	55	40	45	51.86	11000	51.86	11000	51.86	11000	132.93	110	132.93	110
11.10	12	102	55	40	45	51.86	11100	51.86	11100	51.86	11100	132.93	111	132.93	111
11.20	12	102	55	40	45	51.86	11200	51.86	11200	51.86	11200	132.93	112	132.93	112
11.25	12	102	55	40	45	51.86	11250	51.86	11250	51.86	11250	132.93	912		
11.30	12	102	55	40	45	51.86	11300	51.86	11300	51.86	11300	132.93	113	132.93	113
11.35	12	102	55	40	45	51.86	11350	51.86	11350	51.86	11350	132.93	913		
11.40	12	102	55	40	45	51.86	11400	51.86	11400	51.86	11400	132.93	114	132.93	114
11.45	12	102	55	40	45	51.86	11450	51.86	11450	51.86	11450	132.93	914		
11.50	12	102	55	40	45	51.86	11500	51.86	11500	51.86	11500	132.93	115	132.93	115
11.60	12	102	55	40	45	51.86	11600	51.86	11600	51.86	11600	132.93	116	132.93	116
11.70	12	102	55	40	45	51.86	11700	51.86	11700	51.86	11700	132.93	117	132.93	117

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

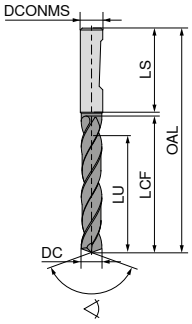
→ v_c Page 112+114

Continued on next page

WTX – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



	UNI	UNI	UNI	VA	VA
	DPX74S	DPX74S	DPX74S	Ti700	Ti700
	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		

	HA	HB	HE	HA	HE
	140° Solid carbide	140° Solid carbide	140° Solid carbide	140° Solid carbide	140° Solid carbide
	11 777 ...	11 778 ...	11 776 ...	10 731 ...	10 732 ...

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T7		£ T7		£ T7		£ T5		£ T5	
11.80	12	102	55	40	45	51.86	11800	51.86	11800	51.86	11800	132.93	118	132.93	118
11.90	12	102	55	40	45	51.86	11900	51.86	11900	51.86	11900	132.93	119	132.93	119
12.00	12	102	55	40	45	51.86	12000	51.86	12000	51.86	12000	132.93	120	132.93	120
12.15	14	107	60	43	45	67.64	12150	67.64	12150	67.64	12150	176.06	921		
12.25	14	107	60	43	45	67.64	12250	67.64	12250	67.64	12250				
12.50	14	107	60	43	45	67.64	12500	67.64	12500	67.64	12500	176.06	125	176.06	125
12.55	14	107	60	43	45	67.64	12550	67.64	12550	67.64	12550	176.06	925		
12.70	14	107	60	43	45	67.64	12700	67.64	12700	67.64	12700				
12.80	14	107	60	43	45	67.64	12800	67.64	12800	67.64	12800	176.06	128	176.06	128
12.90	14	107	60	43	45	67.64	12900	67.64	12900	67.64	12900				
13.00	14	107	60	43	45	67.64	13000	67.64	13000	67.64	13000	176.06	130	176.06	130
13.10	14	107	60	43	45	67.64	13100	67.64	13100	67.64	13100				
13.30	14	107	60	43	45	67.64	13300	67.64	13300	67.64	13300				
13.35	14	107	60	43	45	67.64	13350	67.64	13350	67.64	13350	176.06	933		
13.50	14	107	60	43	45	67.64	13500	67.64	13500	67.64	13500	176.06	135	176.06	135
13.70	14	107	60	43	45	67.64	13700	67.64	13700	67.64	13700				
13.80	14	107	60	43	45	67.64	13800	67.64	13800	67.64	13800	176.06	138	176.06	138
14.00	14	107	60	43	45	67.64	14000	67.64	14000	67.64	14000	176.06	140	176.06	140
14.20	16	115	65	45	48	88.17	14200	88.17	14200	88.17	14200				
14.50	16	115	65	45	48	88.17	14500	88.17	14500	88.17	14500	217.19	145	217.19	145
14.80	16	115	65	45	48	88.17	14800	88.17	14800	88.17	14800	217.19	148	217.19	148
15.00	16	115	65	45	48	88.17	15000	88.17	15000	88.17	15000	217.19	150	217.19	150
15.10	16	115	65	45	48	88.17	15100	88.17	15100	88.17	15100				
15.25	16	115	65	45	48	88.17	15250	88.17	15250	88.17	15250				
15.30	16	115	65	45	48	88.17	15300	88.17	15300	88.17	15300				
15.35	16	115	65	45	48	88.17	15350	88.17	15350	88.17	15350	217.19	953		
15.50	16	115	65	45	48	88.17	15500	88.17	15500	88.17	15500	217.19	155	217.19	155
15.60	16	115	65	45	48	88.17	15600	88.17	15600	88.17	15600				
15.80	16	115	65	45	48	88.17	15800	88.17	15800	88.17	15800	217.19	158	217.19	158
16.00	16	115	65	45	48	88.17	16000	88.17	16000	88.17	16000	217.19	160	217.19	160
16.05	18	123	73	51	48	172.04	16050	172.04	16050	172.04	16050	318.29	960		
16.50	18	123	73	51	48	172.04	16500	172.04	16500	172.04	16500	318.29	165	318.29	165
16.80	18	123	73	51	48	172.04	16800	172.04	16800	172.04	16800	318.29	168	318.29	168
16.90	18	123	73	51	48	172.04	16900	172.04	16900	172.04	16900				
17.00	18	123	73	51	48	172.04	17000	172.04	17000	172.04	17000	318.29	170	318.29	170
17.50	18	123	73	51	48	172.04	17500	172.04	17500	172.04	17500	318.29	175	318.29	175
17.60	18	123	73	51	48	172.04	17600	172.04	17600	172.04	17600				
17.80	18	123	73	51	48	172.04	17800	172.04	17800	172.04	17800	318.29	178	318.29	178
18.00	18	123	73	51	48	172.04	18000	172.04	18000	172.04	18000	318.29	180	318.29	180
18.50	20	131	79	55	50	191.12	18500	191.12	18500	191.12	18500	421.27	185	421.27	185
18.80	20	131	79	55	50	191.12	18800	191.12	18800	191.12	18800	421.27	188	421.27	188

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

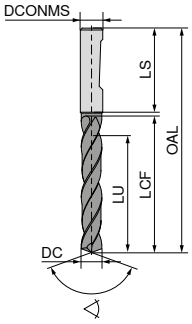
→ v_c Page 112+114

Continued on next page

WTX – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



UNI	UNI	UNI	VA	VA
DPX74S	DPX74S	DPX74S	Ti700	Ti700
DRAGONSKIN	DRAGONSKIN	DRAGONSKIN		

HA	HB	HE	HA	HE
140°	140°	140°	140°	140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
11 777 ...	**11 778 ...**	**11 776 ...**	**10 731 ...**	**10 732 ...**

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T7		£ T7		£ T7		£ T5		£ T5	
18.90	20	131	79	55	50	191.12	**18900**	191.12	**18900**	191.12	**18900**				
19.00	20	131	79	55	50	191.12	**19000**	191.12	**19000**	191.12	**19000**	421.27	**190**	421.27	**190**
19.35	20	131	79	55	50	191.12	**19350**	191.12	**19350**	191.12	**19350**	421.27	**993**		
19.50	20	131	79	55	50	191.12	**19500**	191.12	**19500**	191.12	**19500**	421.27	**195**	421.27	**195**
19.60	20	131	79	55	50	191.12	**19600**	191.12	**19600**	191.12	**19600**				
19.80	20	131	79	55	50	191.12	**19800**	191.12	**19800**	191.12	**19800**	421.27	**198**	421.27	**198**
20.00	20	131	79	55	50	191.12	**20000**	191.12	**20000**	191.12	**20000**	421.27	**200**	421.27	**200**
20.50	25	151	93	66	56	345.35	**20500**	345.35	**20500**	345.35	**20500**				
21.00	25	151	93	66	56	345.35	**21000**	345.35	**21000**	345.35	**21000**				
21.50	25	151	93	66	56	345.35	**21500**	345.35	**21500**	345.35	**21500**				
22.00	25	151	93	66	56	345.35	**22000**	345.35	**22000**	345.35	**22000**				
22.50	25	153	96	72	56	345.35	**22500**	345.35	**22500**	345.35	**22500**				
23.00	25	153	96	72	56	345.35	**23000**	345.35	**23000**	345.35	**23000**				
23.50	25	153	96	72	56	345.35	**23500**	345.35	**23500**	345.35	**23500**				
24.00	25	153	96	72	56	345.35	**24000**	345.35	**24000**	345.35	**24000**				
24.50	25	153	96	75	56	345.35	**24500**	345.35	**24500**	345.35	**24500**				
25.00	25	153	96	75	56	345.35	**25000**	345.35	**25000**	345.35	**25000**				

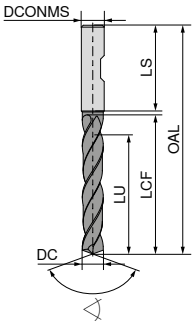
P	●	●	●	○	○
M				●	●
K	●	●	●	○	○
N				○	○
S				●	●
H	○	○	○		
O					

→ v_c Page 112+114

WPC – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



	UNI	UNI	VA	VA
	TiAlN	TiAlN	TiAlN	TiAlN

	HA	HB	HA	HB
	140°	140°	140°	140°
	Solid carbide	Solid carbide	Solid carbide	Solid carbide
	11 600 ...	11 601 ...	11 620 ...	11 621 ...

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1		£ T1		£ T1		£ T1	
1.00	4	45	5.0	4.5	32.0	21.37	010			20.78	010		
1.10	4	45	5.5	5.0	31.5	21.37	011			20.78	011		
1.20	4	45	6.0	5.4	31.0	21.37	012			20.78	012		
1.30	4	45	6.5	5.9	31.5	21.37	013			20.78	013		
1.40	4	45	7.0	6.3	30.0	21.37	014			20.78	014		
1.50	4	50	7.5	6.8	35.0	21.37	015			20.78	015		
1.60	4	50	8.0	7.2	34.5	21.37	016			20.78	016		
1.70	4	50	8.5	7.7	34.0	21.37	017			20.78	017		
1.80	4	50	9.0	8.1	33.5	21.37	018			20.78	018		
1.90	4	50	9.5	8.6	33.0	21.37	019			20.78	019		
2.00	6	58	14.0	11.0	36.0	21.37	020	21.37	020	25.61	020	21.37	020
2.10	6	58	14.0	11.0	36.0	21.37	021	21.37	021	25.61	021	21.37	021
2.20	6	58	14.0	11.0	36.0	21.37	022	21.37	022	25.61	022	21.37	022
2.30	6	58	14.0	11.0	36.0	21.37	023	21.37	023	25.61	023	21.37	023
2.40	6	58	14.0	11.0	36.0	21.37	024	21.37	024	25.61	024	21.37	024
2.50	6	58	14.0	11.0	36.0	21.37	025	21.37	025	25.61	025	21.37	025
2.60	6	58	14.0	11.0	36.0	21.37	026	21.37	026	25.61	026	21.37	026
2.70	6	58	14.0	11.0	36.0	21.37	027	21.37	027	25.61	027	21.37	027
2.80	6	58	14.0	11.0	36.0	21.37	028	21.37	028	25.61	028	21.37	028
2.90	6	58	14.0	11.0	36.0	21.37	029	21.37	029	25.61	029	21.37	029
3.00	6	62	20.0	14.0	36.0	20.78	030	21.37	030	20.78	030	21.37	030
3.10	6	62	20.0	14.0	36.0	20.78	031	21.37	031	20.78	031	21.37	031
3.20	6	62	20.0	14.0	36.0	20.78	032	21.37	032	20.78	032	21.37	032
3.30	6	62	20.0	14.0	36.0	20.78	033	21.37	033	20.78	033	21.37	033
3.40	6	62	20.0	14.0	36.0	20.78	034	21.37	034	20.78	034	21.37	034
3.50	6	62	20.0	14.0	36.0	20.78	035	21.37	035	20.78	035	21.37	035
3.60	6	62	20.0	14.0	36.0	20.78	036	21.37	036	20.78	036	21.37	036
3.70	6	62	20.0	14.0	36.0	20.78	037	21.37	037	20.78	037	21.37	037
3.80	6	66	24.0	17.0	36.0	20.78	038	21.37	038	20.78	038	21.37	038
3.90	6	66	24.0	17.0	36.0	20.78	039	21.37	039	20.78	039	21.37	039
4.00	6	66	24.0	17.0	36.0	20.78	040	21.37	040	20.78	040	21.37	040
4.10	6	66	24.0	17.0	36.0	20.78	041	21.37	041	20.78	041	21.37	041
4.20	6	66	24.0	17.0	36.0	20.78	042	21.37	042	20.78	042	21.37	042
4.30	6	66	24.0	17.0	36.0	20.78	043	21.37	043	20.78	043	21.37	043
4.40	6	66	24.0	17.0	36.0	20.78	044	21.37	044	20.78	044	21.37	044
4.50	6	66	24.0	17.0	36.0	20.78	045	21.37	045	20.78	045	21.37	045
4.60	6	66	24.0	17.0	36.0	20.78	046	21.37	046	20.78	046	21.37	046
4.65	6	66	24.0	17.0	36.0	20.78	900	21.37	900	20.78	900	21.37	900

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

→ v_c Page 130+133

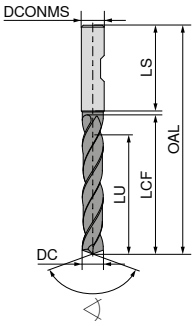
Continued on next page

WPC – High Performance Drill, DIN 6537

2

≤ 3xD

NOF = 2



UNI	UNI	VA	VA
TiAlN	TiAlN	TiAlN	TiAlN

HA HB HA HB

∢ 140° Solid carbide | ∢ 140° Solid carbide | ∢ 140° Solid carbide | ∢ 140° Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 600 ... £ T1		11 601 ... £ T1		11 620 ... £ T1		11 621 ... £ T1	
4.70	6	66	24.0	17.0	36.0	20.78	047	21.37	047	20.78	047	21.37	047
4.80	6	66	28.0	20.0	36.0	20.78	048	21.37	048	20.78	048	21.37	048
4.90	6	66	28.0	20.0	36.0	20.78	049	21.37	049	20.78	049	21.37	049
5.00	6	66	28.0	20.0	36.0	20.78	050	21.37	050	20.78	050	21.37	050
5.10	6	66	28.0	20.0	36.0	20.78	051	21.37	051	20.78	051	21.37	051
5.20	6	66	28.0	20.0	36.0	20.78	052	21.37	052	20.78	052	21.37	052
5.30	6	66	28.0	20.0	36.0	20.78	053	21.37	053	20.78	053	21.37	053
5.40	6	66	28.0	20.0	36.0	20.78	054	21.37	054	20.78	054	21.37	054
5.50	6	66	28.0	20.0	36.0	20.78	055	21.37	055	20.78	055	21.37	055
5.55	6	66	28.0	20.0	36.0	20.78	902	21.37	902	20.78	902	21.37	902
5.60	6	66	28.0	20.0	36.0	20.78	056	21.37	056	20.78	056	21.37	056
5.70	6	66	28.0	20.0	36.0	20.78	057	21.37	057	20.78	057	21.37	057
5.80	6	66	28.0	20.0	36.0	20.78	058	21.37	058	20.78	058	21.37	058
5.90	6	66	28.0	20.0	36.0	20.78	059	21.37	059	20.78	059	21.37	059
6.00	6	66	28.0	20.0	36.0	20.78	060	21.37	060	20.78	060	21.37	060
6.10	8	79	34.0	24.0	36.0	21.37	061	21.37	061	21.37	061	21.37	061
6.20	8	79	34.0	24.0	36.0	21.37	062	21.37	062	21.37	062	21.37	062
6.30	8	79	34.0	24.0	36.0	21.37	063	21.37	063	21.37	063	21.37	063
6.40	8	79	34.0	24.0	36.0	21.37	064	21.37	064	21.37	064	21.37	064
6.50	8	79	34.0	24.0	36.0	21.37	065	21.37	065	21.37	065	21.37	065
6.60	8	79	34.0	24.0	36.0	21.37	066	21.37	066	21.37	066	21.37	066
6.70	8	79	34.0	24.0	36.0	21.37	067	21.37	067	21.37	067	21.37	067
6.80	8	79	34.0	24.0	36.0	21.37	068	21.37	068	21.37	068	21.37	068
6.90	8	79	34.0	24.0	36.0	21.37	069	21.37	069	21.37	069	21.37	069
7.00	8	79	34.0	24.0	36.0	21.37	070	21.37	070	21.37	070	21.37	070
7.10	8	79	41.0	29.0	36.0	21.37	071	21.37	071	21.37	071	21.37	071
7.20	8	79	41.0	29.0	36.0	21.37	072	21.37	072	21.37	072	21.37	072
7.30	8	79	41.0	29.0	36.0	21.37	073	21.37	073	21.37	073	21.37	073
7.40	8	79	41.0	29.0	36.0	21.37	074	21.37	074	21.37	074	21.37	074
7.50	8	79	41.0	29.0	36.0	21.37	075	21.37	075	21.37	075	21.37	075
7.55	8	79	41.0	29.0	36.0	21.37	975	21.37	975	21.37	975	21.37	975
7.60	8	79	41.0	29.0	36.0	21.37	076	21.37	076	21.37	076	21.37	076
7.70	8	79	41.0	29.0	36.0	21.37	077	21.37	077	21.37	077	21.37	077
7.80	8	79	41.0	29.0	36.0	21.37	078	21.37	078	21.37	078	21.37	078
7.90	8	79	41.0	29.0	36.0	21.37	079	21.37	079	21.37	079	21.37	079
8.00	8	79	41.0	29.0	36.0	21.37	080	21.37	080	21.37	080	21.37	080
8.10	10	89	47.0	35.0	40.0	22.87	081	24.41	081	22.87	081	24.41	081
8.20	10	89	47.0	35.0	40.0	22.87	082	24.41	082	22.87	082	24.41	082

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

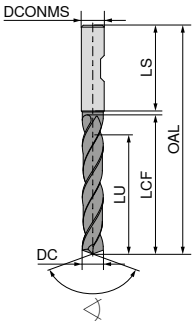
→ v_c Page 130+133

Continued on next page

WPC – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



UNI	UNI	VA	VA
TiAlN	TiAlN	TiAlN	TiAlN

HA HB HA HB

∢ 140° Solid carbide | ∢ 140° Solid carbide | ∢ 140° Solid carbide | ∢ 140° Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 600 ... £ T1		11 601 ... £ T1		11 620 ... £ T1		11 621 ... £ T1	
8.30	10	89	47.0	35.0	40.0	22.87	083	24.41	083	22.87	083	24.41	083
8.40	10	89	47.0	35.0	40.0	22.87	084	24.41	084	22.87	084	24.41	084
8.50	10	89	47.0	35.0	40.0	22.87	085	24.41	085	22.87	085	24.41	085
8.60	10	89	47.0	35.0	40.0	22.87	086	24.41	086	22.87	086	24.41	086
8.70	10	89	47.0	35.0	40.0	22.87	087	24.41	087	22.87	087	24.41	087
8.80	10	89	47.0	35.0	40.0	22.87	088	24.41	088	22.87	088	24.41	088
8.90	10	89	47.0	35.0	40.0	22.87	089	24.41	089	22.87	089	24.41	089
9.00	10	89	47.0	35.0	40.0	22.87	090	24.41	090	22.87	090	24.41	090
9.10	10	89	47.0	35.0	40.0	22.87	091	24.41	091	22.87	091	24.41	091
9.20	10	89	47.0	35.0	40.0	22.87	092	24.41	092	22.87	092	24.41	092
9.25	10	89	47.0	35.0	40.0	22.87	925	24.41	925	22.87	925	24.41	925
9.30	10	89	47.0	35.0	40.0	22.87	093	24.41	093	22.87	093	24.41	093
9.40	10	89	47.0	35.0	40.0	22.87	094	24.41	094	22.87	094	24.41	094
9.50	10	89	47.0	35.0	40.0	22.87	095	24.41	095	22.87	095	24.41	095
9.60	10	89	47.0	35.0	40.0	22.87	096	24.41	096	22.87	096	24.41	096
9.70	10	89	47.0	35.0	40.0	22.87	097	24.41	097	22.87	097	24.41	097
9.80	10	89	47.0	35.0	40.0	22.87	098	24.41	098	22.87	098	24.41	098
9.90	10	89	47.0	35.0	40.0	22.87	099	24.41	099	22.87	099	24.41	099
10.00	10	89	47.0	35.0	40.0	22.87	100	24.41	100	22.87	100	24.41	100
10.10	12	102	55.0	40.0	45.0	35.07	101	36.61	101	35.07	101	36.61	101
10.20	12	102	55.0	40.0	45.0	35.07	102	36.61	102	35.07	102	36.61	102
10.30	12	102	55.0	40.0	45.0	35.07	103	36.61	103	35.07	103	36.61	103
10.40	12	102	55.0	40.0	45.0	35.07	104	36.61	104	35.07	104	36.61	104
10.50	12	102	55.0	40.0	45.0	35.07	105	36.61	105	35.07	105	36.61	105
10.60	12	102	55.0	40.0	45.0	35.07	106	36.61	106	35.07	106	36.61	106
10.70	12	102	55.0	40.0	45.0	35.07	107	36.61	107	35.07	107	36.61	107
10.80	12	102	55.0	40.0	45.0	35.07	108	36.61	108	35.07	108	36.61	108
10.90	12	102	55.0	40.0	45.0	35.07	109	36.61	109	35.07	109	36.61	109
11.00	12	102	55.0	40.0	45.0	35.07	110	36.61	110	35.07	110	36.61	110
11.10	12	102	55.0	40.0	45.0	35.07	111	36.61	111	35.07	111	36.61	111
11.20	12	102	55.0	40.0	45.0	35.07	112	36.61	112	35.07	112	36.61	112
11.30	12	102	55.0	40.0	45.0	35.07	113	36.61	113	35.07	113	36.61	113
11.40	12	102	55.0	40.0	45.0	35.07	114	36.61	114	35.07	114	36.61	114
11.50	12	102	55.0	40.0	45.0	35.07	115	36.61	115	35.07	115	36.61	115
11.60	12	102	55.0	40.0	45.0	35.07	116	36.61	116	35.07	116	36.61	116
11.70	12	102	55.0	40.0	45.0	35.07	117	36.61	117	35.07	117	36.61	117
11.80	12	102	55.0	40.0	45.0	35.07	118	36.61	118	35.07	118	36.61	118
11.90	12	102	55.0	40.0	45.0	35.07	119	36.61	119	35.07	119	36.61	119

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

→ v_c Page 130+133

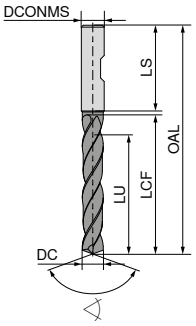
Continued on next page

WPC – High Performance Drill, DIN 6537

2

≤ 3xD

NOF = 2



UNI | UNI | VA | VA

TiAlN | TiAlN | TiAlN | TiAlN

HA | HB | HA | HB

∢ 140° Solid carbide | ∢ 140° Solid carbide | ∢ 140° Solid carbide | ∢ 140° Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 600 ... £ T1		11 601 ... £ T1		11 620 ... £ T1		11 621 ... £ T1	
12.00	12	102	55.0	40.0	45.0	35.07	120	36.61	120	35.07	120	36.61	120
12.25	14	107	60.0	43.0	45.0	47.30	122	47.30	122				
12.50	14	107	60.0	43.0	45.0	47.30	125	48.81	125	47.30	125	48.81	125
12.70	14	107	60.0	43.0	45.0	47.30	127	48.81	127	47.30	127	48.81	127
12.80	14	107	60.0	43.0	45.0	47.30	128	47.30	128				
12.90	14	107	60.0	43.0	45.0	47.30	129	47.30	129				
13.00	14	107	60.0	43.0	45.0	47.30	130	48.81	130	47.30	130	48.81	130
13.30	14	107	60.0	43.0	45.0	47.30	133	47.30	133				
13.50	14	107	60.0	43.0	45.0	47.30	135	48.81	135	47.30	135	48.81	135
13.70	14	107	60.0	43.0	45.0	47.30	137	48.81	137	47.30	137	48.81	137
13.80	14	107	60.0	43.0	45.0	47.30	138	47.30	138				
14.00	14	107	60.0	43.0	45.0	47.30	140	48.81	140	47.30	140	48.81	140
14.20	16	115	65.0	45.0	48.0	62.52	142	62.52	142				
14.50	16	115	65.0	45.0	48.0	62.52	145	64.07	145	62.52	145	64.07	145
14.70	16	115	65.0	45.0	48.0	62.52	147	64.07	147	62.52	147	64.07	147
14.80	16	115	65.0	45.0	48.0	62.52	148	62.52	148				
15.00	16	115	65.0	45.0	48.0	62.52	150	64.07	150	62.52	150	64.07	150
15.25	16	115	65.0	45.0	48.0	62.52	152	62.52	152				
15.30	16	115	65.0	45.0	48.0	62.52	153	62.52	153				
15.50	16	115	65.0	45.0	48.0	62.52	155	64.07	155	62.52	155	64.07	155
15.70	16	115	65.0	45.0	48.0	62.52	157	64.07	157	62.52	157	64.07	157
15.80	16	115	65.0	45.0	48.0	62.52	158	62.52	158				
16.00	16	115	65.0	45.0	48.0	62.52	160	64.07	160	62.52	160	64.07	160
16.50	18	123	73.0	51.0	48.0	105.23	165	108.30	165	105.23	165	108.30	165
16.80	18	123	73.0	51.0	48.0	105.23	168	105.23	168				
17.00	18	123	73.0	51.0	48.0	105.23	170	108.30	170	105.23	170	108.30	170
17.50	18	123	73.0	51.0	48.0	105.23	175	108.30	175	105.23	175	108.30	175
17.80	18	123	73.0	51.0	48.0	105.23	178	105.23	178				
18.00	18	123	73.0	51.0	48.0	105.23	180	108.30	180	105.23	180	108.30	180
18.50	20	131	79.0	55.0	50.0	114.40	185	120.50	185	114.40	185	120.50	185
18.80	20	131	79.0	55.0	50.0	114.40	188	114.40	188				
19.00	20	131	79.0	55.0	50.0	114.40	190	120.50	190	114.40	190	120.50	190
19.50	20	131	79.0	55.0	50.0	114.40	195	120.50	195	114.40	195	120.50	195
19.80	20	131	79.0	55.0	50.0	114.40	198	114.40	198				
20.00	20	131	79.0	55.0	50.0	114.40	200	120.50	200	114.40	200	120.50	200
P							●		●		○		○
M											●		●
K							●		●		●		●
N											●		●
S													
H													
O													

→ v_c Page 130+133

WTX – High Performance Drill, factory standard

- Special cutting edge geometry
- Special flute geometry
- Special core diameter
- 46–70 HRC

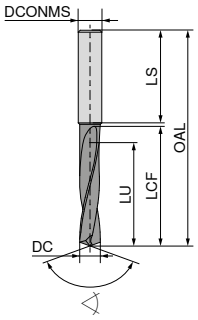
≤ 3xD

NOF = 2

H

DPX64U

DRAGONSKIN



140°

Solid carbide

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 777 ... £ T4	
2.55	4	55	20	7.6	28	52.22	02550
2.60	4	55	20	7.8	28	52.22	02600
2.70	4	55	20	8.1	28	52.22	02700
2.80	4	55	20	8.4	28	52.22	02800
2.90	4	55	20	8.7	28	52.22	02900
3.00	6	62	20	9.0	36	75.31	03000
3.10	6	62	20	9.3	36	75.31	03100
3.20	6	62	20	9.6	36	75.31	03200
3.30	6	62	20	9.9	36	75.31	03300
3.40	6	62	20	10.2	36	75.31	03400
3.50	6	62	20	10.5	36	75.31	03500
3.60	6	62	20	10.8	36	75.31	03600
3.70	6	62	20	11.1	36	75.31	03700
3.80	6	66	24	11.4	36	75.31	03800
3.90	6	66	24	11.7	36	75.31	03900
4.00	6	66	24	12.0	36	75.31	04000
4.10	6	66	24	12.3	36	75.31	04100
4.20	6	66	24	12.6	36	75.31	04200
4.30	6	66	24	12.9	36	75.31	04300
4.40	6	66	24	13.2	36	75.31	04400
4.50	6	66	24	13.5	36	75.31	04500
4.60	6	66	24	13.8	36	75.31	04600
4.70	6	66	24	14.1	36	75.31	04700
4.80	6	66	28	14.4	36	75.31	04800
4.90	6	66	28	14.7	36	75.31	04900
5.00	6	66	28	15.0	36	75.31	05000
5.10	6	66	28	15.3	36	75.31	05100
5.20	6	66	28	15.6	36	75.31	05200
5.30	6	66	28	15.9	36	75.31	05300
5.40	6	66	28	16.2	36	75.31	05400
5.50	6	66	28	16.5	36	75.31	05500
5.60	6	66	28	16.8	36	75.31	05600
5.70	6	66	28	17.1	36	75.31	05700
5.80	6	66	28	17.4	36	75.31	05800
5.90	6	66	28	17.7	36	75.31	05900
6.00	6	66	28	18.0	36	75.31	06000
6.10	8	79	34	18.3	36	97.87	06100
6.20	8	79	34	18.6	36	97.87	06200
6.30	8	79	34	18.9	36	97.87	06300
6.40	8	79	34	19.2	36	97.87	06400
6.50	8	79	34	19.5	36	97.87	06500
6.60	8	79	34	19.8	36	97.87	06600
6.70	8	79	34	20.1	36	97.87	06700
6.80	8	79	34	20.4	36	97.87	06800
6.90	8	79	34	20.7	36	97.87	06900
7.00	8	79	34	21.0	36	97.87	07000
7.10	8	79	41	21.3	36	97.87	07100
7.20	8	79	41	21.6	36	97.87	07200
7.30	8	79	41	21.9	36	97.87	07300
7.40	8	79	41	22.2	36	97.87	07400
7.50	8	79	41	22.5	36	97.87	07500

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 777 ... £ T4	
7.60	8	79	41	22.8	36	97.87	07600
7.70	8	79	41	23.1	36	97.87	07700
7.80	8	79	41	23.4	36	97.87	07800
7.90	8	79	41	23.7	36	97.87	07900
8.00	8	79	41	24.0	36	97.87	08000
8.10	10	89	47	24.3	40	110.62	08100
8.20	10	89	47	24.6	40	110.62	08200
8.30	10	89	47	24.9	40	110.62	08300
8.40	10	89	47	25.2	40	110.62	08400
8.50	10	89	47	25.5	40	110.62	08500
8.60	10	89	47	25.8	40	110.62	08600
8.70	10	89	47	26.1	40	110.62	08700
8.80	10	89	47	26.4	40	110.62	08800
8.90	10	89	47	26.7	40	110.62	08900
9.00	10	89	47	27.0	40	110.62	09000
9.10	10	89	47	27.3	40	110.62	09100
9.20	10	89	47	27.6	40	110.62	09200
9.30	10	89	47	27.9	40	110.62	09300
9.40	10	89	47	28.2	40	110.62	09400
9.50	10	89	47	28.5	40	110.62	09500
9.60	10	89	47	28.8	40	110.62	09600
9.70	10	89	47	29.1	40	110.62	09700
9.80	10	89	47	29.4	40	110.62	09800
9.90	10	89	47	29.7	40	110.62	09900
10.00	10	89	47	30.0	40	110.62	10000
10.10	12	102	55	30.3	45	143.65	10100
10.20	12	102	55	30.6	45	143.65	10200
10.30	12	102	55	30.9	45	143.65	10300
10.40	12	102	55	31.2	45	143.65	10400
10.50	12	102	55	31.5	45	143.65	10500
10.60	12	102	55	31.8	45	143.65	10600
10.70	12	102	55	32.1	45	143.65	10700
10.80	12	102	55	32.4	45	143.65	10800
10.90	12	102	55	32.7	45	143.65	10900
11.00	12	102	55	33.0	45	143.65	11000
11.10	12	102	55	33.3	45	143.65	11100
11.20	12	102	55	33.6	45	143.65	11200
11.30	12	102	55	33.9	45	143.65	11300
11.40	12	102	55	34.2	45	143.65	11400
11.50	12	102	55	34.5	45	143.65	11500
11.60	12	102	55	34.8	45	143.65	11600
11.70	12	102	55	35.1	45	143.65	11700
11.80	12	102	55	35.4	45	143.65	11800
11.90	12	102	55	35.7	45	143.65	11900
12.00	12	102	55	36.0	45	143.65	12000
12.10	14	107	60	36.3	45	169.74	12100
12.20	14	107	60	36.6	45	169.74	12200
12.30	14	107	60	36.9	45	169.74	12300
12.40	14	107	60	37.2	45	169.74	12400
12.50	14	107	60	37.5	45	169.74	12500
12.60	14	107	60	37.8	45	169.74	12600
12.70	14	107	60	38.1	45	169.74	12700
12.80	14	107	60	38.4	45	169.74	12800
12.90	14	107	60	38.7	45	169.74	12900
13.00	14	107	60	39.0	45	169.74	13000
13.10	14	107	60	39.3	45	169.74	13100
13.20	14	107	60	39.6	45	169.74	13200
13.30	14	107	60	39.9	45	169.74	13300
13.40	14	107	60	40.2	45	169.74	13400
13.50	14	107	60	40.5	45	169.74	13500
13.60	14	107	60	40.8	45	169.74	13600
13.70	14	107	60	41.1	45	169.74	13700
13.80	14	107	60	41.4	45	169.74	13800
13.90	14	107	60	41.7	45	169.74	13900
14.00	14	107	60	42.0	45	169.74	14000

P	○
K	●
S	
H.1.1	●
H.1.2	●
H.1.3	●
H.1.4	●

→ v_c Page 125

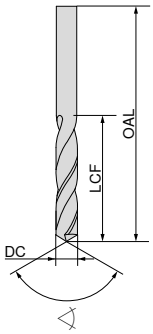
Twist drill similar to DIN 1897

▲ Rake angle 30°
▲ Shank Ø h7

≤ 3xD

NOF = 2

N



118°
Solid carbide

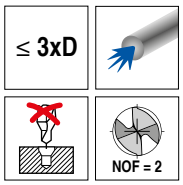
DC h7 mm	OAL mm	LCF mm	10 700 ... £ T3	
0.5	20	3.0	5.97	005
0.6	21	3.5	6.28	006
0.7	23	4.5	6.28	007
0.8	24	5.0	6.28	008
0.9	25	5.5	6.28	009
1.0	26	6.0	6.28	010
1.2	30	8.0	6.28	012
1.3	30	8.0	6.28	013
1.4	32	9.0	6.28	014
1.5	32	9.0	6.28	015
1.6	34	10.0	6.28	016
1.7	34	10.0	6.28	017
1.8	36	11.0	6.28	018
1.9	36	11.0	6.28	019
2.0	38	12.0	8.42	020
2.1	38	12.0	8.68	021
2.2	40	13.0	8.68	022
2.3	40	13.0	8.68	023
2.4	43	14.0	8.68	024
2.5	43	14.0	9.74	025
2.6	43	14.0	9.74	026
2.7	46	16.0	10.23	027
2.8	46	16.0	10.23	028
2.9	46	16.0	10.23	029
3.0	46	16.0	10.94	030
3.1	49	18.0	10.94	031
3.2	49	18.0	10.94	032
3.3	49	18.0	12.80	033
3.4	52	20.0	12.80	034
3.5	52	20.0	13.80	035
3.6	52	20.0	13.80	036
3.7	52	20.0	13.80	037
3.8	55	22.0	14.23	038
3.9	55	22.0	14.23	039
4.0	55	22.0	16.42	040
4.1	55	22.0	16.42	041
4.2	55	22.0	17.87	042
4.3	58	24.0	17.87	043
4.4	58	24.0	17.87	044
4.5	58	24.0	19.33	045
4.6	58	24.0	19.33	046
4.7	58	24.0	19.33	047
4.8	62	26.0	19.33	048
4.9	62	26.0	19.33	049
5.0	62	26.0	21.66	050
5.1	62	26.0	21.66	051
5.2	62	26.0	22.31	052
5.3	62	26.0	22.31	053
5.4	66	28.0	22.31	054
5.5	66	28.0	25.15	055
5.6	66	28.0	25.15	056
5.7	66	28.0	25.15	057
5.8	66	28.0	25.15	058
5.9	66	28.0	25.15	059
6.0	66	28.0	27.90	060
6.1	70	31.0	28.75	061
6.2	70	31.0	28.75	062
6.3	70	31.0	28.75	063
6.4	70	31.0	28.75	064
6.5	70	31.0	31.11	065
6.6	70	31.0	34.29	066
6.7	70	31.0	34.29	067
6.8	74	34.0	34.29	068
6.9	74	34.0	34.29	069
7.0	74	34.0	34.29	070
7.1	74	34.0	34.29	071
7.2	74	34.0	34.29	072
7.3	74	34.0	34.29	073
7.4	74	34.0	34.29	074
7.5	74	34.0	39.67	075
7.6	79	37.0	39.67	076
7.7	79	37.0	39.67	077
7.8	79	37.0	39.67	078
7.9	79	37.0	39.67	079
8.0	79	37.0	40.72	080
8.1	79	37.0	44.66	081
8.2	79	37.0	44.66	082
8.3	79	37.0	44.66	083
8.4	79	37.0	44.66	084
8.5	79	37.0	46.25	085
8.6	84	40.0	47.15	086
8.7	84	40.0	47.15	087
8.8	84	40.0	51.57	088
8.9	84	40.0	51.57	089
9.0	84	40.0	51.57	090
9.1	84	40.0	51.57	091
9.2	84	40.0	51.57	092
9.3	84	40.0	51.57	093
9.4	84	40.0	51.57	094
9.5	84	40.0	55.51	095
9.6	89	43.0	55.51	096
9.7	89	43.0	55.51	097
9.8	89	43.0	55.51	098
9.9	89	43.0	55.51	099
10.0	89	43.0	61.62	100
10.2	89	43.0	65.70	102
10.5	89	43.0	65.70	105
10.8	95	47.0	65.70	108
11.0	95	47.0	73.21	110
11.2	95	47.0	80.19	112
11.5	95	47.0	81.31	115
11.8	95	47.0	81.31	118
12.0	102	51.0	91.22	120
12.5	102	51.0	99.52	125
13.0	102	51.0	111.51	130
13.5	107	54.0	126.90	135
14.0	107	54.0	137.75	140
14.5	111	56.0	147.39	145
15.0	111	56.0	159.84	150
15.5	115	58.0	172.52	155
16.0	115	58.0	181.84	160
18.0	123	62.0	244.01	180
20.0	131	66.0	326.94	200

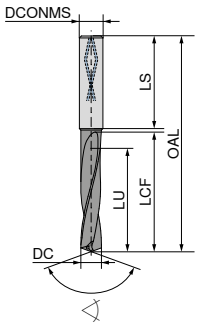
P	○
M	
K	●
N	●
S	○
H	
O	

→ v_c Page 128

WTX – High Performance Drill, factory standard

- ▲ Special cutting edge geometry
- ▲ Special flute geometry
- ▲ Special core diameter
- ▲ 46–58 HRC





H

DPX64S

DRAGONSKIN

140°
Solid carbide

10 776 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4	
2.55	4	55	20	7.6	28	41.78	02550
2.60	4	55	20	7.8	28	41.78	02600
2.70	4	55	20	8.1	28	41.78	02700
2.80	4	55	20	8.4	28	41.78	02800
2.90	4	55	20	8.7	28	41.78	02900
3.00	6	62	20	9.0	36	60.25	03000
3.10	6	62	20	9.3	36	60.25	03100
3.20	6	62	20	9.6	36	60.25	03200
3.30	6	62	20	9.9	36	60.25	03300
3.40	6	62	20	10.2	36	60.25	03400
3.50	6	62	20	10.5	36	60.25	03500
3.60	6	62	20	10.8	36	60.25	03600
3.70	6	62	20	11.1	36	60.25	03700
3.80	6	66	24	11.4	36	60.25	03800
3.90	6	66	24	11.7	36	60.25	03900
4.00	6	66	24	12.0	36	60.25	04000
4.10	6	66	24	12.3	36	60.25	04100
4.20	6	66	24	12.6	36	60.25	04200
4.30	6	66	24	12.9	36	60.25	04300
4.40	6	66	24	13.2	36	60.25	04400
4.50	6	66	24	13.5	36	60.25	04500
4.60	6	66	24	13.8	36	60.25	04600
4.70	6	66	24	14.1	36	60.25	04700
4.80	6	66	28	14.4	36	60.25	04800
4.90	6	66	28	14.7	36	60.25	04900
5.00	6	66	28	15.0	36	60.25	05000
5.10	6	66	28	15.3	36	60.25	05100
5.20	6	66	28	15.6	36	60.25	05200
5.30	6	66	28	15.9	36	60.25	05300
5.40	6	66	28	16.2	36	60.25	05400
5.50	6	66	28	16.5	36	60.25	05500
5.60	6	66	28	16.8	36	60.25	05600
5.70	6	66	28	17.1	36	60.25	05700
5.80	6	66	28	17.4	36	60.25	05800
5.90	6	66	28	17.7	36	60.25	05900
6.00	6	66	28	18.0	36	60.25	06000
6.10	8	79	34	18.3	36	78.30	06100
6.20	8	79	34	18.6	36	78.30	06200
6.30	8	79	34	18.9	36	78.30	06300
6.40	8	79	34	19.2	36	78.30	06400
6.50	8	79	34	19.5	36	78.30	06500
6.60	8	79	34	19.8	36	78.30	06600
6.70	8	79	34	20.1	36	78.30	06700
6.80	8	79	34	20.4	36	78.30	06800
6.90	8	79	34	20.7	36	78.30	06900
7.00	8	79	34	21.0	36	78.30	07000
7.10	8	79	41	21.3	36	78.30	07100
7.20	8	79	41	21.6	36	78.30	07200
7.30	8	79	41	21.9	36	78.30	07300
7.40	8	79	41	22.2	36	78.30	07400
7.50	8	79	41	22.5	36	78.30	07500

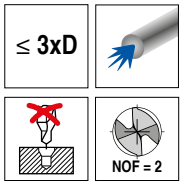
10 776 ...

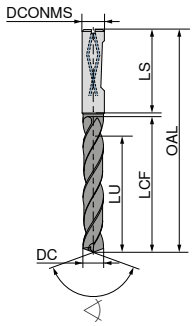
DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4	
7.60	8	79	41	22.8	36	78.30	07600
7.70	8	79	41	23.1	36	78.30	07700
7.80	8	79	41	23.4	36	78.30	07800
7.90	8	79	41	23.7	36	78.30	07900
8.00	8	79	41	24.0	36	78.30	08000
8.10	10	89	47	24.3	40	100.59	08100
8.20	10	89	47	24.6	40	100.59	08200
8.30	10	89	47	24.9	40	100.59	08300
8.40	10	89	47	25.2	40	100.59	08400
8.50	10	89	47	25.5	40	100.59	08500
8.60	10	89	47	25.8	40	100.59	08600
8.70	10	89	47	26.1	40	100.59	08700
8.80	10	89	47	26.4	40	100.59	08800
8.90	10	89	47	26.7	40	100.59	08900
9.00	10	89	47	27.0	40	100.59	09000
9.10	10	89	47	27.3	40	100.59	09100
9.20	10	89	47	27.6	40	100.59	09200
9.30	10	89	47	27.9	40	100.59	09300
9.40	10	89	47	28.2	40	100.59	09400
9.50	10	89	47	28.5	40	100.59	09500
9.60	10	89	47	28.8	40	100.59	09600
9.70	10	89	47	29.1	40	100.59	09700
9.80	10	89	47	29.4	40	100.59	09800
9.90	10	89	47	29.7	40	100.59	09900
10.00	10	89	47	30.0	40	100.59	10000
10.10	12	102	55	30.3	45	143.65	10100
10.20	12	102	55	30.6	45	143.65	10200
10.30	12	102	55	30.9	45	143.65	10300
10.40	12	102	55	31.2	45	143.65	10400
10.50	12	102	55	31.5	45	143.65	10500
10.60	12	102	55	31.8	45	143.65	10600
10.70	12	102	55	32.1	45	143.65	10700
10.80	12	102	55	32.4	45	143.65	10800
10.90	12	102	55	32.7	45	143.65	10900
11.00	12	102	55	33.0	45	143.65	11000
11.10	12	102	55	33.3	45	143.65	11100
11.20	12	102	55	33.6	45	143.65	11200
11.30	12	102	55	33.9	45	143.65	11300
11.40	12	102	55	34.2	45	143.65	11400
11.50	12	102	55	34.5	45	143.65	11500
11.60	12	102	55	34.8	45	143.65	11600
11.70	12	102	55	35.1	45	143.65	11700
11.80	12	102	55	35.4	45	143.65	11800
11.90	12	102	55	35.7	45	143.65	11900
12.00	12	102	55	36.0	45	143.65	12000
12.10	14	107	60	36.3	45	185.62	12100
12.20	14	107	60	36.6	45	185.62	12200
12.30	14	107	60	36.9	45	185.62	12300
12.40	14	107	60	37.2	45	185.62	12400
12.50	14	107	60	37.5	45	185.62	12500
12.60	14	107	60	37.8	45	185.62	12600
12.70	14	107	60	38.1	45	185.62	12700
12.80	14	107	60	38.4	45	185.62	12800
12.90	14	107	60	38.7	45	185.62	12900
13.00	14	107	60	39.0	45	185.62	13000
13.10	14	107	60	39.3	45	185.62	13100
13.20	14	107	60	39.6	45	185.62	13200
13.30	14	107	60	39.9	45	185.62	13300
13.40	14	107	60	40.2	45	185.62	13400
13.50	14	107	60	40.5	45	185.62	13500
13.60	14	107	60	40.8	45	185.62	13600
13.70	14	107	60	41.1	45	185.62	13700
13.80	14	107	60	41.4	45	185.62	13800
13.90	14	107	60	41.7	45	185.62	13900
14.00	14	107	60	42.0	45	185.62	14000

P	○
K	●
S	○
H.1.1	●
H.1.2	●
H.1.3	●
H.1.4	

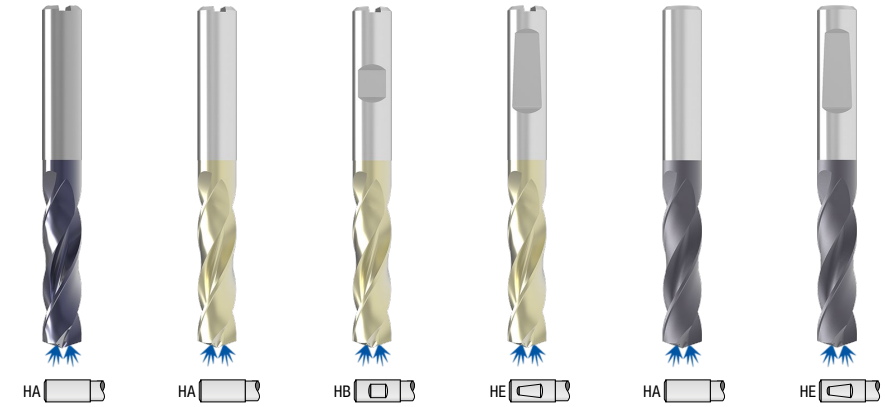
→ v_c Page 124

WTX – High Performance Drill, DIN 6537





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



∢ 145°	∢ 140°	∢ 140°	∢ 140°	∢ 140°	∢ 140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
10 781 ...	**11 780 ...**	**11 781 ...**	**11 779 ...**	**10 734 ...**	**10 733 ...**

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 781 £ T4		11 780 £ T7		11 781 £ T7		11 779 £ T7		10 734 £ T5		10 733 £ T5	
3.00	6	62	20	14	36	96.18	03000	45.32	03000	45.32	03000	45.32	03000	88.03	030	88.03	030
3.10	6	62	20	14	36	96.18	03100	45.32	03100	45.32	03100	45.32	03100	88.03	031	88.03	031
3.15	6	62	20	14	36			45.32	03150	45.32	03150	45.32	03150	88.03	831		
3.20	6	62	20	14	36	96.18	03200	45.32	03200	45.32	03200	45.32	03200	88.03	032	88.03	032
3.22	6	62	20	14	36			45.32	03220	45.32	03220	45.32	03220	88.03	832		
3.25	6	62	20	14	36			45.32	03250	45.32	03250	45.32	03250	88.03	890		
3.30	6	62	20	14	36	96.18	03300	45.32	03300	45.32	03300	45.32	03300	88.03	033	88.03	033
3.40	6	62	20	14	36	96.18	03400	45.32	03400	45.32	03400	45.32	03400	88.03	034	88.03	034
3.50	6	62	20	14	36	96.18	03500	45.32	03500	45.32	03500	45.32	03500	88.03	035	88.03	035
3.60	6	62	20	14	36	96.18	03600	45.32	03600	45.32	03600	45.32	03600	88.03	036	88.03	036
3.70	6	62	20	14	36	96.18	03700	45.32	03700	45.32	03700	45.32	03700	88.03	037	88.03	037
3.80	6	66	24	17	36	96.18	03800	45.32	03800	45.32	03800	45.32	03800	88.03	038	88.03	038
3.85	6	66	24	17	36			45.32	03850	45.32	03850	45.32	03850	88.03	838		
3.90	6	66	24	17	36	96.18	03900	45.32	03900	45.32	03900	45.32	03900	88.03	039	88.03	039
4.00	6	66	24	17	36	96.18	04000	45.32	04000	45.32	04000	45.32	04000	88.03	040	88.03	040
4.10	6	66	24	17	36	96.18	04100	45.32	04100	45.32	04100	45.32	04100	88.03	041	88.03	041
4.20	6	66	24	17	36	96.18	04200	45.32	04200	45.32	04200	45.32	04200	88.03	042	88.03	042
4.25	6	66	24	17	36			45.32	04250	45.32	04250	45.32	04250				
4.30	6	66	24	17	36	96.18	04300	45.32	04300	45.32	04300	45.32	04300	88.03	043	88.03	043
4.35	6	66	24	17	36			45.32	04350	45.32	04350	45.32	04350	88.03	843		
4.40	6	66	24	17	36	96.18	04400	45.32	04400	45.32	04400	45.32	04400	88.03	044	88.03	044
4.45	6	66	24	17	36			45.32	04450	45.32	04450	45.32	04450	88.03	844		
4.50	6	66	24	17	36	96.18	04500	45.32	04500	45.32	04500	45.32	04500	88.03	045	88.03	045
4.60	6	66	24	17	36	96.18	04600	45.32	04600	45.32	04600	45.32	04600	88.03	046	88.03	046
4.65	6	66	24	17	36	96.18	04650	45.32	04650	45.32	04650	45.32	04650	88.03	900	88.03	900
4.70	6	66	24	17	36	96.18	04700	45.32	04700	45.32	04700	45.32	04700	88.03	047	88.03	047
4.80	6	66	28	20	36	96.18	04800	45.32	04800	45.32	04800	45.32	04800	88.03	048	88.03	048
4.90	6	66	28	20	36	96.18	04900	45.32	04900	45.32	04900	45.32	04900	88.03	049	88.03	049
4.95	6	66	28	20	36			45.32	04950	45.32	04950	45.32	04950				
5.00	6	66	28	20	36	96.18	05000	45.32	05000	45.32	05000	45.32	05000	88.03	050	88.03	050
5.05	6	66	28	20	36			45.32	05050	45.32	05050	45.32	05050				
5.10	6	66	28	20	36	96.18	05100	45.32	05100	45.32	05100	45.32	05100	88.03	051	88.03	051
5.20	6	66	28	20	36	96.18	05200	45.32	05200	45.32	05200	45.32	05200	88.03	052	88.03	052
5.30	6	66	28	20	36	96.18	05300	45.32	05300	45.32	05300	45.32	05300	88.03	053	88.03	053
5.40	6	66	28	20	36	96.18	05400	45.32	05400	45.32	05400	45.32	05400	88.03	054	88.03	054
5.50	6	66	28	20	36	96.18	05500	45.32	05500	45.32	05500	45.32	05500	88.03	055	88.03	055
5.55	6	66	28	20	36	96.18	05550	45.32	05550	45.32	05550	45.32	05550	88.03	902	88.03	902
5.60	6	66	28	20	36	96.18	05600	45.32	05600	45.32	05600	45.32	05600	88.03	056	88.03	056
5.70	6	66	28	20	36	96.18	05700	45.32	05700	45.32	05700	45.32	05700	88.03	057	88.03	057
5.75	6	66	28	20	36			45.32	05750	45.32	05750	45.32	05750	88.03	916		
5.80	6	66	28	20	36	96.18	05800	45.32	05800	45.32	05800	45.32	05800	88.03	058	88.03	058
5.90	6	66	28	20	36	96.18	05900	45.32	05900	45.32	05900	45.32	05900	88.03	059	88.03	059

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

→ v_c Page 108–114

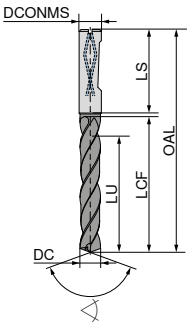
Ø DC$_{m7}$ for Type UNI and VA / **Ø DC$_{h7}$** for Type Speed UNI

Continued on next page

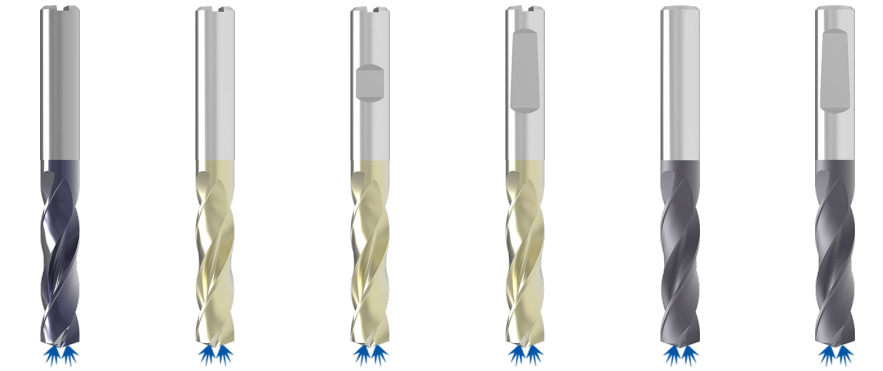
WTX – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



	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
	10 781 ...	11 780 ...	11 781 ...	11 779 ...	10 734 ...	10 733 ...

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T5		£ T5	
5.95	6	66	28	20	36			45.32	05950	45.32	05950	45.32	05950	88.03	959		
6.00	6	66	28	20	36	96.18	06000	45.32	06000	45.32	06000	45.32	06000	88.03	060	88.03	060
6.10	8	79	34	24	36	117.54	06100	59.19	06100	59.19	06100	59.19	06100	108.66	061	108.66	061
6.20	8	79	34	24	36	117.54	06200	59.19	06200	59.19	06200	59.19	06200	108.66	062	108.66	062
6.30	8	79	34	24	36	117.54	06300	59.19	06300	59.19	06300	59.19	06300	108.66	063	108.66	063
6.40	8	79	34	24	36	117.54	06400	59.19	06400	59.19	06400	59.19	06400	108.66	064	108.66	064
6.50	8	79	34	24	36	117.54	06500	59.19	06500	59.19	06500	59.19	06500	108.66	065	108.66	065
6.60	8	79	34	24	36	117.54	06600	59.19	06600	59.19	06600	59.19	06600	108.66	066	108.66	066
6.70	8	79	34	24	36	117.54	06700	59.19	06700	59.19	06700	59.19	06700	108.66	067	108.66	067
6.80	8	79	34	24	36	117.54	06800	59.19	06800	59.19	06800	59.19	06800	108.66	068	108.66	068
6.90	8	79	34	24	36	117.54	06900	59.19	06900	59.19	06900	59.19	06900	108.66	069	108.66	069
7.00	8	79	34	24	36	117.54	07000	59.19	07000	59.19	07000	59.19	07000	108.66	070	108.66	070
7.10	8	79	41	29	36	117.54	07100	59.19	07100	59.19	07100	59.19	07100	108.66	071	108.66	071
7.20	8	79	41	29	36	117.54	07200	59.19	07200	59.19	07200	59.19	07200	108.66	072	108.66	072
7.30	8	79	41	29	36	117.54	07300	59.19	07300	59.19	07300	59.19	07300	108.66	073	108.66	073
7.40	8	79	41	29	36	117.54	07400	59.19	07400	59.19	07400	59.19	07400	108.66	074	108.66	074
7.45	8	79	41	29	36			59.19	07450	59.19	07450	59.19	07450	108.66	924		
7.50	8	79	41	29	36	117.54	07500	59.19	07500	59.19	07500	59.19	07500	108.66	075	108.66	075
7.60	8	79	41	29	36	117.54	07600	59.19	07600	59.19	07600	59.19	07600	108.66	076	108.66	076
7.70	8	79	41	29	36	117.54	07700	59.19	07700	59.19	07700	59.19	07700	108.66	077	108.66	077
7.80	8	79	41	29	36	117.54	07800	59.19	07800	59.19	07800	59.19	07800	108.66	078	108.66	078
7.90	8	79	41	29	36	117.54	07900	59.19	07900	59.19	07900	59.19	07900	108.66	079	108.66	079
8.00	8	79	41	29	36	117.54	08000	59.19	08000	59.19	08000	59.19	08000	107.95	080	107.95	080
8.10	10	89	47	35	40	162.11	08100	67.64	08100	67.64	08100	67.64	08100	108.66	081	108.66	081
8.20	10	89	47	35	40	162.11	08200	67.64	08200	67.64	08200	67.64	08200	108.66	082	108.66	082
8.30	10	89	47	35	40	162.11	08300	67.64	08300	67.64	08300	67.64	08300	108.66	083	108.66	083
8.40	10	89	47	35	40	162.11	08400	67.64	08400	67.64	08400	67.64	08400	108.66	084	108.66	084
8.50	10	89	47	35	40	162.11	08500	67.64	08500	67.64	08500	67.64	08500	108.66	085	108.66	085
8.60	10	89	47	35	40	162.11	08600	67.64	08600	67.64	08600	67.64	08600	108.66	086	108.66	086
8.70	10	89	47	35	40	162.11	08700	67.64	08700	67.64	08700	67.64	08700	108.66	087	108.66	087
8.80	10	89	47	35	40	162.11	08800	67.64	08800	67.64	08800	67.64	08800	108.66	088	108.66	088
8.90	10	89	47	35	40	162.11	08900	67.64	08900	67.64	08900	67.64	08900	108.66	089	108.66	089
9.00	10	89	47	35	40	162.11	09000	67.64	09000	67.64	09000	67.64	09000	108.66	090	108.66	090
9.10	10	89	47	35	40	162.11	09100	67.64	09100	67.64	09100	67.64	09100	108.66	091	108.66	091
9.20	10	89	47	35	40	162.11	09200	67.64	09200	67.64	09200	67.64	09200	125.53	092	125.53	092
9.30	10	89	47	35	40	162.11	09300	67.64	09300	67.64	09300	67.64	09300	125.53	093	125.53	093
9.35	10	89	47	35	40			67.64	09350	67.64	09350	67.64	09350	125.53	930		
9.40	10	89	47	35	40	162.11	09400	67.64	09400	67.64	09400	67.64	09400	125.53	094	125.53	094
9.45	10	89	47	35	40			67.64	09450	67.64	09450	67.64	09450	125.53	994		
9.50	10	89	47	35	40	162.11	09500	67.64	09500	67.64	09500	67.64	09500	125.53	095	125.53	095
9.60	10	89	47	35	40	162.11	09600	67.64	09600	67.64	09600	67.64	09600	125.53	096	125.53	096
9.70	10	89	47	35	40	162.11	09700	67.64	09700	67.64	09700	67.64	09700	125.53	097	125.53	097

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

→ v_c Page 108–114

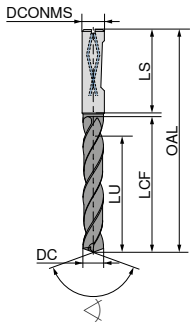
Ø DC$_{m7}$ for Type UNI and VA / **Ø DC$_{h7}$** for Type Speed UNI

Continued on next page

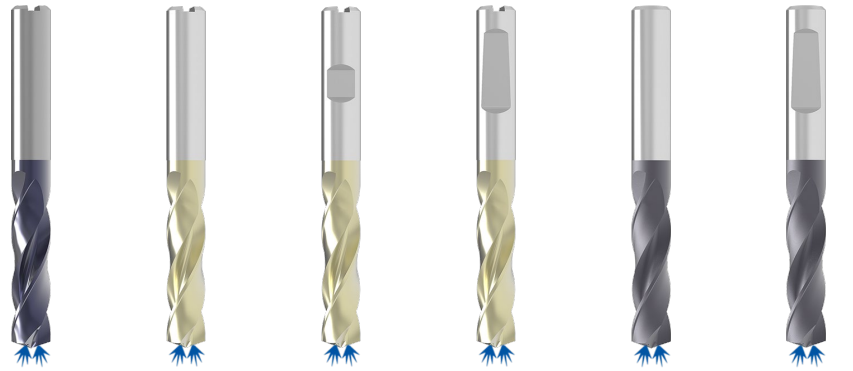
WTX – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



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 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 781 ... £ T4		11 780 ... £ T7		11 781 ... £ T7		11 779 ... £ T7		10 734 ... £ T5		10 733 ... £ T5	
9.80	10	89	47	35	40	162.11	09800	67.64	09800	67.64	09800	67.64	09800	125.53	098	125.53	098
9.90	10	89	47	35	40	162.11	09900	67.64	09900	67.64	09900	67.64	09900	125.53	099	125.53	099
10.00	10	89	47	35	40	162.11	10000	67.64	10000	67.64	10000	67.64	10000	125.53	100	125.53	100
10.10	12	102	55	40	45	204.21	10100	94.44	10100	94.44	10100	94.44	10100	174.17	101	174.17	101
10.20	12	102	55	40	45	204.21	10200	94.44	10200	94.44	10200	94.44	10200	174.17	102	174.17	102
10.30	12	102	55	40	45	204.21	10300	94.44	10300	94.44	10300	94.44	10300	174.17	103	174.17	103
10.40	12	102	55	40	45	204.21	10400	94.44	10400	94.44	10400	94.44	10400	174.17	104	174.17	104
10.50	12	102	55	40	45	204.21	10500	94.44	10500	94.44	10500	94.44	10500	174.17	105	174.17	105
10.55	12	102	55	40	45			94.44	10550	94.44	10550	94.44	10550	174.17	932		
10.60	12	102	55	40	45	204.21	10600	94.44	10600	94.44	10600	94.44	10600	174.17	106	174.17	106
10.70	12	102	55	40	45	204.21	10700	94.44	10700	94.44	10700	94.44	10700	174.17	107	174.17	107
10.75	12	102	55	40	45			94.44	10750	94.44	10750	94.44	10750				
10.80	12	102	55	40	45	204.21	10800	94.44	10800	94.44	10800	94.44	10800	174.17	108	174.17	108
10.90	12	102	55	40	45	204.21	10900	94.44	10900	94.44	10900	94.44	10900	174.17	109	174.17	109
11.00	12	102	55	40	45	204.21	11000	94.44	11000	94.44	11000	94.44	11000	174.17	110	174.17	110
11.10	12	102	55	40	45	204.21	11100	94.44	11100	94.44	11100	94.44	11100	174.17	111	174.17	111
11.20	12	102	55	40	45	204.21	11200	94.44	11200	94.44	11200	94.44	11200	174.17	112	174.17	112
11.25	12	102	55	40	45			94.44	11250	94.44	11250	94.44	11250	174.17	912		
11.30	12	102	55	40	45	204.21	11300	94.44	11300	94.44	11300	94.44	11300	174.17	113	174.17	113
11.35	12	102	55	40	45			94.44	11350	94.44	11350	94.44	11350	174.17	913		
11.40	12	102	55	40	45	204.21	11400	94.44	11400	94.44	11400	94.44	11400	174.17	114	174.17	114
11.45	12	102	55	40	45			94.44	11450	94.44	11450	94.44	11450	174.17	914		
11.50	12	102	55	40	45	204.21	11500	94.44	11500	94.44	11500	94.44	11500	174.17	115	174.17	115
11.60	12	102	55	40	45	204.21	11600	94.44	11600	94.44	11600	94.44	11600	174.17	116	174.17	116
11.70	12	102	55	40	45	204.21	11700	94.44	11700	94.44	11700	94.44	11700	174.17	117	174.17	117
11.80	12	102	55	40	45	204.21	11800	94.44	11800	94.44	11800	94.44	11800	174.17	118	174.17	118
11.90	12	102	55	40	45	204.21	11900	94.44	11900	94.44	11900	94.44	11900	174.17	119	174.17	119
12.00	12	102	55	40	45	204.21	12000	94.44	12000	94.44	12000	94.44	12000	174.17	120	174.17	120
12.15	14	107	60	43	45			133.76	12150	133.76	12150	133.76	12150	245.21	921		
12.25	14	107	60	43	45			133.76	12250	133.76	12250	133.76	12250				
12.50	14	107	60	43	45	333.59	12500	133.76	12500	133.76	12500	133.76	12500	245.21	125	245.21	125
12.55	14	107	60	43	45			133.76	12550	133.76	12550	133.76	12550	245.21	925		
12.70	14	107	60	43	45			133.76	12700	133.76	12700	133.76	12700				
12.80	14	107	60	43	45	333.59	12800	133.76	12800	133.76	12800	133.76	12800	245.21	128	245.21	128
12.90	14	107	60	43	45			133.76	12900	133.76	12900	133.76	12900				
13.00	14	107	60	43	45	333.59	13000	133.76	13000	133.76	13000	133.76	13000	245.21	130	245.21	130
13.10	14	107	60	43	45			133.76	13100	133.76	13100	133.76	13100				
13.30	14	107	60	43	45			133.76	13300	133.76	13300	133.76	13300				
13.35	14	107	60	43	45			133.76	13350	133.76	13350	133.76	13350	245.21	933		
13.50	14	107	60	43	45	333.59	13500	133.76	13500	133.76	13500	133.76	13500	245.21	135	245.21	135
13.70	14	107	60	43	45			133.76	13700	133.76	13700	133.76	13700				
13.80	14	107	60	43	45	333.59	13800	133.76	13800	133.76	13800	133.76	13800	245.21	138	245.21	138

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

→ v_c Page 108–114

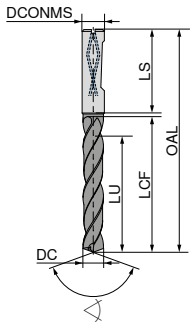
Ø DC$_{m7}$ for Type UNI and VA / **Ø DC$_{h7}$** for Type Speed UNI

Continued on next page

WTX – High Performance Drill, DIN 6537

≤ 3xD

NOF = 2



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
10 781 ...	**11 780 ...**	**11 781 ...**	**11 779 ...**	**10 734 ...**	**10 733 ...**

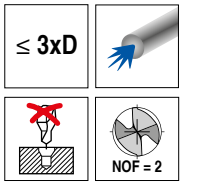
DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T5		£ T5	
14.00	14	107	60	43	45	333.59	14000	133.76	14000	133.76	14000	133.76	14000	245.21	140	245.21	140
14.20	16	115	65	45	48			157.42	14200	157.42	14200	157.42	14200				
14.50	16	115	65	45	48	419.31	14500	157.42	14500	157.42	14500	157.42	14500	310.74	145	310.74	145
14.80	16	115	65	45	48	419.31	14800	157.42	14800	157.42	14800	157.42	14800	310.74	148	310.74	148
15.00	16	115	65	45	48	419.31	15000	157.42	15000	157.42	15000	157.42	15000	310.74	150	310.74	150
15.10	16	115	65	45	48			157.42	15100	157.42	15100	157.42	15100				
15.25	16	115	65	45	48			157.42	15250	157.42	15250	157.42	15250				
15.30	16	115	65	45	48			157.42	15300	157.42	15300	157.42	15300				
15.35	16	115	65	45	48			157.42	15350	157.42	15350	157.42	15350	310.74	953		
15.50	16	115	65	45	48	419.31	15500	157.42	15500	157.42	15500	157.42	15500	310.74	155	310.74	155
15.60	16	115	65	45	48			157.42	15600	157.42	15600	157.42	15600				
15.80	16	115	65	45	48	419.31	15800	157.42	15800	157.42	15800	157.42	15800	310.74	158	310.74	158
16.00	16	115	65	45	48	419.31	16000	157.42	16000	157.42	16000	157.42	16000	310.74	160	310.74	160
16.05	18	123	73	51	48			255.49	16050	255.49	16050	255.49	16050	426.65	960		
16.50	18	123	73	51	48	564.29	16500	255.49	16500	255.49	16500	255.49	16500	426.65	165	426.65	165
16.80	18	123	73	51	48	564.29	16800	255.49	16800	255.49	16800	255.49	16800	426.65	168	426.65	168
16.90	18	123	73	51	48			255.49	16900	255.49	16900	255.49	16900				
17.00	18	123	73	51	48	564.29	17000	255.49	17000	255.49	17000	255.49	17000	426.65	170	426.65	170
17.50	18	123	73	51	48	564.29	17500	255.49	17500	255.49	17500	255.49	17500	426.65	175	426.65	175
17.60	18	123	73	51	48			255.49	17600	255.49	17600	255.49	17600				
17.80	18	123	73	51	48	564.29	17800	255.49	17800	255.49	17800	255.49	17800	426.65	178	426.65	178
18.00	18	123	73	51	48	564.29	18000	255.49	18000	255.49	18000	255.49	18000	426.65	180	426.65	180
18.50	20	131	79	55	50	687.45	18500	275.16	18500	275.16	18500	275.16	18500	529.65	185	529.65	185
18.80	20	131	79	55	50	687.45	18800	275.16	18800	275.16	18800	275.16	18800	529.65	188	529.65	188
18.90	20	131	79	55	50			275.16	18900	275.16	18900	275.16	18900				
19.00	20	131	79	55	50	687.45	19000	275.16	19000	275.16	19000	275.16	19000	529.65	190	529.65	190
19.35	20	131	79	55	50			275.16	19350	275.16	19350	275.16	19350	529.65	993		
19.50	20	131	79	55	50	687.45	19500	275.16	19500	275.16	19500	275.16	19500	529.65	195	529.65	195
19.60	20	131	79	55	50			275.16	19600	275.16	19600	275.16	19600				
19.80	20	131	79	55	50	687.45	19800	275.16	19800	275.16	19800	275.16	19800	529.65	198	529.65	198
20.00	20	131	79	55	50	687.45	20000	275.16	20000	275.16	20000	275.16	20000	529.65	200	529.65	200
20.50	25	151	93	66	56			607.50	20500	607.50	20500	607.50	20500				
21.00	25	151	93	66	56			607.50	21000	607.50	21000	607.50	21000				
21.50	25	151	93	66	56			607.50	21500	607.50	21500	607.50	21500				
22.00	25	151	93	66	56			607.50	22000	607.50	22000	607.50	22000				
22.50	25	153	96	72	56			607.50	22500	607.50	22500	607.50	22500				
23.00	25	153	96	72	56			607.50	23000	607.50	23000	607.50	23000				
23.50	25	153	96	72	56			607.50	23500	607.50	23500	607.50	23500				
24.00	25	153	96	72	56			607.50	24000	607.50	24000	607.50	24000				
24.50	25	153	96	75	56			607.50	24500	607.50	24500	607.50	24500				
25.00	25	153	96	75	56			607.50	25000	607.50	25000	607.50	25000				

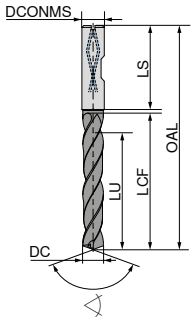
P	●	●	●	●	○	○
M	●				●	●
K	●	●	●	●	○	○
N					○	○
S					●	●
H		○	○	○		
O						

→ v_c Page 108–114

Ø DC$_{m7}$ for Type UNI and VA / **Ø DC$_{h7}$** for Type Speed UNI

WPC – High Performance Drill, DIN 6537





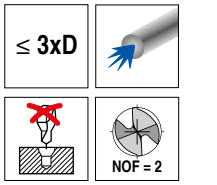
						140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						11 603 ...		**11 604 ...**		**11 623 ...**		**11 624 ...**	
DC m7 **mm**	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1		£ T1		£ T1		£ T1	
1.00	4	45	6.0	4.5	32.0	27.18	**010**			27.18	**010**		
1.10	4	45	6.6	5.0	31.5	27.18	**011**			27.18	**011**		
1.20	4	45	7.2	5.4	31.0	27.18	**012**			27.18	**012**		
1.30	4	45	7.8	5.9	31.5	27.18	**013**			27.18	**013**		
1.40	4	45	8.4	6.3	30.0	27.18	**014**			27.18	**014**		
1.50	4	50	9.0	6.8	35.0	27.18	**015**			27.18	**015**		
1.60	4	50	9.6	7.2	34.5	27.18	**016**			27.18	**016**		
1.70	4	50	10.2	7.7	34.0	27.18	**017**			27.18	**017**		
1.80	4	50	10.8	8.1	33.5	27.18	**018**			27.18	**018**		
1.90	4	50	11.4	8.6	33.0	27.18	**019**			27.18	**019**		
2.00	4	50	12.0	9.0	33.0	27.18	**020**			27.18	**020**		
2.10	4	55	12.6	9.5	37.5	27.18	**021**			27.18	**021**		
2.20	4	55	13.2	9.9	37.0	27.18	**022**			27.18	**022**		
2.30	4	55	13.8	10.4	36.5	27.18	**023**			27.18	**023**		
2.40	4	55	14.4	10.8	36.0	27.18	**024**			27.18	**024**		
2.50	4	55	15.0	11.3	35.5	27.18	**025**			27.18	**025**		
2.60	4	55	15.6	11.7	35.5	27.18	**026**			27.18	**026**		
2.70	4	55	16.2	12.2	35.0	27.18	**027**			27.18	**027**		
2.80	4	55	16.8	12.6	34.0	27.18	**028**			27.18	**028**		
2.90	4	55	17.4	13.1	34.0	27.18	**029**			27.18	**029**		
3.00	6	62	20.0	14.0	36.0	27.18	**030**	27.47	**030**	27.18	**030**	27.47	**030**
3.10	6	62	20.0	14.0	36.0	27.18	**031**	27.47	**031**	27.18	**031**	27.47	**031**
3.20	6	62	20.0	14.0	36.0	27.18	**032**	27.47	**032**	27.18	**032**	27.47	**032**
3.25	6	62	20.0	14.0	36.0	27.47	**890**	27.47	**890**	27.18	**03250**		
3.30	6	62	20.0	14.0	36.0	27.18	**033**	27.47	**033**	27.18	**033**	27.47	**033**
3.40	6	62	20.0	14.0	36.0	27.18	**034**	27.47	**034**	27.18	**034**	27.47	**034**
3.50	6	62	20.0	14.0	36.0	27.18	**035**	27.47	**035**	27.18	**035**	27.47	**035**
3.60	6	62	20.0	14.0	36.0	27.18	**036**	27.47	**036**	27.18	**036**	27.47	**036**
3.70	6	62	20.0	14.0	36.0	27.18	**037**	27.47	**037**	27.18	**037**	27.47	**037**
3.80	6	66	24.0	17.0	36.0	27.18	**038**	27.47	**038**	27.18	**038**	27.47	**038**
3.90	6	66	24.0	17.0	36.0	27.18	**039**	27.47	**039**	27.18	**039**	27.47	**039**
4.00	6	66	24.0	17.0	36.0	27.47	**040**	28.99	**040**	27.47	**040**	28.99	**040**
4.10	6	66	24.0	17.0	36.0	27.47	**041**	28.99	**041**	27.47	**041**	28.99	**041**
4.20	6	66	24.0	17.0	36.0	27.47	**042**	28.99	**042**	27.47	**042**	28.99	**042**
4.30	6	66	24.0	17.0	36.0	27.47	**043**	28.99	**043**	27.47	**043**	28.99	**043**
4.40	6	66	24.0	17.0	36.0	27.47	**044**	28.99	**044**	27.47	**044**	28.99	**044**
4.50	6	66	24.0	17.0	36.0	27.47	**045**	28.99	**045**	27.47	**045**	28.99	**045**
4.60	6	66	24.0	17.0	36.0	27.47	**046**	28.99	**046**	27.47	**046**	28.99	**046**
4.65	6	66	24.0	17.0	36.0	27.47	**900**	28.99	**900**	27.47	**900**	28.99	**900**
4.70	6	66	24.0	17.0	36.0	27.47	**047**	28.99	**047**	27.47	**047**	28.99	**047**
4.80	6	66	28.0	20.0	36.0	27.47	**048**	28.99	**048**	27.47	**048**	28.99	**048**
4.90	6	66	28.0	20.0	36.0	27.47	**049**	28.99	**049**	27.47	**049**	28.99	**049**
5.00	6	66	28.0	20.0	36.0	27.47	**050**	28.99	**050**	27.47	**050**	28.99	**050**
5.10	6	66	28.0	20.0	36.0	27.47	**051**	28.99	**051**	27.47	**051**	28.99	**051**

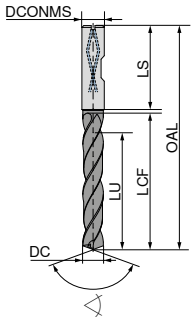
P	●	●	○	○
M			●	●
K	●	●	●	●
N			●	●
S				
H				
O				

→ v_c Page 130+133

Continued on next page

WPC – High Performance Drill, DIN 6537



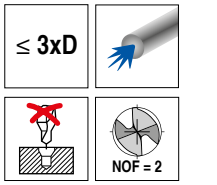


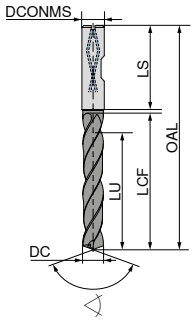
						140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						11 603 ...		**11 604 ...**		**11 623 ...**		**11 624 ...**	
DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1		£ T1		£ T1		£ T1	
5.20	6	66	28.0	20.0	36.0	27.47	052	28.99	052	27.47	052	28.99	052
5.30	6	66	28.0	20.0	36.0	27.47	053	28.99	053	27.47	053	28.99	053
5.40	6	66	28.0	20.0	36.0	27.47	054	28.99	054	27.47	054	28.99	054
5.50	6	66	28.0	20.0	36.0	27.47	055	28.99	055	27.47	055	28.99	055
5.55	6	66	28.0	20.0	36.0	27.47	902	28.99	902	27.47	902	28.99	902
5.60	6	66	28.0	20.0	36.0	27.47	056	28.99	056	27.47	056	28.99	056
5.70	6	66	28.0	20.0	36.0	27.47	057	28.99	057	27.47	057	28.99	057
5.80	6	66	28.0	20.0	36.0	27.47	058	28.99	058	27.47	058	28.99	058
5.90	6	66	28.0	20.0	36.0	27.47	059	28.99	059	27.47	059	28.99	059
6.00	6	66	28.0	20.0	36.0	27.47	060	28.99	060	27.47	060	28.99	060
6.10	8	79	34.0	24.0	36.0	38.15	061	38.15	061	38.15	061	38.15	061
6.20	8	79	34.0	24.0	36.0	38.15	062	38.15	062	38.15	062	38.15	062
6.30	8	79	34.0	24.0	36.0	38.15	063	38.15	063	38.15	063	38.15	063
6.40	8	79	34.0	24.0	36.0	38.15	064	38.15	064	38.15	064	38.15	064
6.50	8	79	34.0	24.0	36.0	38.15	065	39.67	065	38.15	065	39.67	065
6.60	8	79	34.0	24.0	36.0	38.15	066	39.67	066	38.15	066	39.67	066
6.70	8	79	34.0	24.0	36.0	38.15	067	39.67	067	38.15	067	39.67	067
6.80	8	79	34.0	24.0	36.0	38.15	068	39.67	068	38.15	068	39.67	068
6.90	8	79	34.0	24.0	36.0	38.15	069	39.67	069	38.15	069	39.67	069
7.00	8	79	34.0	24.0	36.0	38.15	070	39.67	070	38.15	070	39.67	070
7.10	8	79	41.0	29.0	36.0	38.15	071	39.67	071	38.15	071	39.67	071
7.20	8	79	41.0	29.0	36.0	38.15	072	39.67	072	38.15	072	39.67	072
7.30	8	79	41.0	29.0	36.0	38.15	073	39.67	073	38.15	073	39.67	073
7.40	8	79	41.0	29.0	36.0	38.15	074	39.67	074	38.15	074	39.67	074
7.45	8	79	41.0	29.0	36.0	38.15	924	38.15	924	38.15	07450		
7.50	8	79	41.0	29.0	36.0	38.15	075	39.67	075	38.15	075	39.67	075
7.55	8	79	41.0	29.0	36.0	38.15	975	39.67	975	38.15	975	39.67	975
7.60	8	79	41.0	29.0	36.0	38.15	076	39.67	076	38.15	076	39.67	076
7.70	8	79	41.0	29.0	36.0	38.15	077	39.67	077	38.15	077	39.67	077
7.80	8	79	41.0	29.0	36.0	38.15	078	39.67	078	38.15	078	39.67	078
7.90	8	79	41.0	29.0	36.0	38.15	079	39.67	079	38.15	079	39.67	079
8.00	8	79	41.0	29.0	36.0	38.15	080	39.67	080	38.15	080	39.67	080
8.10	10	89	47.0	35.0	40.0	44.24	081	45.78	081	44.24	081	45.78	081
8.20	10	89	47.0	35.0	40.0	44.24	082	45.78	082	44.24	082	45.78	082
8.30	10	89	47.0	35.0	40.0	44.24	083	45.78	083	44.24	083	45.78	083
8.40	10	89	47.0	35.0	40.0	44.24	084	45.78	084	44.24	084	45.78	084
8.50	10	89	47.0	35.0	40.0	44.24	085	45.78	085	44.24	085	45.78	085
8.60	10	89	47.0	35.0	40.0	44.24	086	45.78	086	44.24	086	45.78	086
8.70	10	89	47.0	35.0	40.0	44.24	087	45.78	087	44.24	087	45.78	087
8.80	10	89	47.0	35.0	40.0	44.24	088	45.78	088	44.24	088	45.78	088
8.90	10	89	47.0	35.0	40.0	44.24	089	45.78	089	44.24	089	45.78	089
9.00	10	89	47.0	35.0	40.0	44.24	090	45.78	090	44.24	090	45.78	090
9.10	10	89	47.0	35.0	40.0	44.24	091	45.78	091	44.24	091	45.78	091
9.20	10	89	47.0	35.0	40.0	44.24	092	45.78	092	44.24	092	45.78	092
P							●		●		○		○
M											●		●
K							●		●		●		●
N											●		●
S													
H													
O													

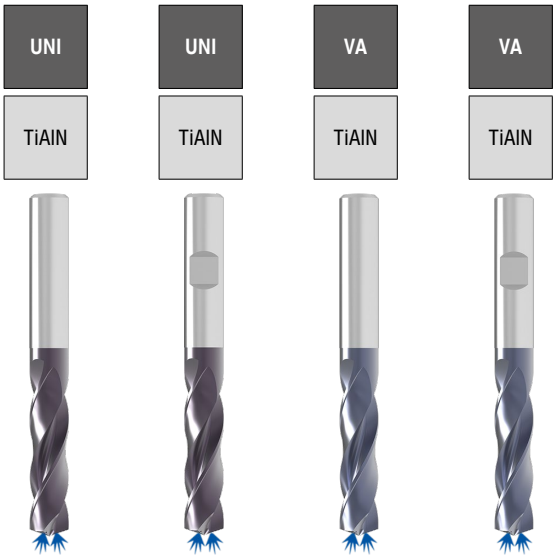
→ v_c Page 130+133

Continued on next page

WPC – High Performance Drill, DIN 6537





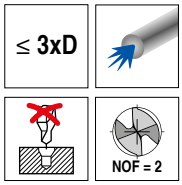


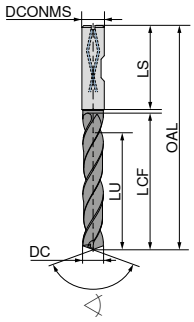
						140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						11 603 ...		**11 604 ...**		**11 623 ...**		**11 624 ...**	
DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1		£ T1		£ T1		£ T1	
9.25	10	89	47.0	35.0	40.0	44.24	**925**	45.78	**925**	44.24	**925**	45.78	**925**
9.30	10	89	47.0	35.0	40.0	44.24	**093**	45.78	**093**	44.24	**093**	45.78	**093**
9.35	10	89	47.0	35.0	40.0	44.24	**930**	44.24	**930**	44.24	**09350**		
9.40	10	89	47.0	35.0	40.0	44.24	**094**	45.78	**094**	44.24	**094**	45.78	**094**
9.50	10	89	47.0	35.0	40.0	44.24	**095**	45.78	**095**	44.24	**095**	45.78	**095**
9.60	10	89	47.0	35.0	40.0	44.24	**096**	45.78	**096**	44.24	**096**	45.78	**096**
9.70	10	89	47.0	35.0	40.0	44.24	**097**	45.78	**097**	44.24	**097**	45.78	**097**
9.80	10	89	47.0	35.0	40.0	44.24	**098**	45.78	**098**	44.24	**098**	45.78	**098**
9.90	10	89	47.0	35.0	40.0	44.24	**099**	45.78	**099**	44.24	**099**	45.78	**099**
10.00	10	89	47.0	35.0	40.0	44.24	**100**	45.78	**100**	44.24	**100**	45.78	**100**
10.10	12	102	55.0	40.0	45.0	62.52	**101**	65.59	**101**	62.52	**101**	65.59	**101**
10.20	12	102	55.0	40.0	45.0	62.52	**102**	65.59	**102**	62.52	**102**	65.59	**102**
10.30	12	102	55.0	40.0	45.0	62.52	**103**	65.59	**103**	62.52	**103**	65.59	**103**
10.40	12	102	55.0	40.0	45.0	62.52	**104**	65.59	**104**	62.52	**104**	65.59	**104**
10.50	12	102	55.0	40.0	45.0	62.52	**105**	65.59	**105**	62.52	**105**	65.59	**105**
10.60	12	102	55.0	40.0	45.0	62.52	**106**	65.59	**106**	62.52	**106**	65.59	**106**
10.70	12	102	55.0	40.0	45.0	62.52	**107**	65.59	**107**	62.52	**107**	65.59	**107**
10.75	12	102	55.0	40.0	45.0	62.52	**904**	62.52	**904**	62.52	**10750**		
10.80	12	102	55.0	40.0	45.0	62.52	**108**	65.59	**108**	62.52	**108**	65.59	**108**
10.90	12	102	55.0	40.0	45.0	62.52	**109**	65.59	**109**	62.52	**109**	65.59	**109**
11.00	12	102	55.0	40.0	45.0	62.52	**110**	65.59	**110**	62.52	**110**	65.59	**110**
11.10	12	102	55.0	40.0	45.0	62.52	**111**	65.59	**111**	62.52	**111**	65.59	**111**
11.20	12	102	55.0	40.0	45.0	62.52	**112**	65.59	**112**	62.52	**112**	65.59	**112**
11.25	12	102	55.0	40.0	45.0	62.52	**912**	62.52	**912**	62.52	**11250**		
11.30	12	102	55.0	40.0	45.0	62.52	**113**	65.59	**113**	62.52	**113**	65.59	**113**
11.40	12	102	55.0	40.0	45.0	62.52	**114**	65.59	**114**	62.52	**114**	65.59	**114**
11.50	12	102	55.0	40.0	45.0	62.52	**115**	65.59	**115**	62.52	**115**	65.59	**115**
11.60	12	102	55.0	40.0	45.0	62.52	**116**	65.59	**116**	62.52	**116**	65.59	**116**
11.70	12	102	55.0	40.0	45.0	62.52	**117**	65.59	**117**	62.52	**117**	65.59	**117**
11.80	12	102	55.0	40.0	45.0	62.52	**118**	65.59	**118**	62.52	**118**	65.59	**118**
11.90	12	102	55.0	40.0	45.0	62.52	**119**	65.59	**119**	62.52	**119**	65.59	**119**
12.00	12	102	55.0	40.0	45.0	62.52	**120**	65.59	**120**	62.52	**120**	65.59	**120**
12.25	14	107	60.0	43.0	45.0	88.46	**122**	88.46	**122**	88.46	**12250**		
12.50	14	107	60.0	43.0	45.0	88.46	**125**	91.52	**125**	88.46	**125**	91.52	**125**
12.70	14	107	60.0	43.0	45.0	88.46	**127**	91.52	**127**	88.46	**127**	91.52	**127**
12.80	14	107	60.0	43.0	45.0	88.46	**128**	88.46	**128**				
12.90	14	107	60.0	43.0	45.0	88.46	**129**	88.46	**129**				
13.00	14	107	60.0	43.0	45.0	88.46	**130**	91.52	**130**	88.46	**130**	91.52	**130**
13.10	14	107	60.0	43.0	45.0	88.46	**131**	88.46	**131**				
13.30	14	107	60.0	43.0	45.0	88.46	**133**	88.46	**133**				
13.50	14	107	60.0	43.0	45.0	88.46	**135**	91.52	**135**	88.46	**135**	91.52	**135**
13.70	14	107	60.0	43.0	45.0	88.46	**137**	91.52	**137**	88.46	**137**	91.52	**137**
13.80	14	107	60.0	43.0	45.0	88.46	**138**	88.46	**138**				
14.00	14	107	60.0	43.0	45.0	88.46	**140**	91.52	**140**	88.46	**140**	91.52	**140**
P							●		●		○		○
M											●		●
K							●		●		●		●
N											●		●
S													
H													
O													

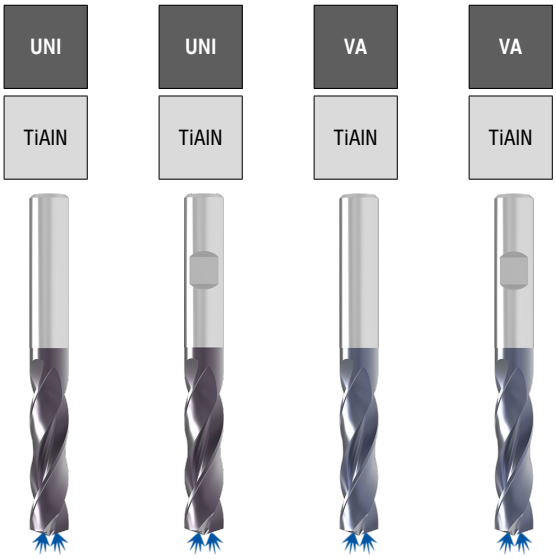
→ v_c Page 130+133

Continued on next page

WPC – High Performance Drill, DIN 6537







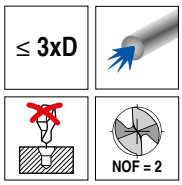
						140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						11 603 ...		**11 604 ...**		**11 623 ...**		**11 624 ...**	
DC m7 **mm**	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1		£ T1		£ T1		£ T1	
14.20	16	115	65.0	45.0	48.0	108.30	**142**	108.30	**142**				
14.50	16	115	65.0	45.0	48.0	108.30	**145**	112.89	**145**	108.30	**145**	112.89	**145**
14.70	16	115	65.0	45.0	48.0	108.30	**147**	112.89	**147**	108.30	**147**	112.89	**147**
14.80	16	115	65.0	45.0	48.0	108.30	**148**	108.30	**148**				
15.00	16	115	65.0	45.0	48.0	108.30	**150**	112.89	**150**	108.30	**150**	112.89	**150**
15.10	16	115	65.0	45.0	48.0	108.30	**151**	108.30	**151**				
15.25	16	115	65.0	45.0	48.0	108.30	**152**	108.30	**152**				
15.30	16	115	65.0	45.0	48.0	108.30	**153**	108.30	**153**				
15.50	16	115	65.0	45.0	48.0	108.30	**155**	112.89	**155**	108.30	**155**	112.89	**155**
15.60	16	115	65.0	45.0	48.0	108.30	**156**	108.30	**156**				
15.70	16	115	65.0	45.0	48.0	108.30	**157**	112.89	**157**	108.30	**157**	112.89	**157**
15.80	16	115	65.0	45.0	48.0	108.30	**158**	108.30	**158**				
16.00	16	115	65.0	45.0	48.0	108.30	**160**	112.89	**160**	108.30	**160**	112.89	**160**
16.50	18	123	73.0	51.0	48.0	173.89	**165**	181.52	**165**	173.89	**165**	181.52	**165**
16.80	18	123	73.0	51.0	48.0	173.89	**168**	173.89	**168**				
16.90	18	123	73.0	51.0	48.0	173.89	**169**	173.89	**169**				
17.00	18	123	73.0	51.0	48.0	173.89	**170**	181.52	**170**	173.89	**170**	181.52	**170**
17.50	18	123	73.0	51.0	48.0	173.89	**175**	181.52	**175**	173.89	**175**	181.52	**175**
17.60	18	123	73.0	51.0	48.0	173.89	**176**	173.89	**176**				
17.80	18	123	73.0	51.0	48.0	173.89	**178**	173.89	**178**				
18.00	18	123	73.0	51.0	48.0	173.89	**180**	181.52	**180**	173.89	**180**	181.52	**180**
18.50	20	131	79.0	55.0	50.0	189.15	**185**	198.30	**185**	189.15	**185**	198.30	**185**
18.80	20	131	79.0	55.0	50.0	189.15	**188**	189.15	**188**				
18.90	20	131	79.0	55.0	50.0	189.15	**189**	189.15	**189**				
19.00	20	131	79.0	55.0	50.0	189.15	**190**	198.30	**190**	189.15	**190**	198.30	**190**
19.50	20	131	79.0	55.0	50.0	189.15	**195**	198.30	**195**	189.15	**195**	198.30	**195**
19.60	20	131	79.0	55.0	50.0	189.15	**196**	189.15	**196**				
19.80	20	131	79.0	55.0	50.0	189.15	**198**	189.15	**198**				
20.00	20	131	79.0	55.0	50.0	189.15	**200**	198.30	**200**	189.15	**200**	198.30	**200**
P							●		●		○		○
M											●		●
K							●		●		●		●
N											●		●
S													
H													
O													

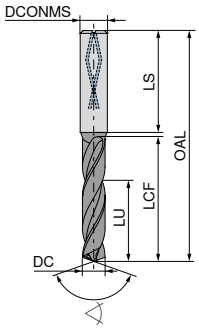
→ v_c Page 130+133

WTX – High-performance drill, DIN 6537

▲ Specialist for difficult to machine materials

2





Ti

DPA54

DRAGONSKIN

140°

Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 786 ... £ T4	
3.00	6	62	20	14	36	59.78	030
3.10	6	62	20	14	36	59.78	031
3.20	6	62	20	14	36	59.78	032
3.30	6	62	20	14	36	59.78	033
3.40	6	62	20	14	36	59.78	034
3.50	6	62	20	14	36	59.78	035
3.60	6	62	20	14	36	59.78	036
3.70	6	62	20	14	36	59.78	037
3.80	6	66	24	17	36	59.78	038
3.90	6	66	24	17	36	59.78	039
3.97	6	66	24	17	36	59.78	900
4.00	6	66	24	17	36	59.78	040
4.10	6	66	24	17	36	59.78	041
4.20	6	66	24	17	36	59.78	042
4.23	6	66	24	17	36	59.78	901
4.30	6	66	24	17	36	59.78	043
4.40	6	66	24	17	36	59.78	044
4.50	6	66	24	17	36	59.78	045
4.60	6	66	24	17	36	59.78	046
4.70	6	66	24	17	36	59.78	047
4.80	6	66	28	20	36	59.78	048
4.90	6	66	28	20	36	59.78	049
5.00	6	66	28	20	36	59.78	050
5.10	6	66	28	20	36	59.78	051
5.20	6	66	28	20	36	59.78	052
5.30	6	66	28	20	36	59.78	053
5.40	6	66	28	20	36	59.78	054
5.50	6	66	28	20	36	59.78	055
5.56	6	66	28	20	36	59.78	902
5.60	6	66	28	20	36	59.78	056
5.70	6	66	28	20	36	59.78	057
5.80	6	66	28	20	36	59.78	058
5.90	6	66	28	20	36	59.78	059
6.00	6	66	28	20	36	59.78	060
6.10	8	79	34	24	36	80.21	061
6.20	8	79	34	24	36	80.21	062
6.30	8	79	34	24	36	80.21	063
6.35	8	79	34	24	36	80.21	903
6.40	8	79	34	24	36	80.21	064
6.50	8	79	34	24	36	80.21	065
6.60	8	79	34	24	36	80.21	066
6.70	8	79	34	24	36	80.21	067
6.80	8	79	34	24	36	80.21	068
6.90	8	79	34	24	36	80.21	069
7.00	8	79	34	24	36	80.21	070
7.10	8	79	41	29	36	80.21	071
7.20	8	79	41	29	36	80.21	072
7.30	8	79	41	29	36	80.21	073
7.40	8	79	41	29	36	80.21	074
7.50	8	79	41	29	36	80.21	075
7.60	8	79	41	29	36	80.21	076
7.70	8	79	41	29	36	80.21	077
7.80	8	79	41	29	36	80.21	078
7.90	8	79	41	29	36	80.21	079
7.94	8	79	41	29	36	80.21	904
8.00	8	79	41	29	36	80.21	080
8.10	10	89	47	35	40	96.99	081
8.20	10	89	47	35	40	96.99	082
8.30	10	89	47	35	40	96.99	083
8.40	10	89	47	35	40	96.99	084
8.50	10	89	47	35	40	96.99	085
8.60	10	89	47	35	40	96.99	086
8.70	10	89	47	35	40	96.99	087
8.80	10	89	47	35	40	96.99	088
8.90	10	89	47	35	40	96.99	089
9.00	10	89	47	35	40	96.99	090
9.10	10	89	47	35	40	96.99	091
9.20	10	89	47	35	40	96.99	092
9.30	10	89	47	35	40	96.99	093
9.40	10	89	47	35	40	96.99	094
9.50	10	89	47	35	40	96.99	095
9.55	10	89	47	35	40	97.22	905
9.60	10	89	47	35	40	96.99	096
9.70	10	89	47	35	40	96.99	097
9.80	10	89	47	35	40	96.99	098
9.90	10	89	47	35	40	96.99	099
10.00	10	89	47	35	40	96.99	100
10.10	12	102	55	40	45	139.99	101
10.20	12	102	55	40	45	139.99	102
10.30	12	102	55	40	45	139.99	103
10.40	12	102	55	40	45	139.99	104
10.50	12	102	55	40	45	139.99	105
10.60	12	102	55	40	45	139.99	106
10.70	12	102	55	40	45	139.99	107
10.80	12	102	55	40	45	139.99	108
10.90	12	102	55	40	45	139.99	109
11.00	12	102	55	40	45	139.99	110
11.10	12	102	55	40	45	139.99	111
11.11	12	102	55	40	45	139.99	906
11.20	12	102	55	40	45	139.99	112
11.30	12	102	55	40	45	139.99	113
11.40	12	102	55	40	45	139.99	114
11.50	12	102	55	40	45	139.99	115
11.60	12	102	55	40	45	139.99	116
11.70	12	102	55	40	45	139.99	117
11.80	12	102	55	40	45	139.99	118
11.90	12	102	55	40	45	139.99	119
12.00	12	102	55	40	45	139.99	120
12.10	14	107	60	43	45	181.62	121
12.20	14	107	60	43	45	181.62	122
12.30	14	107	60	43	45	181.62	123
12.40	14	107	60	43	45	181.62	124
12.50	14	107	60	43	45	181.62	125
12.60	14	107	60	43	45	181.62	126
12.70	14	107	60	43	45	181.62	907
12.80	14	107	60	43	45	181.62	128
12.90	14	107	60	43	45	181.62	129
13.00	14	107	60	43	45	181.62	130
13.10	14	107	60	43	45	181.62	131
13.20	14	107	60	43	45	181.62	132
13.30	14	107	60	43	45	181.62	133
13.40	14	107	60	43	45	181.62	134
13.50	14	107	60	43	45	181.62	135
13.60	14	107	60	43	45	181.62	136
13.70	14	107	60	43	45	181.62	137
13.80	14	107	60	43	45	181.62	138
13.90	14	107	60	43	45	181.62	139

P	○
M	●
K	
N	
S	●
H	
O	

→ v_c Page 123

Continued on next page

WTX – High-performance drill, DIN 6537

▲ Specialist for difficult to machine materials

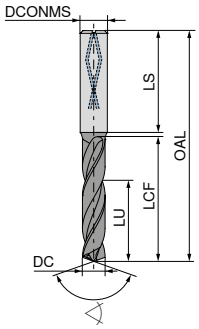
≤ 3xD

NOF = 2

Ti

DPA54

DRAGONSKIN



140°

Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 786 ... £ T4	
14.0	14	107	60	43	45	181.62	140
14.1	16	115	65	45	48	215.66	141
14.2	16	115	65	45	48	215.66	142
14.3	16	115	65	45	48	215.66	143
14.4	16	115	65	45	48	215.66	144
14.5	16	115	65	45	48	215.66	145
14.6	16	115	65	45	48	215.66	146
14.7	16	115	65	45	48	215.66	147
14.8	16	115	65	45	48	215.66	148
14.9	16	115	65	45	48	215.66	149
15.0	16	115	65	45	48	215.66	150
15.1	16	115	65	45	48	215.66	151
15.2	16	115	65	45	48	215.66	152
15.3	16	115	65	45	48	215.66	153
15.4	16	115	65	45	48	215.66	154
15.5	16	115	65	45	48	215.66	155
15.6	16	115	65	45	48	215.66	156
15.7	16	115	65	45	48	215.66	157
15.8	16	115	65	45	48	215.66	158
15.9	16	115	65	45	48	215.66	159
16.0	16	115	65	45	48	215.66	160
16.1	18	123	73	51	48	215.66	161
16.2	18	123	73	51	48	215.66	162
16.3	18	123	73	51	48	215.66	163
16.4	18	123	73	51	48	215.66	164
16.5	18	123	73	51	48	302.69	165
16.6	18	123	73	51	48	302.69	166
16.7	18	123	73	51	48	302.69	167
16.8	18	123	73	51	48	302.69	168
16.9	18	123	73	51	48	302.69	169
17.0	18	123	73	51	48	302.69	170
17.1	18	123	73	51	48	302.69	171
17.2	18	123	73	51	48	302.69	172
17.3	18	123	73	51	48	302.69	173
17.4	18	123	73	51	48	302.69	174
17.5	18	123	73	51	48	302.69	175
17.6	18	123	73	51	48	302.69	176
17.7	18	123	73	51	48	302.69	177
17.8	18	123	73	51	48	302.69	178
17.9	18	123	73	51	48	302.69	179
18.0	18	123	73	51	48	302.69	180
18.1	20	131	79	55	50	378.36	181
18.2	20	131	79	55	50	378.36	182
18.3	20	131	79	55	50	378.36	183
18.4	20	131	79	55	50	378.36	184
18.5	20	131	79	55	50	378.36	185
18.6	20	131	79	55	50	378.36	186
18.7	20	131	79	55	50	378.36	187
18.8	20	131	79	55	50	378.36	188
18.9	20	131	79	55	50	378.36	189
19.0	20	131	79	55	50	378.36	190
19.1	20	131	79	55	50	378.36	191
19.2	20	131	79	55	50	378.36	192
19.3	20	131	79	55	50	378.36	193
19.4	20	131	79	55	50	378.36	194
19.5	20	131	79	55	50	378.36	195
19.6	20	131	79	55	50	378.36	196
19.7	20	131	79	55	50	378.36	197
19.8	20	131	79	55	50	378.36	198
19.9	20	131	79	55	50	378.36	199
20.0	20	131	79	55	50	378.36	200

P	○
M	●
K	
N	
S	●
H	
O	

→ v_c Page 123

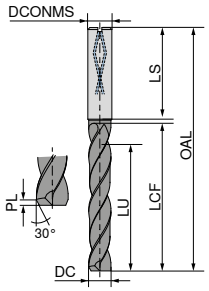
WTX – High Performance Drill, DIN 6537

- universal application
- four guidance lands
- polished chip flutes
- Type ALU 3xD on request
- PL = corner chamfers

2

≤ 3xD

NOF = 2



180

Ti800

HA

180°

Solid carbide

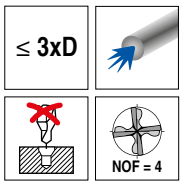
DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	PL mm	10 720 ... £ T4	
3.00	6	62	20	14	36	0.15	77.57	030
3.10	6	62	20	14	36	0.16	77.57	031
3.20	6	62	20	14	36	0.16	77.57	032
3.30	6	62	20	14	36	0.17	77.57	033
3.40	6	62	20	14	36	0.17	77.57	034
3.50	6	62	20	14	36	0.18	77.57	035
3.60	6	62	20	14	36	0.18	77.57	036
3.70	6	62	20	14	36	0.19	77.57	037
3.80	6	66	24	17	36	0.19	77.57	038
3.90	6	66	24	17	36	0.20	77.57	039
4.00	6	66	24	17	36	0.20	77.57	040
4.10	6	66	24	17	36	0.21	77.57	041
4.20	6	66	24	17	36	0.21	77.57	042
4.30	6	66	24	17	36	0.22	77.57	043
4.40	6	66	24	17	36	0.22	77.57	044
4.50	6	66	24	17	36	0.23	77.57	045
4.60	6	66	24	17	36	0.23	77.57	046
4.65	6	66	24	17	36	0.23	77.57	900
4.70	6	66	24	17	36	0.24	77.57	047
4.80	6	66	28	20	36	0.24	77.57	048
4.90	6	66	28	20	36	0.25	77.57	049
5.00	6	66	28	20	36	0.25	77.57	050
5.10	6	66	28	20	36	0.26	77.57	051
5.20	6	66	28	20	36	0.26	77.57	052
5.30	6	66	28	20	36	0.27	77.57	053
5.40	6	66	28	20	36	0.27	77.57	054
5.50	6	66	28	20	36	0.28	77.57	055
5.55	6	66	28	20	36	0.28	77.57	902
5.60	6	66	28	20	36	0.28	77.57	056
5.70	6	66	28	20	36	0.29	77.57	057
5.80	6	66	28	20	36	0.29	77.57	058
5.90	6	66	28	20	36	0.30	77.57	059
6.00	6	66	28	20	36	0.30	77.57	060
6.10	8	79	34	24	36	0.31	95.15	061
6.20	8	79	34	24	36	0.31	95.15	062
6.30	8	79	34	24	36	0.32	95.15	063
6.40	8	79	34	24	36	0.32	95.15	064
6.50	8	79	34	24	36	0.33	95.15	065
6.60	8	79	34	24	36	0.33	95.15	066
6.70	8	79	34	24	36	0.34	95.15	067
6.80	8	79	34	24	36	0.34	95.15	068
6.90	8	79	34	24	36	0.35	95.15	069
7.00	8	79	34	24	36	0.35	95.15	070
7.10	8	79	41	29	36	0.36	95.15	071
7.20	8	79	41	29	36	0.36	95.15	072
7.30	8	79	41	29	36	0.37	95.15	073
7.40	8	79	41	29	36	0.37	95.15	074
7.50	8	79	41	29	36	0.38	95.15	075
7.60	8	79	41	29	36	0.38	95.15	076
7.70	8	79	41	29	36	0.39	95.15	077
7.80	8	79	41	29	36	0.39	95.15	078
7.90	8	79	41	29	36	0.40	95.15	079
8.00	8	79	41	29	36	0.40	95.15	080
8.10	10	89	47	35	40	0.41	131.48	081
8.20	10	89	47	35	40	0.41	131.48	082
8.30	10	89	47	35	40	0.42	131.48	083
8.40	10	89	47	35	40	0.42	131.48	084
8.50	10	89	47	35	40	0.43	131.48	085
8.60	10	89	47	35	40	0.43	131.48	086
8.70	10	89	47	35	40	0.44	131.48	087
8.80	10	89	47	35	40	0.44	131.48	088
8.90	10	89	47	35	40	0.45	131.48	089
9.00	10	89	47	35	40	0.45	131.48	090
9.10	10	89	47	35	40	0.46	131.48	091
9.20	10	89	47	35	40	0.46	131.48	092
9.30	10	89	47	35	40	0.47	131.48	093
9.40	10	89	47	35	40	0.47	131.48	094
9.50	10	89	47	35	40	0.48	131.48	095
9.60	10	89	47	35	40	0.48	131.48	096
9.70	10	89	47	35	40	0.49	131.48	097
9.80	10	89	47	35	40	0.49	131.48	098
9.90	10	89	47	35	40	0.50	131.48	099
10.00	10	89	47	35	40	0.50	131.48	100
10.10	12	100	53	38	45	0.51	137.87	101
10.20	12	100	53	38	45	0.51	165.61	102
10.30	12	100	53	38	45	0.52	165.61	103
10.40	12	100	53	38	45	0.52	165.61	104
10.50	12	100	53	38	45	0.53	165.61	105
10.60	12	100	53	38	45	0.53	165.61	106
10.70	12	100	53	38	45	0.54	165.61	107
10.80	12	100	53	38	45	0.54	165.61	108
10.90	12	100	53	38	45	0.55	165.61	109
11.00	12	100	53	38	45	0.55	165.61	110
11.10	12	100	53	38	45	0.56	165.61	111
11.20	12	100	53	38	45	0.56	165.61	112
11.30	12	100	53	38	45	0.57	165.61	113
11.40	12	100	53	38	45	0.57	165.61	114
11.50	12	100	53	38	45	0.58	165.61	115
11.60	12	100	53	38	45	0.58	165.61	116
11.70	12	100	53	38	45	0.59	165.61	117
11.80	12	100	53	38	45	0.59	165.61	118
11.90	12	100	53	38	45	0.60	165.61	119
12.00	12	100	53	38	45	0.60	165.61	120
12.50	14	105	58	41	45	0.63	268.74	125
12.80	14	105	58	41	45	0.64	268.74	128
13.00	14	105	58	41	45	0.65	268.74	130
13.50	14	105	58	41	45	0.68	268.74	135
13.80	14	105	58	41	45	0.69	268.74	138
14.00	14	105	58	41	45	0.70	268.74	140
14.50	16	113	63	43	48	0.73	281.79	145
14.80	16	113	63	43	48	0.74	350.10	148
15.00	16	113	63	43	48	0.75	350.10	150
15.50	16	113	63	43	48	0.78	350.10	155
15.80	16	113	63	43	48	0.79	350.10	158
16.00	16	113	63	43	48	0.80	350.10	160
16.50	18	121	71	49	48	0.83	373.89	165
16.80	18	121	71	49	48	0.84	456.14	168
17.00	18	121	71	49	48	0.85	456.14	170
17.50	18	121	71	49	48	0.88	456.14	175
17.80	18	121	71	49	48	0.89	456.14	178
18.00	18	121	71	49	48	0.90	456.14	180
18.50	20	129	77	53	50	0.93	456.14	185
18.80	20	129	77	53	50	0.94	456.14	188
19.00	20	129	77	53	50	0.95	456.14	190
19.50	20	129	77	53	50	0.98	456.14	195
19.80	20	129	77	53	50	0.99	456.14	198
20.00	20	129	77	53	50	1.00	456.14	200

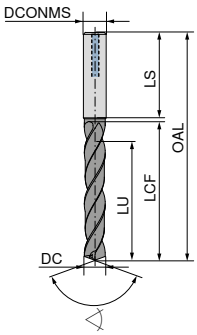
P	●
M	●
K	●
N	
S	
H	
O	

→ v_c Page 126

WTX – High-feed drills, DIN 6537

- Four fluted high-feed drill
- Specialises in steel processing
- Has four spiral coolant holes
- Innovative cutting edge geometry guarantees high positioning accuracy
- Outstanding drilling quality in terms of tolerance, surface finish and position





NEW

HFDS

DPX14S

DRAGONSKIN

HA

130°

Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 797 ... £ T4	
6.0	8	79	41	29	36	85.32	06000
6.1	10	89	47	35	40	116.31	06100
6.2	10	89	47	35	40	116.31	06200
6.3	10	89	47	35	40	116.31	06300
6.4	10	89	47	35	40	116.31	06400
6.5	10	89	47	35	40	116.31	06500
6.6	10	89	47	35	40	116.31	06600
6.7	10	89	47	35	40	116.31	06700
6.8	10	89	47	35	40	116.31	06800
6.9	10	89	47	35	40	116.31	06900
7.0	10	89	47	35	40	116.31	07000
7.1	10	89	47	35	40	116.31	07100
7.2	10	89	47	35	40	116.31	07200
7.3	10	89	47	35	40	116.31	07300
7.4	10	89	47	35	40	116.31	07400
7.5	10	89	47	35	40	116.31	07500
7.6	10	89	47	35	40	116.31	07600
7.7	10	89	47	35	40	116.31	07700
7.8	10	89	47	35	40	116.31	07800
7.9	10	89	47	35	40	116.31	07900
8.0	10	89	47	35	40	116.31	08000
8.1	12	102	55	40	45	157.77	08100
8.2	12	102	55	40	45	157.77	08200
8.3	12	102	55	40	45	157.77	08300
8.4	12	102	55	40	45	157.77	08400
8.5	12	102	55	40	45	157.77	08500
8.6	12	102	55	40	45	157.77	08600
8.7	12	102	55	40	45	157.77	08700
8.8	12	102	55	40	45	157.77	08800
8.9	12	102	55	40	45	157.77	08900
9.0	12	102	55	40	45	157.77	09000
9.1	12	102	55	40	45	157.77	09100
9.2	12	102	55	40	45	157.77	09200
9.3	12	102	55	40	45	157.77	09300
9.4	12	102	55	40	45	157.77	09400
9.5	12	102	55	40	45	157.77	09500
9.6	12	102	55	40	45	157.77	09600
9.7	12	102	55	40	45	157.77	09700
9.8	12	102	55	40	45	157.77	09800
9.9	12	102	55	40	45	157.77	09900
10.0	12	102	55	40	45	157.77	10000
10.2	14	107	60	43	45	209.40	10200
10.5	14	107	60	43	45	209.40	10500
11.0	14	107	60	43	45	209.40	11000
11.5	14	107	60	43	45	209.40	11500
12.0	14	107	60	43	45	209.40	12000

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 797 ... £ T4	
12.5	16	115	65	45	48	284.36	12500
13.0	16	115	65	45	48	284.36	13000
14.0	16	115	65	45	48	284.36	14000
14.3	18	123	73	51	48	354.24	14300
14.5	18	123	73	51	48	354.24	14500
15.0	18	123	73	51	48	354.24	15000
16.0	18	123	73	51	48	354.24	16000

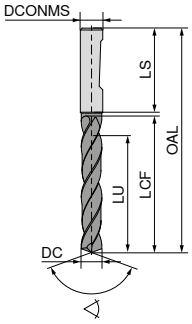
P	●
M	○
K	●
N	○
S	○
H	○
O	○

→ v_c Page 135

WTX – High Performance Drill, DIN 6537

≤ 5xD

NOF = 2



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
11 783 ...	**11 784 ...**	**11 782 ...**	**10 730 ...**	**10 740 ...**	**10 741 ...**

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T7		£ T7		£ T7		£ T4		£ T4		£ T4	
3.00	6	66	28	23	36	37.77	03000	37.77	03000	37.77	03000	80.84	03000	72.77	030	72.77	030
3.10	6	66	28	23	36	37.77	03100	37.77	03100	37.77	03100	80.84	03100	72.77	031	72.77	031
3.15	6	66	28	23	36	37.77	03150	37.77	03150	37.77	03150						
3.20	6	66	28	23	36	37.77	03200	37.77	03200	37.77	03200	80.84	03200	72.77	032	72.77	032
3.22	6	66	28	23	36	37.77	03220	37.77	03220	37.77	03220						
3.25	6	66	28	23	36	37.77	03250	37.77	03250	37.77	03250						
3.30	6	66	28	23	36	37.77	03300	37.77	03300	37.77	03300	80.84	03300	72.77	033	72.77	033
3.40	6	66	28	23	36	37.77	03400	37.77	03400	37.77	03400	80.84	03400	72.77	034	72.77	034
3.50	6	66	28	23	36	37.77	03500	37.77	03500	37.77	03500	80.84	03500	72.77	035	72.77	035
3.60	6	66	28	23	36	37.77	03600	37.77	03600	37.77	03600	80.84	03600	72.77	036	72.77	036
3.70	6	66	28	23	36	37.77	03700	37.77	03700	37.77	03700	80.84	03700	72.77	037	72.77	037
3.80	6	74	36	29	36	37.77	03800	37.77	03800	37.77	03800	80.84	03800	72.77	038	72.77	038
3.85	6	74	36	29	36	37.77	03850	37.77	03850	37.77	03850						
3.90	6	74	36	29	36	37.77	03900	37.77	03900	37.77	03900	80.84	03900	72.77	039	72.77	039
4.00	6	74	36	29	36	37.77	04000	37.77	04000	37.77	04000	80.84	04000	72.77	040	72.77	040
4.10	6	74	36	29	36	37.77	04100	37.77	04100	37.77	04100	80.84	04100	72.77	041	72.77	041
4.20	6	74	36	29	36	37.77	04200	37.77	04200	37.77	04200	80.84	04200	72.77	042	72.77	042
4.25	6	74	36	29	36	37.77	04250	37.77	04250	37.77	04250						
4.30	6	74	36	29	36	37.77	04300	37.77	04300	37.77	04300	80.84	04300	72.77	043	72.77	043
4.35	6	74	36	29	36	37.77	04350	37.77	04350	37.77	04350						
4.40	6	74	36	29	36	37.77	04400	37.77	04400	37.77	04400	80.84	04400	72.77	044	72.77	044
4.45	6	74	36	29	36	37.77	04450	37.77	04450	37.77	04450						
4.50	6	74	36	29	36	37.77	04500	37.77	04500	37.77	04500	80.84	04500	72.77	045	72.77	045
4.60	6	74	36	29	36	37.77	04600	37.77	04600	37.77	04600	80.84	04600	72.77	046	72.77	046
4.65	6	74	36	29	36	37.77	04650	37.77	04650	37.77	04650						
4.70	6	74	36	29	36	37.77	04700	37.77	04700	37.77	04700	80.84	04700	72.77	047	72.77	047
4.80	6	82	44	35	36	37.77	04800	37.77	04800	37.77	04800	80.84	04800	72.77	048	72.77	048
4.90	6	82	44	35	36	37.77	04900	37.77	04900	37.77	04900	80.84	04900	72.77	049	72.77	049
4.95	6	82	44	35	36	37.77	04950	37.77	04950	37.77	04950						
5.00	6	82	44	35	36	37.77	05000	37.77	05000	37.77	05000	80.84	05000	72.77	050	72.77	050
5.05	6	82	44	35	36	37.77	05050	37.77	05050	37.77	05050						
5.10	6	82	44	35	36	37.77	05100	37.77	05100	37.77	05100	80.84	05100	72.77	051	72.77	051
5.20	6	82	44	35	36	37.77	05200	37.77	05200	37.77	05200	80.84	05200	72.77	052	72.77	052
5.30	6	82	44	35	36	37.77	05300	37.77	05300	37.77	05300	80.84	05300	72.77	053	72.77	053
5.40	6	82	44	35	36	37.77	05400	37.77	05400	37.77	05400	80.84	05400	72.77	054	72.77	054
5.50	6	82	44	35	36	37.77	05500	37.77	05500	37.77	05500	80.84	05500	72.77	055	72.77	055
5.55	6	82	44	35	36	37.77	05550	37.77	05550	37.77	05550						
5.60	6	82	44	35	36	37.77	05600	37.77	05600	37.77	05600	80.84	05600	72.77	056	72.77	056
5.70	6	82	44	35	36	37.77	05700	37.77	05700	37.77	05700	80.84	05700	72.77	057	72.77	057
5.75	6	82	44	35	36	37.77	05750	37.77	05750	37.77	05750						
5.80	6	82	44	35	36	37.77	05800	37.77	05800	37.77	05800	80.84	05800	72.77	058	72.77	058
5.90	6	82	44	35	36	37.77	05900	37.77	05900	37.77	05900	80.84	05900	72.77	059	72.77	059
5.95	6	82	44	35	36	37.77	05950	37.77	05950	37.77	05950						

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

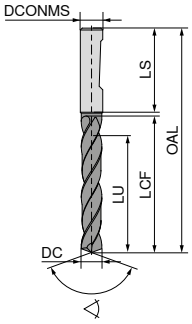
→ v_c Page 113–118

Continued on next page

WTX – High Performance Drill, DIN 6537

≤ 5xD

NOF = 2



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

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 783 ... £ T7		11 784 ... £ T7		11 782 ... £ T7		10 730 ... £ T4		10 740 ... £ T4		10 741 ... £ T4	
6.00	6	82	44	35	36	37.77	06000	37.77	06000	37.77	06000	80.84	06000	88.03	060	88.03	060
6.10	8	91	53	43	36	41.03	06100	41.03	06100	41.03	06100	96.52	06100	88.03	061	88.03	061
6.20	8	91	53	43	36	41.03	06200	41.03	06200	41.03	06200	96.52	06200	88.03	062	88.03	062
6.30	8	91	53	43	36	41.03	06300	41.03	06300	41.03	06300	96.52	06300	88.03	063	88.03	063
6.40	8	91	53	43	36	41.03	06400	41.03	06400	41.03	06400	96.52	06400	88.03	064	88.03	064
6.50	8	91	53	43	36	41.03	06500	41.03	06500	41.03	06500	96.52	06500	88.03	065	88.03	065
6.60	8	91	53	43	36	41.03	06600	41.03	06600	41.03	06600	96.52	06600	88.03	066	88.03	066
6.70	8	91	53	43	36	41.03	06700	41.03	06700	41.03	06700	96.52	06700	88.03	067	88.03	067
6.80	8	91	53	43	36	41.03	06800	41.03	06800	41.03	06800	96.52	06800	88.03	068	88.03	068
6.90	8	91	53	43	36	41.03	06900	41.03	06900	41.03	06900	96.52	06900	88.03	069	88.03	069
7.00	8	91	53	43	36	41.03	07000	41.03	07000	41.03	07000	96.52	07000	88.03	070	88.03	070
7.10	8	91	53	43	36	41.03	07100	41.03	07100	41.03	07100	96.52	07100	88.03	071	88.03	071
7.20	8	91	53	43	36	41.03	07200	41.03	07200	41.03	07200	96.52	07200	88.03	072	88.03	072
7.30	8	91	53	43	36	41.03	07300	41.03	07300	41.03	07300	96.52	07300	88.03	073	88.03	073
7.40	8	91	53	43	36	41.03	07400	41.03	07400	41.03	07400	96.52	07400	88.03	074	88.03	074
7.45	8	91	53	43	36	41.03	07450	41.03	07450	41.03	07450						
7.50	8	91	53	43	36	41.03	07500	41.03	07500	41.03	07500	96.52	07500	88.03	075	88.03	075
7.60	8	91	53	43	36	41.03	07600	41.03	07600	41.03	07600	96.52	07600	88.03	076	88.03	076
7.70	8	91	53	43	36	41.03	07700	41.03	07700	41.03	07700	96.52	07700	88.03	077	88.03	077
7.80	8	91	53	43	36	41.03	07800	41.03	07800	41.03	07800	96.52	07800	88.03	078	88.03	078
7.90	8	91	53	43	36	41.03	07900	41.03	07900	41.03	07900	96.52	07900	88.03	079	88.03	079
8.00	8	91	53	43	36	41.03	08000	41.03	08000	41.03	08000	96.52	08000	88.03	080	88.03	080
8.10	10	103	61	49	40	44.11	08100	44.11	08100	44.11	08100	114.11	08100	102.99	081	102.99	081
8.20	10	103	61	49	40	44.11	08200	44.11	08200	44.11	08200	114.11	08200	102.99	082	102.99	082
8.30	10	103	61	49	40	44.11	08300	44.11	08300	44.11	08300	114.11	08300	102.99	083	102.99	083
8.40	10	103	61	49	40	44.11	08400	44.11	08400	44.11	08400	114.11	08400	102.99	084	102.99	084
8.50	10	103	61	49	40	44.11	08500	44.11	08500	44.11	08500	114.11	08500	102.99	085	102.99	085
8.60	10	103	61	49	40	44.11	08600	44.11	08600	44.11	08600	114.11	08600	102.99	086	102.99	086
8.70	10	103	61	49	40	44.11	08700	44.11	08700	44.11	08700	114.11	08700	102.99	087	102.99	087
8.80	10	103	61	49	40	44.11	08800	44.11	08800	44.11	08800	114.11	08800	102.99	088	102.99	088
8.90	10	103	61	49	40	44.11	08900	44.11	08900	44.11	08900	114.11	08900	102.99	089	102.99	089
9.00	10	103	61	49	40	44.11	09000	44.11	09000	44.11	09000	114.11	09000	102.99	090	102.99	090
9.10	10	103	61	49	40	44.11	09100	44.11	09100	44.11	09100	114.11	09100	102.99	091	102.99	091
9.20	10	103	61	49	40	44.11	09200	44.11	09200	44.11	09200	114.11	09200	102.99	092	102.99	092
9.30	10	103	61	49	40	44.11	09300	44.11	09300	44.11	09300	114.11	09300	102.99	093	102.99	093
9.35	10	103	61	49	40	44.11	09350	44.11	09350	44.11	09350						
9.40	10	103	61	49	40	44.11	09400	44.11	09400	44.11	09400	114.11	09400	102.99	094	102.99	094
9.45	10	103	61	49	40	44.11	09450	44.11	09450	44.11	09450						
9.50	10	103	61	49	40	44.11	09500	44.11	09500	44.11	09500	114.11	09500	102.99	095	102.99	095
9.60	10	103	61	49	40	44.11	09600	44.11	09600	44.11	09600	114.11	09600	102.99	096	102.99	096
9.70	10	103	61	49	40	44.11	09700	44.11	09700	44.11	09700	114.11	09700	102.99	097	102.99	097
9.80	10	103	61	49	40	44.11	09800	44.11	09800	44.11	09800	114.11	09800	102.99	098	102.99	098
9.90	10	103	61	49	40	44.11	09900	44.11	09900	44.11	09900	114.11	09900	102.99	099	102.99	099

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

→ v_c Page 113–118

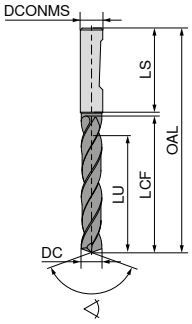
Continued on next page

WTX – High Performance Drill, DIN 6537

2

≤ 5xD

NOF = 2



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
11 783 ...	**11 784 ...**	**11 782 ...**	**10 730 ...**	**10 740 ...**	**10 741 ...**

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T7		£ T7		£ T7		£ T4		£ T4		£ T4	
10.00	10	103	61	49	40	44.11	10000	44.11	10000	44.11	10000	114.11	10000	102.99	100	102.99	100
10.10	12	118	71	56	45	64.02	10100	64.02	10100	64.02	10100	194.81	10100	146.00	101	146.00	101
10.20	12	118	71	56	45	64.02	10200	64.02	10200	64.02	10200	194.81	10200	146.00	102	146.00	102
10.30	12	118	71	56	45	64.02	10300	64.02	10300	64.02	10300	194.81	10300	146.00	103	146.00	103
10.40	12	118	71	56	45	64.02	10400	64.02	10400	64.02	10400	194.81	10400	146.00	104	146.00	104
10.50	12	118	71	56	45	64.02	10500	64.02	10500	64.02	10500	194.81	10500	146.00	105	146.00	105
10.55	12	118	71	56	45	64.02	10550	64.02	10550	64.02	10550						
10.60	12	118	71	56	45	64.02	10600	64.02	10600	64.02	10600	194.81	10600	146.00	106	146.00	106
10.70	12	118	71	56	45	64.02	10700	64.02	10700	64.02	10700	194.81	10700	146.00	107	146.00	107
10.75	12	118	71	56	45	64.02	10750	64.02	10750	64.02	10750						
10.80	12	118	71	56	45	64.02	10800	64.02	10800	64.02	10800	194.81	10800	146.00	108	146.00	108
10.90	12	118	71	56	45	64.02	10900	64.02	10900	64.02	10900	194.81	10900	146.00	109	146.00	109
11.00	12	118	71	56	45	64.02	11000	64.02	11000	64.02	11000	194.81	11000	146.00	110	146.00	110
11.10	12	118	71	56	45	64.02	11100	64.02	11100	64.02	11100	194.81	11100	146.00	111	146.00	111
11.20	12	118	71	56	45	64.02	11200	64.02	11200	64.02	11200	194.81	11200	146.00	112	146.00	112
11.25	12	118	71	56	45	64.02	11250	64.02	11250	64.02	11250						
11.30	12	118	71	56	45	64.02	11300	64.02	11300	64.02	11300	194.81	11300	146.00	113	146.00	113
11.35	12	118	71	56	45	64.02	11350	64.02	11350	64.02	11350						
11.40	12	118	71	56	45	64.02	11400	64.02	11400	64.02	11400	194.81	11400	146.00	114	146.00	114
11.45	12	118	71	56	45	64.02	11450	64.02	11450	64.02	11450						
11.50	12	118	71	56	45	64.02	11500	64.02	11500	64.02	11500	194.81	11500	146.00	115	146.00	115
11.60	12	118	71	56	45	64.02	11600	64.02	11600	64.02	11600	194.81	11600	146.00	116	146.00	116
11.70	12	118	71	56	45	64.02	11700	64.02	11700	64.02	11700	194.81	11700	146.00	117	146.00	117
11.80	12	118	71	56	45	64.02	11800	64.02	11800	64.02	11800	194.81	11800	146.00	118	146.00	118
11.90	12	118	71	56	45	64.02	11900	64.02	11900	64.02	11900	194.81	11900	146.00	119	146.00	119
12.00	12	118	71	56	45	64.02	12000	64.02	12000	64.02	12000	194.81	12000	146.00	120	146.00	120
12.15	14	124	77	60	45	85.88	12150	85.88	12150	85.88	12150						
12.25	14	124	77	60	45	85.88	12250	85.88	12250	85.88	12250						
12.50	14	124	77	60	45	85.88	12500	85.88	12500	85.88	12500	216.13	12500	192.94	125	192.94	125
12.55	14	124	77	60	45	85.88	12550	85.88	12550	85.88	12550						
12.70	14	124	77	60	45	85.88	12700	85.88	12700	85.88	12700						
12.80	14	124	77	60	45	85.88	12800	85.88	12800	85.88	12800	216.13	12800	192.94	128	192.94	128
12.90	14	124	77	60	45	85.88	12900	85.88	12900	85.88	12900						
13.00	14	124	77	60	45	85.88	13000	85.88	13000	85.88	13000	216.13	13000	192.94	130	192.94	130
13.10	14	124	77	60	45	85.88	13100	85.88	13100	85.88	13100						
13.30	14	124	77	60	45	85.88	13300	85.88	13300	85.88	13300						
13.35	14	124	77	60	45	85.88	13350	85.88	13350	85.88	13350						
13.50	14	124	77	60	45	85.88	13500	85.88	13500	85.88	13500	216.13	13500	192.94	135	192.94	135
13.70	14	124	77	60	45	85.88	13700	85.88	13700	85.88	13700						
13.80	14	124	77	60	45	85.88	13800	85.88	13800	85.88	13800	216.13	13800	192.94	138	192.94	138
14.00	14	124	77	60	45	85.88	14000	85.88	14000	85.88	14000	216.13	14000	239.69	140	239.69	140
14.20	16	133	83	63	48	110.26	14200	110.26	14200	110.26	14200						
14.50	16	133	83	63	48	110.26	14500	110.26	14500	110.26	14500	296.82	14500	251.67	145	251.67	145

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

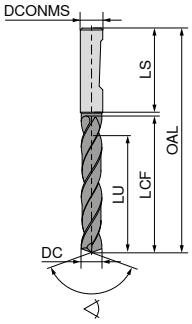
→ v_c Page 113–118

Continued on next page

WTX – High Performance Drill, DIN 6537

≤ 5xD

NOF = 2



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
11 783 ...	11 784 ...	11 782 ...	10 730 ...	10 740 ...	10 741 ...

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T7		£ T7		£ T7		£ T4		£ T4		£ T4	
14.80	16	133	83	63	48	110.26	14800	110.26	14800	110.26	14800	296.82	14800	251.67	148	251.67	148
15.00	16	133	83	63	48	110.26	15000	110.26	15000	110.26	15000	296.82	15000	251.67	150	251.67	150
15.10	16	133	83	63	48	110.26	15100	110.26	15100	110.26	15100						
15.25	16	133	83	63	48	110.26	15250	110.26	15250	110.26	15250						
15.30	16	133	83	63	48	110.26	15300	110.26	15300	110.26	15300						
15.35	16	133	83	63	48	110.26	15350	110.26	15350	110.26	15350						
15.50	16	133	83	63	48	110.26	15500	110.26	15500	110.26	15500	296.82	15500	251.67	155	251.67	155
15.60	16	133	83	63	48	110.26	15600	110.26	15600	110.26	15600						
15.80	16	133	83	63	48	110.26	15800	110.26	15800	110.26	15800	296.82	15800	251.67	158	251.67	158
16.00	16	133	83	63	48	110.26	16000	110.26	16000	110.26	16000	296.82	16000	251.67	160	251.67	160
16.05	18	143	93	71	48	187.33	16050	187.33	16050	187.33	16050						
16.50	18	143	93	71	48	187.33	16500	187.33	16500	187.33	16500	430.44	16500	367.45	165	367.45	165
16.80	18	143	93	71	48	187.33	16800	187.33	16800	187.33	16800	430.44	16800	367.45	168	367.45	168
16.90	18	143	93	71	48	187.33	16900	187.33	16900	187.33	16900						
17.00	18	143	93	71	48	187.33	17000	187.33	17000	187.33	17000	430.44	17000	367.45	170	367.45	170
17.50	18	143	93	71	48	187.33	17500	187.33	17500	187.33	17500	430.44	17500	367.45	175	367.45	175
17.60	18	143	93	71	48	187.33	17600	187.33	17600	187.33	17600						
17.80	18	143	93	71	48	187.33	17800	187.33	17800	187.33	17800	430.44	17800	367.45	178	367.45	178
18.00	18	143	93	71	48	187.33	18000	187.33	18000	187.33	18000	430.44	18000	462.23	180	462.23	180
18.50	20	153	101	77	50	210.18	18500	210.18	18500	210.18	18500	524.55	18500	485.37	185	485.37	185
18.80	20	153	101	77	50	210.18	18800	210.18	18800	210.18	18800	524.55	18800	485.37	188	485.37	188
18.90	20	153	101	77	50	210.18	18900	210.18	18900	210.18	18900						
19.00	20	153	101	77	50	210.18	19000	210.18	19000	210.18	19000	524.55	19000	485.37	190	485.37	190
19.35	20	153	101	77	50	210.18	19350	210.18	19350	210.18	19350						
19.50	20	153	101	77	50	210.18	19500	210.18	19500	210.18	19500	524.55	19500	485.37	195	485.37	195
19.60	20	153	101	77	50	210.18	19600	210.18	19600	210.18	19600						
19.80	20	153	101	77	50	210.18	19800	210.18	19800	210.18	19800	524.55	19800	485.37	198	485.37	198
20.00	20	153	101	77	50	210.18	20000	210.18	20000	210.18	20000	524.55	20000	676.79	200	676.79	200

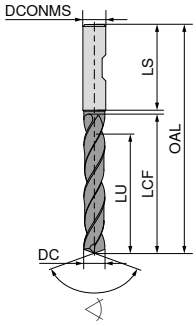
P	●	●	●	●	○	○
M					●	●
K	●	●	●	●	○	○
N					○	○
S					●	●
H	○	○	○	○		
O						

→ v_c Page 113–118

WPC – High Performance Drill, DIN 6537

≤ 5xD

NOF = 2



UNI

TiAlN

HA

140°

Solid carbide

UNI

TiAlN

HB

140°

Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 606 ... £ T1		11 607 ... £ T1	
3.00	6	66	28	23	36	24.41	030	24.41	030
3.10	6	66	28	23	36	24.41	031	24.41	031
3.20	6	66	28	23	36	24.41	032	24.41	032
3.30	6	66	28	23	36	24.41	033	24.41	033
3.40	6	66	28	23	36	24.41	034	24.41	034
3.50	6	66	28	23	36	24.41	035	24.41	035
3.60	6	66	28	23	36	24.41	036	24.41	036
3.70	6	66	28	23	36	24.41	037	24.41	037
3.80	6	74	36	29	36	24.41	038	24.41	038
3.90	6	74	36	29	36	24.41	039	24.41	039
4.00	6	74	36	29	36	24.41	040	24.41	040
4.10	6	74	36	29	36	24.41	041	24.41	041
4.20	6	74	36	29	36	24.41	042	24.41	042
4.30	6	74	36	29	36	24.41	043	24.41	043
4.40	6	74	36	29	36	24.41	044	24.41	044
4.50	6	74	36	29	36	24.41	045	24.41	045
4.60	6	74	36	29	36	24.41	046	24.41	046
4.65	6	74	36	29	36	24.41	900	24.41	900
4.70	6	74	36	29	36	24.41	047	24.41	047
4.80	6	82	44	35	36	24.41	048	24.41	048
4.90	6	82	44	35	36	24.41	049	24.41	049
5.00	6	82	44	35	36	24.41	050	24.41	050
5.10	6	82	44	35	36	24.41	051	24.41	051
5.20	6	82	44	35	36	24.41	052	24.41	052
5.30	6	82	44	35	36	24.41	053	24.41	053
5.40	6	82	44	35	36	24.41	054	24.41	054
5.50	6	82	44	35	36	24.41	055	24.41	055
5.55	6	82	44	35	36	24.41	902	24.41	902
5.60	6	82	44	35	36	24.41	056	24.41	056
5.70	6	82	44	35	36	24.41	057	24.41	057
5.80	6	82	44	35	36	24.41	058	24.41	058
5.90	6	82	44	35	36	24.41	059	24.41	059
6.00	6	82	44	35	36	24.41	060	24.41	060
6.10	8	91	53	43	36	24.41	061	24.41	061
6.20	8	91	53	43	36	24.41	062	24.41	062
6.30	8	91	53	43	36	24.41	063	24.41	063
6.40	8	91	53	43	36	24.41	064	24.41	064
6.50	8	91	53	43	36	24.41	065	24.41	065
6.60	8	91	53	43	36	24.41	066	24.41	066
6.70	8	91	53	43	36	24.41	067	24.41	067
6.80	8	91	53	43	36	24.41	068	24.41	068
6.90	8	91	53	43	36	24.41	069	24.41	069
7.00	8	91	53	43	36	24.41	070	24.41	070
7.10	8	91	53	43	36	24.41	071	24.41	071
7.20	8	91	53	43	36	24.41	072	24.41	072
7.30	8	91	53	43	36	24.41	073	24.41	073
7.40	8	91	53	43	36	24.41	074	24.41	074
7.50	8	91	53	43	36	24.41	075	24.41	075
7.55	8	91	53	43	36	24.41	975	24.41	975
7.60	8	91	53	43	36	24.41	076	24.41	076
7.70	8	91	53	43	36	24.41	077	24.41	077
7.80	8	91	53	43	36	24.41	078	24.41	078
7.90	8	91	53	43	36	24.41	079	24.41	079
8.00	8	91	53	43	36	24.41	080	24.41	080
8.10	10	103	61	49	40	27.47	081	27.47	081
8.20	10	103	61	49	40	27.47	082	27.47	082
8.30	10	103	61	49	40	27.47	083	27.47	083
8.40	10	103	61	49	40	27.47	084	27.47	084
8.50	10	103	61	49	40	27.47	085	27.47	085
8.60	10	103	61	49	40	27.47	086	27.47	086
8.70	10	103	61	49	40	27.47	087	27.47	087
8.80	10	103	61	49	40	27.47	088	27.47	088
8.90	10	103	61	49	40	27.47	089	27.47	089
9.00	10	103	61	49	40	27.47	090	27.47	090
9.10	10	103	61	49	40	27.47	091	27.47	091
9.20	10	103	61	49	40	27.47	092	27.47	092
9.25	10	103	61	49	40	27.47	925	27.47	925
9.30	10	103	61	49	40	27.47	093	27.47	093
9.40	10	103	61	49	40	27.47	094	27.47	094
9.50	10	103	61	49	40	27.47	095	27.47	095
9.60	10	103	61	49	40	27.47	096	27.47	096
9.70	10	103	61	49	40	27.47	097	27.47	097
9.80	10	103	61	49	40	27.47	098	27.47	098
9.90	10	103	61	49	40	27.47	099	27.47	099
10.00	10	103	61	49	40	27.47	100	27.47	100
10.10	12	118	71	56	45	41.19	101	41.19	101
10.20	12	118	71	56	45	41.19	102	41.19	102
10.30	12	118	71	56	45	41.19	103	41.19	103
10.40	12	118	71	56	45	41.19	104	41.19	104
10.50	12	118	71	56	45	41.19	105	41.19	105
10.60	12	118	71	56	45	41.19	106	41.19	106
10.70	12	118	71	56	45	41.19	107	41.19	107
10.80	12	118	71	56	45	41.19	108	41.19	108
10.90	12	118	71	56	45	41.19	109	41.19	109
11.00	12	118	71	56	45	41.19	110	41.19	110
11.10	12	118	71	56	45	41.19	111	41.19	111
11.20	12	118	71	56	45	41.19	112	41.19	112
11.30	12	118	71	56	45	41.19	113	41.19	113
11.40	12	118	71	56	45	41.19	114	41.19	114
11.50	12	118	71	56	45	41.19	115	41.19	115
11.60	12	118	71	56	45	41.19	116	41.19	116
11.70	12	118	71	56	45	41.19	117	41.19	117
11.80	12	118	71	56	45	41.19	118	41.19	118
11.90	12	118	71	56	45	41.19	119	41.19	119
12.00	12	118	71	56	45	41.19	120	41.19	120
12.25	14	124	77	60	45	53.38	122	53.38	122
12.50	14	124	77	60	45	53.38	125	53.38	125
12.70	14	124	77	60	45	53.38	127	53.38	127
12.80	14	124	77	60	45	53.38	128	53.38	128
12.90	14	124	77	60	45	53.38	129	53.38	129
13.00	14	124	77	60	45	53.38	130	53.38	130
13.30	14	124	77	60	45	53.38	133	53.38	133
13.50	14	124	77	60	45	53.38	135	53.38	135
13.70	14	124	77	60	45	53.38	137	53.38	137
13.80	14	124	77	60	45	53.38	138	53.38	138
14.00	14	124	77	60	45	53.38	140	53.38	140
14.20	16	133	83	63	48	70.17	142	70.17	142
14.50	16	133	83	63	48	70.17	145	70.17	145
14.70	16	133	83	63	48	70.17	147	70.17	147
14.80	16	133	83	63	48	70.17	148	70.17	148
15.00	16	133	83	63	48	70.17	150	70.17	150
15.25	16	133	83	63	48	70.17	152	70.17	152
15.30	16	133	83	63	48	70.17	153	70.17	153
15.50	16	133	83	63	48	70.17	155	70.17	155
15.70	16	133	83	63	48	70.17	157	70.17	157
15.80	16	133	83	63	48	70.17	158	70.17	158
16.00	16	133	83	63	48	70.17	160	70.17	160
16.50	18	143	93	71	48	112.89	165	112.89	165
16.80	18	143	93	71	48	112.89	168	112.89	168
17.00	18	143	93	71	48	112.89	170	112.89	170
17.50	18	143	93	71	48	112.89	175	112.89	175
17.80	18	143	93	71	48	112.89	178	112.89	178
18.00	18	143	93	71	48	112.89	180	112.89	180
18.50	20	153	101	77	50	122.02	185	122.02	185
18.80	20	153	101	77	50	122.02	188	122.02	188
19.00	20	153	101	77	50	122.02	190	122.02	190
19.50	20	153	101	77	50	122.02	195	122.02	195
19.80	20	153	101	77	50	122.02	198	122.02	198
20.00	20	153	101	77	50	122.02	200	122.02	200

P	●	●
M		
K	●	●
N		
S		
H		
O		

→ v_c Page 131

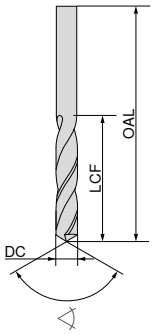
Twist drill similar to DIN 338

▲ Rake angle 30°
▲ Shank Ø h7

≤ 5xD

NOF = 2

N



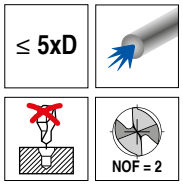
118°
Solid carbide

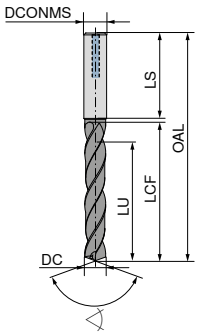
DC h7 mm	OAL mm	LCF mm	10 710 ... £ T3	
0.5	22	6	5.97	005
0.6	24	7	5.97	006
0.7	28	9	5.97	007
0.8	30	10	5.97	008
0.9	32	11	5.97	009
1.0	34	12	5.97	010
1.1	36	14	6.89	011
1.2	38	16	6.89	012
1.3	38	16	6.89	013
1.4	40	18	6.89	014
1.5	40	18	6.89	015
1.6	43	20	6.89	016
1.7	43	20	7.62	017
1.8	46	22	8.09	018
1.9	46	22	8.09	019
2.0	49	24	9.89	020
2.1	49	24	10.16	021
2.2	53	27	10.16	022
2.3	53	27	10.16	023
2.4	57	30	10.16	024
2.5	57	30	11.82	025
2.6	57	30	11.82	026
2.7	61	33	12.99	027
2.8	61	33	13.77	028
2.9	61	33	13.77	029
3.0	61	33	13.73	030
3.1	65	36	13.73	031
3.2	65	36	13.73	032
3.3	65	36	15.25	033
3.4	70	39	15.25	034
3.5	70	39	16.79	035
3.6	70	39	16.79	036
3.7	70	39	16.79	037
3.8	75	43	16.79	038
3.9	75	43	16.79	039
4.0	75	43	20.00	040
4.1	75	43	19.04	041
4.2	75	43	20.63	042
4.3	80	47	21.67	043
4.4	80	47	21.67	044
4.5	80	47	23.22	045
4.6	80	47	23.22	046
4.7	80	47	23.22	047
4.8	86	52	23.65	048
4.9	86	52	23.65	049
5.0	86	52	27.63	050
5.1	86	52	27.63	051
5.2	86	52	27.63	052
5.3	86	52	28.93	053
5.4	93	57	34.03	054
5.5	93	57	34.03	055
5.6	93	57	34.03	056
5.7	93	57	34.03	057
5.8	93	57	34.03	058
5.9	93	57	34.03	059
6.0	93	57	37.09	060
6.1	101	63	38.84	061
6.2	101	63	38.84	062
6.3	101	63	38.84	063
6.4	101	63	38.84	064
6.5	101	63	44.40	065
6.6	109	69	44.40	066
6.8	109	69	50.74	068
7.0	109	69	50.74	070
7.5	109	69	54.92	075
7.8	117	75	60.56	078
8.0	117	75	60.56	080
8.5	117	75	68.09	085
8.8	125	81	82.53	088
9.0	125	81	82.53	090
9.5	125	81	89.69	095
9.8	133	87	99.03	098
10.0	133	87	99.03	100
10.2	133	87	104.00	102
10.5	133	87	108.06	105
11.0	142	94	125.99	110
11.5	142	94	139.92	115
12.0	151	101	163.20	120
13.0	151	101	177.38	130
14.0	160	108	190.14	140
16.0	178	120	258.23	160

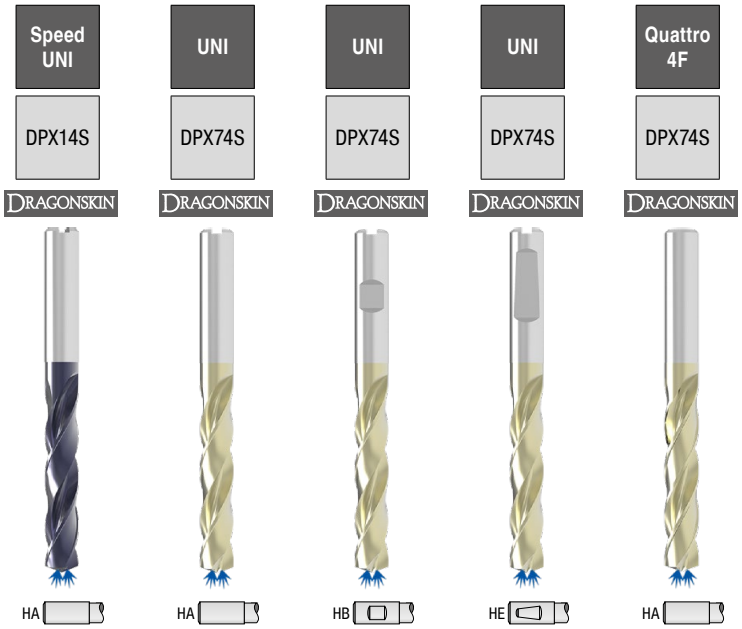
P	○
M	
K	●
N	●
S	○
H	
O	

→ v_c Page 129

WTX – High Performance Drill, DIN 6537







						145° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						10 771 ...		11 786 ...		11 787 ...		11 785 ...		10 735 ...	
DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T4	
3.00	6	66	28	23	36	115.93	03000	59.44	03000	59.44	03000	56.08	03000	116.09	03000
3.10	6	66	28	23	36	115.93	03100	59.44	03100	59.44	03100	56.08	03100	116.09	03100
3.15	6	66	28	23	36			59.44	03150	59.44	03150	56.08	03150		
3.20	6	66	28	23	36	115.93	03200	59.44	03200	59.44	03200	56.08	03200	116.09	03200
3.22	6	66	28	23	36			59.44	03220	59.44	03220	56.08	03220		
3.25	6	66	28	23	36			59.44	03250	59.44	03250	56.08	03250		
3.30	6	66	28	23	36	115.93	03300	59.44	03300	59.44	03300	56.08	03300	116.09	03300
3.40	6	66	28	23	36	115.93	03400	59.44	03400	59.44	03400	56.08	03400	116.09	03400
3.50	6	66	28	23	36	115.93	03500	59.44	03500	59.44	03500	56.08	03500	116.09	03500
3.60	6	66	28	23	36	115.93	03600	59.44	03600	59.44	03600	56.08	03600	116.09	03600
3.70	6	66	28	23	36	115.93	03700	59.44	03700	59.44	03700	56.08	03700	116.09	03700
3.80	6	74	36	29	36	115.93	03800	59.44	03800	59.44	03800	56.08	03800	116.09	03800
3.85	6	74	36	29	36			59.44	03850	59.44	03850	56.08	03850		
3.90	6	74	36	29	36	115.93	03900	59.44	03900	59.44	03900	56.08	03900	116.09	03900
4.00	6	74	36	29	36	115.93	04000	59.44	04000	59.44	04000	56.08	04000	116.09	04000
4.10	6	74	36	29	36	115.93	04100	59.44	04100	59.44	04100	56.08	04100	116.09	04100
4.20	6	74	36	29	36	115.93	04200	59.44	04200	59.44	04200	56.08	04200	116.09	04200
4.25	6	74	36	29	36			59.44	04250	59.44	04250	56.08	04250		
4.30	6	74	36	29	36	115.93	04300	59.44	04300	59.44	04300	56.08	04300	116.09	04300
4.35	6	74	36	29	36			59.44	04350	59.44	04350	56.08	04350		
4.40	6	74	36	29	36	115.93	04400	59.44	04400	59.44	04400	56.08	04400	116.09	04400
4.45	6	74	36	29	36			59.44	04450	59.44	04450	56.08	04450		
4.50	6	74	36	29	36	115.93	04500	59.44	04500	59.44	04500	56.08	04500	116.09	04500
4.60	6	74	36	29	36	115.93	04600	59.44	04600	59.44	04600	56.08	04600	116.09	04600
4.65	6	74	36	29	36	115.93	04650	59.44	04650	59.44	04650	56.08	04650		
4.70	6	74	36	29	36	115.93	04700	59.44	04700	59.44	04700	56.08	04700	116.09	04700
4.80	6	82	44	35	36	115.93	04800	59.44	04800	59.44	04800	56.08	04800	116.09	04800
4.90	6	82	44	35	36	115.93	04900	59.44	04900	59.44	04900	56.08	04900	116.09	04900
4.95	6	82	44	35	36			59.44	04950	59.44	04950	56.08	04950		
5.00	6	82	44	35	36	115.93	05000	59.44	05000	59.44	05000	56.08	05000	116.09	05000
5.05	6	82	44	35	36			59.44	05050	59.44	05050	56.08	05050		
5.10	6	82	44	35	36	115.93	05100	59.44	05100	59.44	05100	56.08	05100	116.09	05100
5.20	6	82	44	35	36	115.93	05200	59.44	05200	59.44	05200	56.08	05200	116.09	05200
5.30	6	82	44	35	36	115.93	05300	59.44	05300	59.44	05300	56.08	05300	116.09	05300
5.40	6	82	44	35	36	115.93	05400	59.44	05400	59.44	05400	56.08	05400	116.09	05400

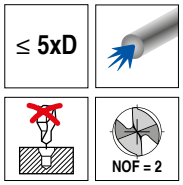
P	●	●	●	●	●
M	●				
K	●	●	●	●	●
N					
S					
H		○	○	○	○
O					

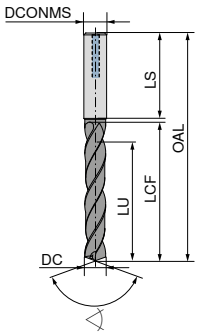
→ v_c Page 108–118

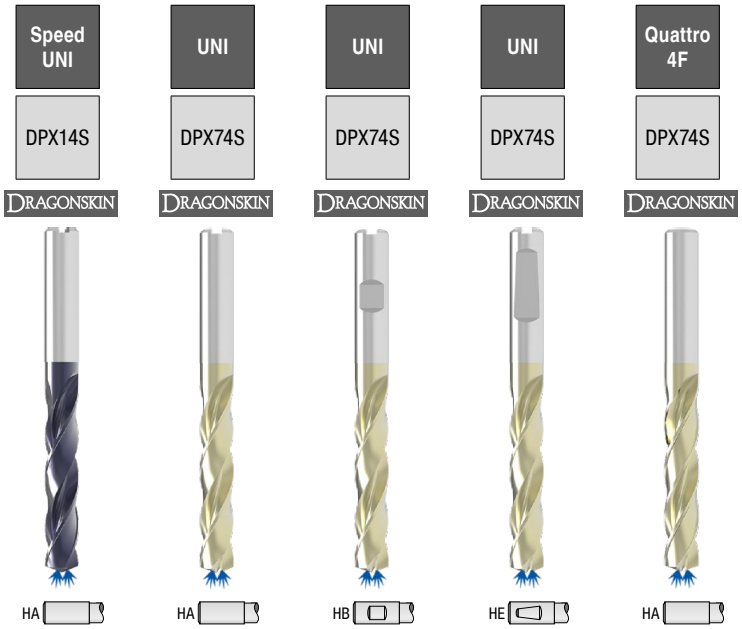
Ø DC$_{m7}$ for Type UNI and Quattro 4F/ **Ø DC$_{h7}$** for Type Speed UNI

Continued on next page

WTX – High Performance Drill, DIN 6537







						145° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						10 771 ...		11 786 ...		11 787 ...		11 785 ...		10 735 ...	
DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T4	
5.50	6	82	44	35	36	115.93	05500	59.44	05500	59.44	05500	56.08	05500	116.09	05500
5.55	6	82	44	35	36	115.93	05550	69.59	05550	69.59	05550	56.08	05550		
5.60	6	82	44	35	36	115.93	05600	59.44	05600	59.44	05600	56.08	05600	116.09	05600
5.70	6	82	44	35	36	115.93	05700	59.44	05700	59.44	05700	56.08	05700	116.09	05700
5.75	6	82	44	35	36			59.44	05750	59.44	05750	56.08	05750		
5.80	6	82	44	35	36	115.93	05800	59.44	05800	59.44	05800	56.08	05800	116.09	05800
5.90	6	82	44	35	36	115.93	05900	59.44	05900	59.44	05900	56.08	05900	116.09	05900
5.95	6	82	44	35	36			59.44	05950	59.44	05950	56.08	05950		
6.00	6	82	44	35	36	115.93	06000	59.44	06000	59.44	06000	56.08	06000	116.09	06000
6.10	8	91	53	43	36	129.65	06100	67.01	06100	67.01	06100	64.02	06100	135.75	06100
6.20	8	91	53	43	36	129.65	06200	67.01	06200	67.01	06200	64.02	06200	135.75	06200
6.30	8	91	53	43	36	129.65	06300	67.01	06300	67.01	06300	64.02	06300	135.75	06300
6.40	8	91	53	43	36	129.65	06400	67.01	06400	67.01	06400	64.02	06400	135.75	06400
6.50	8	91	53	43	36	129.65	06500	67.01	06500	67.01	06500	64.02	06500	135.75	06500
6.60	8	91	53	43	36	129.65	06600	67.01	06600	67.01	06600	64.02	06600	135.75	06600
6.70	8	91	53	43	36	129.65	06700	67.01	06700	67.01	06700	64.02	06700	135.75	06700
6.80	8	91	53	43	36	129.65	06800	67.01	06800	67.01	06800	64.02	06800	135.75	06800
6.90	8	91	53	43	36	129.65	06900	67.01	06900	67.01	06900	64.02	06900	135.75	06900
7.00	8	91	53	43	36	129.65	07000	67.01	07000	67.01	07000	64.02	07000	135.75	07000
7.10	8	91	53	43	36	129.65	07100	67.01	07100	67.01	07100	64.02	07100	135.75	07100
7.20	8	91	53	43	36	129.65	07200	67.01	07200	67.01	07200	64.02	07200	135.75	07200
7.30	8	91	53	43	36	129.65	07300	67.01	07300	67.01	07300	64.02	07300	135.75	07300
7.40	8	91	53	43	36	129.65	07400	67.01	07400	67.01	07400	64.02	07400	135.75	07400
7.45	8	91	53	43	36			67.01	07450	67.01	07450	67.01	07450		
7.50	8	91	53	43	36	129.65	07500	67.01	07500	67.01	07500	64.02	07500	135.75	07500
7.60	8	91	53	43	36	129.65	07600	67.01	07600	67.01	07600	64.02	07600	135.75	07600
7.70	8	91	53	43	36	129.65	07700	67.01	07700	67.01	07700	64.02	07700	135.75	07700
7.80	8	91	53	43	36	129.65	07800	67.01	07800	67.01	07800	64.02	07800	135.75	07800
7.90	8	91	53	43	36	129.65	07900	67.01	07900	67.01	07900	64.02	07900	135.75	07900
8.00	8	91	53	43	36	129.65	08000	67.01	08000	67.01	08000	64.02	08000	135.75	08000
8.10	10	103	61	49	40	186.10	08100	77.67	08100	77.67	08100	72.24	08100	169.02	08100
8.20	10	103	61	49	40	186.10	08200	77.67	08200	77.67	08200	72.24	08200	169.02	08200
8.30	10	103	61	49	40	186.10	08300	77.67	08300	77.67	08300	72.24	08300	169.02	08300
8.40	10	103	61	49	40	186.10	08400	77.67	08400	77.67	08400	72.24	08400	169.02	08400
8.50	10	103	61	49	40	186.10	08500	77.67	08500	77.67	08500	72.24	08500	169.02	08500

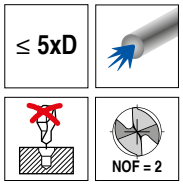
P	●	●	●	●	●
M	●				
K	●	●	●	●	●
N					
S					
H		○	○	○	○
O					

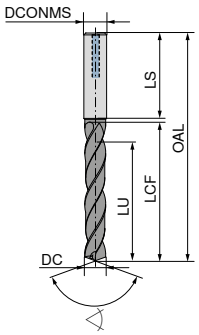
→ v_c Page 108–118

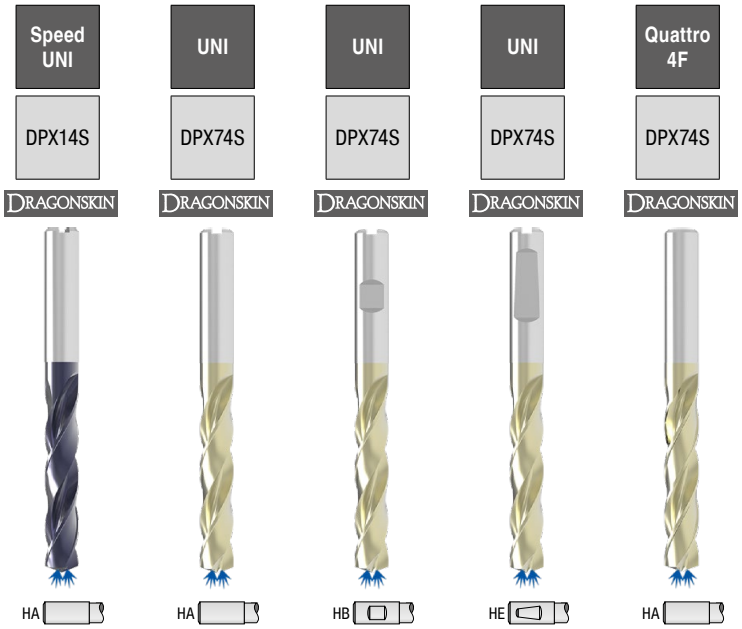
Ø DC_{m7} for Type UNI and Quattro 4F/ **Ø DC_{h7}** for Type Speed UNI

Continued on next page

WTX – High Performance Drill, DIN 6537







						145° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						10 771 ...		11 786 ...		11 787 ...		11 785 ...		10 735 ...	
DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T4	
8.60	10	103	61	49	40	186.10	08600	77.67	08600	77.67	08600	72.24	08600	169.02	08600
8.70	10	103	61	49	40	186.10	08700	77.67	08700	77.67	08700	72.24	08700	169.02	08700
8.80	10	103	61	49	40	186.10	08800	77.67	08800	77.67	08800	72.24	08800	169.02	08800
8.90	10	103	61	49	40	186.10	08900	77.67	08900	77.67	08900	72.24	08900	169.02	08900
9.00	10	103	61	49	40	186.10	09000	77.67	09000	77.67	09000	72.24	09000	169.02	09000
9.10	10	103	61	49	40	186.10	09100	77.67	09100	77.67	09100	72.24	09100	169.02	09100
9.20	10	103	61	49	40	186.10	09200	77.67	09200	77.67	09200	72.24	09200	169.02	09200
9.30	10	103	61	49	40	186.10	09300	77.67	09300	77.67	09300	72.24	09300	169.02	09300
9.35	10	103	61	49	40			77.67	09350	77.67	09350	72.24	09350		
9.40	10	103	61	49	40	186.10	09400	77.67	09400	77.67	09400	72.24	09400	169.02	09400
9.45	10	103	61	49	40			77.67	09450	77.67	09450	72.24	09450		
9.50	10	103	61	49	40	186.10	09500	77.67	09500	77.67	09500	72.24	09500	169.02	09500
9.60	10	103	61	49	40	186.10	09600	77.67	09600	77.67	09600	72.24	09600	169.02	09600
9.70	10	103	61	49	40	186.10	09700	77.67	09700	77.67	09700	72.24	09700	169.02	09700
9.80	10	103	61	49	40	186.10	09800	77.67	09800	77.67	09800	72.24	09800	169.02	09800
9.90	10	103	61	49	40	186.10	09900	77.67	09900	77.67	09900	72.24	09900	169.02	09900
10.00	10	103	61	49	40	186.10	10000	77.67	10000	77.67	10000	72.24	10000	169.02	10000
10.10	12	118	71	56	45	262.34	10100	110.00	10100	110.00	10100	104.02	10100	239.77	10100
10.20	12	118	71	56	45	262.34	10200	110.00	10200	110.00	10200	104.02	10200	239.77	10200
10.30	12	118	71	56	45	262.34	10300	110.00	10300	110.00	10300	104.02	10300	239.77	10300
10.40	12	118	71	56	45	262.34	10400	110.00	10400	110.00	10400	104.02	10400	239.77	10400
10.50	12	118	71	56	45	262.34	10500	110.00	10500	110.00	10500	104.02	10500	239.77	10500
10.55	12	118	71	56	45			110.00	10550	110.00	10550	104.02	10550		
10.60	12	118	71	56	45	262.34	10600	110.00	10600	110.00	10600	104.02	10600	239.77	10600
10.70	12	118	71	56	45	262.34	10700	110.00	10700	110.00	10700	104.02	10700	239.77	10700
10.75	12	118	71	56	45			110.00	10750	110.00	10750	104.02	10750		
10.80	12	118	71	56	45	262.34	10800	110.00	10800	110.00	10800	104.02	10800	239.77	10800
10.90	12	118	71	56	45	262.34	10900	110.00	10900	110.00	10900	104.02	10900	239.77	10900
11.00	12	118	71	56	45	262.34	11000	110.00	11000	110.00	11000	104.02	11000	239.77	11000
11.10	12	118	71	56	45	262.34	11100	110.00	11100	110.00	11100	104.02	11100	239.77	11100
11.20	12	118	71	56	45	262.34	11200	110.00	11200	110.00	11200	104.02	11200	239.77	11200
11.25	12	118	71	56	45			110.00	11250	110.00	11250	104.02	11250		
11.30	12	118	71	56	45	262.34	11300	110.00	11300	110.00	11300	104.02	11300	239.77	11300
11.35	12	118	71	56	45			110.00	11350	110.00	11350	104.02	11350		
11.40	12	118	71	56	45	262.34	11400	110.00	11400	110.00	11400	104.02	11400	239.77	11400

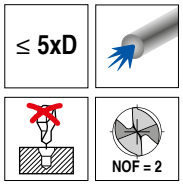
P	●	●	●	●	●
M	●				
K	●	●	●	●	●
N					
S					
H		○	○	○	○
O					

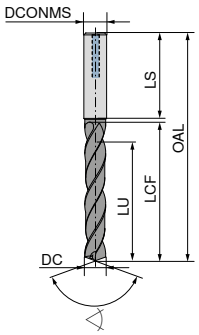
→ v_c Page 108–118

Ø DC_{m7} for Type UNI and Quattro 4F/ **Ø DC_{h7}** for Type Speed UNI

Continued on next page

WTX – High Performance Drill, DIN 6537





	Speed UNI	UNI	UNI	UNI	Quattro 4F
	DPX14S	DPX74S	DPX74S	DPX74S	DPX74S
	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
	HA	HA	HB	HE	HA
	∢ 145°	∢ 140°	∢ 140°	∢ 140°	∢ 140°
	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
	10 771 ...	11 786 ...	11 787 ...	11 785 ...	10 735 ...

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T4	
11.45	12	118	71	56	45			110.00	11450	110.00	11450	104.02	11450		
11.50	12	118	71	56	45	262.34	11500	110.00	11500	110.00	11500	104.02	11500	239.77	11500
11.60	12	118	71	56	45	262.34	11600	110.00	11600	110.00	11600	104.02	11600	239.77	11600
11.70	12	118	71	56	45	262.34	11700	110.00	11700	110.00	11700	104.02	11700	239.77	11700
11.80	12	118	71	56	45	262.34	11800	110.00	11800	110.00	11800	104.02	11800	239.77	11800
11.90	12	118	71	56	45	262.34	11900	110.00	11900	110.00	11900	104.02	11900	239.77	11900
12.00	12	118	71	56	45	262.34	12000	110.00	12000	110.00	12000	104.02	12000	239.77	12000
12.15	14	124	77	60	45			148.29	12150	148.29	12150	137.75	12150		
12.20	14	124	77	60	45	356.91	12200								
12.25	14	124	77	60	45			148.29	12250	148.29	12250	137.75	12250		
12.50	14	124	77	60	45	356.91	12500	148.29	12500	148.29	12500	137.75	12500	324.27	12500
12.55	14	124	77	60	45			148.29	12550	148.29	12550	137.75	12550		
12.70	14	124	77	60	45			148.29	12700	148.29	12700	137.75	12700		
12.80	14	124	77	60	45	356.91	12800	148.29	12800	148.29	12800	137.75	12800	324.27	12800
12.90	14	124	77	60	45			137.75	12900	137.75	12900	137.75	12900		
13.00	14	124	77	60	45	356.91	13000	148.29	13000	148.29	13000	137.75	13000	324.27	13000
13.10	14	124	77	60	45			148.29	13100	148.29	13100	137.75	13100		
13.30	14	124	77	60	45			137.75	13300	137.75	13300	137.75	13300		
13.35	14	124	77	60	45			137.75	13350	137.75	13350	137.75	13350		
13.50	14	124	77	60	45	356.91	13500	148.29	13500	148.29	13500	137.75	13500	324.27	13500
13.70	14	124	77	60	45			148.29	13700	148.29	13700	137.75	13700		
13.80	14	124	77	60	45	356.91	13800	148.29	13800	148.29	13800	137.75	13800	324.27	13800
14.00	14	124	77	60	45	356.91	14000	148.29	14000	148.29	14000	137.75	14000	324.27	14000
14.20	16	133	83	63	48	445.39	14200	172.04	14200	172.04	14200	172.04	14200		
14.50	16	133	83	63	48	445.39	14500	185.36	14500	185.36	14500	172.04	14500	404.82	14500
14.80	16	133	83	63	48	445.39	14800	185.36	14800	185.36	14800	172.04	14800	404.82	14800
15.00	16	133	83	63	48	445.39	15000	185.36	15000	185.36	15000	172.04	15000	404.82	15000
15.10	16	133	83	63	48			185.36	15100	185.36	15100	172.04	15100		
15.20	16	133	83	63	48	445.39	15200								
15.25	16	133	83	63	48			185.36	15250	185.36	15250	172.04	15250		
15.30	16	133	83	63	48			180.23	15300	180.23	15300	172.04	15300		
15.35	16	133	83	63	48			180.23	15350	180.23	15350	172.04	15350		
15.50	16	133	83	63	48	445.39	15500	185.36	15500	185.36	15500	172.04	15500	404.82	15500
15.60	16	133	83	63	48			185.36	15600	185.36	15600	172.04	15600		
15.80	16	133	83	63	48	445.39	15800	185.36	15800	185.36	15800	172.04	15800	404.82	15800

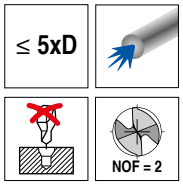
P	●	●	●	●	●
M	●				
K	●	●	●	●	●
N					
S					
H		○	○	○	○
O					

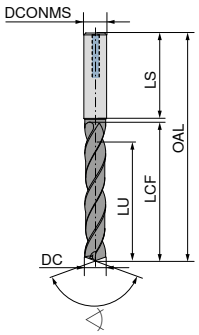
→ v_c Page 108–118

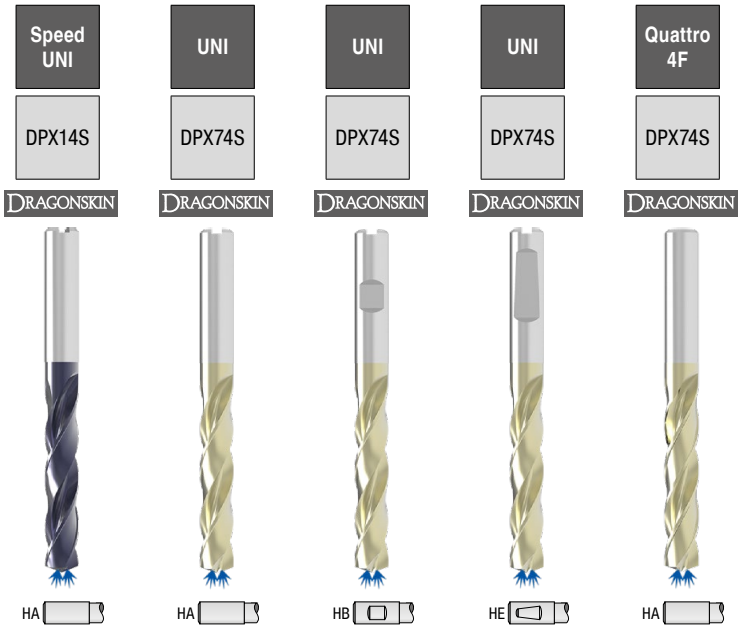
Ø DC_{m7} for Type UNI and Quattro 4F/ **Ø DC_{h7}** for Type Speed UNI

Continued on next page

WTX – High Performance Drill, DIN 6537







						145° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						10 771 ...		11 786 ...		11 787 ...		11 785 ...		10 735 ...	
DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T4	
16.00	16	133	83	63	48	445.39	16000	185.36	16000	185.36	16000	172.04	16000	404.82	16000
16.05	18	143	93	71	48			288.28	16050	288.28	16050	267.54	16050		
16.50	18	143	93	71	48	585.71	16500	288.28	16500	288.28	16500	267.54	16500	532.49	16500
16.80	18	143	93	71	48	585.71	16800	288.28	16800	288.28	16800	267.54	16800	532.49	16800
16.90	18	143	93	71	48			288.28	16900	288.28	16900	267.54	16900		
17.00	18	143	93	71	48	585.71	17000	288.28	17000	288.28	17000	267.54	17000	532.49	17000
17.50	18	143	93	71	48	585.71	17500	288.28	17500	288.28	17500	267.54	17500	532.49	17500
17.60	18	143	93	71	48			288.28	17600	288.28	17600	267.54	17600		
17.80	18	143	93	71	48	585.71	17800	288.28	17800	288.28	17800	267.54	17800	532.49	17800
18.00	18	143	93	71	48	585.71	18000	288.28	18000	288.28	18000	267.54	18000	532.49	18000
18.50	20	153	101	77	50	758.06	18500	333.78	18500	333.78	18500	296.22	18500	691.55	18500
18.80	20	153	101	77	50	758.06	18800	333.78	18800	333.78	18800	296.22	18800	691.55	18800
18.90	20	153	101	77	50			333.78	18900	333.78	18900	296.22	18900		
19.00	20	153	101	77	50	758.06	19000	333.78	19000	333.78	19000	296.22	19000	691.55	19000
19.35	20	153	101	77	50			333.78	19350	333.78	19350	296.22	19350		
19.50	20	153	101	77	50	758.06	19500	333.78	19500	333.78	19500	296.22	19500	691.55	19500
19.60	20	153	101	77	50			333.78	19600	333.78	19600	296.22	19600		
19.80	20	153	101	77	50	758.06	19800	333.78	19800	333.78	19800	296.22	19800	691.55	19800
20.00	20	153	101	77	50	758.06	20000	333.78	20000	333.78	20000	296.22	20000	691.55	20000
20.50	25	200	135	110	56			857.88	20500	857.88	20500	573.33	20500		
21.00	25	200	135	110	56			857.88	21000	857.88	21000	573.33	21000		
21.50	25	200	135	110	56			857.88	21500	857.88	21500	573.33	21500		
22.00	25	200	135	110	56			857.88	22000	857.88	22000	573.33	22000		
22.50	25	200	140	120	56			857.88	22500	857.88	22500	573.33	22500		
23.00	25	200	140	120	56			857.88	23000	857.88	23000	573.33	23000		
23.50	25	200	140	120	56			857.88	23500	857.88	23500	573.33	23500		
24.00	25	200	140	120	56			857.88	24000	857.88	24000	573.33	24000		
24.50	25	200	140	120	56			857.88	24500	857.88	24500	573.33	24500		
25.00	25	200	140	120	56			857.88	25000	857.88	25000	573.33	25000		
P						●		●		●		●		●	
M						●									
K						●		●		●		●		●	
N															
S															
H								○		○		○		○	
O															

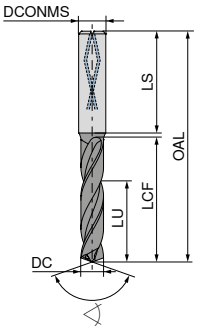
→ v_c Page 108–118

Ø DC$_{m7}$ for Type UNI and Quattro 4F/ **Ø DC$_{h7}$** for Type Speed UNI

WTX – High-performance drill, DIN 6537

≤ 5xD

NOF = 2



Type GG = Straight Fluted

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

	HA	HA	HE	HA	HA	HA
	135°	140°	140°	130°	135°	140°
	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
	10 773 ...	10 745 ...	10 746 ...	10 749 ...	10 791 ...	10 787 ...

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4		£ T4		£ T4		£ T4	
2.50	4	57	21	17	28									85.61	02500		
2.60	4	57	21	17	28									85.61	02600		
2.70	4	57	21	17	28									85.61	02700		
2.80	4	57	21	17	28									85.61	02800		
2.90	4	57	21	17	28									85.61	02900		
3.00	6	66	28	23	36	117.38	030	102.99	030	102.99	030	78.38	030	85.61	03000	76.06	030
3.10	6	66	28	23	36	117.38	031	102.99	031	102.99	031	78.38	031	85.61	03100	76.06	031
3.15	6	66	28	23	36			102.99	831								
3.20	6	66	28	23	36	117.38	032	102.99	032	102.99	032	78.38	032	85.61	03200	76.06	032
3.22	6	66	28	23	36			102.99	832								
3.25	6	66	28	23	36			102.99	890								
3.30	6	66	28	23	36	117.38	033	102.99	033	102.99	033	78.38	033	85.61	03300	76.06	033
3.40	6	66	28	23	36	117.38	034	102.99	034	102.99	034	78.38	034	85.61	03400	76.06	034
3.50	6	66	28	23	36	117.38	035	102.99	035	102.99	035	78.38	035	85.61	03500	76.06	035
3.60	6	66	28	23	36	117.38	036	102.99	036	102.99	036	78.38	036	85.61	03600	76.06	036
3.70	6	66	28	23	36	117.38	037	102.99	037	102.99	037	78.38	037	85.61	03700	76.06	037
3.80	6	74	36	29	36	117.38	038	102.99	038	102.99	038	78.38	038	82.60	03800	76.06	038
3.85	6	74	36	29	36			102.99	838								
3.90	6	74	36	29	36	117.38	039	102.99	039	102.99	039	78.38	039	82.60	03900	76.06	039
3.97	6	74	36	29	36											76.06	900
4.00	6	74	36	29	36	117.38	040	102.99	040	102.99	040	78.38	040	82.60	04000	76.06	040
4.10	6	74	36	29	36	117.38	041	102.99	041	102.99	041	78.38	041	82.60	04100	76.06	041
4.20	6	74	36	29	36	117.38	042	102.99	042	102.99	042	78.38	042	82.60	04200	76.06	042
4.23	6	74	36	29	36											76.06	901
4.30	6	74	36	29	36	117.38	043	102.99	043	102.99	043	78.38	043	82.60	04300	76.06	043
4.35	6	74	36	29	36			102.99	843								
4.40	6	74	36	29	36	117.38	044	102.99	044	102.99	044	78.38	044	82.60	04400	76.06	044
4.45	6	74	36	29	36			102.99	844								
4.50	6	74	36	29	36	117.38	045	102.99	045	102.99	045	78.38	045	82.60	04500	76.06	045
4.60	6	74	36	29	36	117.38	046	102.99	046	102.99	046	78.38	046	82.60	04600	76.06	046
4.65	6	74	36	29	36	117.38	900	102.99	900								
4.70	6	74	36	29	36	117.38	047	102.99	047	102.99	047	78.38	047	82.60	04700	76.06	047
4.80	6	82	44	35	36	117.38	048	102.99	048	102.99	048	78.38	048	82.98	04800	76.06	048
4.90	6	82	44	35	36	117.38	049	102.99	049	102.99	049	78.38	049	82.98	04900	76.06	049
5.00	6	82	44	35	36	117.38	050	102.99	050	102.99	050	78.38	050	82.98	05000	76.06	050
5.10	6	82	44	35	36	117.38	051	102.99	051	102.99	051	78.38	051	82.98	05100	76.06	051
5.20	6	82	44	35	36	117.38	052	102.99	052	102.99	052	78.38	052	82.98	05200	76.06	052
5.30	6	82	44	35	36	117.38	053	102.99	053	102.99	053	78.38	053	82.98	05300	76.06	053

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

→ v_c Page 114–123

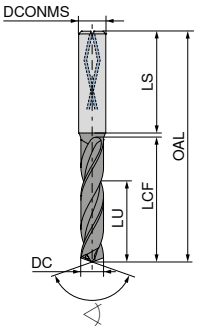
Ø DC_{m7} for Type VA, Ti and GG / Ø DC_{h7} for Type Speed VA and AL

Continued on next page

WTX – High-performance drill, DIN 6537

≤ 5xD

NOF = 2



Type GG = Straight Fluted

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

HA	HA	HE	HA	HA	HA
135°	140°	140°	130°	135°	140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
10 773 ...	**10 745 ...**	**10 746 ...**	**10 749 ...**	**10 791 ...**	**10 787 ...**

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4		£ T4		£ T4		£ T4	
5.40	6	82	44	35	36	117.38	054	102.99	054	102.99	054	78.38	054	82.98	05400	76.06	054
5.50	6	82	44	35	36	117.38	055	102.99	055	102.99	055	78.38	055	82.98	05500	76.06	055
5.55	6	82	44	35	36	117.38	902										
5.56	6	82	44	35	36											76.06	902
5.60	6	82	44	35	36	117.38	056	102.99	056	102.99	056	78.38	056	82.98	05600	76.06	056
5.70	6	82	44	35	36	117.38	057	102.99	057	102.99	057	78.38	057	82.98	05700	76.06	057
5.75	6	82	44	35	36			102.99	916								
5.80	6	82	44	35	36	117.38	058	102.99	058	102.99	058	78.38	058	82.98	05800	76.06	058
5.90	6	82	44	35	36	117.38	059	102.99	059	102.99	059	78.38	059	82.98	05900	76.06	059
5.95	6	82	44	35	36			102.99	959								
6.00	6	82	44	35	36	117.38	060	102.99	060	102.99	060	78.38	060	82.98	06000	76.06	060
6.10	8	91	53	43	36	131.41	061	121.75	061	121.75	061	86.54	061	92.61	06100	84.87	061
6.20	8	91	53	43	36	131.41	062	121.75	062	121.75	062	86.54	062	92.61	06200	84.87	062
6.30	8	91	53	43	36	131.41	063	121.75	063	121.75	063	86.54	063	92.61	06300	84.87	063
6.35	8	91	53	43	36											84.87	903
6.40	8	91	53	43	36	131.41	064	121.75	064	121.75	064	86.54	064	92.61	06400	84.87	064
6.50	8	91	53	43	36	131.41	065	121.75	065	121.75	065	86.54	065	92.61	06500	84.87	065
6.60	8	91	53	43	36	131.41	066	121.75	066	121.75	066	86.54	066	92.61	06600	84.87	066
6.70	8	91	53	43	36	131.41	067	121.75	067	121.75	067	86.54	067	92.61	06700	84.87	067
6.80	8	91	53	43	36	131.41	068	121.75	068	121.75	068	86.54	068	92.61	06800	84.87	068
6.90	8	91	53	43	36	131.41	069	121.75	069	121.75	069	86.54	069	92.61	06900	84.87	069
7.00	8	91	53	43	36	131.41	070	121.75	070	121.75	070	86.54	070	92.61	07000	84.87	070
7.10	8	91	53	43	36	131.41	071	121.75	071	121.75	071	86.54	071	92.61	07100	84.87	071
7.20	8	91	53	43	36	131.41	072	121.75	072	121.75	072	86.54	072	92.61	07200	84.87	072
7.30	8	91	53	43	36	131.41	073	121.75	073	121.75	073	86.54	073	92.61	07300	84.87	073
7.40	8	91	53	43	36	131.41	074	121.75	074	121.75	074	86.54	074	92.61	07400	84.87	074
7.45	8	91	53	43	36			121.75	924								
7.50	8	91	53	43	36	131.41	075	121.75	075	121.75	075	86.54	075	92.61	07500	84.87	075
7.60	8	91	53	43	36	131.41	076	121.75	076	121.75	076	86.54	076	92.61	07600	84.87	076
7.70	8	91	53	43	36	131.41	077	121.75	077	121.75	077	86.54	077	92.61	07700	84.87	077
7.80	8	91	53	43	36	131.41	078	121.75	078	121.75	078	86.54	078	92.61	07800	84.87	078
7.90	8	91	53	43	36	131.41	079	121.75	079	121.75	079	86.54	079	92.61	07900	84.87	079
7.94	8	91	53	43	36											84.87	904
8.00	8	91	53	43	36	131.41	080	121.75	080	121.75	080	86.54	080	92.61	08000	84.87	080
8.10	10	103	61	49	40	190.16	081	153.32	081	153.32	081	125.12	081	108.45	08100	99.38	081
8.20	10	103	61	49	40	190.16	082	153.32	082	153.32	082	125.12	082	108.45	08200	99.38	082
8.30	10	103	61	49	40	190.16	083	153.32	083	153.32	083	125.12	083	108.45	08300	99.38	083
8.40	10	103	61	49	40	190.16	084	153.32	084	153.32	084	125.12	084	108.45	08400	99.38	084

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

→ v_c Page 114–123

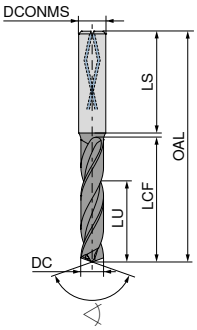
Ø DC_{m7} for Type VA, Ti and GG / **Ø DC_{h7}** for Type Speed VA and AL

Continued on next page

WTX – High-performance drill, DIN 6537

≤ 5xD

NOF = 2



Type GG = Straight Fluted

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

	HA	HA	HE	HA	HA	HA
	135°	140°	140°	130°	135°	140°
	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
	10 773 ...	10 745 ...	10 746 ...	10 749 ...	10 791 ...	10 787 ...

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4		£ T4		£ T4		£ T4	
8.50	10	103	61	49	40	190.16	085	153.32	085	153.32	085	125.12	085	108.45	08500	99.38	085
8.60	10	103	61	49	40	190.16	086	153.32	086	153.32	086	125.12	086	108.45	08600	99.38	086
8.70	10	103	61	49	40	190.16	087	153.32	087	153.32	087	125.12	087	108.45	08700	99.38	087
8.80	10	103	61	49	40	190.16	088	153.32	088	153.32	088	125.12	088	108.45	08800	99.38	088
8.90	10	103	61	49	40	190.16	089	153.32	089	153.32	089	125.12	089	108.45	08900	99.38	089
9.00	10	103	61	49	40	190.16	090	153.32	090	153.32	090	125.12	090	108.45	09000	99.38	090
9.10	10	103	61	49	40	190.16	091	153.32	091	153.32	091	125.12	091	108.45	09100	99.38	091
9.20	10	103	61	49	40	190.16	092	153.32	092	153.32	092	125.12	092	108.45	09200	99.38	092
9.30	10	103	61	49	40	190.16	093	153.32	093	153.32	093	125.12	093	108.45	09300	99.38	093
9.35	10	103	61	49	40			153.32	930								
9.40	10	103	61	49	40	190.16	094	153.32	094	153.32	094	125.12	094	108.45	09400	99.38	094
9.45	10	103	61	49	40			153.32	994								
9.50	10	103	61	49	40	190.16	095	153.32	095	153.32	095	125.12	095	108.45	09500	99.38	095
9.53	10	103	61	49	40											99.38	905
9.60	10	103	61	49	40	190.16	096	153.32	096	153.32	096	125.12	096	108.45	09600	99.38	096
9.70	10	103	61	49	40	190.16	097	153.32	097	153.32	097	125.12	097	108.45	09700	99.38	097
9.80	10	103	61	49	40	190.16	098	153.32	098	153.32	098	125.12	098	108.45	09800	99.38	098
9.90	10	103	61	49	40	190.16	099	153.32	099	153.32	099	125.12	099	108.45	09900	99.38	099
10.00	10	103	61	49	40	190.16	100	153.32	100	153.32	100	125.12	100	108.45	10000	99.38	100
10.10	12	118	71	54	45											138.74	101
10.10	12	118	71	56	45	266.55	101	208.22	101	208.22	101	171.68	101	151.32	10100		
10.20	12	118	71	54	45											138.74	102
10.20	12	118	71	56	45	266.55	102	208.22	102	208.22	102	171.68	102	151.32	10200		
10.30	12	118	71	54	45											138.74	103
10.30	12	118	71	56	45	266.55	103	208.22	103	208.22	103	171.68	103	151.32	10300		
10.40	12	118	71	54	45											138.74	104
10.40	12	118	71	56	45	266.55	104	208.22	104	208.22	104	171.68	104	151.32	10400		
10.50	12	118	71	56	45	266.55	105	208.22	105	208.22	105	171.68	105	151.32	10500		
10.50	12	118	71	54	45											138.74	105
10.55	12	118	71	56	45			208.22	932								
10.60	12	118	71	56	45	266.55	106	208.22	106	208.22	106	171.68	106	151.32	10600		
10.60	12	118	71	54	45											138.74	106
10.70	12	118	71	54	45											138.74	107
10.70	12	118	71	56	45	266.55	107	208.22	107	208.22	107	171.68	107	151.32	10700		
10.80	12	118	71	54	45											138.74	108
10.80	12	118	71	56	45	266.55	108	208.22	108	208.22	108	171.68	108	151.32	10800		
10.90	12	118	71	54	45											138.74	109
10.90	12	118	71	56	45	266.55	109	208.22	109	208.22	109	171.68	109				

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

→ v_c Page 114–123

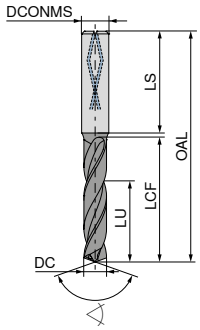
Ø DC_{m7} for Type VA, Ti and GG / Ø DC_{h7} for Type Speed VA and AL

Continued on next page

WTX – High-performance drill, DIN 6537

≤ 5xD

NOF = 2



Type GG = Straight Fluted

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

	HA	HA	HE	HA	HA	HA
	135°	140°	140°	130°	135°	140°
	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
	10 773 ...	10 745 ...	10 746 ...	10 749 ...	10 791 ...	10 787 ...

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4		£ T4		£ T4		£ T4	
11.00	12	118	71	54	45											138.74	110
11.00	12	118	71	56	45	266.55	110	208.22	110	208.22	110	171.68	110	151.32	11000		
11.10	12	118	71	56	45	266.55	111	208.22	111	208.22	111	171.68	111	151.32	11100		
11.10	12	118	71	54	45											138.74	111
11.11	12	118	71	54	45											138.74	906
11.20	12	118	71	56	45	266.55	112	208.22	112	208.22	112	171.68	112	151.32	11200		
11.20	12	118	71	54	45											138.74	112
11.25	12	118	71	56	45			208.22	912								
11.30	12	118	71	56	45	266.55	113	208.22	113	208.22	113	171.68	113	151.32	11300		
11.30	12	118	71	54	45											138.74	113
11.35	12	118	71	56	45			208.22	913								
11.40	12	118	71	54	45											138.74	114
11.40	12	118	71	56	45	266.55	114	208.22	114	208.22	114	171.68	114	151.32	11400		
11.45	12	118	71	56	45			208.22	914								
11.50	12	118	71	56	45	266.55	115	208.22	115	208.22	115	171.68	115	151.32	11500		
11.50	12	118	71	54	45											138.74	115
11.60	12	118	71	54	45											138.74	116
11.60	12	118	71	56	45	266.55	116	208.22	116	208.22	116	171.68	116				
11.70	12	118	71	54	45											138.74	117
11.70	12	118	71	56	45	266.55	117	208.22	117	208.22	117	171.68	117	151.32	11700		
11.80	12	118	71	54	45											138.74	118
11.80	12	118	71	56	45	266.55	118	208.22	118	208.22	118	171.68	118	151.32	11800		
11.90	12	118	71	54	45											138.74	119
11.90	12	118	71	56	45	266.55	119	208.22	119	208.22	119	171.68	119				
12.00	12	118	71	54	45											138.74	120
12.00	12	118	71	56	45	266.55	120	208.22	120	208.22	120	171.68	120	151.32	12000		
12.10	14	124	77	58	45											192.97	121
12.15	14	124	77	60	45			286.93	921								
12.20	14	124	77	58	45											192.97	122
12.20	14	124	77	60	45	361.64	12200							210.04	12200		
12.30	14	124	77	58	45											192.97	123
12.40	14	124	77	58	45											192.97	124
12.50	14	124	77	58	45											192.97	125
12.50	14	124	77	60	45	361.64	125	286.93	125	286.93	125	232.40	125	210.04	12500		
12.55	14	124	77	60	45			286.93	925								
12.60	14	124	77	58	45											192.97	126
12.60	14	124	77	60	45									210.04	12600		
12.70	14	124	77	58	45											192.97	907

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

→ v_c Page 114–123

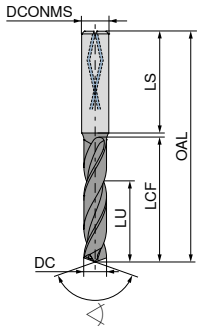
Ø DC_{m7} for Type VA, Ti and GG / Ø DC_{h7} for Type Speed VA and AL

Continued on next page

WTX – High-performance drill, DIN 6537

≤ 5xD

NOF = 2



Type GG = Straight Fluted

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

HA	HA	HE	HA	HA	HA
135°	140°	140°	130°	135°	140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
10 773 ...	**10 745 ...**	**10 746 ...**	**10 749 ...**	**10 791 ...**	**10 787 ...**

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4		£ T4		£ T4		£ T4	
12.80	14	124	77	58	45											192.97	128
12.80	14	124	77	60	45	361.64	128	286.93	128	286.93	128	232.40	128	210.04	12800		
12.90	14	124	77	58	45											192.97	129
13.00	14	124	77	58	45											192.97	130
13.00	14	124	77	60	45	361.64	130	286.93	130	286.93	130	232.40	130	210.04	13000		
13.10	14	124	77	58	45											192.97	131
13.20	14	124	77	58	45											192.97	132
13.30	14	124	77	58	45											192.97	133
13.35	14	124	77	60	45			286.93	933								
13.40	14	124	77	58	45											192.97	134
13.50	14	124	77	60	45	361.64	135	286.93	135	286.93	135	232.40	135	210.04	13500		
13.50	14	124	77	58	45											192.97	135
13.60	14	124	77	58	45											192.97	136
13.70	14	124	77	58	45											192.97	137
13.80	14	124	77	58	45											192.97	138
13.80	14	124	77	60	45	361.64	138	286.93	138	286.93	138	232.40	138	210.04	13800		
13.90	14	124	77	58	45											192.97	139
14.00	14	124	77	60	45	361.64	140	286.93	140	286.93	140	232.40	140	210.04	14000		
14.00	14	124	77	58	45											192.97	140
14.10	16	133	83	61	48											235.83	141
14.20	16	133	83	61	48											235.83	142
14.20	16	133	83	63	48									256.85	14200		
14.30	16	133	83	61	48											235.83	143
14.40	16	133	83	61	48											235.83	144
14.50	16	133	83	61	48											235.83	145
14.50	16	133	83	63	48	452.05	145	361.49	145	361.49	145	287.04	145	256.85	14500		
14.60	16	133	83	61	48											235.83	146
14.70	16	133	83	61	48											235.83	147
14.80	16	133	83	61	48											235.83	148
14.80	16	133	83	63	48	452.05	148	361.49	148	361.49	148	287.04	148	256.85	14800		
14.90	16	133	83	61	48											235.83	149
15.00	16	133	83	61	48											235.83	150
15.00	16	133	83	63	48	452.05	150	361.49	150	361.49	150	287.04	150	256.85	15000		
15.10	16	133	83	61	48											235.83	151
15.20	16	133	83	61	48											235.83	152
15.20	16	133	83	63	48									256.85	15200		
15.30	16	133	83	61	48											235.83	153
15.35	16	133	83	63	48			361.49	953								

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

→ v_c Page 114–123

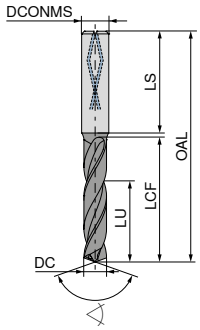
Ø **DC$_{m7}$** for Type VA, Ti and GG / Ø **DC$_{h7}$** for Type Speed VA and AL

Continued on next page

WTX – High-performance drill, DIN 6537

≤ 5xD

NOF = 2



Type GG = Straight Fluted

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

HA	HA	HE	HA	HA	HA
135°	140°	140°	130°	135°	140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
10 773 ...	10 745 ...	10 746 ...	10 749 ...	10 791 ...	10 787 ...

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4		£ T4		£ T4		£ T4	
15.40	16	133	83	61	48											235.83	154
15.50	16	133	83	61	48											235.83	155
15.50	16	133	83	63	48	452.05	155	361.49	155	361.49	155	287.04	155	256.85	15500		
15.60	16	133	83	61	48											235.83	156
15.70	16	133	83	61	48											235.83	157
15.80	16	133	83	61	48											235.83	158
15.80	16	133	83	63	48	452.05	158	361.49	158	361.49	158	287.04	158	256.85	15800		
15.90	16	133	83	61	48											235.83	159
16.00	16	133	83	61	48											235.83	160
16.00	16	133	83	63	48	452.05	160	361.49	160	361.49	160	287.04	160	256.85	16000		
16.05	18	143	93	71	48			499.08	960								
16.10	18	143	93	69	48											235.83	161
16.20	18	143	93	69	48											235.83	162
16.30	18	143	93	69	48											235.83	163
16.40	18	143	93	69	48											235.83	164
16.50	18	143	93	69	48											326.64	165
16.50	18	143	93	71	48	595.47	165	499.08	165	499.08	165	376.86	165	356.60	16500		
16.60	18	143	93	69	48											326.64	166
16.70	18	143	93	69	48											326.64	167
16.80	18	143	93	69	48											326.64	168
16.80	18	143	93	71	48	595.47	168	499.08	168	499.08	168	376.86	168				
16.90	18	143	93	69	48											326.64	169
17.00	18	143	93	71	48	595.47	170	499.08	170	499.08	170	376.86	170	356.60	17000		
17.00	18	143	93	69	48											326.64	170
17.10	18	143	93	69	48											326.64	171
17.20	18	143	93	69	48											326.64	172
17.30	18	143	93	69	48											326.64	173
17.40	18	143	93	69	48											326.64	174
17.50	18	143	93	69	48											326.64	175
17.50	18	143	93	71	48	595.47	175	499.08	175	499.08	175	376.86	175	356.60	17500		
17.60	18	143	93	69	48											326.64	176
17.70	18	143	93	69	48											326.64	177
17.80	18	143	93	69	48											326.64	178
17.80	18	143	93	71	48	595.47	178	499.08	178	499.08	178	376.86	178				
17.90	18	143	93	69	48											326.64	179
18.00	18	143	93	69	48											326.64	180
18.00	18	143	93	71	48	595.47	180	499.08	180	499.08	180	376.86	180	356.60	18000		
18.10	20	153	101	75	50											403.57	181

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

→ v_c Page 114–123

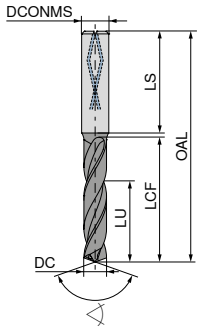
Ø DC_{m7} for Type VA, Ti and GG / Ø DC_{h7} for Type Speed VA and AL

Continued on next page

WTX – High-performance drill, DIN 6537

≤ 5xD

NOF = 2



Type GG = Straight Fluted

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

HA	HA	HE	HA	HA	HA
135°	140°	140°	130°	135°	140°
Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
10 773 ...	**10 745 ...**	**10 746 ...**	**10 749 ...**	**10 791 ...**	**10 787 ...**

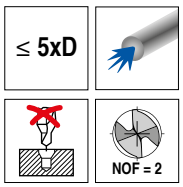
DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4		£ T4		£ T4		£ T4	
18.20	20	153	101	75	50											403.57	182
18.30	20	153	101	75	50											403.57	183
18.40	20	153	101	75	50											403.57	184
18.50	20	153	101	75	50											403.57	185
18.50	20	153	101	77	50	770.06	185	591.36	185	591.36	185	485.10	185	440.35	18500		
18.60	20	153	101	75	50											403.57	186
18.70	20	153	101	75	50											403.57	187
18.80	20	153	101	75	50											403.57	188
18.80	20	153	101	77	50	770.06	188	591.36	188	591.36	188	485.10	188				
18.90	20	153	101	75	50											403.57	189
19.00	20	153	101	75	50											403.57	190
19.00	20	153	101	77	50	770.06	190	591.36	190	591.36	190	485.10	190	440.35	19000		
19.10	20	153	101	75	50											403.57	191
19.20	20	153	101	75	50											403.57	192
19.30	20	153	101	75	50											403.57	193
19.35	20	153	101	77	50			591.36	993								
19.40	20	153	101	75	50											403.57	194
19.50	20	153	101	77	50	770.06	195	591.36	195	591.36	195	485.10	195	440.35	19500		
19.50	20	153	101	75	50											403.57	195
19.60	20	153	101	75	50											403.57	196
19.70	20	153	101	75	50											403.57	197
19.80	20	153	101	77	50	770.06	198	591.36	198	591.36	198	485.10	198				
19.80	20	153	101	75	50											403.57	198
19.90	20	153	101	75	50											403.57	199
20.00	20	153	101	75	50											403.57	200
20.00	20	153	101	77	50	770.06	200	591.36	200	591.36	200	485.10	200	440.35	20000		

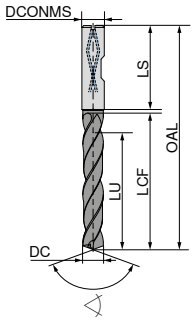
P							●		○		○						○
M							●		●		●						●
K							●		○		○		●				
N							○		○		○		○		●		
S							●		●		●						●
H																	
O																	

→ v_c Page 114–123

Ø DC$_{m7}$ for Type VA, Ti and GG / **Ø DC$_{h7}$** for Type Speed VA and AL

WPC – High Performance Drill, DIN 6537





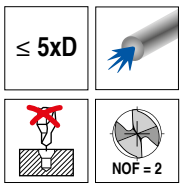
						140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						11 609 ...		**11 610 ...**		**11 629 ...**		**11 630 ...**	
DC m7 **mm**	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1		£ T1		£ T1		£ T1	
1.00	4	45	8.0	6.5	30.0	36.11	**010**			36.11	**010**		
1.10	4	45	8.8	7.2	29.0	36.11	**011**			36.11	**011**		
1.20	4	45	9.6	7.8	29.0	36.11	**012**			36.11	**012**		
1.30	4	45	10.4	8.5	28.5	36.11	**013**			36.11	**013**		
1.40	4	45	11.2	9.1	28.0	36.11	**014**			36.11	**014**		
1.50	4	50	12.0	9.8	32.0	36.11	**015**			36.11	**015**		
1.60	4	50	12.8	10.4	31.0	36.11	**016**			36.11	**016**		
1.70	4	50	13.6	11.1	30.5	36.11	**017**			36.11	**017**		
1.80	4	50	14.4	11.7	30.0	36.11	**018**			36.11	**018**		
1.90	4	50	15.2	12.4	29.5	36.11	**019**			36.11	**019**		
2.00	4	50	16.0	13.0	29.0	36.11	**020**			36.11	**020**		
2.10	4	55	16.8	13.7	33.0	36.11	**021**			36.11	**021**		
2.20	4	55	17.6	14.3	32.5	36.11	**022**			36.11	**022**		
2.30	4	55	18.4	15.0	32.0	36.11	**023**			36.11	**023**		
2.40	4	55	19.2	15.6	31.5	36.11	**024**			36.11	**024**		
2.50	4	55	20.0	16.3	30.5	36.11	**025**			36.11	**025**		
2.60	4	55	20.8	16.9	30.0	36.11	**026**			36.11	**026**		
2.70	4	55	21.6	17.6	29.0	36.11	**027**			36.11	**027**		
2.80	4	55	22.4	18.2	29.0	36.11	**028**			36.11	**028**		
2.90	4	55	23.2	18.9	28.5	36.11	**029**			36.11	**029**		
3.00	6	66	28.0	23.0	36.0	36.11	**030**	36.75	**030**	36.11	**030**	36.75	**030**
3.10	6	66	28.0	23.0	36.0	36.11	**031**	36.75	**031**	36.11	**031**	36.75	**031**
3.20	6	66	28.0	23.0	36.0	36.11	**032**	36.75	**032**	36.11	**032**	36.75	**032**
3.25	6	66	28.0	23.0	36.0	36.61	**890**	36.61	**890**	36.11	**03250**		
3.30	6	66	28.0	23.0	36.0	36.11	**033**	36.75	**033**	36.11	**033**	36.75	**033**
3.40	6	66	28.0	23.0	36.0	36.11	**034**	36.75	**034**	36.11	**034**	36.75	**034**
3.50	6	66	28.0	23.0	36.0	36.11	**035**	36.75	**035**	36.11	**035**	36.75	**035**
3.60	6	66	28.0	23.0	36.0	36.11	**036**	36.75	**036**	36.11	**036**	36.75	**036**
3.70	6	66	28.0	23.0	36.0	36.11	**037**	36.75	**037**	36.11	**037**	36.75	**037**
3.80	6	74	36.0	29.0	36.0	36.11	**038**	36.75	**038**	36.11	**038**	36.75	**038**
3.90	6	74	36.0	29.0	36.0	36.11	**039**	36.75	**039**	36.11	**039**	36.75	**039**
4.00	6	74	36.0	29.0	36.0	36.61	**040**	38.15	**040**	36.61	**040**	38.15	**040**
4.10	6	74	36.0	29.0	36.0	36.61	**041**	38.15	**041**	36.61	**041**	38.15	**041**
4.20	6	74	36.0	29.0	36.0	36.61	**042**	38.15	**042**	36.61	**042**	38.15	**042**
4.30	6	74	36.0	29.0	36.0	36.61	**043**	38.15	**043**	36.61	**043**	38.15	**043**
4.40	6	74	36.0	29.0	36.0	36.61	**044**	38.15	**044**	36.61	**044**	38.15	**044**
4.50	6	74	36.0	29.0	36.0	36.61	**045**	38.15	**045**	36.61	**045**	38.15	**045**
4.60	6	74	36.0	29.0	36.0	36.61	**046**	38.15	**046**	36.61	**046**	38.15	**046**
4.65	6	74	36.0	29.0	36.0	36.61	**900**	38.15	**900**	36.61	**900**	38.15	**900**
4.70	6	74	36.0	29.0	36.0	36.61	**047**	38.15	**047**	36.61	**047**	38.15	**047**
4.80	6	82	44.0	35.0	36.0	36.61	**048**	38.15	**048**	36.61	**048**	38.15	**048**

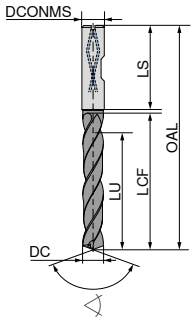
P	●	●	○	○
M			●	●
K	●	●	●	●
N			●	●
S				
H				
O				

→ v_c Page 131+134

Continued on next page

WPC – High Performance Drill, DIN 6537





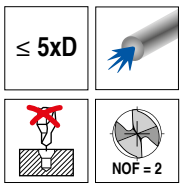
						140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						11 609 ...		**11 610 ...**		**11 629 ...**		**11 630 ...**	
DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1		£ T1		£ T1		£ T1	
4.90	6	82	44.0	35.0	36.0	36.61	049	38.15	049	36.61	049	38.15	049
5.00	6	82	44.0	35.0	36.0	36.61	050	38.15	050	36.61	050	38.15	050
5.10	6	82	44.0	35.0	36.0	36.61	051	38.15	051	36.61	051	38.15	051
5.20	6	82	44.0	35.0	36.0	36.61	052	38.15	052	36.61	052	38.15	052
5.30	6	82	44.0	35.0	36.0	36.61	053	38.15	053	36.61	053	38.15	053
5.40	6	82	44.0	35.0	36.0	36.61	054	38.15	054	36.61	054	38.15	054
5.50	6	82	44.0	35.0	36.0	36.61	055	38.15	055	36.61	055	38.15	055
5.55	6	82	44.0	35.0	36.0	36.61	902	38.15	902	36.61	902	38.15	902
5.60	6	82	44.0	35.0	36.0	36.61	056	38.15	056	36.61	056	38.15	056
5.70	6	82	44.0	35.0	36.0	36.61	057	38.15	057	36.61	057	38.15	057
5.80	6	82	44.0	35.0	36.0	36.61	058	38.15	058	36.61	058	38.15	058
5.90	6	82	44.0	35.0	36.0	36.61	059	38.15	059	36.61	059	38.15	059
6.00	6	82	44.0	35.0	36.0	36.61	060	38.15	060	36.61	060	38.15	060
6.10	8	91	53.0	43.0	36.0	41.19	061	38.67	061	41.19	061	41.19	061
6.20	8	91	53.0	43.0	36.0	41.19	062	38.67	062	41.19	062	41.19	062
6.30	8	91	53.0	43.0	36.0	41.19	063	38.67	063	41.19	063	41.19	063
6.40	8	91	53.0	43.0	36.0	41.19	064	38.67	064	41.19	064	41.19	064
6.50	8	91	53.0	43.0	36.0	41.19	065	42.72	065	41.19	065	42.72	065
6.60	8	91	53.0	43.0	36.0	41.19	066	42.72	066	41.19	066	42.72	066
6.70	8	91	53.0	43.0	36.0	41.19	067	42.72	067	41.19	067	42.72	067
6.80	8	91	53.0	43.0	36.0	41.19	068	42.72	068	41.19	068	42.72	068
6.90	8	91	53.0	43.0	36.0	41.19	069	42.72	069	41.19	069	42.72	069
7.00	8	91	53.0	43.0	36.0	41.19	070	42.72	070	41.19	070	42.72	070
7.10	8	91	53.0	43.0	36.0	41.19	071	42.72	071	41.19	071	42.72	071
7.20	8	91	53.0	43.0	36.0	41.19	072	42.72	072	41.19	072	42.72	072
7.30	8	91	53.0	43.0	36.0	41.19	073	42.72	073	41.19	073	42.72	073
7.40	8	91	53.0	43.0	36.0	41.19	074	42.72	074	41.19	074	42.72	074
7.45	8	91	53.0	43.0	36.0	41.19	924	41.19	924	41.19	07450		
7.50	8	91	53.0	43.0	36.0	41.19	075	42.72	075	41.19	075	42.72	075
7.55	8	91	53.0	43.0	36.0	41.19	975	42.72	975	41.19	975	42.72	975
7.60	8	91	53.0	43.0	36.0	41.19	076	42.72	076	41.19	076	42.72	076
7.70	8	91	53.0	43.0	36.0	41.19	077	42.72	077	41.19	077	42.72	077
7.80	8	91	53.0	43.0	36.0	41.19	078	42.72	078	41.19	078	42.72	078
7.90	8	91	53.0	43.0	36.0	41.19	079	42.72	079	41.19	079	42.72	079
8.00	8	91	53.0	43.0	36.0	41.19	080	42.72	080	41.19	080	42.72	080
8.10	10	103	61.0	49.0	40.0	47.30	081	48.81	081	47.30	081	47.30	081
8.20	10	103	61.0	49.0	40.0	47.30	082	48.81	082	47.30	082	47.30	082
8.30	10	103	61.0	49.0	40.0	47.30	083	48.81	083	47.30	083	47.30	083
8.40	10	103	61.0	49.0	40.0	47.30	084	48.81	084	47.30	084	47.30	084
8.50	10	103	61.0	49.0	40.0	47.30	085	48.81	085	47.30	085	47.30	085
8.60	10	103	61.0	49.0	40.0	47.30	086	48.81	086	47.30	086	47.30	086

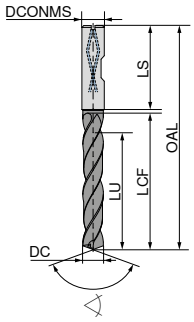
P	●	●	○	○
M			●	●
K	●	●	●	●
N			●	●
S				
H				
O				

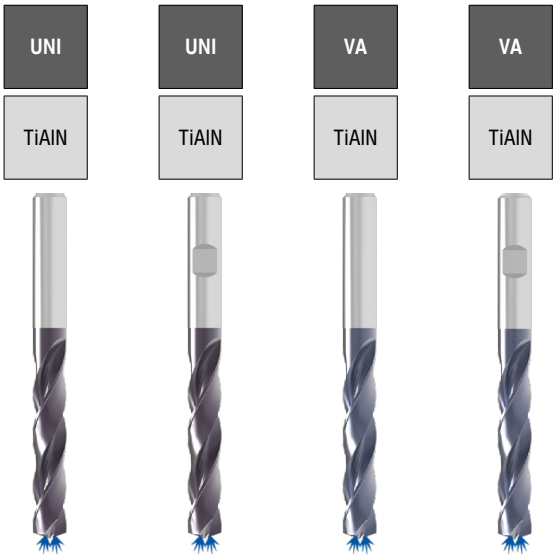
→ v_c Page 131+134

Continued on next page

WPC – High Performance Drill, DIN 6537







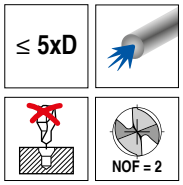
						140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						11 609 ...		**11 610 ...**		**11 629 ...**		**11 630 ...**	
DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1		£ T1		£ T1		£ T1	
8.70	10	103	61.0	49.0	40.0	47.30	087	48.81	087	47.30	087	47.30	087
8.80	10	103	61.0	49.0	40.0	47.30	088	48.81	088	47.30	088	47.30	088
8.90	10	103	61.0	49.0	40.0	47.30	089	48.81	089	47.30	089	47.30	089
9.00	10	103	61.0	49.0	40.0	47.30	090	48.81	090	47.30	090	47.30	090
9.10	10	103	61.0	49.0	40.0	47.30	091	48.81	091	47.30	091	47.30	091
9.20	10	103	61.0	49.0	40.0	47.30	092	48.81	092	47.30	092	47.30	092
9.25	10	103	61.0	49.0	40.0	47.30	925	48.81	925	47.30	925	47.30	925
9.30	10	103	61.0	49.0	40.0	47.30	093	48.81	093	47.30	093	47.30	093
9.35	10	103	61.0	49.0	40.0	47.30	930	47.30	930	47.30	09350		
9.40	10	103	61.0	49.0	40.0	47.30	094	48.81	094	47.30	094	47.30	094
9.50	10	103	61.0	49.0	40.0	47.30	095	48.81	095	47.30	095	47.30	095
9.60	10	103	61.0	49.0	40.0	47.30	096	48.81	096	47.30	096	47.30	096
9.70	10	103	61.0	49.0	40.0	47.30	097	48.81	097	47.30	097	47.30	097
9.80	10	103	61.0	49.0	40.0	47.30	098	48.81	098	47.30	098	47.30	098
9.90	10	103	61.0	49.0	40.0	47.30	099	48.81	099	47.30	099	47.30	099
10.00	10	103	61.0	49.0	40.0	47.30	100	48.81	100	47.30	100	47.30	100
10.10	12	118	71.0	56.0	45.0	68.63	101	71.70	101	68.63	101	71.70	101
10.20	12	118	71.0	56.0	45.0	68.63	102	71.70	102	68.63	102	71.70	102
10.30	12	118	71.0	56.0	45.0	68.63	103	71.70	103	68.63	103	71.70	103
10.40	12	118	71.0	56.0	45.0	68.63	104	71.70	104	68.63	104	71.70	104
10.50	12	118	71.0	56.0	45.0	68.63	105	71.70	105	68.63	105	71.70	105
10.60	12	118	71.0	56.0	45.0	68.63	106	71.70	106	68.63	106	71.70	106
10.70	12	118	71.0	56.0	45.0	68.63	107	71.70	107	68.63	107	71.70	107
10.75	12	118	71.0	56.0	45.0	68.63	904	68.63	904	68.63	10750		
10.80	12	118	71.0	56.0	45.0	68.63	108	71.70	108	68.63	108	71.70	108
10.90	12	118	71.0	56.0	45.0	68.63	109	71.70	109	68.63	109	71.70	109
11.00	12	118	71.0	56.0	45.0	68.63	110	71.70	110	68.63	110	71.70	110
11.10	12	118	71.0	56.0	45.0	68.63	111	71.70	111	68.63	111	71.70	111
11.20	12	118	71.0	56.0	45.0	68.63	112	71.70	112	68.63	112	71.70	112
11.25	12	118	71.0	56.0	45.0	68.63	912	68.63	912	68.63	11250		
11.30	12	118	71.0	56.0	45.0	68.63	113	71.70	113	68.63	113	71.70	113
11.40	12	118	71.0	56.0	45.0	68.63	114	71.70	114	68.63	114	71.70	114
11.50	12	118	71.0	56.0	45.0	68.63	115	71.70	115	68.63	115	71.70	115
11.60	12	118	71.0	56.0	45.0	68.63	116	71.70	116	68.63	116	71.70	116
11.70	12	118	71.0	56.0	45.0	68.63	117	71.70	117	68.63	117	71.70	117
11.80	12	118	71.0	56.0	45.0	68.63	118	71.70	118	68.63	118	71.70	118
11.90	12	118	71.0	56.0	45.0	68.63	119	71.70	119	68.63	119	71.70	119
12.00	12	118	71.0	56.0	45.0	68.63	120	71.70	120	68.63	120	71.70	120
12.25	14	124	77.0	60.0	45.0	93.04	122	93.04	122	93.04	12250		
12.50	14	124	77.0	60.0	45.0	93.04	125	97.62	125	93.04	125	97.62	125
12.70	14	124	77.0	60.0	45.0	93.04	127	97.62	127	93.04	127	97.62	127

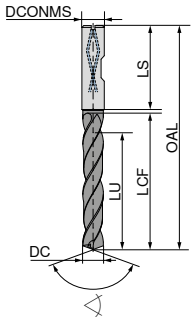
P	●	●	○	○
M			●	●
K	●	●	●	●
N			●	●
S				
H				
O				

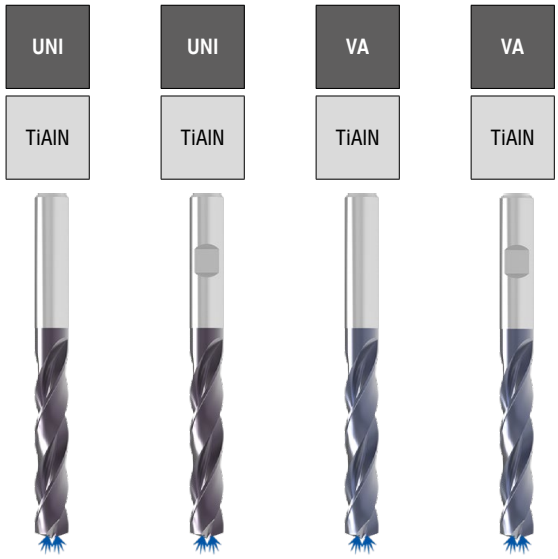
→ v_c Page 131+134

Continued on next page

WPC – High Performance Drill, DIN 6537







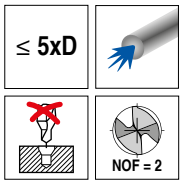
						140° Solid carbide		140° Solid carbide		140° Solid carbide		140° Solid carbide	
						11 609 ...		**11 610 ...**		**11 629 ...**		**11 630 ...**	
DC m7 **mm**	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T1		£ T1		£ T1		£ T1	
12.80	14	124	77.0	60.0	45.0	93.04	**128**	93.04	**128**				
12.90	14	124	77.0	60.0	45.0	93.04	**129**	93.04	**129**				
13.00	14	124	77.0	60.0	45.0	93.04	**130**	97.62	**130**	93.04	**130**	97.62	**130**
13.10	14	124	77.0	60.0	45.0	93.04	**131**	93.04	**131**				
13.30	14	124	77.0	60.0	45.0	93.04	**133**	93.04	**133**				
13.50	14	124	77.0	60.0	45.0	93.04	**135**	97.62	**135**	93.04	**135**	97.62	**135**
13.70	14	124	77.0	60.0	45.0	93.04	**137**	97.62	**137**	93.04	**137**	97.62	**137**
13.80	14	124	77.0	60.0	45.0	93.04	**138**	93.04	**138**				
14.00	14	124	77.0	60.0	45.0	93.04	**140**	97.62	**140**	93.04	**140**	97.62	**140**
14.20	16	133	83.0	63.0	48.0	115.93	**142**	115.93	**142**				
14.50	16	133	83.0	63.0	48.0	115.93	**145**	120.50	**145**	115.93	**145**	120.50	**145**
14.70	16	133	83.0	63.0	48.0	115.93	**147**	120.50	**147**	115.93	**147**	120.50	**147**
14.80	16	133	83.0	63.0	48.0	115.93	**148**	115.93	**148**				
15.00	16	133	83.0	63.0	48.0	115.93	**150**	120.50	**150**	115.93	**150**	120.50	**150**
15.10	16	133	83.0	63.0	48.0	115.93	**151**	115.93	**151**				
15.25	16	133	83.0	63.0	48.0	115.93	**152**	115.93	**152**				
15.30	16	133	83.0	63.0	48.0	115.93	**153**	115.93	**153**				
15.50	16	133	83.0	63.0	48.0	115.93	**155**	120.50	**155**	115.93	**155**	120.50	**155**
15.60	16	133	83.0	63.0	48.0	115.93	**156**	115.93	**156**				
15.70	16	133	83.0	63.0	48.0	115.93	**157**	120.50	**157**	115.93	**157**	120.50	**157**
15.80	16	133	83.0	63.0	48.0	115.93	**158**	115.93	**158**				
16.00	16	133	83.0	63.0	48.0	115.93	**160**	120.50	**160**	115.93	**160**	120.50	**160**
16.50	18	143	93.0	71.0	48.0	186.10	**165**	192.18	**165**	186.10	**165**	192.18	**165**
16.80	18	143	93.0	71.0	48.0	186.10	**168**	186.10	**168**				
16.90	18	143	93.0	71.0	48.0	186.10	**169**	186.10	**169**				
17.00	18	143	93.0	71.0	48.0	186.10	**170**	192.18	**170**	186.10	**170**	192.18	**170**
17.50	18	143	93.0	71.0	48.0	186.10	**175**	192.18	**175**	186.10	**175**	192.18	**175**
17.60	18	143	93.0	71.0	48.0	186.10	**176**	186.10	**176**				
17.80	18	143	93.0	71.0	48.0	186.10	**178**	186.10	**178**				
18.00	18	143	93.0	71.0	48.0	186.10	**180**	192.18	**180**	186.10	**180**	192.18	**180**
18.50	20	153	101.0	77.0	50.0	201.35	**185**	208.96	**185**	201.35	**185**	208.96	**185**
18.80	20	153	101.0	77.0	50.0	201.35	**188**	201.35	**188**				
18.90	20	153	101.0	77.0	50.0	201.35	**189**	201.35	**189**				
19.00	20	153	101.0	77.0	50.0	201.35	**190**	208.96	**190**	201.35	**190**	208.96	**190**
19.50	20	153	101.0	77.0	50.0	201.35	**195**	208.96	**195**	201.35	**195**	208.96	**195**
19.60	20	153	101.0	77.0	50.0	201.35	**196**	201.35	**196**				
19.80	20	153	101.0	77.0	50.0	201.35	**198**	201.35	**198**				
20.00	20	153	101.0	77.0	50.0	201.35	**200**	208.96	**200**	201.35	**200**	208.96	**200**
P							●		●		○		○
M											●		●
K							●		●		●		●
N											●		●
S													
H													
O													

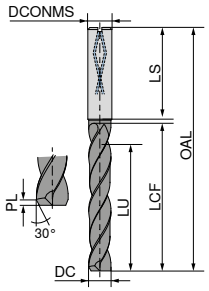
→ v_c Page 131+134

WTX – High Performance Drill, DIN 6537

- universal application
- four guidance lands
- polished chip flutes
- Type ALU 5xD on request
- PL = corner chamfers

2





180

Ti800

180°
Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	PL mm	10 721 ... £ T4	
3.00	6	66	28	23	36	0.15	95.31	030
3.10	6	66	28	23	36	0.16	95.31	031
3.20	6	66	28	23	36	0.16	95.31	032
3.30	6	66	28	23	36	0.17	95.31	033
3.40	6	66	28	23	36	0.17	95.31	034
3.50	6	66	28	23	36	0.18	95.31	035
3.60	6	66	28	23	36	0.18	95.31	036
3.70	6	66	28	23	36	0.19	95.31	037
3.80	6	74	36	29	36	0.19	95.31	038
3.90	6	74	36	29	36	0.20	95.31	039
4.00	6	74	36	29	36	0.20	95.31	040
4.10	6	74	36	29	36	0.21	95.31	041
4.20	6	74	36	29	36	0.21	95.31	042
4.30	6	74	36	29	36	0.22	95.31	043
4.40	6	74	36	29	36	0.22	95.31	044
4.50	6	74	36	29	36	0.23	95.31	045
4.60	6	74	36	29	36	0.23	95.31	046
4.65	6	74	36	29	36	0.23	95.31	900
4.70	6	74	36	29	36	0.24	95.31	047
4.80	6	82	44	35	36	0.24	95.31	048
4.90	6	82	44	35	36	0.25	95.31	049
5.00	6	82	44	35	36	0.25	95.31	050
5.10	6	82	44	35	36	0.26	95.31	051
5.20	6	82	44	35	36	0.26	95.31	052
5.30	6	82	44	35	36	0.27	95.31	053
5.40	6	82	44	35	36	0.27	95.31	054
5.50	6	82	44	35	36	0.28	95.31	055
5.55	6	82	44	35	36	0.28	95.31	902
5.60	6	82	44	35	36	0.28	95.31	056
5.70	6	82	44	35	36	0.29	95.31	057
5.80	6	82	44	35	36	0.29	95.31	058
5.90	6	82	44	35	36	0.30	95.31	059
6.00	6	82	44	35	36	0.30	95.31	060
6.10	8	91	53	43	36	0.31	106.64	061
6.20	8	91	53	43	36	0.31	106.64	062
6.30	8	91	53	43	36	0.32	106.64	063
6.40	8	91	53	43	36	0.32	106.64	064
6.50	8	91	53	43	36	0.33	106.64	065
6.60	8	91	53	43	36	0.33	106.64	066
6.70	8	91	53	43	36	0.34	106.64	067
6.80	8	91	53	43	36	0.34	106.64	068
6.90	8	91	53	43	36	0.35	106.64	069
7.00	8	91	53	43	36	0.35	106.64	070
7.10	8	91	53	43	36	0.36	106.64	071
7.20	8	91	53	43	36	0.36	106.64	072
7.30	8	91	53	43	36	0.37	106.64	073
7.40	8	91	53	43	36	0.37	106.64	074
7.50	8	91	53	43	36	0.38	106.64	075
7.60	8	91	53	43	36	0.38	106.64	076
7.70	8	91	53	43	36	0.39	106.64	077
7.80	8	91	53	43	36	0.39	106.64	078
7.90	8	91	53	43	36	0.40	106.64	079
8.00	8	91	53	43	36	0.40	106.64	080
8.10	10	103	61	49	40	0.41	154.14	081

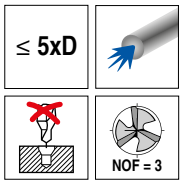
DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	PL mm	10 721 ... £ T4	
8.20	10	103	61	49	40	0.41	154.14	082
8.30	10	103	61	49	40	0.42	154.14	083
8.40	10	103	61	49	40	0.42	154.14	084
8.50	10	103	61	49	40	0.43	154.14	085
8.60	10	103	61	49	40	0.43	154.14	086
8.70	10	103	61	49	40	0.44	154.14	087
8.80	10	103	61	49	40	0.44	154.14	088
8.90	10	103	61	49	40	0.45	154.14	089
9.00	10	103	61	49	40	0.45	154.14	090
9.10	10	103	61	49	40	0.46	154.14	091
9.20	10	103	61	49	40	0.46	154.14	092
9.30	10	103	61	49	40	0.47	154.14	093
9.40	10	103	61	49	40	0.47	154.14	094
9.50	10	103	61	49	40	0.48	154.14	095
9.60	10	103	61	49	40	0.48	154.14	096
9.70	10	103	61	49	40	0.49	154.14	097
9.80	10	103	61	49	40	0.49	154.14	098
9.90	10	103	61	49	40	0.50	154.14	099
10.00	10	103	61	49	40	0.50	154.14	100
10.10	12	116	69	54	45	0.51	215.58	101
10.20	12	116	69	54	45	0.51	215.58	102
10.30	12	116	69	54	45	0.52	215.58	103
10.40	12	116	69	54	45	0.52	215.58	104
10.50	12	116	69	54	45	0.53	215.58	105
10.60	12	116	69	54	45	0.53	215.58	106
10.70	12	116	69	54	45	0.54	215.58	107
10.80	12	116	69	54	45	0.54	215.58	108
10.90	12	116	69	54	45	0.55	215.58	109
11.00	12	116	69	54	45	0.55	215.58	110
11.10	12	116	69	54	45	0.56	215.58	111
11.20	12	116	69	54	45	0.56	215.58	112
11.30	12	116	69	54	45	0.57	215.58	113
11.40	12	116	69	54	45	0.57	215.58	114
11.50	12	116	69	54	45	0.58	215.58	115
11.60	12	116	69	54	45	0.58	215.58	116
11.70	12	116	69	54	45	0.59	215.58	117
11.80	12	116	69	54	45	0.59	215.58	118
11.90	12	116	69	54	45	0.60	215.58	119
12.00	12	116	69	54	45	0.60	215.58	120
12.50	14	122	75	58	45	0.63	293.15	125
12.80	14	122	75	58	45	0.64	293.15	128
13.00	14	122	75	58	45	0.65	293.15	130
13.50	14	122	75	58	45	0.68	293.15	135
13.80	14	122	75	58	45	0.69	293.15	138
14.00	14	122	75	58	45	0.70	293.15	140
14.50	16	131	81	61	48	0.73	365.93	145
14.80	16	131	81	61	48	0.74	365.93	148
15.00	16	131	81	61	48	0.75	365.93	150
15.50	16	131	81	61	48	0.78	365.93	155
15.80	16	131	81	61	48	0.79	365.93	158
16.00	16	131	81	61	48	0.80	365.93	160
16.50	18	141	91	69	48	0.83	482.44	165
16.80	18	141	91	69	48	0.84	482.44	168
17.00	18	141	91	69	48	0.85	482.44	170
17.50	18	141	91	69	48	0.88	482.44	175
17.80	18	141	91	69	48	0.89	482.44	178
18.00	18	141	91	69	48	0.90	482.44	180
18.50	20	151	99	75	50	0.93	623.92	185
18.80	20	151	99	75	50	0.94	623.92	188
19.00	20	151	99	75	50	0.95	623.92	190
19.50	20	151	99	75	50	0.98	623.92	195
19.80	20	151	99	75	50	0.99	623.92	198
20.00	20	151	99	75	50	1.00	623.92	200

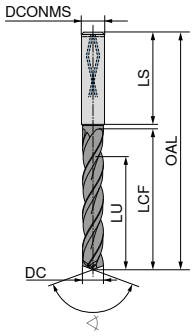
P	●
M	●
K	●
N	
S	
H	
O	

→ v_c Page 127

WTX – High Feed Drill, factory standard

- Three fluted high-feed drill
- Universal application
- High positioning accuracy
- Suitable for difficult drilling applications





Feed UNI

DPX74S

140°
Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 789 ... £ T4	
4.00	6	74	36	29	36	94.53	04000
4.10	6	74	36	29	36	94.53	04100
4.20	6	74	36	29	36	94.53	04200
4.30	6	74	36	29	36	94.53	04300
4.40	6	74	36	29	36	94.53	04400
4.50	6	74	36	29	36	94.53	04500
4.60	6	74	36	29	36	94.53	04600
4.70	6	74	36	29	36	94.53	04700
4.80	6	82	44	35	36	94.53	04800
4.90	6	82	44	35	36	94.53	04900
5.00	6	82	44	35	36	94.53	05000
5.10	6	82	44	35	36	94.53	05100
5.20	6	82	44	35	36	94.53	05200
5.30	6	82	44	35	36	94.53	05300
5.40	6	82	44	35	36	94.53	05400
5.50	6	82	44	35	36	94.53	05500
5.55	6	82	44	35	36	94.53	05550
5.60	6	82	44	35	36	94.53	05600
5.70	6	82	44	35	36	94.53	05700
5.80	6	82	44	35	36	94.53	05800
5.90	6	82	44	35	36	94.53	05900
6.00	6	82	44	35	36	94.53	06000
6.10	8	91	53	43	36	105.80	06100
6.20	8	91	53	43	36	105.80	06200
6.30	8	91	53	43	36	105.80	06300
6.40	8	91	53	43	36	105.80	06400
6.50	8	91	53	43	36	105.80	06500
6.60	8	91	53	43	36	105.80	06600
6.70	8	91	53	43	36	105.80	06700
6.80	8	91	53	43	36	105.80	06800
6.90	8	91	53	43	36	105.80	06900
7.00	8	91	53	43	36	105.80	07000
7.10	8	91	53	43	36	105.80	07100
7.20	8	91	53	43	36	105.80	07200
7.30	8	91	53	43	36	105.80	07300
7.40	8	91	53	43	36	105.80	07400
7.50	8	91	53	43	36	105.80	07500
7.60	8	91	53	43	36	105.80	07600
7.70	8	91	53	43	36	105.80	07700
7.80	8	91	53	43	36	105.80	07800
7.90	8	91	53	43	36	105.80	07900
8.00	8	91	53	43	36	105.80	08000
8.10	10	103	61	49	40	153.05	08100
8.20	10	103	61	49	40	153.05	08200
8.30	10	103	61	49	40	153.05	08300
8.40	10	103	61	49	40	153.05	08400
8.50	10	103	61	49	40	153.05	08500
8.60	10	103	61	49	40	153.05	08600
8.70	10	103	61	49	40	153.05	08700
8.80	10	103	61	49	40	153.05	08800
8.90	10	103	61	49	40	153.05	08900
9.00	10	103	61	49	40	153.05	09000
9.10	10	103	61	49	40	153.05	09100
9.20	10	103	61	49	40	153.05	09200

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 789 ... £ T4	
9.30	10	103	61	49	40	153.05	09300
9.40	10	103	61	49	40	153.05	09400
9.50	10	103	61	49	40	153.05	09500
9.60	10	103	61	49	40	153.05	09600
9.70	10	103	61	49	40	153.05	09700
9.80	10	103	61	49	40	153.05	09800
9.90	10	103	61	49	40	153.05	09900
10.00	10	103	61	49	40	153.05	10000
10.10	12	118	71	56	45	214.27	10100
10.20	12	118	71	56	45	214.27	10200
10.30	12	118	71	56	45	214.27	10300
10.40	12	118	71	56	45	214.27	10400
10.50	12	118	71	56	45	214.27	10500
10.60	12	118	71	56	45	214.27	10600
10.70	12	118	71	56	45	214.27	10700
10.80	12	118	71	56	45	214.27	10800
10.90	12	118	71	56	45	214.27	10900
11.00	12	118	71	56	45	214.27	11000
11.10	12	118	71	56	45	214.27	11100
11.20	12	118	71	56	45	214.27	11200
11.30	12	118	71	56	45	214.27	11300
11.40	12	118	71	56	45	214.27	11400
11.50	12	118	71	56	45	214.27	11500
11.60	12	118	71	56	45	214.27	11600
11.70	12	118	71	56	45	214.27	11700
11.80	12	118	71	56	45	214.27	11800
11.90	12	118	71	56	45	214.27	11900
12.00	12	118	71	56	45	214.27	12000
12.20	14	124	77	60	45	291.43	12200
12.50	14	124	77	60	45	291.43	12500
12.80	14	124	77	60	45	291.43	12800
13.00	14	124	77	60	45	291.43	13000
13.50	14	124	77	60	45	291.43	13500
13.80	14	124	77	60	45	291.43	13800
14.00	14	124	77	60	45	291.43	14000
14.50	16	133	83	63	48	363.66	14500
14.80	16	133	83	63	48	363.66	14800
15.00	16	133	83	63	48	363.66	15000
15.50	16	133	83	63	48	363.66	15500
15.80	16	133	83	63	48	363.66	15800
16.00	16	133	83	63	48	363.66	16000
16.50	18	143	93	71	48	478.76	16500
16.80	18	143	93	71	48	478.76	16800
17.00	18	143	93	71	48	478.76	17000
17.50	18	143	93	71	48	478.76	17500
17.80	18	143	93	71	48	478.76	17800
18.00	18	143	93	71	48	478.76	18000
18.50	20	153	101	77	50	619.56	18500
18.80	20	153	101	77	50	619.56	18800
19.00	20	153	101	77	50	619.56	19000
19.50	20	153	101	77	50	619.56	19500
19.80	20	153	101	77	50	619.56	19800
20.00	20	153	101	77	50	619.56	20000

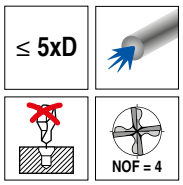
P	●
M	●
K	●
N	○
S	
H	
O	

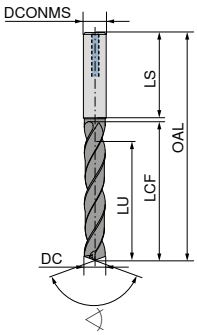
→ v_c Page 110

WTX – High-feed drills, DIN 6537

- Four fluted high-feed drill
- Specialises in steel processing
- Has four spiral coolant holes
- Innovative cutting edge geometry guarantees high positioning accuracy
- Outstanding drilling quality in terms of tolerance, surface finish and position

2





NEW

HFDS

DPX14S

DRAGONSKIN

HA

130°

Solid carbide

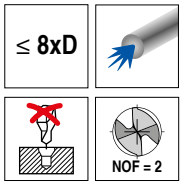
DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 798 ... £ T4	
6.0	8	89	51	40	36	100.83	06000
6.1	10	102	59	47	40	134.44	06100
6.2	10	102	59	47	40	134.44	06200
6.3	10	102	59	47	40	134.44	06300
6.4	10	102	59	47	40	134.44	06400
6.5	10	102	59	47	40	134.44	06500
6.6	10	102	59	47	40	134.44	06600
6.7	10	102	59	47	40	134.44	06700
6.8	10	102	59	47	40	134.44	06800
6.9	10	102	59	47	40	134.44	06900
7.0	10	102	59	47	40	134.44	07000
7.1	10	102	59	47	40	134.44	07100
7.2	10	102	59	47	40	134.44	07200
7.3	10	102	59	47	40	134.44	07300
7.4	10	102	59	47	40	134.44	07400
7.5	10	102	59	47	40	134.44	07500
7.6	10	102	59	47	40	134.44	07600
7.7	10	102	59	47	40	134.44	07700
7.8	10	102	59	47	40	134.44	07800
7.9	10	102	59	47	40	134.44	07900
8.0	10	102	59	47	40	134.44	08000
8.1	12	118	70	55	45	189.30	08100
8.2	12	118	70	55	45	189.30	08200
8.3	12	118	70	55	45	189.30	08300
8.4	12	118	70	55	45	189.30	08400
8.5	12	118	70	55	45	189.30	08500
8.6	12	118	70	55	45	189.30	08600
8.7	12	118	70	55	45	189.30	08700
8.8	12	118	70	55	45	189.30	08800
8.9	12	118	70	55	45	189.30	08900
9.0	12	118	70	55	45	189.30	09000
9.1	12	118	70	55	45	189.30	09100
9.2	12	118	70	55	45	189.30	09200
9.3	12	118	70	55	45	189.30	09300
9.4	12	118	70	55	45	189.30	09400
9.5	12	118	70	55	45	189.30	09500
9.6	12	118	70	55	45	189.30	09600
9.7	12	118	70	55	45	189.30	09700
9.8	12	118	70	55	45	189.30	09800
9.9	12	118	70	55	45	189.30	09900
10.0	12	118	70	55	45	189.30	10000
10.2	14	124	76	60	45	251.33	10200
10.5	14	124	76	60	45	251.33	10500
11.0	14	124	76	60	45	251.33	11000
11.5	14	124	76	60	45	251.33	11500
12.0	14	124	76	60	45	251.33	12000

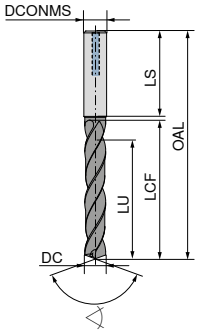
DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 798 ... £ T4	
12.5	16	142	91	73	48	341.30	12500
13.0	16	142	91	73	48	341.30	13000
14.0	16	142	91	73	48	341.30	14000
14.3	16	142	91	73	48	425.04	14300
14.5	16	142	91	73	48	425.04	14500
15.0	18	142	91	73	48	425.04	15000
16.0	18	142	91	73	48	425.04	16000

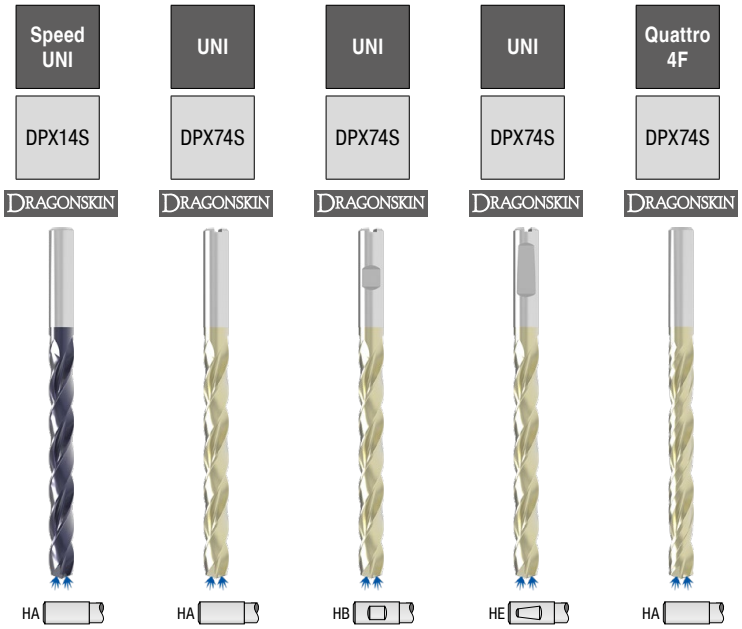
P	●
M	○
K	●
N	○
S	○
H	○
O	○

→ v_c Page 135

WTX – High Performance Drill, factory standard







						145° Solid carbide		135° Solid carbide		135° Solid carbide		135° Solid carbide		140° Solid carbide	
						10 782 ...		11 789 ...		11 790 ...		11 788 ...		10 736 ...	
DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T4	
3.00	6	72	34	29	36	177.71	03000	129.81	030	129.81	030	129.81	030	194.81	03000
3.10	6	72	34	29	36	177.71	03100	129.81	031	129.81	031	129.81	031	194.81	03100
3.20	6	72	34	29	36	177.71	03200	129.81	032	129.81	032	129.81	032	194.81	03200
3.30	6	72	34	29	36	177.71	03300	129.81	033	129.81	033	129.81	033	194.81	03300
3.40	6	72	34	29	36	177.71	03400	129.81	034	129.81	034	129.81	034	194.81	03400
3.50	6	72	34	29	36	177.71	03500	129.81	035	129.81	035	129.81	035	194.81	03500
3.60	6	72	34	29	36	177.71	03600	129.81	036	129.81	036	129.81	036	194.81	03600
3.70	6	72	34	29	36	177.71	03700	129.81	037	129.81	037	129.81	037	194.81	03700
3.80	6	81	43	36	36	177.71	03800	129.81	038	129.81	038	129.81	038	194.81	03800
3.90	6	81	43	36	36	177.71	03900	129.81	039	129.81	039	129.81	039	194.81	03900
4.00	6	81	43	36	36	177.71	04000	129.81	040	129.81	040	129.81	040	194.81	04000
4.10	6	81	43	36	36	177.71	04100	129.81	041	129.81	041	129.81	041	194.81	04100
4.20	6	81	43	36	36	177.71	04200	129.81	042	129.81	042	129.81	042	194.81	04200
4.30	6	81	43	36	36	177.71	04300	129.81	043	129.81	043	129.81	043	194.81	04300
4.40	6	81	43	36	36	177.71	04400	129.81	044	129.81	044	129.81	044	194.81	04400
4.50	6	81	43	36	36	177.71	04500	129.81	045	129.81	045	129.81	045	194.81	04500
4.60	6	81	43	36	36	177.71	04600	129.81	046	129.81	046	129.81	046	194.81	04600
4.65	6	81	43	36	36	177.71	04650								
4.70	6	81	43	36	36	177.71	04700	129.81	047	129.81	047	129.81	047	194.81	04700
4.80	6	95	57	48	36	177.71	04800	129.81	048	129.81	048	129.81	048	194.81	04800
4.90	6	95	57	48	36	177.71	04900	129.81	049	129.81	049	129.81	049	194.81	04900
5.00	6	95	57	48	36	177.71	05000	129.81	050	129.81	050	129.81	050	194.81	05000
5.10	6	95	57	48	36	177.71	05100	129.81	051	129.81	051	129.81	051	194.81	05100
5.20	6	95	57	48	36	177.71	05200	129.81	052	129.81	052	129.81	052	194.81	05200
5.30	6	95	57	48	36	177.71	05300	129.81	053	129.81	053	129.81	053	194.81	05300
5.40	6	95	57	48	36	177.71	05400	129.81	054	129.81	054	129.81	054	194.81	05400
5.50	6	95	57	48	36	177.71	05500	129.81	055	129.81	055	129.81	055	194.81	05500
5.55	6	95	57	48	36	177.71	05550								
5.60	6	95	57	48	36	177.71	05600	129.81	056	129.81	056	129.81	056	194.81	05600
5.70	6	95	57	48	36	177.71	05700	129.81	057	129.81	057	129.81	057	194.81	05700
5.80	6	95	57	48	36	177.71	05800	129.81	058	129.81	058	129.81	058	194.81	05800
5.90	6	95	57	48	36	177.71	05900	129.81	059	129.81	059	129.81	059	194.81	05900
6.00	6	95	57	48	36	177.71	06000	129.81	060	129.81	060	129.81	060	194.81	06000
6.10	8	114	76	64	36	238.49	06100	157.42	061	157.42	061	157.42	061	214.31	06100
6.20	8	114	76	64	36	238.49	06200	157.42	062	157.42	062	157.42	062	214.31	06200

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

→ v_c Page 109–118

Ø DC_{m7} for Type UNI and Quattro 4F/ **Ø DC_{h7}** for Type Speed UNI

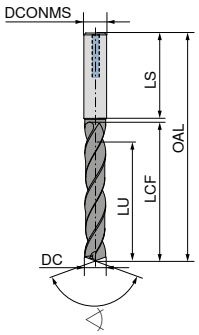
Continued on next page

WTX – High Performance Drill, factory standard

2

≤ 8xD

NOF = 2



	Speed UNI	UNI	UNI	UNI	Quattro 4F
	DPX14S	DPX74S	DPX74S	DPX74S	DPX74S
	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN	DRAGONSKIN
	HA	HA	HB	HE	HA
	◁ 145°	◁ 135°	◁ 135°	◁ 135°	◁ 140°
	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
	10 782 ...	11 789 ...	11 790 ...	11 788 ...	10 736 ...

DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T4	
6.30	8	114	76	64	36	238.49	06300	157.42	063	157.42	063	157.42	063	214.31	06300
6.40	8	114	76	64	36	238.49	06400	157.42	064	157.42	064	157.42	064	214.31	06400
6.50	8	114	76	64	36	238.49	06500	157.42	065	157.42	065	157.42	065	214.31	06500
6.60	8	114	76	64	36	238.49	06600	157.42	066	157.42	066	157.42	066	214.31	06600
6.70	8	114	76	64	36	238.49	06700	157.42	067	157.42	067	157.42	067	214.31	06700
6.80	8	114	76	64	36	238.49	06800	157.42	068	157.42	068	157.42	068	214.31	06800
6.90	8	114	76	64	36	238.49	06900	157.42	069	157.42	069	157.42	069	214.31	06900
7.00	8	114	76	64	36	238.49	07000	157.42	070	157.42	070	157.42	070	214.31	07000
7.10	8	114	76	64	36	238.49	07100	157.42	071	157.42	071	157.42	071	214.31	07100
7.20	8	114	76	64	36	238.49	07200	157.42	072	157.42	072	157.42	072	214.31	07200
7.30	8	114	76	64	36	238.49	07300	157.42	073	157.42	073	157.42	073	214.31	07300
7.40	8	114	76	64	36	238.49	07400	157.42	074	157.42	074	157.42	074	214.31	07400
7.50	8	114	76	64	36	238.49	07500	157.42	075	157.42	075	157.42	075	214.31	07500
7.60	8	114	76	64	36	238.49	07600	157.42	076	157.42	076	157.42	076	214.31	07600
7.70	8	114	76	64	36	238.49	07700	157.42	077	157.42	077	157.42	077	214.31	07700
7.80	8	114	76	64	36	238.49	07800	157.42	078	157.42	078	157.42	078	214.31	07800
7.90	8	114	76	64	36	238.49	07900	157.42	079	157.42	079	157.42	079	214.31	07900
8.00	8	114	76	64	36	238.49	08000	157.42	080	157.42	080	157.42	080	214.31	08000
8.10	10	142	95	80	40	344.49	08100	190.66	081	190.66	081	190.66	081	308.73	08100
8.20	10	142	95	80	40	344.49	08200	190.66	082	190.66	082	190.66	082	308.73	08200
8.30	10	142	95	80	40	344.49	08300	190.66	083	190.66	083	190.66	083	308.73	08300
8.40	10	142	95	80	40	344.49	08400	190.66	084	190.66	084	190.66	084	308.73	08400
8.50	10	142	95	80	40	344.49	08500	190.66	085	190.66	085	190.66	085	308.73	08500
8.60	10	142	95	80	40	344.49	08600	190.66	086	190.66	086	190.66	086	308.73	08600
8.70	10	142	95	80	40	344.49	08700	190.66	087	190.66	087	190.66	087	308.73	08700
8.80	10	142	95	80	40	344.49	08800	190.66	088	190.66	088	190.66	088	308.73	08800
8.90	10	142	95	80	40	344.49	08900	190.66	089	190.66	089	190.66	089	308.73	08900
9.00	10	142	95	80	40	344.49	09000	190.66	090	190.66	090	190.66	090	308.73	09000
9.10	10	142	95	80	40	344.49	09100	190.66	091	190.66	091	190.66	091	308.73	09100
9.20	10	142	95	80	40	344.49	09200	190.66	092	190.66	092	190.66	092	308.73	09200
9.30	10	142	95	80	40	344.49	09300	190.66	093	190.66	093	190.66	093	308.73	09300
9.40	10	142	95	80	40	344.49	09400	190.66	094	190.66	094	190.66	094	308.73	09400
9.50	10	142	95	80	40	344.49	09500	190.66	095	190.66	095	190.66	095	308.73	09500
9.60	10	142	95	80	40	344.49	09600	190.66	096	190.66	096	190.66	096	308.73	09600
9.70	10	142	95	80	40	344.49	09700	190.66	097	190.66	097	190.66	097	308.73	09700

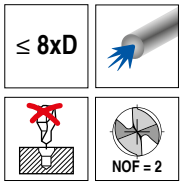
P	●	●	●	●	●
M	●				
K	●	●	●	●	●
N					
S					
H		○	○	○	○
O					

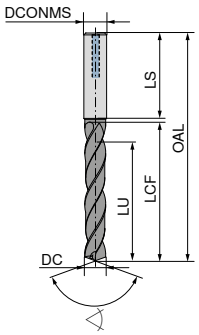
→ v_c Page 109–118

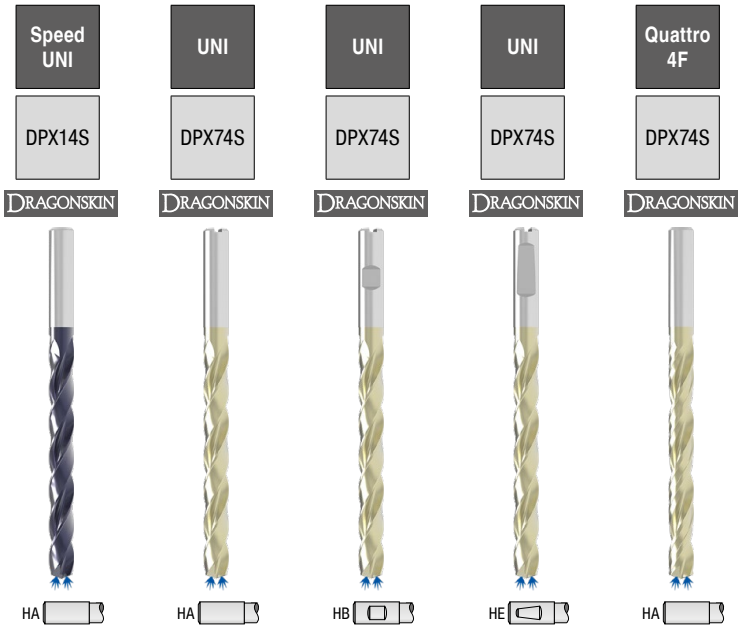
Ø DC$_{m7}$ for Type UNI and Quattro 4F/ **Ø DC$_{h7}$** for Type Speed UNI

Continued on next page

WTX – High Performance Drill, factory standard







						145° Solid carbide		135° Solid carbide		135° Solid carbide		135° Solid carbide		140° Solid carbide	
						10 782 ...		11 789 ...		11 790 ...		11 788 ...		10 736 ...	
DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T4	
9.80	10	142	95	80	40	344.49	09800	190.66	098	190.66	098	190.66	098	308.73	09800
9.90	10	142	95	80	40	344.49	09900	190.66	099	190.66	099	190.66	099	308.73	09900
10.00	10	142	95	80	40	344.49	10000	190.66	100	190.66	100	190.66	100	308.73	10000
10.10	12	162	114	96	45	444.27	10100	251.67	101	251.67	101	251.67	101	396.88	10100
10.20	12	162	114	96	45	444.27	10200	251.67	102	251.67	102	251.67	102	396.88	10200
10.30	12	162	114	96	45	444.27	10300	251.67	103	251.67	103	251.67	103	396.88	10300
10.40	12	162	114	96	45	444.27	10400	251.67	104	251.67	104	251.67	104	396.88	10400
10.50	12	162	114	96	45	444.27	10500	251.67	105	251.67	105	251.67	105	396.88	10500
10.60	12	162	114	96	45	444.27	10600	251.67	106	251.67	106	251.67	106	396.88	10600
10.70	12	162	114	96	45	444.27	10700	251.67	107	251.67	107	251.67	107	396.88	10700
10.80	12	162	114	96	45	444.27	10800	251.67	108	251.67	108	251.67	108	396.88	10800
10.90	12	162	114	96	45	444.27	10900	251.67	109	251.67	109	251.67	109	396.88	10900
11.00	12	162	114	96	45	444.27	11000	251.67	110	251.67	110	251.67	110	396.88	11000
11.10	12	162	114	96	45	444.27	11100	251.67	111	251.67	111	251.67	111	396.88	11100
11.20	12	162	114	96	45	444.27	11200	251.67	112	251.67	112	251.67	112	396.88	11200
11.30	12	162	114	96	45	444.27	11300	251.67	113	251.67	113	251.67	113	396.88	11300
11.40	12	162	114	96	45	444.27	11400	251.67	114	251.67	114	251.67	114	396.88	11400
11.50	12	162	114	96	45	444.27	11500	251.67	115	251.67	115	251.67	115	396.88	11500
11.60	12	162	114	96	45	444.27	11600	251.67	116	251.67	116	251.67	116	396.88	11600
11.70	12	162	114	96	45	444.27	11700	251.67	117	251.67	117	251.67	117	396.88	11700
11.80	12	162	114	96	45	444.27	11800	251.67	118	251.67	118	251.67	118	396.88	11800
11.90	12	162	114	96	45	444.27	11900	251.67	119	251.67	119	251.67	119	396.88	11900
12.00	12	162	114	96	45	444.27	12000	251.67	120	251.67	120	251.67	120	396.88	12000
12.50	14	178	131	112	45	533.13	12500	308.73	125					544.59	12500
12.50	14	178	131	112	43					308.73	125	308.73	125		
12.80	14	178	131	112	43					308.73	128	308.73	128		
12.80	14	178	131	112	45	533.13	12800	308.73	128					544.59	12800
13.00	14	178	131	112	45	533.13	13000	308.73	130					544.59	13000
13.00	14	178	131	112	43					308.73	130	308.73	130		
13.50	14	178	131	112	45	533.13	13500	308.73	135					544.59	13500
13.50	14	178	131	112	43					308.73	135	308.73	135		
13.80	14	178	131	112	45	533.13	13800	308.73	138					544.59	13800
13.80	14	178	131	112	43					308.73	138	308.73	138		
14.00	14	178	131	112	45	533.13	14000	308.73	140					544.59	14000
14.00	14	178	131	112	43					308.73	140	308.73	140		

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

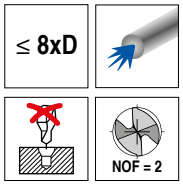
→ v_c Page 109–118

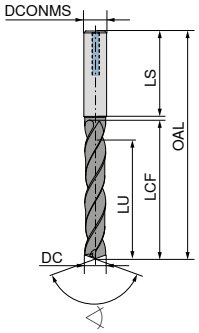
Ø DC_{m7} for Type UNI and Quattro 4F/ **Ø DC_{h7}** for Type Speed UNI

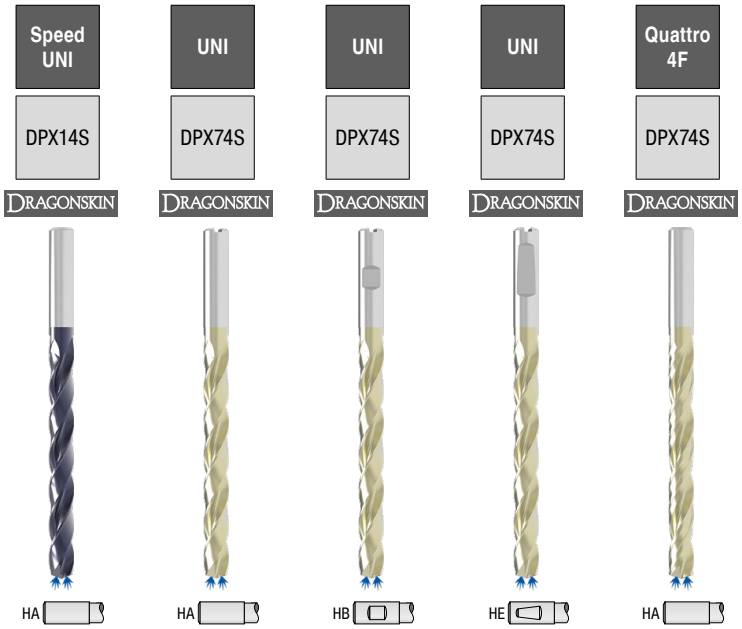
Continued on next page

WTX – High Performance Drill, factory standard

2







						145° Solid carbide		135° Solid carbide		135° Solid carbide		135° Solid carbide		140° Solid carbide	
						10 782 ...		11 789 ...		11 790 ...		11 788 ...		10 736 ...	
DC m7/h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T7		£ T7		£ T7		£ T4	
14.50	16	203	152	128	48	718.62	14500	383.15	145	383.15	145	383.15	145	686.82	14500
14.80	16	203	152	128	48	718.62	14800	383.15	148	383.15	148	383.15	148	686.82	14800
15.00	16	203	152	128	48	718.62	15000	383.15	150	383.15	150	383.15	150	686.82	15000
15.50	16	203	152	128	48	718.62	15500	383.15	155	383.15	155	383.15	155	686.82	15500
15.80	16	203	152	128	48	718.62	15800	383.15	158	383.15	158	383.15	158	686.82	15800
16.00	16	203	152	128	48	718.62	16000	383.15	160	383.15	160	383.15	160	686.82	16000
16.50	18	222	171	144	48	1,008.56	16500	485.37	165	485.37	165	485.37	165	986.04	16500
16.80	18	222	171	144	48	1,008.56	16800	485.37	168	485.37	168	485.37	168	986.04	16800
17.00	18	222	171	144	48	1,008.56	17000	485.37	170	485.37	170	485.37	170	986.04	17000
17.50	18	222	171	144	48	1,008.56	17500	485.37	175	485.37	175	485.37	175	986.04	17500
17.80	18	222	171	144	48	1,008.56	17800	485.37	178	485.37	178	485.37	178	986.04	17800
18.00	18	222	171	144	48	1,008.56	18000	485.37	180	485.37	180	485.37	180	986.04	18000
18.50	20	243	190	160	50	1,272.01	18500	569.70	185	569.70	185	569.70	185	1,244.20	18500
18.80	20	243	190	160	50	1,272.01	18800	569.70	188	569.70	188	569.70	188	1,244.20	18800
19.00	20	243	190	160	50	1,272.01	19000	569.70	190	569.70	190	569.70	190	1,244.20	19000
19.50	20	243	190	160	50	1,272.01	19500	569.70	195	569.70	195	569.70	195	1,244.20	19500
19.80	20	243	190	160	50	1,272.01	19800	569.70	198	569.70	198	569.70	198	1,244.20	19800
20.00	20	243	190	160	50	1,272.01	20000	569.70	200	569.70	200	569.70	200	1,244.20	20000
P						●		●		●		●		●	
M						●									
K						●		●		●		●		●	
N															
S															
H								○		○		○		○	
O															

→ v_c Page 109–118

Ø DC$_{m7}$ for Type UNI and Quattro 4F/ **Ø DC$_{h7}$** for Type Speed UNI

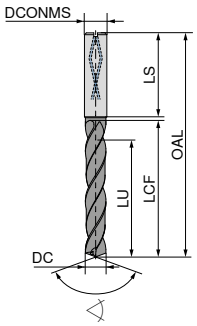
WPC – High Performance Drill, factory standard

≤ 8xD

NOF = 2

UNI

TiAlN



HA

135°

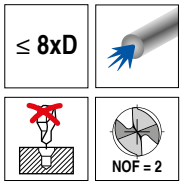
Solid carbide

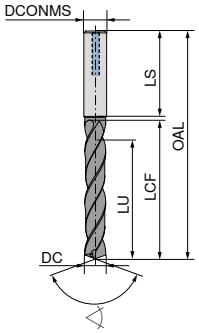
DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 612 ... £ T1	
3.0	6	72	34	29	36	92.10	030
3.1	6	72	34	29	36	92.10	031
3.2	6	72	34	29	36	92.10	032
3.3	6	72	34	29	36	92.10	033
3.4	6	72	34	29	36	92.10	034
3.5	6	72	34	29	36	92.10	035
3.6	6	72	34	29	36	92.10	036
3.7	6	72	34	29	36	92.10	037
3.8	6	81	43	36	36	92.10	038
3.9	6	81	43	36	36	92.10	039
4.0	6	81	43	36	36	92.10	040
4.1	6	81	43	36	36	92.10	041
4.2	6	81	43	36	36	92.10	042
4.3	6	81	43	36	36	92.10	043
4.4	6	81	43	36	36	92.10	044
4.5	6	81	43	36	36	92.10	045
4.6	6	81	43	36	36	92.10	046
4.7	6	81	43	36	36	92.10	047
4.8	6	95	57	48	36	92.10	048
4.9	6	95	57	48	36	92.10	049
5.0	6	95	57	48	36	92.10	050
5.1	6	95	57	48	36	92.10	051
5.2	6	95	57	48	36	92.10	052
5.3	6	95	57	48	36	92.10	053
5.5	6	95	57	48	36	92.10	055
5.8	6	95	57	48	36	92.10	058
5.9	6	95	57	48	36	92.10	059
6.0	6	95	57	48	36	92.10	060
6.1	8	114	76	64	36	118.09	061
6.2	8	114	76	64	36	118.09	062
6.3	8	114	76	64	36	118.09	063
6.5	8	114	76	64	36	118.09	065
6.6	8	114	76	64	36	118.09	066
6.8	8	114	76	64	36	118.09	068
7.0	8	114	76	64	36	118.09	070
7.4	8	114	76	64	36	118.09	074
7.5	8	114	76	64	36	118.09	075
7.7	8	114	76	64	36	118.09	077
7.8	8	114	76	64	36	118.09	078
7.9	8	114	76	64	36	118.09	079
8.0	8	114	76	64	36	118.09	080
8.1	10	142	95	80	40	148.47	081
8.2	10	142	95	80	40	148.47	082
8.3	10	142	95	80	40	148.47	083
8.5	10	142	95	80	40	148.47	085
8.6	10	142	95	80	40	148.47	086
8.7	10	142	95	80	40	148.47	087
8.8	10	142	95	80	40	148.47	088
9.0	10	142	95	80	40	148.47	090
9.1	10	142	95	80	40	148.47	091
9.2	10	142	95	80	40	148.47	092
9.3	10	142	95	80	40	148.47	093
9.4	10	142	95	80	40	148.47	094
9.5	10	142	95	80	40	148.47	095
9.7	10	142	95	80	40	148.47	097
9.8	10	142	95	80	40	148.47	098
9.9	10	142	95	80	40	148.47	099
10.0	10	142	95	80	40	148.47	100
10.2	12	162	114	96	45	197.58	102
10.5	12	162	114	96	45	197.58	105
10.8	12	162	114	96	45	197.58	108
11.0	12	162	114	96	45	197.58	110
11.2	12	162	114	96	45	197.58	112
11.5	12	162	114	96	45	197.58	115
11.8	12	162	114	96	45	197.58	118
12.0	12	162	114	96	45	197.58	120
12.5	14	178	131	112	45	289.96	125
13.0	14	178	131	112	45	289.96	130
13.5	14	178	131	112	45	289.96	135
14.0	14	178	131	112	45	289.96	140
14.5	16	203	152	128	48	378.79	145
15.0	16	203	152	128	48	378.79	150
15.5	16	203	152	128	48	378.79	155
16.0	16	203	152	128	48	378.79	160
16.5	18	222	171	144	48	471.16	165
17.0	18	222	171	144	48	471.16	170
17.5	18	222	171	144	48	471.16	175
18.0	18	222	171	144	48	471.16	180
18.5	20	243	190	160	50	524.95	185
19.0	20	243	190	160	50	524.95	190
20.0	20	243	190	160	50	524.95	200

P	●
M	
K	●
N	
S	
H	
O	

→ v_c Page 132

WTX – High Performance Drill, factory standard





Type GG = Straight Fluted

VA	GG	AL
Ti700	Ti700	DLC
		DRAGONSKIN

HA HA HA

140° Solid carbide | 130° Solid carbide | 135° Solid carbide

DC h7/m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 770 ... £ T4		10 753 ... £ T4		10 792 ... £ T4	
3.0	6	72	34	29	36	146.87	030	151.68	030	144.61	03000
3.1	6	72	34	29	36	146.87	031	151.68	031	144.61	03100
3.2	6	72	34	29	36	146.87	032	151.68	032	144.61	03200
3.3	6	72	34	29	36	146.87	033	151.68	033	144.61	03300
3.4	6	72	34	29	36	146.87	034	151.68	034	144.61	03400
3.5	6	72	34	29	36	146.87	035	151.68	035	144.61	03500
3.6	6	72	34	29	36	146.87	036	151.68	036	144.61	03600
3.7	6	72	34	29	36	146.87	037	151.68	037	144.61	03700
3.8	6	81	43	36	36	146.87	038	151.68	038	144.61	03800
3.9	6	81	43	36	36	146.87	039	151.68	039	144.61	03900
4.0	6	81	43	36	36	146.87	040	151.68	040	144.61	04000
4.1	6	81	43	36	36	146.87	041	151.68	041	144.61	04100
4.2	6	81	43	36	36	146.87	042	151.68	042	144.61	04200
4.3	6	81	43	36	36	146.87	043	151.68	043	144.61	04300
4.4	6	81	43	36	36	146.87	044	151.68	044	144.61	04400
4.5	6	81	43	36	36	146.87	045	151.68	045	144.61	04500
4.6	6	81	43	36	36	146.87	046	151.68	046	144.61	04600
4.7	6	81	43	36	36	146.87	047	151.68	047	144.61	04700
4.8	6	95	57	48	36	146.87	048	151.68	048	144.61	04800
4.9	6	95	57	48	36	146.87	049	151.68	049	144.61	04900
5.0	6	95	57	48	36	146.87	050	151.68	050	144.61	05000
5.1	6	95	57	48	36	146.87	051	151.68	051	144.61	05100
5.2	6	95	57	48	36	146.87	052	151.68	052	144.61	05200
5.3	6	95	57	48	36	146.87	053	151.68	053	144.61	05300
5.4	6	95	57	48	36	146.87	054	151.68	054	144.61	05400
5.5	6	95	57	48	36	146.87	055	151.68	055	144.61	05500
5.6	6	95	57	48	36	146.87	056	151.68	056	144.61	05600
5.7	6	95	57	48	36	146.87	057	151.68	057	144.61	05700
5.8	6	95	57	48	36	146.87	058	151.68	058	144.61	05800
5.9	6	95	57	48	36	146.87	059	151.68	059	144.61	05900
6.0	6	95	57	48	36	146.87	060	151.68	060	144.61	06000
6.1	8	114	76	64	36	176.86	061	158.64	061	181.67	06100
6.2	8	114	76	64	36	176.86	062	158.64	062	181.67	06200
6.3	8	114	76	64	36	176.86	063	158.64	063	181.67	06300
6.4	8	114	76	64	36	176.86	064	158.64	064	181.67	06400
6.5	8	114	76	64	36	176.86	065	158.64	065	181.67	06500
6.6	8	114	76	64	36	176.86	066	158.64	066	181.67	06600
6.7	8	114	76	64	36	176.86	067	158.64	067	181.67	06700
6.8	8	114	76	64	36	176.86	068	158.64	068	181.67	06800
6.9	8	114	76	64	36	176.86	069	158.64	069	181.67	06900
7.0	8	114	76	64	36	176.86	070	158.64	070	181.67	07000
7.1	8	114	76	64	36	176.86	071	158.64	071	181.67	07100
7.2	8	114	76	64	36	176.86	072	158.64	072	181.67	07200
7.3	8	114	76	64	36	176.86	073	158.64	073	181.67	07300
7.4	8	114	76	64	36	176.86	074	158.64	074	181.67	07400

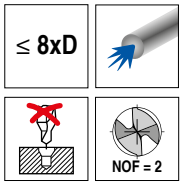
P	○		
M	●		
K	○	●	
N	○	○	●
S	●		
H			
O			

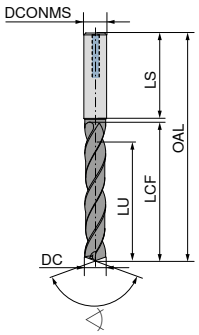
→ v_c Page 115–121

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

Continued on next page

WTX – High Performance Drill, factory standard





Type GG = Straight Fluted

	VA	GG	AL
	140° Solid carbide	130° Solid carbide	135° Solid carbide
	10 770 ...	10 753 ...	10 792 ...

DC h7/m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4	
7.5	8	114	76	64	36	176.86	075	158.64	075	181.67	07500
7.6	8	114	76	64	36	176.86	076	158.64	076	181.67	07600
7.7	8	114	76	64	36	176.86	077	158.64	077	181.67	07700
7.8	8	114	76	64	36	176.86	078	158.64	078	181.67	07800
7.9	8	114	76	64	36	176.86	079	158.64	079	181.67	07900
8.0	8	114	76	64	36	176.86	080	158.64	080	181.67	08000
8.1	10	142	95	80	40	255.83	081	220.52	081	230.63	08100
8.2	10	142	95	80	40	255.83	082	220.52	082	230.63	08200
8.3	10	142	95	80	40	255.83	083	220.52	083	230.63	08300
8.4	10	142	95	80	40	255.83	084	220.52	084	230.63	08400
8.5	10	142	95	80	40	255.83	085	220.52	085	230.63	08500
8.6	10	142	95	80	40	255.83	086	220.52	086	230.63	08600
8.7	10	142	95	80	40	255.83	087	220.52	087	230.63	08700
8.8	10	142	95	80	40	255.83	088	220.52	088	230.63	08800
8.9	10	142	95	80	40	255.83	089	220.52	089	230.63	08900
9.0	10	142	95	80	40	255.83	090	220.52	090	230.63	09000
9.1	10	142	95	80	40	255.83	091	220.52	091	230.63	09100
9.2	10	142	95	80	40	255.83	092	220.52	092	230.63	09200
9.3	10	142	95	80	40	255.83	093	220.52	093	230.63	09300
9.4	10	142	95	80	40	255.83	094	220.52	094	230.63	09400
9.5	10	142	95	80	40	255.83	095	220.52	095	230.63	09500
9.6	10	142	95	80	40	255.83	096	220.52	096	230.63	09600
9.7	10	142	95	80	40	255.83	097	220.52	097	230.63	09700
9.8	10	142	95	80	40	255.83	098	220.52	098	230.63	09800
9.9	10	142	95	80	40	255.83	099	220.52	099	230.63	09900
10.0	10	142	95	80	40	255.83	100	220.52	100	230.63	10000
10.1	12	162	114	96	45	328.58	101	281.03	101		
10.2	12	162	114	96	45	328.58	102	281.03	102	294.39	10200
10.3	12	162	114	96	45	328.58	103	281.03	103	294.39	10300
10.4	12	162	114	96	45	328.58	104	281.03	104	294.39	10400
10.5	12	162	114	96	45	328.58	105	281.03	105	294.39	10500
10.6	12	162	114	96	45	328.58	106	281.03	106		
10.7	12	162	114	96	45	328.58	107	281.03	107	294.39	10700
10.8	12	162	114	96	45	328.58	108	281.03	108	294.39	10800
10.9	12	162	114	96	45	328.58	109	281.03	109		
11.0	12	162	114	96	45	328.58	110	281.03	110	294.39	11000
11.1	12	162	114	96	45	328.58	111	281.03	111		
11.2	12	162	114	96	45	328.58	112	281.03	112	294.39	11200
11.3	12	162	114	96	45	328.58	113	281.03	113		
11.4	12	162	114	96	45	328.58	114	281.03	114		
11.5	12	162	114	96	45	328.58	115	281.03	115	294.39	11500
11.6	12	162	114	96	45	328.58	116	281.03	116	294.39	11600
11.7	12	162	114	96	45	328.58	117	281.03	117		
11.8	12	162	114	96	45	328.58	118	281.03	118	294.39	11800
11.9	12	162	114	96	45	328.58	119	281.03	119		

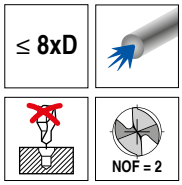
P	○		
M	●		
K	○	●	
N	○	○	●
S	●		
H			
O			

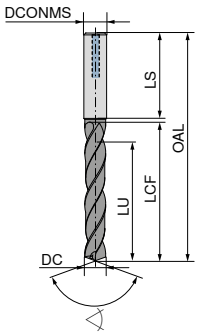
→ v_c Page 115–121

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

Continued on next page

WTX – High Performance Drill, factory standard





Type GG = Straight Fluted

	VA	GG	AL
	140° Solid carbide	130° Solid carbide	135° Solid carbide
	10 770 ...	10 753 ...	10 792 ...

DC h7/m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4	
12.0	12	162	114	96	45	328.58	120	281.03	120	294.39	12000
12.2	14	178	131	112	45					373.09	12200
12.5	14	178	133	112	45	394.64	125	410.38	125		
12.5	14	178	131	112	45					373.09	12500
12.8	14	178	131	112	45					373.09	12800
12.8	14	178	133	112	45	394.64	128	410.38	128		
13.0	14	178	131	112	45					373.09	13000
13.0	14	178	133	112	45	394.64	130	410.38	130		
13.2	14	178	131	112	45					373.09	13200
13.5	14	178	131	112	45					373.09	13500
13.5	14	178	133	112	45	394.64	135	410.38	135		
13.8	14	178	131	112	45					373.09	13800
13.8	14	178	133	112	45	394.64	138	410.38	138		
14.0	14	178	133	112	45	394.64	140	410.38	140		
14.0	14	178	131	112	45					373.09	14000
14.2	16	203	152	128	48					532.49	14200
14.5	16	203	152	128	48	533.61	145	531.38	145	532.49	14500
14.8	16	203	152	128	48	533.61	148	531.38	148	532.49	14800
15.0	16	203	152	128	48	533.61	150	531.38	150	532.49	15000
15.2	16	203	152	128	48					532.49	15200
15.5	16	203	152	128	48	533.61	155	531.38	155	532.49	15500
15.8	16	203	152	128	48	533.61	158	531.38	158	532.49	15800
16.0	16	203	152	128	48	533.61	160	531.38	160	532.49	16000
16.2	18	222	171	144	48					652.06	16200
16.5	18	222	171	144	48	746.54	165	736.42	165	652.06	16500
16.8	18	222	171	144	48	746.54	168	736.42	168	652.06	16800
17.0	18	222	171	144	48	746.54	170	736.42	170	652.06	17000
17.2	18	222	171	144	48					652.06	17200
17.5	18	222	171	144	48	746.54	175	736.42	175	652.06	17500
17.8	18	222	171	144	48	746.54	178	736.42	178	652.06	17800
18.0	18	222	171	144	48	746.54	180	736.42	180	652.06	18000
18.2	20	243	190	160	50					795.28	18200
18.5	20	243	190	160	50	941.71	185	922.60	185	795.28	18500
18.8	20	243	190	160	50	941.71	188	922.60	188	795.28	18800
19.0	20	243	190	160	50	941.71	190	922.60	190	795.28	19000
19.1	20	243	190	160	50					795.28	19100
19.2	20	243	190	160	50					795.28	19200
19.5	20	243	190	160	50	941.71	195	922.60	195	795.28	19500
19.8	20	243	190	160	50	941.71	198	922.60	198	795.28	19800
20.0	20	243	190	160	50	941.71	200	922.60	200	795.28	20000

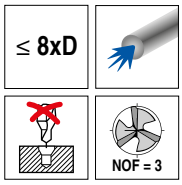
P	○		
M	●		
K	○	●	
N	○	○	●
S	●		
H			
O			

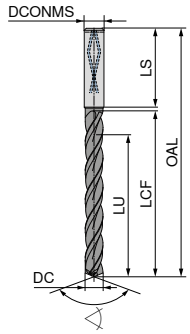
→ v_c Page 115–121

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

WTX – High Feed Drill, factory standard

- Three fluted high-feed drill
- Universal application
- High positioning accuracy
- Suitable for difficult drilling applications





Feed UNI

DPX74S

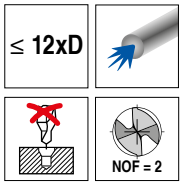
135°
Solid carbide

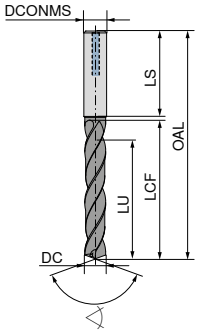
DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 794 ... £ T4	
4.00	6	81	43	36	36	149.38	04000
4.10	6	81	43	36	36	149.38	04100
4.20	6	81	43	36	36	149.38	04200
4.30	6	81	43	36	36	149.38	04300
4.40	6	81	43	36	36	149.38	04400
4.50	6	81	43	36	36	149.38	04500
4.60	6	81	43	36	36	149.38	04600
4.70	6	81	43	36	36	149.38	04700
4.80	6	95	57	48	36	149.38	04800
4.90	6	95	57	48	36	149.38	04900
5.00	6	95	57	48	36	149.38	05000
5.10	6	95	57	48	36	149.38	05100
5.20	6	95	57	48	36	149.38	05200
5.30	6	95	57	48	36	149.38	05300
5.40	6	95	57	48	36	149.38	05400
5.50	6	95	57	48	36	149.38	05500
5.55	6	95	57	48	36	149.38	05550
5.60	6	95	57	48	36	149.38	05600
5.70	6	95	57	48	36	149.38	05700
5.80	6	95	57	48	36	149.38	05800
5.90	6	95	57	48	36	149.38	05900
6.00	6	95	57	48	36	149.38	06000
6.10	8	114	76	64	36	199.58	06100
6.20	8	114	76	64	36	199.58	06200
6.30	8	114	76	64	36	199.58	06300
6.40	8	114	76	64	36	199.58	06400
6.50	8	114	76	64	36	199.58	06500
6.60	8	114	76	64	36	199.58	06600
6.70	8	114	76	64	36	199.58	06700
6.80	8	114	76	64	36	199.58	06800
6.90	8	114	76	64	36	199.58	06900
7.00	8	114	76	64	36	199.58	07000
7.10	8	114	76	64	36	199.58	07100
7.20	8	114	76	64	36	199.58	07200
7.30	8	114	76	64	36	199.58	07300
7.40	8	114	76	64	36	199.58	07400
7.50	8	114	76	64	36	199.58	07500
7.60	8	114	76	64	36	199.58	07600
7.70	8	114	76	64	36	199.58	07700
7.80	8	114	76	64	36	199.58	07800
7.90	8	114	76	64	36	199.58	07900
8.00	8	114	76	64	36	199.58	08000
8.10	10	142	95	80	40	287.74	08100
8.20	10	142	95	80	40	287.74	08200
8.30	10	142	95	80	40	287.74	08300
8.40	10	142	95	80	40	287.74	08400
8.50	10	142	95	80	40	287.74	08500
8.60	10	142	95	80	40	287.74	08600
8.70	10	142	95	80	40	287.74	08700
8.80	10	142	95	80	40	287.74	08800
8.90	10	142	95	80	40	287.74	08900
9.00	10	142	95	80	40	287.74	09000
9.10	10	142	95	80	40	287.74	09100
9.20	10	142	95	80	40	287.74	09200
9.30	10	142	95	80	40	287.74	09300
9.40	10	142	95	80	40	287.74	09400
9.50	10	142	95	80	40	287.74	09500
9.60	10	142	95	80	40	287.74	09600
9.70	10	142	95	80	40	287.74	09700
9.80	10	142	95	80	40	287.74	09800
9.90	10	142	95	80	40	287.74	09900
10.00	10	142	95	80	40	287.74	10000
10.10	12	162	114	96	45	372.25	10100
10.20	12	162	114	96	45	372.25	10200
10.30	12	162	114	96	45	372.25	10300
10.40	12	162	114	96	45	372.25	10400
10.50	12	162	114	96	45	372.25	10500
10.60	12	162	114	96	45	372.25	10600
10.70	12	162	114	96	45	372.25	10700
10.80	12	162	114	96	45	372.25	10800
10.90	12	162	114	96	45	372.25	10900
11.00	12	162	114	96	45	372.25	11000
11.10	12	162	114	96	45	372.25	11100
11.20	12	162	114	96	45	372.25	11200
11.30	12	162	114	96	45	372.25	11300
11.40	12	162	114	96	45	372.25	11400
11.50	12	162	114	96	45	372.25	11500
11.60	12	162	114	96	45	372.25	11600
11.70	12	162	114	96	45	372.25	11700
11.80	12	162	114	96	45	372.25	11800
11.90	12	162	114	96	45	372.25	11900
12.00	12	162	114	96	45	372.25	12000
12.20	14	178	131	112	45	446.92	12200
12.50	14	178	131	112	45	446.92	12500
12.80	14	178	131	112	45	446.92	12800
13.00	14	178	131	112	45	446.92	13000
13.50	14	178	131	112	45	446.92	13500
13.80	14	178	131	112	45	446.92	13800
14.00	14	178	131	112	45	446.92	14000
14.50	16	203	152	128	48	602.43	14500
14.80	16	203	152	128	48	602.43	14800
15.00	16	203	152	128	48	602.43	15000
15.50	16	203	152	128	48	602.43	15500
15.80	16	203	152	128	48	602.43	15800
16.00	16	203	152	128	48	602.43	16000
16.50	18	222	171	144	48	844.86	16500
16.80	18	222	171	144	48	844.86	16800
17.00	18	222	171	144	48	844.86	17000
17.50	18	222	171	144	48	844.86	17500
17.80	18	222	171	144	48	844.86	17800
18.00	18	222	171	144	48	844.86	18000
18.50	20	243	190	160	50	1,064.05	18500
18.80	20	243	190	160	50	1,064.05	18800
19.00	20	243	190	160	50	1,064.05	19000
19.50	20	243	190	160	50	1,064.05	19500
19.80	20	243	190	160	50	1,064.05	19800
20.00	20	243	190	160	50	1,064.05	20000

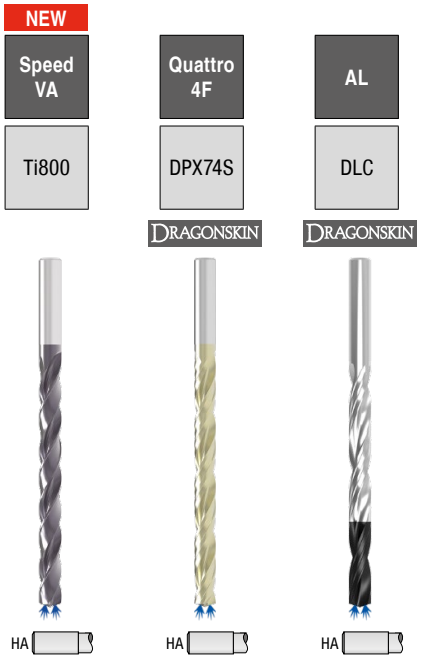
P	●
M	●
K	●
N	○
S	
H	
O	

→ v_c Page 111

WTX – High Performance Drill, factory standard







						Speed VA	Quattro 4F	AL
						135° Solid carbide	140° Solid carbide	135° Solid carbide
						10 774 ...	10 737 ...	10 793 ...
DC h7/m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4	£ T4	£ T4
3.0	6	92	54	48	36	177.56 03000	237.95 03000	174.83 03000
3.1	6	92	54	48	36	177.56 03100	237.95 03100	174.83 03100
3.2	6	92	54	48	36	177.56 03200	237.95 03200	174.83 03200
3.3	6	92	54	48	36	177.56 03300	237.95 03300	174.83 03300
3.4	6	92	54	48	36	177.56 03400	237.95 03400	174.83 03400
3.5	6	92	54	48	36	177.56 03500	237.95 03500	174.83 03500
3.6	6	92	54	48	36	177.56 03600	237.95 03600	174.83 03600
3.7	6	92	54	48	36	177.56 03700	237.95 03700	174.83 03700
3.8	6	102	64	58	36	177.56 03800	237.95 03800	174.83 03800
3.9	6	102	64	58	36	177.56 03900	237.95 03900	174.83 03900
4.0	6	102	64	58	36	177.56 04000	237.95 04000	174.83 04000
4.1	6	102	64	58	36	177.56 04100	237.95 04100	174.83 04100
4.2	6	102	64	58	36	177.56 04200	237.95 04200	174.83 04200
4.3	6	102	64	58	36	177.56 04300	237.95 04300	174.83 04300
4.4	6	102	64	58	36	177.56 04400	237.95 04400	174.83 04400
4.5	6	102	64	58	36	177.56 04500	237.95 04500	174.83 04500
4.6	6	102	64	58	36	177.56 04600	237.95 04600	174.83 04600
4.7	6	102	64	58	36	177.56 04700	237.95 04700	174.83 04700
4.8	6	116	78	70	36	177.56 04800	237.95 04800	174.83 04800
4.9	6	116	78	70	36	177.56 04900	237.95 04900	174.83 04900
5.0	6	116	78	70	36	177.56 05000	237.95 05000	174.83 05000
5.1	6	116	78	70	36	177.56 05100	237.95 05100	174.83 05100
5.2	6	116	78	70	36	177.56 05200	237.95 05200	174.83 05200
5.3	6	116	78	70	36	177.56 05300	237.95 05300	174.83 05300
5.4	6	116	78	70	36	177.56 05400	237.95 05400	174.83 05400
5.5	6	116	78	70	36	177.56 05500	237.95 05500	174.83 05500
5.6	6	116	78	70	36	177.56 05600	237.95 05600	174.83 05600
5.7	6	116	78	70	36	177.56 05700	237.95 05700	174.83 05700
5.8	6	116	78	70	36	177.56 05800	237.95 05800	174.83 05800
5.9	6	116	78	70	36	177.56 05900	237.95 05900	174.83 05900
6.0	6	116	78	70	36	177.56 06000	237.95 06000	174.83 06000
6.1	8	146	108	94	36	203.99 06100	249.53 06100	241.63 06100
6.2	8	146	108	94	36	203.99 06200	249.53 06200	241.63 06200
6.3	8	146	108	94	36	203.99 06300	249.53 06300	241.63 06300
6.4	8	146	108	94	36	203.99 06400	249.53 06400	241.63 06400
6.5	8	146	108	94	36	203.99 06500	249.53 06500	241.63 06500
6.6	8	146	108	94	36	203.99 06600	249.53 06600	241.63 06600
6.7	8	146	108	94	36	203.99 06700	249.53 06700	241.63 06700
6.8	8	146	108	94	36	203.99 06800	249.53 06800	241.63 06800

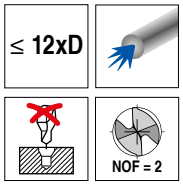
	Speed VA	Quattro 4F	AL
P	●	●	
M	●		
K	●	●	
N	○		●
S	●		
H		○	
O			

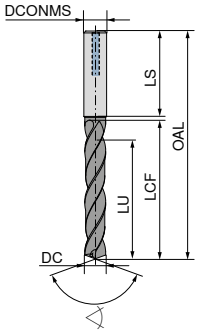
→ v_c Page 116–122

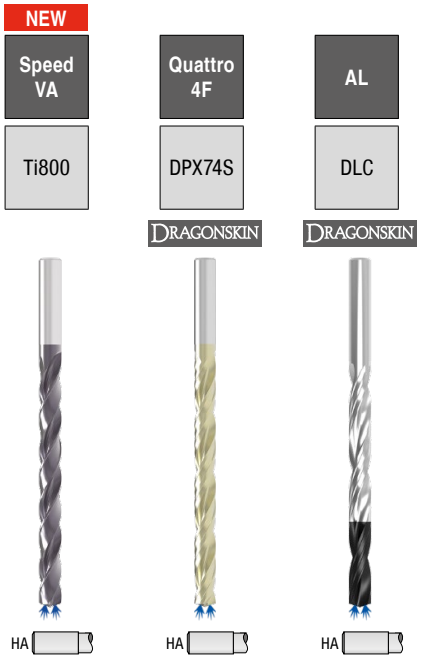
Ø DC$_{m7}$ for Type Speed VA and Quattro 4F / **Ø DC$_{h7}$** for Type AL

Continued on next page

WTX – High Performance Drill, factory standard







						135° Solid carbide		140° Solid carbide		135° Solid carbide	
						10 774 ...		**10 737 ...**		**10 793 ...**	
DC h7/m7 **mm**	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4		£ T4		£ T4	
6.9	8	146	108	94	36	203.99	**06900**	249.53	**06900**	241.63	**06900**
7.0	8	146	108	94	36	203.99	**07000**	249.53	**07000**	241.63	**07000**
7.1	8	146	108	94	36	203.99	**07100**	249.53	**07100**	241.63	**07100**
7.2	8	146	108	94	36	203.99	**07200**	249.53	**07200**	241.63	**07200**
7.3	8	146	108	94	36	203.99	**07300**	249.53	**07300**	241.63	**07300**
7.4	8	146	108	94	36	203.99	**07400**	249.53	**07400**	241.63	**07400**
7.5	8	146	108	94	36	203.99	**07500**	249.53	**07500**	241.63	**07500**
7.6	8	146	108	94	36	203.99	**07600**	249.53	**07600**	241.63	**07600**
7.7	8	146	108	94	36	203.99	**07700**	249.53	**07700**	241.63	**07700**
7.8	8	146	108	94	36	203.99	**07800**	249.53	**07800**	241.63	**07800**
7.9	8	146	108	94	36	203.99	**07900**	249.53	**07900**	241.63	**07900**
8.0	8	146	108	94	36	203.99	**08000**	249.53	**08000**	241.63	**08000**
8.1	10	162	120	110	40	266.04	**08100**	339.99	**08100**	306.76	**08100**
8.2	10	162	120	110	40	266.04	**08200**	339.99	**08200**	306.76	**08200**
8.3	10	162	120	110	40	266.04	**08300**	339.99	**08300**	306.76	**08300**
8.4	10	162	120	110	40	266.04	**08400**	339.99	**08400**	306.76	**08400**
8.5	10	162	120	110	40	266.04	**08500**	339.99	**08500**	306.76	**08500**
8.6	10	162	120	110	40	266.04	**08600**	339.99	**08600**	306.76	**08600**
8.7	10	162	120	110	40	266.04	**08700**	339.99	**08700**	306.76	**08700**
8.8	10	162	120	110	40	266.04	**08800**	339.99	**08800**	306.76	**08800**
8.9	10	162	120	110	40	266.04	**08900**	339.99	**08900**	306.76	**08900**
9.0	10	162	120	110	40	266.04	**09000**	339.99	**09000**	306.76	**09000**
9.1	10	162	120	110	40	266.04	**09100**	339.99	**09100**	306.76	**09100**
9.2	10	162	120	110	40	266.04	**09200**	339.99	**09200**	306.76	**09200**
9.3	10	162	120	110	40	266.04	**09300**	339.99	**09300**	306.76	**09300**
9.4	10	162	120	110	40	266.04	**09400**	339.99	**09400**	306.76	**09400**
9.5	10	162	120	110	40	266.04	**09500**	339.99	**09500**	306.76	**09500**
9.6	10	162	120	110	40	266.04	**09600**	339.99	**09600**	306.76	**09600**
9.7	10	162	120	110	40	266.04	**09700**	339.99	**09700**	306.76	**09700**
9.8	10	162	120	110	40	266.04	**09800**	339.99	**09800**	306.76	**09800**
9.9	10	162	120	110	40	266.04	**09900**	339.99	**09900**	306.76	**09900**
10.0	10	162	120	110	40	266.04	**10000**	339.99	**10000**	306.76	**10000**
10.1	12	204	156	142	45	362.60	**10100**	420.50	**10100**		
10.2	12	204	156	142	45	362.60	**10200**	420.50	**10200**	415.65	**10200**
10.3	12	204	156	142	45	362.60	**10300**	420.50	**10300**		
10.4	12	204	156	142	45	362.60	**10400**	420.50	**10400**		
10.5	12	204	156	142	45	362.60	**10500**	420.50	**10500**	415.65	**10500**
10.6	12	204	156	142	45	362.60	**10600**	420.50	**10600**		
10.7	12	204	156	142	45	362.60	**10700**	420.50	**10700**	415.65	**10700**

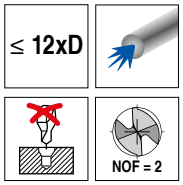
P	●	●	
M	●		
K	●	●	
N	○		●
S	●		
H		○	
O			

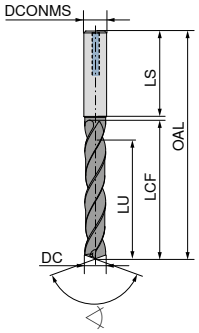
→ v_c Page 116–122

Ø DC$_{m7}$ for Type Speed VA and Quattro 4F / **Ø DC**$_{h7}$ for Type AL

Continued on next page

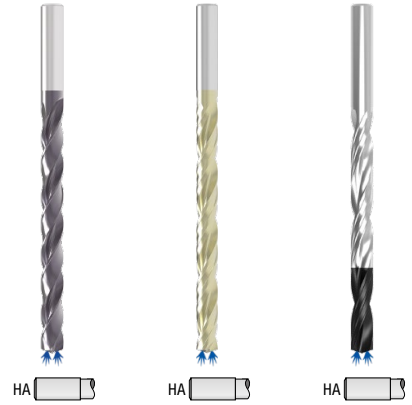
WTX – High Performance Drill, factory standard





NEW

Speed VA	Quattro 4F	AL
Ti800	DPX74S	DLC
	DRAGONSKIN	DRAGONSKIN



	Speed VA	Quattro 4F	AL
	135°	140°	135°
	Solid carbide	Solid carbide	Solid carbide
	10 774 ...	10 737 ...	10 793 ...

DC h7/m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	Speed VA £ T4		Quattro 4F £ T4		AL £ T4	
10.8	12	204	156	142	45	362.60	10800	420.50	10800	415.65	10800
10.9	12	204	156	142	45	362.60	10900	420.50	10900		
11.0	12	204	156	142	45	362.60	11000	420.50	11000	415.65	11000
11.1	12	204	156	142	45	362.60	11100	420.50	11100		
11.2	12	204	156	142	45	362.60	11200	420.50	11200	415.65	11200
11.3	12	204	156	142	45	362.60	11300	420.50	11300	415.65	11300
11.4	12	204	156	142	45	362.60	11400	420.50	11400		
11.5	12	204	156	142	45	362.60	11500	420.50	11500	415.65	11500
11.6	12	204	156	142	45	362.60	11600	420.50	11600		
11.7	12	204	156	142	45	362.60	11700	420.50	11700		
11.8	12	204	156	142	45	362.60	11800	420.50	11800	415.65	11800
11.9	12	204	156	142	45	362.60	11900	420.50	11900		
12.0	12	204	156	142	45	362.60	12000	420.50	12000	415.65	12000
12.1	14	230	182	166	45					585.88	12100
12.2	14	230	182	166	45	515.31	12200			585.88	12200
12.5	14	230	182	166	45	515.31	12500	614.85	12500	585.88	12500
12.8	14	230	182	166	45	515.31	12800	614.85	12800	585.88	12800
13.0	14	230	182	166	45	515.31	13000	614.85	13000	585.88	13000
13.2	14	230	182	166	45					585.88	13200
13.5	14	230	182	166	45	515.31	13500	614.85	13500	585.88	13500
13.8	14	230	182	166	45	515.31	13800	614.85	13800	585.88	13800
14.0	14	230	182	166	45	515.31	14000	614.85	14000	585.88	14000
14.2	16	260	208	192	48	661.14	14200			710.34	14200
14.5	16	260	208	192	48	661.14	14500	803.51	14500	710.34	14500
14.7	16	260	208	192	48					710.34	14700
14.8	16	260	208	192	48			803.51	14800	710.34	14800
15.0	16	260	208	192	48	661.14	15000	803.51	15000	710.34	15000
15.1	16	260	208	192	48	661.14	15100				
15.2	16	260	208	192	48	661.14	15200			710.34	15200
15.5	16	260	208	192	48	661.14	15500	803.51	15500	710.34	15500
15.7	16	260	208	192	48					710.34	15700
15.8	16	260	208	192	48	661.14	15800	803.51	15800	710.34	15800
16.0	16	260	208	192	48	661.14	16000	803.51	16000	710.34	16000
16.2	18	285	234	216	48					790.10	16200
16.5	18	285	234	216	48			1,109.93	16500	790.10	16500
16.8	18	285	234	216	48			1,109.93	16800	790.10	16800
17.0	18	285	234	216	48	909.12	17000	1,109.93	17000	790.10	17000
17.2	18	285	234	216	48					790.10	17200
17.5	18	285	234	216	48	909.12	17500	1,109.93	17500	790.10	17500

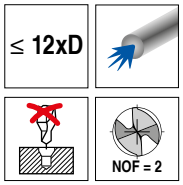
	Speed VA	Quattro 4F	AL
P	●	●	
M	●		
K	●	●	
N	○		●
S	●		
H		○	
O			

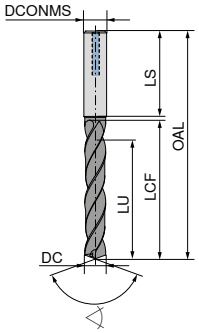
→ v_c Page 116–122

Ø DC$_{m7}$ for Type Speed VA and Quattro 4F / **Ø DC$_{h7}$** for Type AL

Continued on next page

WTX – High Performance Drill, factory standard





	NEW		
	Speed VA	Quattro 4F	AL
	Ti800	DPX74S	DLC
		DRAGONSKIN	DRAGONSKIN

	HA	HA	HA
	135°	140°	135°
	Solid carbide	Solid carbide	Solid carbide
	10 774 ...	10 737 ...	10 793 ...
	£ T4	£ T4	£ T4

DC h7/m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm					
17.8	18	285	234	216	48		1,109.93	17800	790.10	17800
18.0	18	285	234	216	48		1,109.93	18000	790.10	18000
18.2	20	310	258	240	50				1,000.45	18200
18.5	20	310	258	240	50		1,402.63	18500	1,000.45	18500
18.7	20	310	258	240	50				1,000.45	18700
18.8	20	310	258	240	50		1,402.63	18800	1,000.45	18800
19.0	20	310	258	240	50		1,402.63	19000	1,000.45	19000
19.2	20	310	258	240	50				1,000.45	19200
19.5	20	310	258	240	50		1,402.63	19500	1,000.45	19500
19.8	20	310	258	240	50		1,402.63	19800	1,000.45	19800
20.0	20	310	258	240	50		1,402.63	20000	1,000.45	20000

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

→ v_c Page 116–122

Ø DC$_{m7}$ for Type Speed VA and Quattro 4F / **Ø DC$_{h7}$** for Type AL

WPC – High Performance Drill, factory standard

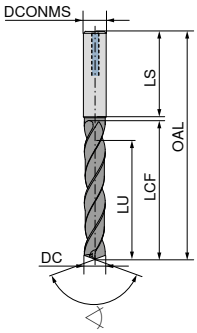
2

≤ 12xD

NOF = 2

UNI

TiAlN



HA

135°

Solid carbide

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	11 615 ... £ T1	
3.0	6	92	54	48	36	137.70	030
3.1	6	92	54	48	36	137.70	031
3.2	6	92	54	48	36	137.70	032
3.3	6	92	54	48	36	137.70	033
3.4	6	92	54	48	36	137.70	034
3.5	6	92	54	48	36	137.70	035
3.6	6	92	54	48	36	137.70	036
3.7	6	92	54	48	36	137.70	037
3.8	6	102	64	58	36	137.70	038
3.9	6	102	64	58	36	137.70	039
4.0	6	102	64	58	36	137.70	040
4.1	6	102	64	58	36	137.70	041
4.2	6	102	64	58	36	137.70	042
4.3	6	102	64	58	36	137.70	043
4.4	6	102	64	58	36	137.70	044
4.5	6	102	64	58	36	137.70	045
4.6	6	102	64	58	36	137.70	046
4.7	6	102	64	58	36	137.70	047
4.8	6	116	78	70	36	137.70	048
4.9	6	116	78	70	36	137.70	049
5.0	6	116	78	70	36	137.70	050
5.5	6	116	78	70	36	137.70	055
5.8	6	116	78	70	36	137.70	058
6.0	6	116	78	70	36	137.70	060
6.3	8	146	108	94	36	158.49	063
6.5	8	146	108	94	36	158.49	065
6.6	8	146	108	94	36	158.49	066
6.8	8	146	108	94	36	158.49	068
7.0	8	146	108	94	36	158.49	070
7.5	8	146	108	94	36	158.49	075
7.8	8	146	108	94	36	158.49	078
8.0	8	146	108	94	36	158.49	080
8.2	10	162	120	110	40	228.63	082
8.5	10	162	120	110	40	228.63	085
9.0	10	162	120	110	40	228.63	090
9.5	10	162	120	110	40	228.63	095
9.8	10	162	120	110	40	228.63	098
10.0	10	162	120	110	40	228.63	100
10.5	12	204	156	142	45	315.66	105
11.0	12	204	156	142	45	315.66	110
11.5	12	204	156	142	45	315.66	115
12.0	12	204	156	142	45	315.66	120
13.0	14	230	182	166	45	396.20	130
14.0	14	230	182	166	45	396.20	140
15.0	16	260	208	192	48	523.50	150
16.0	16	260	208	192	48	523.50	160
18.0	18	285	234	216	48	598.84	180

P	●
M	
K	●
N	
S	
H	
O	

→ v_c Page 132

WTX – High Feed Drill, factory standard

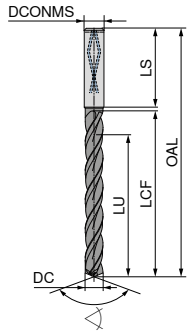
- Three fluted high-feed drill
- Universal application
- High positioning accuracy
- Suitable for difficult drilling applications

≤ 12xD

NOF = 3

Feed UNI

DPX74S



135°
Solid carbide

DC m7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 796 ... £ T4	
4.0	6	102	64	58	36	200.43	04000
4.1	6	102	64	58	36	200.43	04100
4.2	6	102	64	58	36	200.43	04200
4.3	6	102	64	58	36	200.43	04300
4.4	6	102	64	58	36	200.43	04400
4.5	6	102	64	58	36	200.43	04500
4.6	6	102	64	58	36	200.43	04600
4.7	6	102	64	58	36	200.43	04700
4.8	6	116	78	70	36	200.43	04800
4.9	6	116	78	70	36	200.43	04900
5.0	6	116	78	70	36	200.43	05000
5.1	6	116	78	70	36	200.43	05100
5.2	6	116	78	70	36	200.43	05200
5.3	6	116	78	70	36	200.43	05300
5.4	6	116	78	70	36	200.43	05400
5.5	6	116	78	70	36	200.43	05500
5.6	6	116	78	70	36	200.43	05600
5.7	6	116	78	70	36	200.43	05700
5.8	6	116	78	70	36	200.43	05800
5.9	6	116	78	70	36	200.43	05900
6.0	6	116	78	70	36	200.43	06000
6.1	8	146	108	94	36	258.13	06100
6.2	8	146	108	94	36	258.13	06200
6.3	8	146	108	94	36	258.13	06300
6.4	8	146	108	94	36	258.13	06400
6.5	8	146	108	94	36	258.13	06500
6.6	8	146	108	94	36	258.13	06600
6.7	8	146	108	94	36	258.13	06700
6.8	8	146	108	94	36	258.13	06800
6.9	8	146	108	94	36	258.13	06900
7.0	8	146	108	94	36	258.13	07000
7.1	8	146	108	94	36	258.13	07100
7.2	8	146	108	94	36	258.13	07200
7.3	8	146	108	94	36	258.13	07300
7.4	8	146	108	94	36	258.13	07400
7.5	8	146	108	94	36	258.13	07500
7.6	8	146	108	94	36	258.13	07600
7.7	8	146	108	94	36	258.13	07700
7.8	8	146	108	94	36	258.13	07800
7.9	8	146	108	94	36	258.13	07900
8.0	8	146	108	94	36	258.13	08000
8.1	10	162	120	110	40	336.36	08100
8.2	10	162	120	110	40	336.36	08200
8.3	10	162	120	110	40	336.36	08300
8.4	10	162	120	110	40	336.36	08400
8.5	10	162	120	110	40	336.36	08500
8.6	10	162	120	110	40	336.36	08600
8.7	10	162	120	110	40	336.36	08700
8.8	10	162	120	110	40	336.36	08800
8.9	10	162	120	110	40	336.36	08900
9.0	10	162	120	110	40	336.36	09000
9.1	10	162	120	110	40	336.36	09100
9.2	10	162	120	110	40	336.36	09200
9.3	10	162	120	110	40	336.36	09300
9.4	10	162	120	110	40	336.36	09400
9.5	10	162	120	110	40	336.36	09500
9.6	10	162	120	110	40	336.36	09600
9.7	10	162	120	110	40	336.36	09700
9.8	10	162	120	110	40	336.36	09800
9.9	10	162	120	110	40	336.36	09900
10.0	10	162	120	110	40	336.36	10000
10.1	12	204	156	142	45	438.76	10100
10.2	12	204	156	142	45	438.76	10200
10.3	12	204	156	142	45	438.76	10300
10.4	12	204	156	142	45	438.76	10400
10.5	12	204	156	142	45	438.76	10500
10.6	12	204	156	142	45	438.76	10600
10.7	12	204	156	142	45	438.76	10700
10.8	12	204	156	142	45	438.76	10800
10.9	12	204	156	142	45	438.76	10900
11.0	12	204	156	142	45	438.76	11000
11.1	12	204	156	142	45	438.76	11100
11.2	12	204	156	142	45	438.76	11200
11.3	12	204	156	142	45	438.76	11300
11.4	12	204	156	142	45	438.76	11400
11.5	12	204	156	142	45	438.76	11500
11.6	12	204	156	142	45	438.76	11600
11.7	12	204	156	142	45	438.76	11700
11.8	12	204	156	142	45	438.76	11800
11.9	12	204	156	142	45	438.76	11900
12.0	12	204	156	142	45	438.76	12000
12.2	14	230	182	166	45	562.44	12200
12.5	14	230	182	166	45	562.44	12500
12.8	14	230	182	166	45	562.44	12800
13.0	14	230	182	166	45	562.44	13000
13.5	14	230	182	166	45	562.44	13500
13.8	14	230	182	166	45	562.44	13800
14.0	14	230	182	166	45	562.44	14000
14.5	16	260	208	192	48	731.25	14500
14.8	16	260	208	192	48	731.25	14800
15.0	16	260	208	192	48	731.25	15000
15.5	16	260	208	192	48	731.25	15500
15.8	16	260	208	192	48	731.25	15800
16.0	16	260	208	192	48	731.25	16000
16.5	18	285	234	216	48	943.82	16500
16.8	18	285	234	216	48	943.82	16800
17.0	18	285	234	216	48	943.82	17000
17.5	18	285	234	216	48	943.82	17500
17.8	18	285	234	216	48	943.82	17800
18.0	18	285	234	216	48	943.82	18000
18.5	20	310	258	240	50	1,153.99	18500
18.8	20	310	258	240	50	1,153.99	18800
19.0	20	310	258	240	50	1,153.99	19000
19.5	20	310	258	240	50	1,153.99	19500
19.8	20	310	258	240	50	1,153.99	19800
20.0	20	310	258	240	50	1,153.99	20000

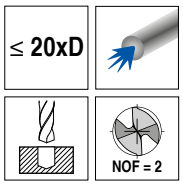
P	●
M	●
K	●
N	○
S	
H	
O	

→ v_c Page 111

2

WTX – Co-pilot deep hole twist drills

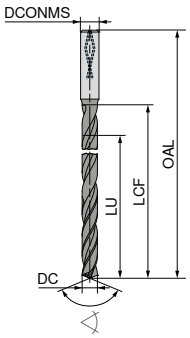
- Cutting tolerance j6 optimally coordinated as an intermediate tolerance between the pilot drill and deep hole twist drill
- Pilot hole necessary
- up to 20xD without peck drilling
- Excellent alignment precision
- Reliable chip removal



NEW

CP 20 UNI

TiAlN



HA

137°

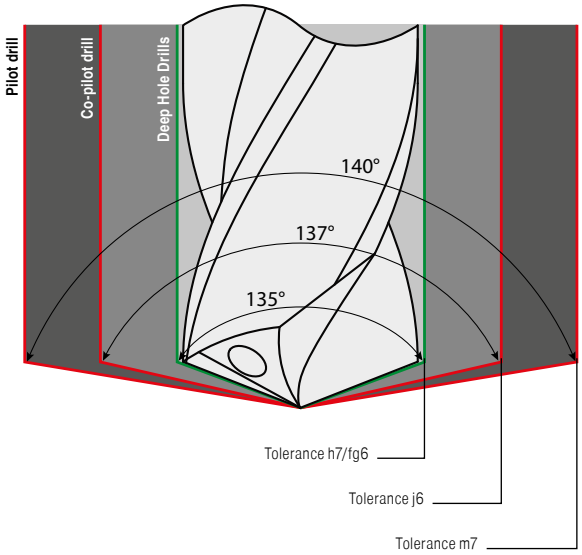
Solid carbide

DC j6 mm	DCONMS h5 mm	OAL mm	LCF mm	LU mm	11 018 ... £ T7	
3.0	6	120	80	60	176.59	03000
4.0	6	130	90	80	183.87	04000
4.2	6	160	110	84	199.07	04200
4.5	6	160	110	90	199.07	04500
4.8	6	160	120	96	211.86	04800
5.0	6	160	120	100	211.86	05000
5.5	6	185	140	110	220.02	05500
5.8	6	185	140	116	220.02	05800
6.0	6	185	140	120	220.02	06000
6.5	8	210	160	130	251.32	06500
6.8	8	210	160	136	251.32	06800
7.0	8	210	160	140	251.32	07000
7.5	8	230	180	150	279.32	07500
7.8	8	230	180	156	279.32	07800
8.0	8	230	180	160	279.32	08000
8.5	10	260	195	170	308.31	08500
8.8	10	290	230	176	344.36	08800
9.0	10	290	230	180	344.36	09000

P	●
M	●
K	●
N	
S	○
H	
O	

→ v_c Page 142

Tolerance and angle



Tolerance table

ISO tolerances for shafts and holes

Tolerance designation	of Ø	3	6	10	18	
	up to and including	6	10	18	30	
	p6	20	24	29	35	
		12	15	18	22	
	h7	0	0	0	0	Deep hole twist drill 16xD to 30xD
		-12	-15	-18	-21	
	j6	6	7	8	9	Co-pilot drill
		-2	-2	-3	-4	
	fg6	-6	-8			Deep hole twist drill > 30xD
		-14	-17			
	m6	12	15	18	21	
		4	6	7	8	
	m7	16	21	25	29	WTX UNI / WPC
		4	6	7	8	

WTX – High performance deep hole drills

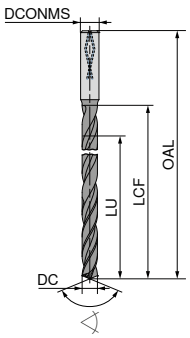
- up to 16xD without peck drilling
- pilot hole necessary
- excellent alignment precision
- secure chip evacuation

≤ 16xD

NOF = 2

TB 16 UNI | TiAlN

TB 16 ALU | DLC



HA 135° Solid carbide — **11 016 ...**

HA 135° Solid carbide — **11 017 ...**

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T7		£ T7	
2.0	4	84	42	39	105.30	020	105.30	020
2.2	4	84	42	39	105.30	022	105.30	022
2.3	4	84	42	39	105.30	023	105.30	023
2.4	4	96	54	50	117.55	024	117.55	024
2.5	4	96	54	50	117.55	025	117.55	025
2.7	4	96	54	50	117.55	027	117.55	027
2.8	4	96	54	50	117.55	028	117.55	028
3.0	6	100	60	55	149.38	030	149.38	030
3.2	6	100	60	55	149.38	032	149.38	032
3.3	6	100	60	55	149.38	033	149.38	033
3.5	6	100	60	55	149.38	035	149.38	035
3.8	6	115	75	69	155.51	038	155.51	038
4.0	6	115	75	69	155.51	040	155.51	040
4.2	6	115	75	69	167.75	042	167.75	042
4.5	6	130	90	83	167.75	045	167.75	045
4.8	6	130	90	83	177.54	048	177.54	048
5.0	6	130	90	83	177.54	050	177.54	050
5.5	6	150	108	99	184.89	055	184.89	055
5.8	6	150	108	99	184.89	058	184.89	058
6.0	6	150	108	99	184.89	060	184.89	060
6.5	8	165	125	115	197.14	065	197.14	065
6.8	8	165	125	115	211.84	068	211.84	068
7.0	8	165	125	115	211.84	070	211.84	070
7.5	8	180	140	128	237.55	075	237.55	075
7.8	8	180	140	128	237.55	078	237.55	078
8.0	8	180	140	128	237.55	080	237.55	080
8.5	10	205	160	147	262.03	085	262.03	085
8.8	10	205	160	147	291.43	088	291.43	088
9.0	10	205	160	147	291.43	090	291.43	090
9.8	10	225	180	165	291.43	098	291.43	098
10.0	10	225	180	165	291.43	100	291.43	100
10.2	12	240	190	174	325.70	102	325.70	102
10.8	12	240	190	174	325.70	108	314.70	108
11.8	12	265	215	197	325.70	118	325.70	118
12.0	12	265	215	197	325.70	120	314.70	120

	020	022	023	024	025	027	028	030	032	033	035	038	040	042	045	048	050	055	058	060	065	068	070	075	078	080	085	088	090	098	100	102	108	118	120
P																																			
M																																			
K																																			
N																																			
S																																			
H																																			
O																																			

	020	022	023	024	025	027	028	030	032	033	035	038	040	042	045	048	050	055	058	060	065	068	070	075	078	080	085	088	090	098	100	102	108	118	120
P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N																																			
S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H																																			
O																																			

→ v_c Page 143+146
→ Machining information: Page 160

WTX – High performance deep hole drills

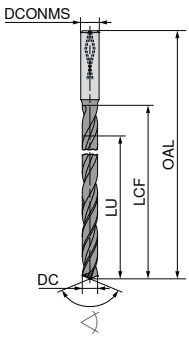
- up to 20xD without peck drilling
- pilot hole necessary
- excellent alignment precision
- secure chip evacuation

≤ 20xD

NOF = 2

TB 20 UNI | TiAlN

TB 20 ALU | DLC



HA 135° Solid carbide — **11 020 ...**

HA 135° Solid carbide — **11 021 ...**

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T7		£ T7	
2.0	4	92	50	47	111.42	020	111.42	020
2.2	4	92	50	47	107.65	022	111.42	022
2.3	4	92	50	47	111.42	023	111.42	023
2.4	4	112	70	66	120.67	024	124.89	024
2.5	4	112	70	66	124.89	025	124.89	025
2.7	4	112	70	66	120.67	027	124.89	027
2.8	4	112	70	66	124.89	028	124.89	028
3.0	6	120	80	75	160.89	030	166.52	030
3.2	6	120	80	75	166.52	032	166.52	032
3.3	6	120	80	75	160.89	033	166.52	033
3.5	6	120	80	75	166.52	035	166.52	035
3.8	6	130	90	84	167.99	038	173.86	038
4.0	6	130	90	84	173.86	040	173.86	040
4.2	6	160	110	103	179.81	042	186.11	042
4.5	6	160	110	103	186.11	045	186.11	045
4.8	6	160	120	113	190.46	048	197.14	048
5.0	6	160	120	113	197.14	050	197.14	050
5.5	6	185	140	131	198.75	055	205.72	055
5.8	6	185	140	131	205.72	058	205.72	058
6.0	6	185	140	131	205.72	060	205.72	060
6.5	8	210	160	150	219.18	065	219.18	065
6.8	8	210	160	150	236.32	068	236.32	068
7.0	8	210	160	150	236.32	070	236.32	070
7.5	8	230	180	168	263.26	075	263.26	075
7.8	8	230	180	168	263.26	078	263.26	078
8.0	8	230	180	168	263.26	080	263.26	080
8.5	10	260	195	182	290.19	085	290.19	085
8.8	10	290	230	216	325.70	088	325.70	088
9.0	10	290	230	216	325.70	090	325.70	090
9.8	10	290	230	216	325.70	098	325.70	098
10.0	10	290	230	216	325.70	100	325.70	100
10.2	12	315	268	251	357.54	102	357.54	102
10.8	12	315	268	251	357.54	108	357.54	108
11.8	12	315	268	251	357.54	118	357.54	118
12.0	12	315	268	251	357.54	120	357.54	120

	020	022	023	024	025	027	028	030	032	033	035	038	040	042	045	048	050	055	058	060	065	068	070	075	078	080	085	088	090	098	100	102	108	118	120
P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N																																			
S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H																																			
O																																			

→ v_c Page 143+146
→ Machining information: Page 160

WTX – High performance deep hole drills

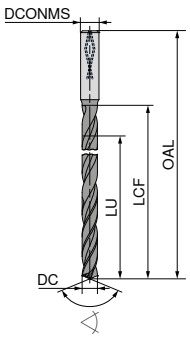
- up to 25xD without peck drilling
- pilot hole necessary
- excellent alignment precision
- secure chip evacuation

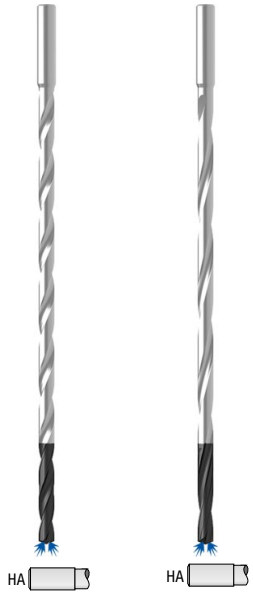
≤ 25xD

NOF = 2

TB 25 UNI | TiAlN

TB 25 ALU | DLC





135° Solid carbide — 11 025 ...

135° Solid carbide — 11 026 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T7		£ T7	
2.0	4	104	60	57	118.78	020	118.78	020
2.2	4	104	60	57	118.78	022	118.78	022
2.3	4	104	60	57	118.78	023	118.78	023
2.4	4	125	80	76	134.69	024	134.69	024
2.5	4	125	80	76	134.69	025	134.69	025
2.7	4	125	80	76	134.69	027	134.69	027
2.8	4	125	80	76	134.69	028	134.69	028
3.0	6	135	98	93	193.46	030	193.46	030
3.2	6	135	98	93	193.46	032	193.46	032
3.3	6	150	110	105	214.27	033	213.07	033
3.5	6	150	110	105	214.27	035	213.07	035
3.8	6	160	120	114	220.40	038	220.40	038
4.0	6	160	120	114	220.40	040	220.40	040
4.2	6	160	120	114	220.40	042	220.40	042
4.5	6	180	135	128	230.20	045	230.20	045
4.8	6	180	135	128	230.20	048	230.20	048
5.0	6	180	135	128	230.20	050	230.20	050
5.5	6	205	168	159	247.34	055	247.34	055
5.8	6	205	168	159	247.34	058	247.34	058
6.0	6	205	168	159	247.34	060	247.34	060
6.5	8	240	200	190	275.51	065	275.51	065
6.8	8	240	200	190	275.51	068	275.51	068
7.0	8	240	200	190	275.51	070	275.51	070
7.5	8	260	220	208	306.12	075	306.12	075
7.8	8	260	220	208	306.12	078	306.12	078
8.0	8	260	220	208	306.12	080	306.12	080
8.5	10	285	240	227	345.28	085	345.28	085
8.8	10	310	268	254	374.68	088	374.68	088
9.0	10	310	268	254	374.68	090	374.68	090
9.8	10	310	268	254	374.68	098	374.68	098
10.0	10	310	268	254	374.68	100	374.68	100
10.2	12	375	325	308	450.61	102	450.61	102
10.8	12	375	325	308	450.61	108	450.61	108
11.8	12	375	325	308	450.61	118	450.61	118
12.0	12	375	325	308	450.61	120	450.61	120

	11 025 ...	11 026 ...
P	●	
M	●	
K	●	
N		●
S	○	
H		
O		

→ v_c Page 144+147
→ Machining information: Page 160

WTX – High performance deep hole drills

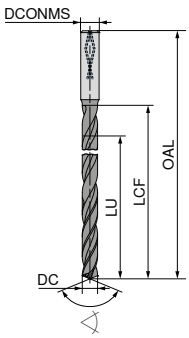
- up to 30xD without peck drilling
- pilot hole necessary
- excellent alignment precision
- secure chip evacuation

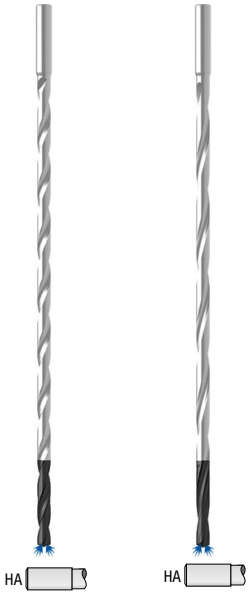
≤ 30xD

NOF = 2

TB 30 UNI | TiAlN

TB 30 ALU | DLC





135° Solid carbide — 11 030 ...

135° Solid carbide — 11 031 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T7		£ T7	
2.0	4	115	70	67	126.13	020	126.13	020
2.2	4	115	70	67	126.13	022	126.13	022
2.3	4	115	70	67	126.13	023	126.13	023
2.4	4	138	90	86	146.94	024	146.94	024
2.5	4	138	90	86	146.94	025	146.94	025
2.7	4	138	90	86	146.94	027	146.94	027
2.8	4	138	90	86	146.94	028	146.94	028
3.0	6	150	105	100	247.34	030	247.34	030
3.2	6	150	105	100	247.34	032	247.34	032
3.3	6	185	135	130	254.70	033	254.70	033
3.5	6	185	135	130	254.70	035	254.70	035
3.8	6	185	135	130	254.70	038	254.70	038
4.0	6	185	135	130	254.70	040	254.70	040
4.2	6	185	135	130	254.70	042	254.70	042
4.5	6	215	165	158	262.03	045	262.03	045
4.8	6	215	165	158	262.03	048	262.03	048
5.0	6	215	165	158	262.03	050	262.03	050
5.5	6	230	180	171	274.28	055	274.28	055
5.8	6	230	180	171	274.28	058	274.28	058
6.0	6	230	180	171	274.28	060	274.28	060
6.5	8	280	215	205	301.21	065	301.21	065
6.8	8	280	230	220	314.67	068	314.67	068
7.0	8	280	230	220	314.67	070	314.67	070
7.5	8	280	230	220	314.67	075	314.67	075
7.8	8	315	265	253	350.19	078	350.19	078
8.0	8	315	265	253	350.19	080	350.19	080
8.5	10	350	295	282	404.08	085	404.08	085
8.8	10	380	330	316	424.88	088	424.88	088
9.0	10	380	330	316	424.88	090	424.88	090
9.8	10	380	330	316	424.88	098	424.88	098
10.0	10	380	330	316	424.88	100	424.88	100
10.2	12	430	380	365	542.44	102	542.44	102
10.8	12	430	380	365	542.44	108	542.44	108
11.8	12	430	380	365	542.44	118	542.44	118
12.0	12	430	380	365	542.44	120	542.44	120

	11 030 ...	11 031 ...
P	●	
M	●	
K	●	
N		●
S	○	
H		
O		

→ v_c Page 144+147
→ Machining information: Page 160

WTX – High performance deep hole drills

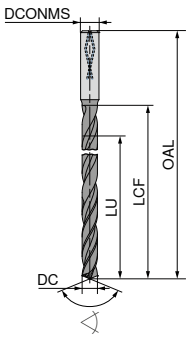
- up to 40xD without peck drilling
- pilot hole necessary
- excellent alignment precision
- secure chip evacuation

≤ 40xD

NOF = 2

TB 40 UNI

TiAIN



135°
Solid carbide

11 040 ...

DC fg6 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T7	
3.0	6	195	150	146	314.67	030
4.0	6	220	175	169	314.67	040
4.2	6	245	200	194	347.75	042
4.5	6	245	200	194	347.75	045
4.8	6	275	230	223	371.01	048
5.0	6	275	230	223	371.01	050
5.5	6	305	260	251	399.17	055
5.8	6	305	260	251	399.17	058
6.0	6	305	260	251	399.17	060
6.5	8	345	300	290	429.79	065
6.8	8	345	300	290	429.79	068
7.0	8	345	300	290	429.79	070
7.5	8	385	340	328	477.53	075
7.8	8	385	340	328	477.53	078
8.0	8	385	340	328	477.53	080
8.5	10	430	380	367	526.51	085
8.8	10	430	380	367	526.51	088
9.0	10	430	380	367	526.51	090

P	●
M	●
K	●
N	
S	○
H	
O	

→ v_c Page 145
→ Machining information: Page 160

WTX – High performance deep hole drills

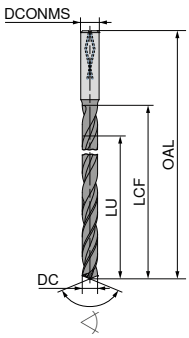
- up to 50xD without peck drilling
- pilot hole necessary
- excellent alignment precision
- secure chip evacuation

≤ 50xD

NOF = 2

TB 50 UNI

TiAIN



135°
Solid carbide

11 050 ...

DC fg6 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T7	
3.0	6	220	175	170	427.34	030
4.0	6	265	220	214	427.34	040
4.2	6	290	245	238	475.08	042
4.5	6	290	245	238	475.08	045
4.8	6	320	275	268	536.31	048
5.0	6	320	275	268	536.31	050
5.5	6	355	310	302	603.66	055
5.8	6	355	315	306	612.23	058
6.0	6	355	315	306	612.23	060
6.5	8	395	350	340	680.80	065
6.8	8	425	380	370	738.35	068

P	●
M	●
K	●
N	
S	○
H	
O	

→ v_c Page 145
→ Machining information: Page 160

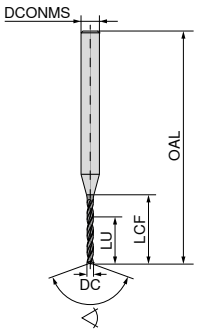
WTX – High Performance Drills

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

2

≤ 5xD

NOF = 2



MINI

TiAlN

140°

Solid carbide

DC +0,004 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	11 770 ... £ T7	
0.10	3	38	1.2	1.0	39.86	00100
0.15	3	38	2.0	1.7	35.20	00150
0.20	3	38	3.5	3.0	30.78	00200
0.25	3	38	3.5	3.0	26.22	00250
0.30	3	38	5.5	5.0	21.56	00300
0.35	3	38	5.5	5.0	21.56	00350
0.40	3	38	7.0	6.0	21.56	00400
0.45	3	38	7.0	6.0	21.56	00450
0.50	3	38	7.0	6.0	21.56	00500
0.55	3	38	7.0	6.0	21.56	00550
0.60	3	38	7.0	6.0	21.56	00600
0.65	3	38	7.0	6.0	21.56	00650
0.70	3	38	10.5	8.0	21.56	00700
0.75	3	38	10.5	8.0	21.56	00750
0.80	3	38	10.5	8.0	21.56	00800
0.85	3	38	10.5	8.0	21.56	00850
0.90	3	38	10.5	8.0	21.56	00900
0.95	3	38	10.5	8.0	21.56	00950
0.97	3	38	10.5	8.0	21.56	00970
0.98	3	38	10.5	8.0	21.56	00980
0.99	3	38	10.5	8.0	21.56	00990
1.00	3	38	10.5	8.0	21.56	01000
1.01	3	38	10.5	8.0	21.56	01010
1.02	3	38	10.5	8.0	21.56	01020
1.03	3	38	10.5	8.0	21.56	01030
1.05	3	38	10.5	8.0	21.56	01050
1.10	3	38	10.5	8.0	21.56	01100
1.15	3	38	10.5	8.0	21.56	01150
1.20	3	38	10.5	8.0	21.56	01200
1.25	3	38	10.5	8.0	21.56	01250
1.30	3	38	10.5	8.0	21.56	01300
1.35	3	38	10.5	8.0	21.56	01350
1.40	3	38	10.5	8.0	21.56	01400
1.45	3	38	10.5	8.0	21.56	01450
1.47	3	38	10.5	8.0	21.56	01470
1.48	3	38	10.5	8.0	21.56	01480
1.49	3	38	10.5	8.0	21.56	01490
1.50	3	38	10.5	8.0	21.56	01500
1.51	3	38	10.5	8.0	21.56	01510
1.52	3	38	10.5	8.0	21.56	01520
1.53	3	38	10.5	8.0	21.56	01530
1.55	3	38	10.5	8.0	21.56	01550
1.60	3	38	10.5	8.0	21.56	01600
1.65	3	38	10.5	8.0	21.56	01650
1.70	3	38	10.5	8.0	21.56	01700
1.75	3	38	10.5	8.0	21.56	01750
1.80	3	38	10.5	8.0	21.56	01800
1.85	3	38	12.0	8.0	21.56	01850
1.90	3	38	12.0	8.0	21.56	01900
1.95	3	38	12.0	8.0	21.56	01950
1.97	3	38	12.0	8.0	21.56	01970
1.98	3	38	12.0	8.0	21.56	01980
1.99	3	38	12.0	8.0	21.56	01990
2.00	3	42	13.0	9.0	30.91	02000
2.01	3	42	13.0	9.0	30.91	02010
2.02	3	42	13.0	9.0	30.91	02020
2.03	3	42	13.0	9.0	30.91	02030
2.05	3	42	13.0	9.0	30.91	02050
2.10	3	42	13.0	9.0	30.91	02100
2.15	3	42	13.0	9.0	30.91	02150
2.20	3	46	15.0	10.0	34.81	02200
2.25	3	46	15.0	10.0	34.81	02250
2.30	3	46	15.0	10.0	34.81	02300
2.35	3	46	15.0	10.0	34.81	02350
2.40	3	46	15.0	10.0	34.81	02400
2.45	3	46	15.0	10.0	34.81	02450
2.47	3	46	15.0	10.0	34.81	02470
2.48	3	46	15.0	10.0	34.81	02480
2.49	3	46	15.0	10.0	34.81	02490
2.50	3	46	15.0	10.0	34.81	02500
2.51	3	46	15.0	10.0	34.81	02510
2.52	3	46	15.0	10.0	34.81	02520
2.53	3	46	15.0	10.0	34.81	02530
2.60	3	46	15.0	10.0	34.81	02600
2.70	3	46	15.0	10.0	34.81	02700
2.80	3	46	15.0	10.0	34.81	02800
2.90	3	46	15.0	10.0	34.81	02900

P	○
M	
K	●
N	●
S	○
H	
O	

→ v_c Page 136

WTX – High Performance Drills

- Specialised micro drill
- Universal application
- Extremely high process security
- Pilot drill for WTX Micro – high-performance deep hole drill

≤ 5xD

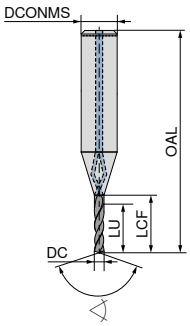
NOF = 2

NEW

MICRO

DPX74M

DRAGONSKIN



135°
Solid carbide

10 693 ...

DC m6 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T4	
0.8	3	39	5.6	4.0	96.02	00800
0.9	3	39	6.3	4.5	96.02	00900
1.0	3	40	7.0	5.0	85.23	01000
1.1	3	41	7.7	5.5	85.23	01100
1.2	3	41	8.4	6.0	85.23	01200
1.3	3	42	9.1	6.5	85.23	01300
1.4	3	42	9.8	7.0	85.23	01400
1.5	3	43	10.5	7.5	85.23	01500
1.6	3	44	11.2	8.0	89.72	01600
1.7	3	44	11.9	8.5	89.72	01700
1.8	3	45	12.6	9.0	89.72	01800
1.9	3	45	13.3	9.5	89.72	01900
2.0	3	46	14.0	10.0	89.72	02000
2.1	3	47	14.7	10.5	92.49	02100
2.2	3	47	15.4	11.0	92.49	02200
2.3	3	48	16.1	11.5	92.49	02300
2.4	3	48	16.8	12.0	92.49	02400
2.5	3	49	17.5	12.5	92.49	02500
2.6	3	50	18.2	13.0	97.37	02600
2.7	3	50	18.9	13.5	97.37	02700
2.8	3	51	19.6	14.0	97.37	02800
2.9	3	51	20.3	14.5	97.37	02900

P	●
M	●
K	●
N	
S	○
H	
O	

→ v_c Page 137
→ Machining information: Page 161

Minimum coolant pressure: 30 bar

WTX – High Performance Drills

- Specialised micro drill
- Universal application
- Extremely high process security

≤ 8xD

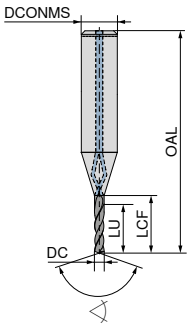
NOF = 2

NEW

MICRO

DPX74M

DRAGONSKIN



128°
Solid carbide

10 694 ...

DC h6 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T4	
0.8	3	41	8	6.4	100.71	00800
0.9	3	42	9	7.2	100.71	00900
1.0	3	43	10	8.0	89.89	01000
1.1	3	44	11	8.8	89.89	01100
1.2	3	45	12	9.6	89.89	01200
1.3	3	46	13	10.4	89.89	01300
1.4	3	47	14	11.2	89.89	01400
1.5	3	47	15	12.0	89.89	01500
1.6	3	48	16	12.8	96.69	01600
1.7	3	49	17	13.6	96.69	01700
1.8	3	50	18	14.4	96.69	01800
1.9	3	51	19	15.2	96.69	01900
2.0	3	52	20	16.0	96.69	02000
2.1	3	53	21	16.8	98.23	02100
2.2	3	54	22	17.6	98.23	02200
2.3	3	55	23	18.4	98.23	02300
2.4	3	56	24	19.2	98.23	02400
2.5	3	56	25	20.0	98.23	02500
2.6	3	57	26	20.8	101.38	02600
2.7	3	58	27	21.6	101.38	02700
2.8	3	59	28	22.4	101.38	02800
2.9	3	60	29	23.2	101.38	02900

P	●
M	●
K	●
N	
S	○
H	
O	

→ v_c Page 138
→ Machining information: Page 161

Minimum coolant pressure: 30 bar

2

WTX – High Performance Drills

- Specialised micro drill
- Universal application
- Extremely high process security
- Pilot drill: 5xD WTX Micro – high-performance drill

≤ 12xD

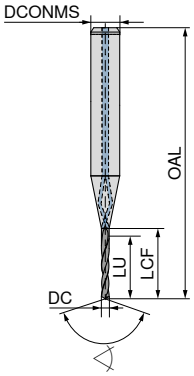
NOF = 2

NEW

MICRO

DPX74M

DRAGONSKIN



128°
Solid carbide

10 695 ...

DC h6 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T4	
0.8	3	44	11.2	9.6	112.16	00800
0.9	3	46	12.6	10.8	112.16	00900
1.0	3	47	14.0	12.0	101.38	01000
1.1	3	48	15.4	13.2	101.38	01100
1.2	3	50	16.8	14.4	101.38	01200
1.3	3	51	18.2	15.6	101.38	01300
1.4	3	52	19.6	16.8	101.38	01400
1.5	3	53	21.0	18.0	101.38	01500
1.6	3	55	22.4	19.2	106.72	01600
1.7	3	56	23.8	20.4	106.72	01700
1.8	3	57	25.2	21.6	106.72	01800
1.9	3	59	26.6	22.8	106.72	01900
2.0	3	60	28.0	24.0	106.72	02000
2.1	3	61	29.4	25.2	109.11	02100
2.2	3	63	30.8	26.4	109.11	02200
2.3	3	64	32.2	27.6	109.11	02300
2.4	3	65	33.6	28.8	109.11	02400
2.5	3	67	35.0	30.0	109.11	02500
2.6	3	68	36.4	31.2	111.39	02600
2.7	3	69	37.8	32.4	111.39	02700
2.8	3	70	39.2	33.6	111.39	02800
2.9	3	72	40.6	34.8	111.39	02900

P	●
M	●
K	●
N	
S	o
H	
O	

→ v_c Page 138
→ Machining information: Page 161

Minimum coolant pressure: 30 bar

WTX – High performance deep hole drills

- Specialised micro deep hole drill
- Universal application
- Extremely high process security
- Pilot drill: 5xD WTX Micro – high-performance drill

≤ 16xD

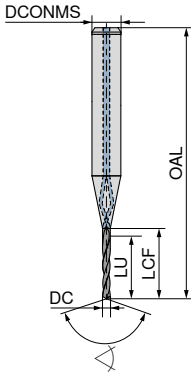
NOF = 2

NEW

MICRO

DPX74M

DRAGONSKIN



128°
Solid carbide

10 696 ...

DC h6 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T4	
0.8	3	48	14.4	12.8	142.61	00800
0.9	3	49	16.2	14.4	142.61	00900
1.0	3	51	18.0	16.0	131.83	01000
1.1	3	53	19.8	17.6	131.83	01100
1.2	3	54	21.6	19.2	131.83	01200
1.3	3	56	23.4	20.8	131.83	01300
1.4	3	58	25.2	22.4	131.83	01400
1.5	3	60	27.0	24.0	131.83	01500
1.6	3	61	28.8	25.6	138.79	01600
1.7	3	63	30.6	27.2	138.79	01700
1.8	3	65	32.4	28.8	138.79	01800
1.9	3	66	34.2	30.4	138.79	01900
2.0	3	68	36.0	32.0	138.79	02000
2.1	3	70	37.8	33.6	141.75	02100
2.2	3	71	39.6	35.2	141.75	02200
2.3	3	73	41.4	36.8	141.75	02300
2.4	3	75	43.2	38.4	141.75	02400
2.5	3	77	45.0	40.0	141.75	02500
2.6	3	78	46.8	41.6	144.81	02600
2.7	3	80	48.6	43.2	144.81	02700
2.8	3	82	50.4	44.8	144.81	02800
2.9	3	83	52.2	46.4	144.81	02900

P	●
M	●
K	●
N	
S	
H	
O	

→ v_c Page 139
→ Machining information: Page 161

Minimum coolant pressure: 30 bar

WTX – High performance deep hole drills

- Specialised micro deep hole drill
- Universal application
- Extremely high process security
- Pilot drill: 5xD WTX Micro – high-performance drill

≤ 20xD

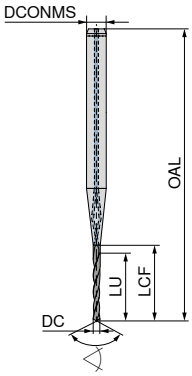
NOF = 2

NEW

MICRO

DPX74M

DRAGONSKIN



128°
Solid carbide

10 697 ...

DC h6 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T4	
0.8	3	51	17.6	16	156.73	00800
0.9	3	53	19.8	18	156.73	00900
1.0	3	55	22.0	20	145.95	01000
1.1	3	57	24.2	22	145.95	01100
1.2	3	59	26.4	24	145.95	01200
1.3	3	61	28.6	26	145.95	01300
1.4	3	63	30.8	28	145.95	01400
1.5	3	66	33.0	30	145.95	01500
1.6	3	68	35.2	32	153.68	01600
1.7	3	70	37.4	34	153.68	01700
1.8	3	72	39.6	36	153.68	01800
1.9	3	74	41.8	38	153.68	01900
2.0	3	76	44.0	40	153.68	02000
2.1	3	78	46.2	42	156.92	02100
2.2	3	80	48.4	44	156.92	02200
2.3	3	82	50.6	46	156.92	02300
2.4	3	85	52.8	48	156.92	02400
2.5	3	87	55.0	50	156.92	02500
2.6	3	89	57.2	52	160.37	02600
2.7	3	91	59.4	54	160.37	02700
2.8	3	93	61.6	56	160.37	02800
2.9	3	95	63.8	58	160.37	02900

P	●
M	●
K	●
N	
S	
H	
O	

→ v_c Page 139
→ Machining information: Page 161

Minimum coolant pressure: 30 bar

WTX – High performance deep hole drills

- Specialised micro deep hole drill
- Universal application
- Extremely high process security
- Pilot drill: 5xD WTX Micro – high-performance drill

≤ 25xD

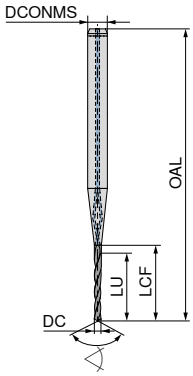
NOF = 2

NEW

MICRO

DPX74M

DRAGONSKIN



128°
Solid carbide

10 698 ...

DC h6 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T4	
1.0	3	60	27.0	25.0	161.51	01000
1.1	3	63	29.7	27.5	161.51	01100
1.2	3	65	32.4	30.0	161.51	01200
1.3	3	68	35.1	32.5	161.51	01300
1.4	3	71	37.8	35.0	161.51	01400
1.5	3	73	40.5	37.5	161.51	01500
1.6	3	76	43.2	40.0	170.10	01600
1.7	3	78	45.9	42.5	170.10	01700
1.8	3	81	48.6	45.0	170.10	01800
1.9	3	84	51.3	47.5	170.10	01900
2.0	3	86	54.0	50.0	170.10	02000
2.1	3	89	56.7	52.5	173.72	02100
2.2	3	91	59.4	55.0	173.72	02200
2.3	3	94	62.1	57.5	173.72	02300
2.4	3	97	64.8	60.0	173.72	02400
2.5	3	99	67.5	62.5	173.72	02500
2.6	3	102	70.2	65.0	177.45	02600
2.7	3	104	72.9	67.5	177.45	02700
2.8	3	107	75.6	70.0	177.45	02800
2.9	3	110	78.3	72.5	177.45	02900

P	●
M	●
K	●
N	
S	
H	
O	

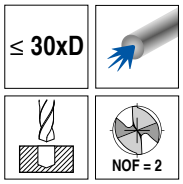
→ v_c Page 139
→ Machining information: Page 161

Minimum coolant pressure: 30 bar

WTX – High performance deep hole drills

2

- Specialised micro deep hole drill
- Universal application
- Extremely high process security
- Pilot drill: 5xD WTX Micro – high-performance drill

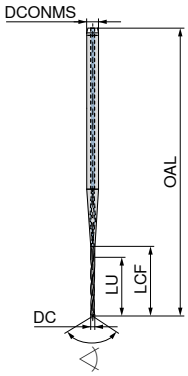


NEW

MICRO

DPX74M

DRAGONSKIN



128°
Solid carbide

10 699 ...

DC h6 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	£ T4	
1.0	3	65	32.0	30	178.78	01000
1.1	3	68	35.2	33	178.78	01100
1.2	3	71	38.4	36	178.78	01200
1.3	3	74	41.6	39	178.78	01300
1.4	3	78	44.8	42	178.78	01400
1.5	3	81	48.0	45	178.78	01500
1.6	3	84	51.2	48	188.33	01600
1.7	3	87	54.4	51	188.33	01700
1.8	3	90	57.6	54	188.33	01800
1.9	3	93	60.8	57	188.33	01900
2.0	3	96	64.0	60	188.33	02000
2.1	3	99	67.2	63	192.34	02100
2.2	3	102	70.4	66	192.34	02200
2.3	3	106	73.6	69	192.34	02300
2.4	3	109	76.8	72	192.34	02400
2.5	3	112	80.0	75	192.34	02500
2.6	3	115	83.2	78	196.44	02600
2.7	3	118	86.4	81	196.44	02700
2.8	3	121	89.6	84	196.44	02800
2.9	3	124	92.8	87	196.44	02900

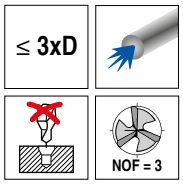
P	●
M	●
K	●
N	
S	
H	
O	

→ v_c Page 139
→ Machining information: Page 161

Minimum coolant pressure: 30 bar

WTX – Drill-Reamer -1/100

- Solid carbide high-performance drill-reaming tool
- Drilling and reaming in one operation
- 3 drilling edges
- 6 reaming edges
- High feeds
- Good surface quality
- For blind holes and through holes

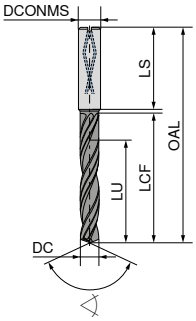


NEW

Feed BR100

DPX14S

DRAGONSKIN



HA

140°

Solid carbide

DC ±0,003 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 707 ... £ T4	
3.97	6	66	24	17	36	137.26	03970
3.98	6	66	24	17	36	137.26	03980
3.99	6	66	24	17	36	137.26	03990
4.00	6	66	24	17	36	137.26	04000
4.01	6	66	24	17	36	137.26	04010
4.02	6	66	24	17	36	137.26	04020
4.97	6	66	28	20	36	137.26	04970
4.98	6	66	28	20	36	137.26	04980
4.99	6	66	28	20	36	137.26	04990
5.00	6	66	28	20	36	137.26	05000
5.01	6	66	28	20	36	137.26	05010
5.02	6	66	28	20	36	137.26	05020
5.97	6	66	28	20	36	137.26	05970
5.98	6	66	28	20	36	137.26	05980
5.99	6	66	28	20	36	137.26	05990
6.00	6	66	28	20	36	137.26	06000
6.01	6	66	28	20	36	137.26	06010
6.02	6	66	28	20	36	137.26	06020
7.97	8	79	41	29	36	137.26	07970
7.98	8	79	41	29	36	137.26	07980
7.99	8	79	41	29	36	137.26	07990
8.00	8	79	41	29	36	137.26	08000
8.01	8	79	41	29	36	137.26	08010
8.02	8	79	41	29	36	137.26	08020
9.97	10	89	47	35	40	156.21	09970
9.98	10	89	47	35	40	156.21	09980
9.99	10	89	47	35	40	156.21	09990
10.00	10	89	47	35	40	156.21	10000
10.01	10	89	47	35	40	156.21	10010
10.02	10	89	47	35	40	156.21	10020
11.97	12	102	55	40	45	214.06	11970
11.98	12	102	55	40	45	214.06	11980
11.99	12	102	55	40	45	214.06	11990
12.00	12	102	55	40	45	214.06	12000
12.01	12	102	55	40	45	214.06	12010
12.02	12	102	55	40	45	214.06	12020

P	●
M	●
K	●
N	
S	
H	
O	

→ v_c Page 140

Tolerances

e.g. Ø 8 F7 = 8.02 mm

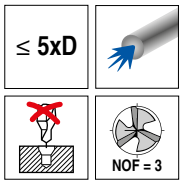
Ø 4	3,97	U 7	**X 7**			
	3,98	**N 10**	**N 11**	R 7		
	3,99	M 8	**N 7**	**N 8**	**N 9**	
	4,00	**J 7**	**J 8**	JS 7	JS 8	JS 9
	4,01	**G 7**	**H 8**			
	4,02	**F 8**	**H 9**			
Ø 5	4,97	U 7	**X 7**			
	4,98	**N 10**	**N 11**	R 7		
	4,99	M 8	**N 7**	**N 8**	**N 9**	
	5,00	**J 7**	**J 8**	**JS 7**	**JS 8**	**JS 9**
	5,01	**G 7**	**H 8**			
	5,02	**F 8**	**H 9**			
Ø 6	5,97	U 7	**X 7**			
	5,98	**N 10**	**N 11**	R 7		
	5,99	M 8	**N 7**	**N 8**	**N 9**	
	6,00	**J 7**	**J 8**	**JS 7**	**JS 8**	**JS 9**
	6,01	**G 7**	**H 8**			
	6,02	**F 8**	**H 9**			
Ø 8	7,97	S 7	**U 7**			
	7,98	N 8	**N 10**	**N 11**	P 7	R 7
	7,99	K 8	M 6	M 7	**M 8**	N 9
	8,00	**J 7**	**J 8**	**JS 7**	**JS 8**	**JS 9**
	8,01	G 7	**H 8**			
	8,02	**F 7**	F 8	**H 9**		
Ø 10	9,97	S 7	**U 7**			
	9,98	N 8	**N 10**	**N 11**	P 7	R 7
	9,99	K 8	M 6	M 7	**M 8**	N 9
	10,00	**J 7**	**J 8**	**JS 7**	**JS 8**	**JS 9**
	10,01	G 7	**H 8**			
	10,02	**F 7**	F 8	H 9		
Ø 12	11,97	N 11	R 7	**S 7**		
	11,98	N 8	**N 9**	**N 10**	**P 7**	
	11,99	K 8	**M 6**	**M 7**	**M 8**	N 7
	12,00	**J 7**	**J 8**	**JS 7**	**JS 8**	
	12,01	G 6	**H 7**	H 8	**JS 9**	
	12,02	F 7				

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

WTX – Drill-Reamer -1/100

2

- Solid carbide high-performance drill-reaming tool
- Drilling and reaming in one operation
- 3 drilling edges
- 6 reaming edges
- High feeds
- Good surface quality
- For blind holes and through holes

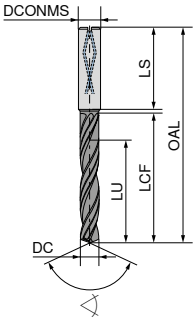


NEW

Feed BR100

DPX14S

DRAGONSKIN



HA

140°

Solid carbide

DC ±0,003 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	10 713 ... £ T4	
3.97	6	74	36	29	36	171.17	03970
3.98	6	74	36	29	36	171.17	03980
3.99	6	74	36	29	36	171.17	03990
4.00	6	74	36	29	36	171.17	04000
4.01	6	74	36	29	36	171.17	04010
4.02	6	74	36	29	36	171.17	04020
4.97	6	82	44	35	36	171.17	04970
4.98	6	82	44	35	36	171.17	04980
4.99	6	82	44	35	36	171.17	04990
5.00	6	82	44	35	36	171.17	05000
5.01	6	82	44	35	36	171.17	05010
5.02	6	82	44	35	36	171.17	05020
5.97	6	82	44	35	36	171.17	05970
5.98	6	82	44	35	36	171.17	05980
5.99	6	82	44	35	36	171.17	05990
6.00	6	82	44	35	36	171.17	06000
6.01	6	82	44	35	36	171.17	06010
6.02	6	82	44	35	36	171.17	06020
7.97	8	91	53	43	36	171.17	07970
7.98	8	91	53	43	36	171.17	07980
7.99	8	91	53	43	36	171.17	07990
8.00	8	91	53	43	36	171.17	08000
8.01	8	91	53	43	36	171.17	08010
8.02	8	91	53	43	36	171.17	08020
9.97	10	103	61	49	40	234.61	09970
9.98	10	103	61	49	40	234.61	09980
9.99	10	103	61	49	40	234.61	09990
10.00	10	103	61	49	40	234.61	10000
10.01	10	103	61	49	40	234.61	10010
10.02	10	103	61	49	40	234.61	10020
11.97	12	118	71	56	45	329.77	11970
11.98	12	118	71	56	45	329.77	11980
11.99	12	118	71	56	45	329.77	11990
12.00	12	118	71	56	45	329.77	12000
12.01	12	118	71	56	45	329.77	12010
12.02	12	118	71	56	45	329.77	12020

P	●
M	●
K	●
N	
S	
H	
O	

→ v_c Page 141

Tolerances

e.g. Ø 8 F7 = 8.02 mm

Ø 4	3,97	U 7	**X 7**			
	3,98	**N 10**	**N 11**	R 7		
	3,99	M 8	**N 7**	**N 8**	**N 9**	
	4,00	**J 7**	**J 8**	JS 7	JS 8	JS 9
	4,01	**G 7**	**H 8**			
	4,02	**F 8**	**H 9**			
Ø 5	4,97	U 7	**X 7**			
	4,98	**N 10**	**N 11**	R 7		
	4,99	M 8	**N 7**	**N 8**	**N 9**	
	5,00	**J 7**	**J 8**	**JS 7**	**JS 8**	**JS 9**
	5,01	**G 7**	**H 8**			
	5,02	**F 8**	**H 9**			
Ø 6	5,97	U 7	**X 7**			
	5,98	**N 10**	**N 11**	R 7		
	5,99	M 8	**N 7**	**N 8**	**N 9**	
	6,00	**J 7**	**J 8**	**JS 7**	**JS 8**	**JS 9**
	6,01	**G 7**	**H 8**			
	6,02	**F 8**	**H 9**			
Ø 8	7,97	S 7	**U 7**			
	7,98	N 8	**N 10**	**N 11**	P 7	R 7
	7,99	K 8	M 6	M 7	**M 8**	N 9
	8,00	**J 7**	**J 8**	**JS 7**	**JS 8**	**JS 9**
	8,01	G 7	**H 8**			
	8,02	**F 7**	F 8	**H 9**		
Ø 10	9,97	S 7	**U 7**			
	9,98	N 8	**N 10**	**N 11**	P 7	R 7
	9,99	K 8	M 6	M 7	**M 8**	N 9
	10,00	**J 7**	**J 8**	**JS 7**	**JS 8**	**JS 9**
	10,01	G 7	**H 8**			
	10,02	**F 7**	F 8	H 9		
Ø 12	11,97	N 11	R 7	**S 7**		
	11,98	N 8	**N 9**	**N 10**	**P 7**	
	11,99	K 8	**M 6**	**M 7**	**M 8**	N 7
	12,00	**J 7**	**J 8**	**JS 7**	**JS 8**	
	12,01	G 6	**H 7**	H 8	**JS 9**	
	12,02	F 7				

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
- 3 drilling edges
- 6 reaming edges
- High feeds
- Good surface quality
- For blind holes and through holes
- Optimum roundness – tolerance H7

≤ 3xD

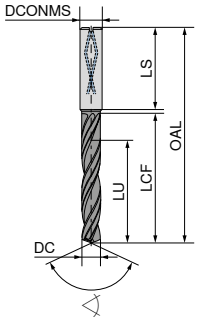
NOF = 3

NEW

Feed BR

DPX14S

DRAGONSKIN



HA

140°

Solid carbide

10 711 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4	
4	6	66	24	17	36	137.26	04000
5	6	66	28	20	36	137.26	05000
6	6	66	28	20	36	137.26	06000
8	8	79	41	29	36	137.26	08000
10	10	89	47	35	40	156.21	10000
12	12	102	55	40	45	214.06	12000
14	14	107	60	43	45	286.28	14000
16	16	115	65	45	48	398.00	16000

P	●
M	●
K	●
N	
S	
H	
O	

→ v_c Page 140

Special dimensions available upon request

WTX – Drill-Reamer

- Solid carbide high-performance drill-reaming tool
- Drilling and reaming to tolerance H7 in one operation
- 3 drilling edges
- 6 reaming edges
- High feeds
- Good surface quality
- For blind holes and through holes
- Optimum roundness – tolerance H7

≤ 5xD

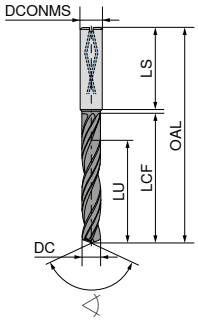
NOF = 3

NEW

Feed BR

DPX14S

DRAGONSKIN



HA

140°

Solid carbide

10 719 ...

DC h7 mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	LS mm	£ T4	
4	6	74	36	29	36	171.17	04000
5	6	82	44	35	36	171.17	05000
6	6	82	44	35	36	171.17	06000
8	8	91	53	43	36	171.17	08000
10	10	103	61	49	40	234.61	10000
12	12	118	71	56	45	329.77	12000
14	14	124	77	60	45	447.38	14000
16	16	133	83	63	48	538.25	16000
18	18	143	93	71	48	646.29	18000
20	20	153	101	77	50	777.16	20000

P	●
M	●
K	●
N	
S	
H	
O	

→ v_c Page 141

Special dimensions available upon request

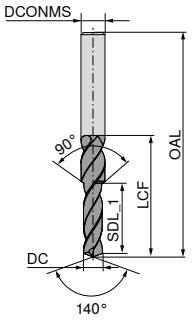
2

WTX – Short 90° step drill

▲ for core hole plus countersink for thread cutting

≤ 3xD | NOF = 2

SB | DPX74S | DRAGONSKIN



HA
140°
Solid carbide

10 767 ...

For threads	DC m7 mm	DCONMS h6 mm	OAL mm	SDL_1 mm	LCF mm	£ T4	
M3	2.5	6	62	8.8	20	54.04	02500
M4	3.3	6	62	11.4	24	66.21	03300
M5	4.2	6	66	13.6	28	68.20	04200
M6	5.0	8	79	16.5	34	96.52	05000
M8	6.8	10	89	21.0	47	139.89	06800
M10	8.5	12	102	25.5	55	185.15	08500
M12	10.2	14	107	30.0	60	238.26	10200
M14	12.0	16	115	34.5	65	272.10	12000
M16	14.0	18	123	38.5	73	306.14	14000

P	●
M	
K	●
N	
S	
H	○
O	

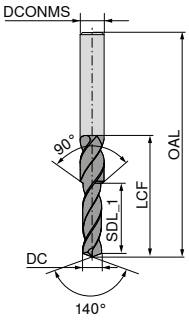
→ v_c Page 157

WTX – Short 90° step drill

▲ for core hole plus countersink for thread forming

≤ 3xD | NOF = 2

SB | DPX74S | DRAGONSKIN



HA
140°
Solid carbide

10 772 ...

For threads	DC m7 mm	DCONMS h6 mm	OAL mm	SDL_1 mm	LCF mm	£ T4	
M3	2.80	6	62	8.8	20	54.04	02800
M4	3.70	6	62	11.4	24	66.21	03700
M5	4.65	6	66	13.6	28	68.20	04650
M6	5.55	8	79	16.5	34	96.52	05550
M8	7.45	10	89	21.0	47	139.89	07450
M10	9.30	12	102	25.5	55	185.15	09300
M12	11.20	14	107	30.0	60	238.26	11200
M14	13.00	16	115	34.5	65	272.10	13000
M16	15.00	18	123	38.5	73	306.14	15000

P	●
M	
K	●
N	
S	
H	○
O	

→ v_c Page 157

WTX – Short 90° step drill

▲ for core hole plus countersink for thread cutting

≤ 3xD

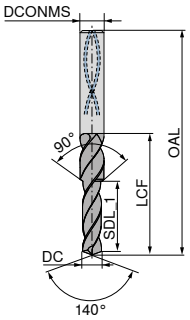
NOF = 2

NEW

SB

DPX74S

DRAGONSKIN



HA

140°

Solid carbide

10 783 ...

For threads	DC m7 mm	DCONMS h6 mm	OAL mm	SDL_1 mm	LCF mm	£ T4	
M4	3.3	6	62	11.4	24	69.64	**03300**
M5	4.2	6	66	13.6	28	73.20	**04200**
M6	5.0	8	79	16.5	34	92.86	**05000**
M8	6.8	10	89	21.0	47	150.70	**06800**
M10	8.5	12	102	25.5	55	185.96	**08500**
M12	10.2	14	107	30.0	60	260.82	**10200**
M14	12.0	16	115	34.5	65	316.73	**12000**
M16	14.0	18	123	38.5	73	327.47	**14000**

P	●
M	
K	●
N	
S	
H	○
O	

→ v_c Page 157

WTX – Short 90° step drill

▲ for core hole plus countersink for thread forming

≤ 3xD

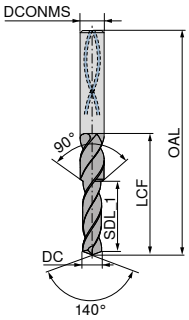
NOF = 2

NEW

SB

DPX74S

DRAGONSKIN



HA

140°

Solid carbide

10 788 ...

For threads	DC m7 mm	DCONMS h6 mm	OAL mm	SDL_1 mm	LCF mm	£ T4	
M4	3.70	6	62	11.4	24	69.64	**03700**
M5	4.65	6	66	13.6	28	73.20	**04650**
M6	5.55	8	79	16.5	34	92.86	**05550**
M8	7.45	10	89	21.0	47	150.70	**07450**
M10	9.30	12	102	25.5	55	185.96	**09300**
M12	11.20	14	107	30.0	60	260.82	**11200**
M14	13.00	16	115	34.5	65	316.73	**13000**
M16	15.00	18	123	38.5	73	327.47	**15000**

P	●
M	
K	●
N	
S	
H	○
O	

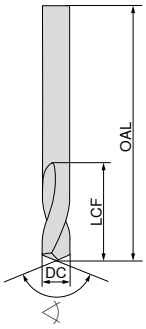
→ v_c Page 157

NC Spot Drill, factory standard

▲ spiral flute

2

NOF = 2



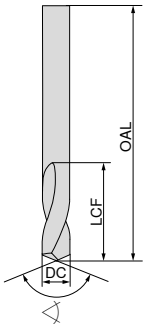
			NC-A	NC-A TiAlN	NC-A	NC-A TiAlN	NC-A	NC-A TiAlN
			HA	HB	HA	HB	HA	HB
			90°	90°	120°	120°	142°	142°
			Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide	Solid carbide
			10 702 ...	10 716 ...	10 703 ...	10 717 ...	10 704 ...	10 718 ...
DC h5 mm	OAL mm	LCF mm	£ T3	£ T3	£ T3	£ T3	£ T3	£ T3
2	32	6	23.10 002	22.71 002 1)	23.10 002	22.71 002 1)	23.10 002	22.71 002 1)
3	32	8	23.10 003	22.71 003 1)	23.10 003	22.71 003 1)	23.10 003	22.71 003 1)
4	40	10	18.11 004	23.95 004 1)	18.11 004	23.95 004 1)	18.11 004	23.95 004 1)
5	50	13	20.81 005	26.49 005 1)	20.81 005	26.49 005 1)	20.81 005	26.49 005 1)
6	50	13	23.22 006	29.00 006	23.22 006	29.00 006	23.22 006	29.00 006
8	60	23	35.68 008	40.35 008	35.68 008	40.35 008	35.68 008	40.35 008
10	70	24	50.04 010	52.97 010	50.04 010	52.97 010	50.04 010	52.97 010
12	70	24	72.17 012	69.36 012	72.17 012	69.36 012	72.17 012	69.36 012
14	75	26	82.98 014	102.14 014	82.98 014	102.14 014	82.98 014	102.14 014
16	75	29	121.12 016	118.56 016	121.12 016	118.56 016	121.12 016	118.56 016
18	100	35	234.91 018	213.14 018	234.91 018	213.14 018	234.91 018	213.14 018
20	100	35	197.21 020	224.49 020	197.21 020	224.49 020	197.21 020	224.49 020
P			○	○	○	○	○	○
M								
K			●	●	●	●	●	●
N			●	●	●	●	●	●
S								
H				○		○		○
O								

1) DIN 6535 HA Shank

→ v_c Page 149+150

NC Spot Drill, factory standard, long

▲ spiral flutes



			NC-A		NC-A		NC-A	
			TiAlN		TiAlN		TiAlN	
			◁ 90°		◁ 120°		◁ 142°	
			Solid carbide		Solid carbide		Solid carbide	
			10 724 ...		**10 726 ...**		**10 727 ...**	
DC h5 **mm**	OAL mm	LCF mm	£ T3		£ T3		£ T3	
3	66	8	23.95	**003** [1]	23.95	**003** [1]	23.95	**003** [1]
4	74	10	27.74	**004** [1]	27.74	**004** [1]	27.74	**004** [1]
6	82	13	35.31	**006**	35.31	**006**	35.31	**006**
8	91	23	51.71	**008**	51.71	**008**	51.71	**008**
10	103	24	71.89	**010**	71.89	**010**	71.89	**010**
12	118	24	108.47	**012**	108.47	**012**	108.47	**012**
16	133	29	203.05	**016**	203.05	**016**	203.05	**016**
P				○		○		○
M								
K				●		●		●
N				●		●		●
S								
H				○		○		○
O								

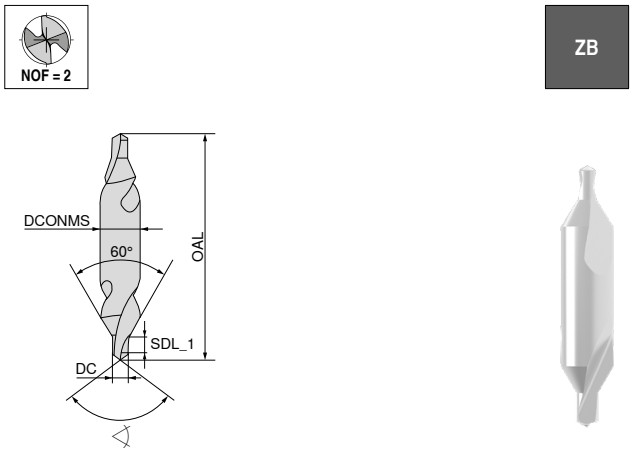
1) DIN 6535 HA Shank

→ v_c Page 151

Centre drills, DIN 333, form A

2

▲ spiral flutes



∢ 120°
Solid carbide

DC k13 mm	DCONMS h6 mm	OAL mm	SDL_1 mm	10 708 ... £ T3	
0.50	3.15	20.0	0.76	39.14	**050** 1)
0.80	3.15	20.0	1.07	39.14	**080** 1)
1.00	3.15	31.5	1.31	38.15	**100**
1.25	3.15	31.5	1.54	38.15	**125**
1.60	4.00	35.5	1.94	40.43	**160**
2.00	5.00	40.0	2.32	42.68	**200**
2.50	6.30	45.0	2.88	48.10	**250**
3.15	8.00	50.0	3.49	56.14	**315**
4.00	10.00	56.0	4.45	67.59	**400**
5.00	12.50	63.0	5.46	100.53	**500**
6.30	16.00	71.0	6.78	152.85	**630**

P	○
M	
K	●
N	●
S	
H	
O	

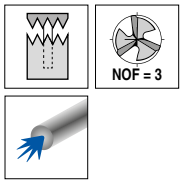
1) Single ended

→ v_c Page 148

WTX – Drilling Head for Exchangeable drills

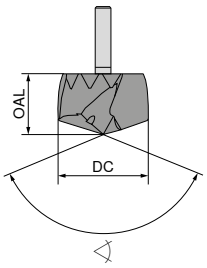
▲ extra long head type
▲ three-edged

Scope of supply:
Drill head incl. differential screw



Change Feed UNI

Ti750



140°
Solid carbide

DC m7 mm	OAL mm	10 925 ... £ W2	
14.0	13.5	107.33	140
14.1	13.5	107.33	141
14.2	13.5	107.33	142
14.3	13.5	107.33	143
14.4	13.5	107.33	144
14.5	14.0	107.33	145
14.6	14.0	107.33	146
14.7	14.0	107.33	147
14.8	14.0	107.33	148
14.9	14.0	107.33	149
15.0	14.4	107.33	150
15.1	14.4	107.33	151
15.2	14.4	107.33	152
15.3	14.4	107.33	153
15.4	14.4	107.33	154
15.5	15.4	120.21	155
15.6	15.4	120.21	156
15.7	15.4	120.21	157
15.8	15.4	120.21	158
15.9	15.4	120.21	159
16.0	15.4	120.21	160
16.1	15.4	120.21	161
16.2	15.4	120.21	162
16.3	15.4	120.21	163
16.4	15.4	120.21	164
16.5	16.3	120.21	165
16.6	16.3	120.21	166
16.7	16.3	120.21	167
16.8	16.3	120.21	168
16.9	16.3	120.21	169
17.0	16.3	120.21	170
17.1	16.3	120.21	171
17.2	16.3	120.21	172
17.3	16.3	120.21	173
17.4	16.3	120.21	174
17.5	17.2	136.45	175
17.6	17.2	136.45	176
17.7	17.2	136.45	177
17.8	17.2	136.45	178
17.9	17.2	136.45	179
18.0	17.2	136.45	180
18.1	17.2	136.45	181
18.2	17.2	136.45	182
18.3	17.2	136.45	183
18.4	17.2	136.45	184
18.5	18.2	136.45	185
18.6	18.2	136.45	186
18.7	18.2	136.45	187
18.8	18.2	136.45	188
18.9	18.2	136.45	189

DC m7 mm	OAL mm	10 925 ... £ W2	
19.0	18.2	136.45	190
19.1	18.2	136.45	191
19.2	18.2	136.45	192
19.3	18.2	136.45	193
19.4	18.2	136.45	194
19.5	19.1	156.56	195
19.6	19.1	156.56	196
19.7	19.1	156.56	197
19.8	19.1	156.56	198
19.9	19.1	156.56	199
20.0	19.1	156.56	200
20.1	19.1	156.56	201
20.2	19.1	156.56	202
20.3	19.1	156.56	203
20.4	19.1	156.56	204
20.5	20.0	156.56	205
20.6	20.0	156.56	206
20.7	20.0	156.56	207
20.8	20.0	156.56	208
20.9	20.0	156.56	209
21.0	20.0	156.56	210
21.1	20.0	156.56	211
21.2	20.0	156.56	212
21.3	20.0	156.56	213
21.4	20.0	156.56	214
21.5	21.0	156.56	215
21.6	21.0	156.56	216
21.7	21.0	156.56	217
21.8	21.0	156.56	218
21.9	21.0	156.56	219
22.0	21.0	156.56	220
22.1	21.0	156.56	221
22.2	21.0	156.56	222
22.3	21.0	156.56	223
22.4	21.0	156.56	224
22.5	21.9	174.17	225
22.6	21.9	174.17	226
22.7	21.9	174.17	227
22.8	21.9	174.17	228
22.9	21.9	174.17	229
23.0	21.9	174.17	230
23.1	21.9	174.17	231
23.2	21.9	174.17	232
23.3	21.9	174.17	233
23.4	21.9	174.17	234
23.5	22.8	174.17	235
23.6	22.8	174.17	236
23.7	22.8	174.17	237
23.8	22.8	174.17	238
23.9	22.8	174.17	239
24.0	22.8	174.17	240
24.1	22.8	174.17	241
24.2	22.8	174.17	242
24.3	22.8	174.17	243
24.4	22.8	174.17	244
24.5	23.8	197.42	245
24.6	23.8	197.42	246
24.7	23.8	197.42	247
24.8	23.8	197.42	248
24.9	23.8	197.42	249
25.0	23.8	197.42	250

P	●
M	
K	●
N	
S	
H	
O	

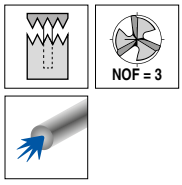
→ v_c Page 156

WTX – Drilling Head for Exchangeable drills

2

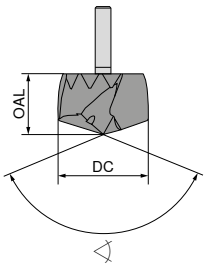
- extra long head type
- three-edged

Scope of supply:
Drill head incl. differential screw



Change Feed UNI

Ti750



140°
Solid carbide

DC m7 mm	OAL mm	10 925 ... £ W2	
25.1	23.8	197.42	251
25.2	23.8	197.42	252
25.3	23.8	197.42	253
25.4	23.8	197.42	254
25.5	24.7	197.42	255
25.6	24.7	197.42	256
25.7	24.7	197.42	257
25.8	24.7	197.42	258
25.9	24.7	197.42	259
26.0	24.7	197.42	260
26.1	24.7	197.42	261
26.2	24.7	197.42	262
26.3	24.7	197.42	263
26.4	24.7	197.42	264
26.5	25.6	212.96	265
26.6	25.6	212.96	266
26.7	25.6	212.96	267
26.8	25.6	212.96	268
26.9	25.6	212.96	269
27.0	25.6	212.96	270
27.1	25.6	212.96	271
27.2	25.6	212.96	272
27.3	25.6	212.96	273
27.4	25.6	212.96	274
27.5	26.6	212.96	275
27.6	26.6	212.96	276
27.7	26.6	212.96	277
27.8	26.6	212.96	278
27.9	26.6	212.96	279
28.0	26.6	212.96	280
28.1	26.6	212.96	281
28.2	26.6	212.96	282
28.3	26.6	212.96	283
28.4	26.6	212.96	284
28.5	27.5	234.90	285
28.6	27.5	234.90	286
28.7	27.5	234.90	287
28.8	27.5	234.90	288
28.9	27.5	234.90	289
29.0	27.5	234.90	290
29.1	27.5	234.90	291
29.2	27.5	234.90	292
29.3	27.5	234.90	293
29.4	27.5	234.90	294
29.5	28.4	234.90	295
29.6	28.4	234.90	296
29.7	28.4	234.90	297
29.8	28.4	234.90	298
29.9	28.4	234.90	299
30.0	28.4	234.90	300

DC m7 mm	OAL mm	10 925 ... £ W2	
30.1	28.4	234.90	301
30.2	28.4	234.90	302
30.3	28.4	234.90	303
30.4	28.4	234.90	304
30.5	29.3	256.44	305
30.6	29.3	256.44	306
30.7	29.3	256.44	307
30.8	29.3	256.44	308
30.9	29.3	256.44	309
31.0	29.3	256.44	310
31.1	29.3	256.44	311
31.2	29.3	256.44	312
31.3	29.3	256.44	313
31.4	29.3	256.44	314
31.5	30.3	256.44	315
31.6	30.3	256.44	316
31.7	30.3	256.44	317
31.8	30.3	256.44	318
31.9	30.3	256.44	319
32.0	30.3	256.44	320

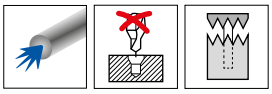
P	●
M	
K	●
N	
S	
H	
O	

→ v_c Page 156

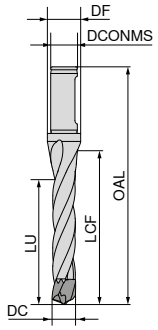
WTX – Holder for Exchangeable drills

Scope of supply:
Holder incl. blade holder and interchangeable blade

≤ 3xD



Change Feed



HB

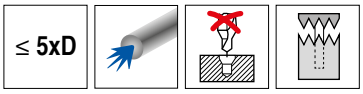
10 914 ...

DC mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	DF mm	torque moment Nm	£ W1	
14,00 - 14,49	16	120	72	48	20	0,7	280.20	140
14,50 - 14,99	16	122	74	49	20	0,7	280.20	145
15,00 - 15,49	16	124	76	51	25	0,7	280.20	150
15,50 - 16,49	20	131	81	54	25	0,7	289.52	155
16,50 - 17,49	20	135	85	58	25	0,7	289.52	165
17,50 - 18,49	20	140	90	61	25	1,3	289.52	175
18,50 - 19,49	25	150	94	64	31	1,3	341.06	185
19,50 - 20,49	25	155	99	68	31	2,0	344.13	195
20,50 - 21,49	25	159	103	71	31	2,0	376.82	205
21,50 - 22,49	25	164	108	74	31	2,0	376.82	215
22,50 - 23,49	25	168	112	78	31	2,0	412.93	225
23,50 - 24,49	25	173	117	81	31	2,0	412.93	235
24,50 - 25,49	32	182	122	84	38	3,1	464.70	245
25,50 - 26,49	32	186	126	87	38	3,1	464.70	255
26,50 - 27,49	32	191	131	91	38	3,1	464.70	265
27,50 - 28,49	32	195	135	94	38	3,1	464.70	275
28,50 - 29,49	32	200	140	97	38	5,6	535.55	285
29,50 - 30,49	32	204	144	101	38	5,6	535.55	295
30,50 - 31,49	32	209	149	104	38	5,6	585.85	305
31,50 - 32,49	32	213	153	107	38	5,6	585.85	315

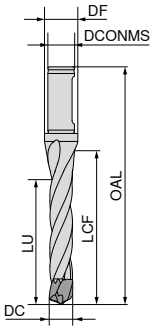
WTX – Holder for Exchangeable drills

Scope of supply:
Holder incl. blade holder and interchangeable blade

≤ 5xD



Change Feed



HB

10 916 ...

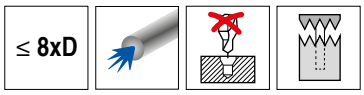
DC mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	DF mm	torque moment Nm	£ W1	
14,00 - 14,49	16	149	101	77	20	0,7	309.50	140
14,50 - 14,99	16	152	104	79	20	0,7	309.50	145
15,00 - 15,49	16	155	107	82	25	0,7	309.50	150
15,50 - 16,49	20	164	114	87	25	0,7	335.16	155
16,50 - 17,49	20	170	120	93	25	0,7	335.16	165
17,50 - 18,49	20	177	127	98	25	1,3	335.16	175
18,50 - 19,49	25	189	133	103	31	1,3	383.41	185
19,50 - 20,49	25	196	140	109	31	2,0	386.37	195
20,50 - 21,49	25	202	146	114	31	2,0	421.67	205
21,50 - 22,49	25	209	153	119	31	2,0	421.67	215
22,50 - 23,49	25	215	159	124	31	2,0	454.15	225
23,50 - 24,49	25	222	166	130	31	2,0	454.15	235
24,50 - 25,49	32	233	173	135	38	3,1	504.89	245
25,50 - 26,49	32	239	179	140	38	3,1	504.89	255
26,50 - 27,49	32	246	186	146	38	3,1	504.89	265
27,50 - 28,49	32	252	192	151	38	3,1	504.89	275
28,50 - 29,49	32	259	199	156	38	5,6	574.49	285
29,50 - 30,49	32	265	205	162	38	5,6	574.49	295
30,50 - 31,49	32	272	212	167	38	5,6	623.89	305
31,50 - 32,49	32	278	218	172	38	5,6	623.89	315

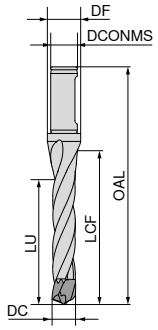
Spare parts DC	Interchangeable blade		Blade holder		Torque handle		Differential screw	
	80 022 ...		**80 020 ...**		**80 023 ...**		**10 950 ...**	
	£ W1		£ Y7		£ W1		£ W2	
14,00 - 14,49	21.51	007	35.20	025	359.30	012	7.05	064
14,50 - 14,99	21.51	007	35.20	025	359.30	012	7.05	064
15,00 - 15,49	21.51	007	35.20	025	359.30	012	7.05	064
15,50 - 16,49	21.51	007	35.20	025	359.30	012	7.05	064
16,50 - 17,49	21.51	007	35.20	025	359.30	012	7.05	064
17,50 - 18,49	21.51	008	35.20	025	384.57	060	7.05	065
18,50 - 19,49	21.51	008	35.20	025	384.57	060	7.05	065
19,50 - 20,49	25.03	010	35.20	025	384.57	060	7.05	066
20,50 - 21,49	25.03	010	35.20	025	384.57	060	7.05	066
21,50 - 22,49	25.03	010	35.20	025	384.57	060	7.05	066
22,50 - 23,49	25.03	010	35.20	025	384.57	060	7.05	066
23,50 - 24,49	25.03	010	35.20	025	384.57	060	7.05	066
24,50 - 25,49	40.44	015	35.20	025	384.57	060	7.05	067
25,50 - 26,49	40.44	015	35.20	025	384.57	060	7.05	067
26,50 - 27,49	40.44	015	35.20	025	384.57	060	7.05	067
27,50 - 28,49	40.44	015	35.20	025	384.57	060	7.05	067
28,50 - 29,49	40.44	015	35.20	025	384.57	060	7.05	068
29,50 - 30,49	40.44	015	35.20	025	384.57	060	7.05	068
30,50 - 31,49	40.44	015	35.20	025	384.57	060	7.05	068
31,50 - 32,49	40.44	015	35.20	025	384.57	060	7.05	068

WTX – Holder for Exchangeable drills

2

Scope of supply:
Holder incl. blade holder and interchangeable blade





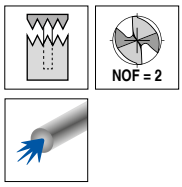
HB

DC mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	DF mm	torque moment Nm	10 917 ... £ W1	
14,00 - 14,49	16	192	121	116	20	0,7	404.99	**14000**
14,50 - 14,99	16	197	125	120	20	0,7	404.99	**14500**
15,00 - 15,49	16	202	129	124	25	0,7	404.99	**15000**
15,50 - 16,49	20	213	137	132	25	0,7	435.08	**15500**
16,50 - 17,49	20	223	146	140	25	0,7	435.08	**16500**
17,50 - 18,49	20	232	154	148	25	1,3	435.08	**17500**
18,50 - 19,49	25	248	162	156	31	1,3	489.86	**18500**
19,50 - 20,49	25	257	171	164	31	2,0	496.58	**19500**
20,50 - 21,49	25	267	179	172	31	2,0	529.98	**20500**
21,50 - 22,49	25	276	187	180	31	2,0	529.98	**21500**
22,50 - 23,49	25	286	195	188	31	2,0	587.85	**22500**
23,50 - 24,49	25	295	204	196	31	2,0	587.85	**23500**
24,50 - 25,49	32	309	212	204	38	3,1	634.47	**24500**
25,50 - 26,49	32	319	220	212	38	3,1	634.47	**25500**
26,50 - 27,49	32	328	229	220	38	3,1	634.47	**26500**
27,50 - 28,49	32	338	237	228	38	3,1	634.47	**27500**
28,50 - 29,49	32	342	245	236	38	5,6	728.18	**28500**
29,50 - 30,49	32	352	254	244	38	5,6	728.18	**29500**
30,50 - 31,49	32	361	262	252	38	5,6	803.12	**30500**
31,50 - 32,49	32	371	270	260	38	5,6	803.12	**31500**

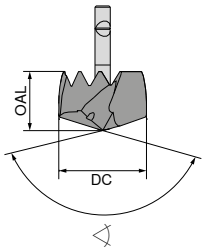
	Interchangeable blade		Blade holder		Torque handle		Differential screw	
	80 022 ...		80 020 ...		80 023 ...		10 950 ...	
Spare parts DC	£ W1		£ Y7		£ W1		£ W2	
14,00 - 14,49	21.51	**007**	35.20	**025**	359.30	**012**	7.05	**064**
14,50 - 14,99	21.51	**007**	35.20	**025**	359.30	**012**	7.05	**064**
15,00 - 15,49	21.51	**007**	35.20	**025**	359.30	**012**	7.05	**064**
15,50 - 16,49	21.51	**007**	35.20	**025**	359.30	**012**	7.05	**064**
16,50 - 17,49	21.51	**007**	35.20	**025**	359.30	**012**	7.05	**064**
17,50 - 18,49	21.51	**008**	35.20	**025**	384.57	**060**	7.05	**065**
18,50 - 19,49	21.51	**008**	35.20	**025**	384.57	**060**	7.05	**065**
19,50 - 20,49	25.03	**010**	35.20	**025**	384.57	**060**	7.05	**066**
20,50 - 21,49	25.03	**010**	35.20	**025**	384.57	**060**	7.05	**066**
21,50 - 22,49	25.03	**010**	35.20	**025**	384.57	**060**	7.05	**066**
22,50 - 23,49	25.03	**010**	35.20	**025**	384.57	**060**	7.05	**066**
23,50 - 24,49	25.03	**010**	35.20	**025**	384.57	**060**	7.05	**066**
24,50 - 25,49	40.44	**015**	35.20	**025**	384.57	**060**	7.05	**067**
25,50 - 26,49	40.44	**015**	35.20	**025**	384.57	**060**	7.05	**067**
26,50 - 27,49	40.44	**015**	35.20	**025**	384.57	**060**	7.05	**067**
27,50 - 28,49	40.44	**015**	35.20	**025**	384.57	**060**	7.05	**067**
28,50 - 29,49	40.44	**015**	35.20	**025**	384.57	**060**	7.05	**068**
29,50 - 30,49	40.44	**015**	35.20	**025**	384.57	**060**	7.05	**068**
30,50 - 31,49	40.44	**015**	35.20	**025**	384.57	**060**	7.05	**068**
31,50 - 32,49	40.44	**015**	35.20	**025**	384.57	**060**	7.05	**068**

WTX – Drilling Head for Exchangeable drills

▲ extra long head type



Change UNI	Change P	Change VA	Change GG	Change AL
DPX74S	Ti750	Ti700	TiSi	TiB
DRAGONSKIN				



		◁ 140° Solid carbide		◁ 138° Solid carbide		◁ 138° Solid carbide		◁ 140° Solid carbide		◁ 140° Solid carbide	
		10 919 ...		10 923 ...		10 921 ...		10 924 ...		10 922 ...	
DC h7/m7 mm	OAL mm	£ W2		£ W2		£ W2		£ W2		£ W2	
12.0	10.7	126.60	12000	126.60	120	126.60	120	126.60	120	126.60	120
12.1	10.7	126.60	12100	126.60	121	126.60	121	126.60	121	126.60	121
12.2	10.7	126.60	12200	126.60	122	126.60	122	126.60	122	126.60	122
12.3	10.7	126.60	12300	126.60	123	126.60	123	126.60	123	126.60	123
12.4	10.7	126.60	12400	126.60	124	126.60	124	126.60	124	126.60	124
12.5	10.7	126.60	12500	126.60	125	126.60	125	126.60	125	126.60	125
12.6	10.7	126.60	12600	126.60	126	126.60	126	126.60	126	126.60	126
12.7	10.7	126.60	12700	126.60	127	126.60	127	126.60	127	126.60	127
12.8	10.7	126.60	12800	126.60	128	126.60	128	126.60	128	126.60	128
12.9	10.7	126.60	12900	126.60	129	126.60	129	126.60	129	126.60	129
13.0	10.7	126.60	13000	126.60	130	126.60	130	126.60	130	126.60	130
13.1	10.7	126.60	13100	126.60	131	126.60	131	126.60	131	126.60	131
13.2	10.7	126.60	13200	126.60	132	126.60	132	126.60	132	126.60	132
13.3	10.7	126.60	13300	126.60	133	126.60	133	126.60	133	126.60	133
13.4	10.7	126.60	13400	126.60	134	126.60	134	126.60	134	126.60	134
13.5	11.3	126.60	13500	126.60	135	126.60	135	126.60	135	126.60	135
13.6	11.3	126.60	13600	126.60	136	126.60	136	126.60	136	126.60	136
13.7	11.3	126.60	13700	126.60	137	126.60	137	126.60	137	126.60	137
13.8	11.3	126.60	13800	126.60	138	126.60	138	126.60	138	126.60	138
13.9	11.3	126.60	13900	126.60	139	126.60	139	126.60	139	126.60	139
14.0	11.3	126.60	14000	126.60	140	126.60	140	126.60	140	126.60	140
14.1	11.3	126.60	14100	126.60	141	126.60	141	126.60	141	126.60	141
14.2	11.3	126.60	14200	126.60	142	126.60	142	126.60	142	126.60	142
14.3	11.3	126.60	14300	126.60	143	126.60	143	126.60	143	126.60	143
14.4	11.3	126.60	14400	126.60	144	126.60	144	126.60	144	126.60	144
14.5	11.3	126.60	14500	126.60	145	126.60	145	126.60	145	126.60	145
14.6	11.3	126.60	14600	126.60	146	126.60	146	126.60	146	126.60	146
14.7	11.3	126.60	14700	126.60	147	126.60	147	126.60	147	126.60	147
14.8	11.3	126.60	14800	126.60	148	126.60	148	126.60	148	126.60	148
14.9	11.3	126.60	14900	126.60	149	126.60	149	126.60	149	126.60	149
15.0	11.3	126.60	15000	126.60	150	126.60	150	126.60	150	126.60	150
15.1	11.3	126.60	15100	126.60	151	126.60	151	126.60	151	126.60	151
15.2	11.3	126.60	15200	126.60	152	126.60	152	126.60	152	126.60	152
15.3	11.3	126.60	15300	126.60	153	126.60	153	126.60	153	126.60	153
15.4	11.3	126.60	15400	126.60	154	126.60	154	126.60	154	126.60	154
15.5	11.9	126.60	15500	126.60	155	126.60	155	126.60	155	126.60	155
15.6	11.9	126.60	15600	126.60	156	126.60	156	126.60	156	126.60	156
15.7	11.9	126.60	15700	126.60	157	126.60	157	126.60	157	126.60	157
15.8	11.9	126.60	15800	126.60	158	126.60	158	126.60	158	126.60	158
P		●		●		○					
M						●					
K		●		●		●			●		
N											●
S						●					
H											
O											

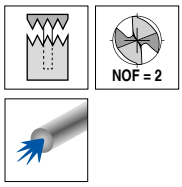
→ v_c Page 152–155

ℹ **Ø DC$_{m7}$** for Type UNI, P, GG und AL / **Ø DC$_{h7}$** for Type VA

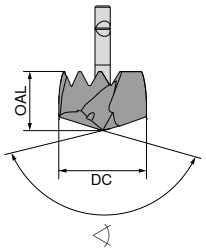
Continued on next page

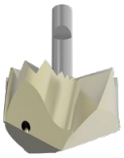
WTX – Drilling Head for Exchangeable drills

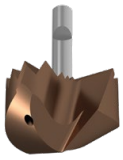
▲ extra long head type



Change UNI	Change P	Change VA	Change GG	Change AL
DPX74S	Ti750	Ti700	TiSi	TiB
DRAGONSKIN				







		140° Solid carbide		138° Solid carbide		138° Solid carbide		140° Solid carbide		140° Solid carbide	
		10 919 ...		10 923 ...		10 921 ...		10 924 ...		10 922 ...	
DC h7/m7 mm	OAL mm	£ W2		£ W2		£ W2		£ W2		£ W2	
15.9	11.9	126.60	15900	126.60	159	126.60	159	126.60	159	126.60	159
16.0	11.9	126.60	16000	126.60	160	126.60	160	126.60	160	126.60	160
16.1	11.9	126.60	16100	126.60	161	126.60	161	126.60	161	126.60	161
16.2	11.9	126.60	16200	126.60	162	126.60	162	126.60	162	126.60	162
16.3	11.9	126.60	16300	126.60	163	126.60	163	126.60	163	126.60	163
16.4	11.9	126.60	16400	126.60	164	126.60	164	126.60	164	126.60	164
16.5	13.4	126.60	16500	126.60	165	126.60	165	126.60	165	126.60	165
16.6	13.4	126.60	16600	126.60	166	126.60	166	126.60	166	126.60	166
16.7	13.4	126.60	16700	126.60	167	126.60	167	126.60	167	126.60	167
16.8	13.4	126.60	16800	126.60	168	126.60	168	126.60	168	126.60	168
16.9	13.4	126.60	16900	126.60	169	126.60	169	126.60	169	126.60	169
17.0	13.4	126.60	17000	126.60	170	126.60	170	126.60	170	126.60	170
17.1	13.4	126.60	17100	126.60	171	126.60	171	126.60	171	126.60	171
17.2	13.4	126.60	17200	126.60	172	126.60	172	126.60	172	126.60	172
17.3	13.4	126.60	17300	126.60	173	126.60	173	126.60	173	126.60	173
17.4	13.4	126.60	17400	126.60	174	126.60	174	126.60	174	126.60	174
17.5	13.4	126.60	17500	126.60	175	126.60	175	126.60	175	126.60	175
17.6	13.4	126.60	17600	126.60	176	126.60	176	126.60	176	126.60	176
17.7	13.4	126.60	17700	126.60	177	126.60	177	126.60	177	126.60	177
17.8	13.4	126.60	17800	126.60	178	126.60	178	126.60	178	126.60	178
17.9	13.4	126.60	17900	126.60	179	126.60	179	126.60	179	126.60	179
18.0	13.4	126.60	18000	126.60	180	126.60	180	126.60	180	126.60	180
18.1	13.4	137.75	18100	137.75	181	137.75	181	137.75	181	137.75	181
18.2	13.4	137.75	18200	137.75	182	137.75	182	137.75	182	137.75	182
18.3	13.4	137.75	18300	137.75	183	137.75	183	137.75	183	137.75	183
18.4	13.4	137.75	18400	137.75	184	137.75	184	137.75	184	137.75	184
18.5	13.4	137.75	18500	137.75	185	137.75	185	137.75	185	137.75	185
18.6	13.4	137.75	18600	137.75	186	137.75	186	137.75	186	137.75	186
18.7	13.4	137.75	18700	137.75	187	137.75	187	137.75	187	137.75	187
18.8	13.4	137.75	18800	137.75	188	137.75	188	137.75	188	137.75	188
18.9	13.4	137.75	18900	137.75	189	137.75	189	137.75	189	137.75	189
19.0	13.4	137.75	19000	137.75	190	137.75	190	137.75	190	137.75	190
19.1	13.4	137.75	19100	137.75	191	137.75	191	137.75	191	137.75	191
19.2	13.4	137.75	19200	137.75	192	137.75	192	137.75	192	137.75	192
19.3	13.4	137.75	19300	137.75	193	137.75	193	137.75	193	137.75	193
19.4	13.4	137.75	19400	137.75	194	137.75	194	137.75	194	137.75	194
19.5	13.4	137.75	19500	137.75	195	137.75	195	137.75	195	137.75	195
19.6	13.4	137.75	19600	137.75	196	137.75	196	137.75	196	137.75	196
19.7	13.4	137.75	19700	137.75	197	137.75	197	137.75	197	137.75	197

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

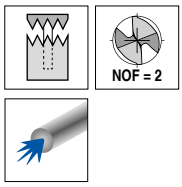
→ v_c Page 152–155

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

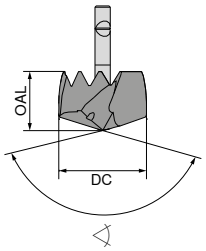
Continued on next page

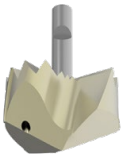
WTX – Drilling Head for Exchangeable drills

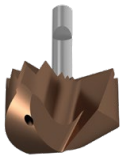
▲ extra long head type



Change UNI	Change P	Change VA	Change GG	Change AL
DPX74S	Ti750	Ti700	TiSi	TiB
DRAGONSKIN				







		140° Solid carbide		138° Solid carbide		138° Solid carbide		140° Solid carbide		140° Solid carbide	
		10 919 ...		10 923 ...		10 921 ...		10 924 ...		10 922 ...	
DC h7/m7 mm	OAL mm	£ W2		£ W2		£ W2		£ W2		£ W2	
19.8	13.4	137.75	19800	137.75	198	137.75	198	137.75	198	137.75	198
19.9	13.4	137.75	19900	137.75	199	137.75	199	137.75	199	137.75	199
20.0	13.4	137.75	20000	137.75	200	137.75	200	137.75	200	137.75	200
20.1	13.4	152.23	20100	152.23	201	152.23	201	152.23	201	114.78	201
20.2	13.4	152.23	20200	152.23	202	152.23	202	152.23	202	152.23	202
20.3	13.4	152.23	20300	152.23	203	152.23	203	152.23	203	152.23	203
20.4	13.4	152.23	20400	152.23	204	152.23	204	152.23	204	152.23	204
20.5	15.4	152.23	20500	152.23	205	152.23	205	152.23	205	152.23	205
20.6	15.4	152.23	20600	152.23	206	152.23	206	152.23	206	152.23	206
20.7	15.4	152.23	20700	152.23	207	152.23	207	152.23	207	152.23	207
20.8	15.4	152.23	20800	152.23	208	152.23	208	152.23	208	152.23	208
20.9	15.4	152.23	20900	152.23	209	152.23	209	152.23	209	152.23	209
21.0	15.4	152.23	21000	152.23	210	152.23	210	152.23	210	152.23	210
21.1	15.4	152.23	21100	152.23	211	152.23	211	152.23	211	152.23	211
21.2	15.4	152.23	21200	152.23	212	152.23	212	152.23	212	152.23	212
21.3	15.4	152.23	21300	152.23	213	152.23	213	152.23	213	152.23	213
21.4	15.4	152.23	21400	152.23	214	152.23	214	152.23	214	152.23	214
21.5	15.4	152.23	21500	152.23	215	152.23	215	152.23	215	152.23	215
21.6	15.4	152.23	21600	152.23	216	152.23	216	152.23	216	152.23	216
21.7	15.4	152.23	21700	152.23	217	152.23	217	152.23	217	152.23	217
21.8	15.4	152.23	21800	152.23	218	152.23	218	152.23	218	152.23	218
21.9	15.4	152.23	21900	152.23	219	152.23	219	152.23	219	152.23	219
22.0	15.4	152.23	22000	152.23	220	152.23	220	152.23	220	152.23	220
22.1	15.4	163.37	22100	163.37	221	163.37	221	163.37	221	163.37	221
22.2	15.4	163.37	22200	163.37	222	163.37	222	163.37	222	163.37	222
22.3	15.4	163.37	22300	163.37	223	163.37	223	163.37	223	163.37	223
22.4	15.4	163.37	22400	163.37	224	163.37	224	163.37	224	163.37	224
22.5	15.4	163.37	22500	163.37	225	163.37	225	163.37	225	163.37	225
22.6	15.4	163.37	22600	163.37	226	163.37	226	163.37	226	163.37	226
22.7	15.4	163.37	22700	163.37	227	163.37	227	163.37	227	163.37	227
22.8	15.4	163.37	22800	163.37	228	163.37	228	163.37	228	163.37	228
22.9	15.4	163.37	22900	163.37	229	163.37	229	163.37	229	163.37	229
23.0	15.4	163.37	23000	163.37	230	163.37	230	163.37	230	163.37	230
23.1	15.4	163.37	23100	163.37	231	163.37	231	163.37	231	163.37	231
23.2	15.4	163.37	23200	163.37	232	163.37	232	163.37	232	163.37	232
23.3	15.4	163.37	23300	163.37	233	163.37	233	163.37	233	163.37	233
23.4	15.4	163.37	23400	163.37	234	163.37	234	163.37	234	163.37	234
23.5	15.4	163.37	23500	163.37	235	163.37	235	163.37	235	163.37	235
23.6	15.4	163.37	23600	163.37	236	163.37	236	163.37	236	163.37	236

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

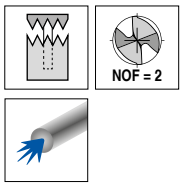
→ v_c Page 152–155

Ø DC$_{m7}$ for Type UNI, P, GG und AL / **Ø DC$_{h7}$** for Type VA

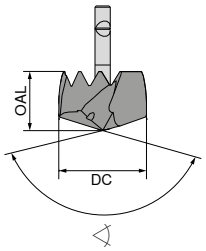
Continued on next page

WTX – Drilling Head for Exchangeable drills

▲ extra long head type



Change UNI	Change P	Change VA	Change GG	Change AL
DPX74S	Ti750	Ti700	TiSi	TiB
DRAGONSKIN				



		140° Solid carbide		138° Solid carbide		138° Solid carbide		140° Solid carbide		140° Solid carbide	
		10 919 ...		10 923 ...		10 921 ...		10 924 ...		10 922 ...	
DC h7/m7 mm	OAL mm	£ W2		£ W2		£ W2		£ W2		£ W2	
23.7	15.4	163.37	23700	163.37	237	163.37	237	163.37	237	163.37	237
23.8	15.4	163.37	23800	163.37	238	163.37	238	163.37	238	163.37	238
23.9	15.4	163.37	23900	163.37	239	163.37	239	163.37	239	163.37	239
24.0	15.4	163.37	24000	163.37	240	163.37	240	163.37	240	163.37	240
24.1	15.4	177.86	24100	171.14	241	188.99	241	171.14	241	188.99	241
24.2	15.4	177.86	24200	171.14	242	188.99	242	171.14	242	188.99	242
24.3	15.4	177.86	24300	171.14	243	188.99	243	171.14	243	188.99	243
24.4	15.4	177.86	24400	171.14	244	188.99	244	171.14	244	188.99	244
24.5	17.4	177.86	24500	177.86	245	188.99	245	177.86	245	188.99	245
24.6	17.4	177.86	24600	177.86	246	188.99	246	177.86	246	188.99	246
24.7	17.4	177.86	24700	177.86	247	188.99	247	177.86	247	188.99	247
24.8	17.4	177.86	24800	177.86	248	188.99	248	177.86	248	188.99	248
24.9	17.4	177.86	24900	177.86	249	188.99	249	177.86	249	188.99	249
25.0	17.4	177.86	25000	177.86	250	188.99	250	177.86	250	188.99	250
25.1	17.4	177.86	25100	177.86	251	188.99	251	177.86	251	188.99	251
25.2	17.4	177.86	25200	177.86	252	188.99	252	177.86	252	188.99	252
25.3	17.4	177.86	25300	177.86	253	188.99	253	177.86	253	188.99	253
25.4	17.4	177.86	25400	177.86	254	188.99	254	177.86	254	188.99	254
25.5	17.4	177.86	25500	177.86	255	188.99	255	177.86	255	188.99	255
25.6	17.4	188.99	25600	188.99	256	188.99	256	188.99	256	188.99	256
25.7	17.4	188.99	25700	188.99	257	188.99	257	188.99	257	188.99	257
25.8	17.4	188.99	25800	188.99	258	188.99	258	188.99	258	188.99	258
25.9	17.4	188.99	25900	188.99	259	188.99	259	188.99	259	188.99	259
26.0	17.4	188.99	26000	188.99	260	188.99	260	188.99	260	188.99	260
26.1	17.4	188.99	26100	188.99	261	188.99	261	188.99	261	188.99	261
26.2	17.4	188.99	26200	188.99	262	188.99	262	188.99	262	188.99	262
26.3	17.4	188.99	26300	188.99	263	188.99	263	188.99	263	188.99	263
26.4	17.4	188.99	26400	188.99	264	188.99	264	188.99	264	188.99	264
26.5	17.4	188.99	26500	188.99	265	188.99	265	188.99	265	188.99	265
26.6	17.4	188.99	26600	188.99	266	188.99	266	188.99	266	188.99	266
26.7	17.4	188.99	26700	188.99	267	188.99	267	188.99	267	188.99	267
26.8	17.4	188.99	26800	188.99	268	188.99	268	188.99	268	188.99	268
26.9	17.4	188.99	26900	188.99	269	188.99	269	188.99	269	188.99	269
27.0	17.4	188.99	27000	188.99	270	188.99	270	188.99	270	188.99	270
27.1	17.4	188.99	27100	188.99	271	188.99	271	188.99	271	188.99	271
27.2	17.4	188.99	27200	188.99	272	188.99	272	188.99	272	188.99	272
27.3	17.4	188.99	27300	188.99	273	188.99	273	188.99	273	188.99	273
27.4	17.4	188.99	27400	188.99	274	188.99	274	188.99	274	188.99	274
27.5	17.4	188.99	27500	188.99	275	188.99	275	188.99	275	188.99	275
P		●		●		○					
M						●					
K		●		●		●			●		
N											●
S						●					
H											
O											

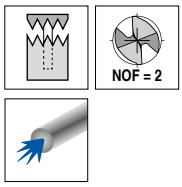
→ v_c Page 152–155

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

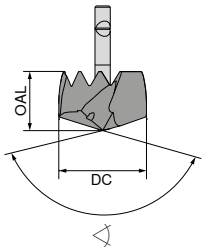
Continued on next page

WTX – Drilling Head for Exchangeable drills

▲ extra long head type



Change UNI	Change P	Change VA	Change GG	Change AL
DPX74S	Ti750	Ti700	TiSi	TiB
DRAGONSKIN				



		140° Solid carbide		138° Solid carbide		138° Solid carbide		140° Solid carbide		140° Solid carbide	
		10 919 ...		10 923 ...		10 921 ...		10 924 ...		10 922 ...	
DC h7/m7 mm	OAL mm	£ W2		£ W2		£ W2		£ W2		£ W2	
27.6	17.4	188.99	27600	188.99	276	188.99	276	188.99	276	188.99	276
27.7	17.4	188.99	27700	188.99	277	188.99	277	188.99	277	188.99	277
27.8	17.4	188.99	27800	188.99	278	188.99	278	188.99	278	188.99	278
27.9	17.4	188.99	27900	188.99	279	188.99	279	188.99	279	188.99	279
28.0	17.4	188.99	28000	188.99	280	188.99	280	188.99	280	188.99	280
28.1	17.4	206.69	28100	206.69	281	206.69	281	206.69	281	206.69	281
28.2	17.4	206.69	28200	206.69	282	206.69	282	206.69	282	206.69	282
28.3	17.4	206.69	28300	206.69	283	206.69	283	206.69	283	206.69	283
28.4	17.4	206.69	28400	206.69	284	206.69	284	206.69	284	206.69	284
28.5	18.4	206.69	28500	206.69	285	206.69	285	206.69	285	206.69	285
28.6	18.4	206.69	28600	206.69	286	206.69	286	206.69	286	206.69	286
28.7	18.4	206.69	28700	206.69	287	206.69	287	206.69	287	206.69	287
28.8	18.4	206.69	28800	206.69	288	206.69	288	206.69	288	206.69	288
28.9	18.4	206.69	28900	206.69	289	206.69	289	206.69	289	206.69	289
29.0	18.4	206.69	29000	206.69	290	206.69	290	206.69	290	206.69	290
29.1	18.4	206.69	29100	206.69	291	206.69	291	206.69	291	206.69	291
29.2	18.4	206.69	29200	206.69	292	206.69	292	206.69	292	206.69	292
29.3	18.4	206.69	29300	206.69	293	206.69	293	206.69	293	206.69	293
29.4	18.4	206.69	29400	206.69	294	206.69	294	206.69	294	206.69	294
29.5	18.4	206.69	29500	206.69	295	206.69	295	206.69	295	206.69	295
29.6	18.4	206.69	29600	206.69	296	206.69	296	206.69	296	206.69	296
29.7	18.4	206.69	29700	206.69	297	206.69	297	206.69	297	206.69	297
29.8	18.4	206.69	29800	206.69	298	206.69	298	206.69	298	206.69	298
29.9	18.4	206.69	29900	206.69	299	206.69	299	206.69	299	206.69	299
30.0	18.4	206.69	30000	206.69	300	206.69	300	206.69	300	206.69	300
30.1	18.4	230.63	30100	230.63	301	230.63	301	230.63	301	230.63	301
30.2	18.4	230.63	30200	230.63	302	230.63	302	230.63	302	230.63	302
30.3	18.4	230.63	30300	230.63	303	230.63	303	230.63	303	230.63	303
30.4	18.4	230.63	30400	230.63	304	230.63	304	230.63	304	230.63	304
30.5	18.4	230.63	30500	230.63	305	230.63	305	230.63	305	230.63	305
30.6	18.4	230.63	30600	230.63	306	230.63	306	230.63	306	230.63	306
30.7	18.4	230.63	30700	230.63	307	230.63	307	230.63	307	230.63	307
30.8	18.4	230.63	30800	230.63	308	230.63	308	230.63	308	230.63	308
30.9	18.4	230.63	30900	230.63	309	230.63	309	230.63	309	230.63	309
31.0	18.4	230.63	31000	230.63	310	230.63	310	230.63	310	230.63	310
31.1	18.4	230.63	31100	230.63	311	230.63	311	230.63	311	230.63	311
31.2	18.4	230.63	31200	230.63	312	230.63	312	230.63	312	230.63	312
31.3	18.4	230.63	31300	230.63	313	230.63	313	230.63	313	230.63	313
31.4	18.4	230.63	31400	230.63	314	230.63	314	230.63	314	230.63	314

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

→ v_c Page 152–155

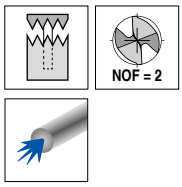
Ø DC_{m7} for Type UNI, P, GG und AL / Ø DC_{h7} for Type VA

Continued on next page

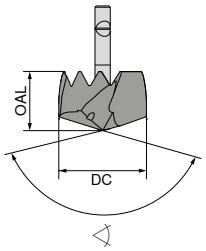
WTX – Drilling Head for Exchangeable drills

▲ extra long head type

2



Change UNI	Change P	Change VA	Change GG	Change AL
DPX74S	Ti750	Ti700	TiSi	TiB
DRAGONSKIN				



		◁ 140° Solid carbide		◁ 138° Solid carbide		◁ 138° Solid carbide		◁ 140° Solid carbide		◁ 140° Solid carbide	
		10 919 ...		10 923 ...		10 921 ...		10 924 ...		10 922 ...	
DC h7/m7 mm	OAL mm	£ W2		£ W2		£ W2		£ W2		£ W2	
31.5	18.4	230.63	31500	230.63	315	230.63	315	230.63	315	230.63	315
31.6	18.4	230.63	31600	230.63	316	230.63	316	230.63	316	230.63	316
31.7	18.4	230.63	31700	230.63	317	230.63	317	230.63	317	230.63	317
31.8	18.4	230.63	31800	230.63	318	230.63	318	230.63	318	230.63	318
31.9	18.4	230.63	31900	230.63	319	230.63	319	230.63	319	230.63	319
32.0	18.4	230.63	32000	230.63	320	230.63	320	230.63	320	230.63	320
32.5	24.3	246.87	32500	246.87	325						
33.0	24.3	246.87	33000	246.87	330						
33.5	24.3	246.87	33500	246.87	335						
34.0	24.3	246.87	34000	246.87	340						
34.5	24.3	246.87	34500	246.87	345						
35.0	24.3	246.87	35000	246.87	350						
35.5	26.3	282.35	35500	282.35	355						
36.0	26.3	282.35	36000	282.35	360						
36.5	26.3	282.35	36500	282.35	365						
37.0	26.3	282.35	37000	282.35	370						
37.5	26.3	282.35	37500	282.35	375						
38.0	26.3	282.35	38000	282.35	380						
38.5	26.3	306.90	38500	306.90	385						
39.0	26.3	306.90	39000	306.90	390						
39.5	26.3	306.90	39500	306.90	395						
40.0	26.3	306.90	40000	306.90	400						
40.5	26.3	306.90	40500	306.90	405						
41.0	26.3	306.90	41000	306.90	410						
P		●		●		○					
M						●					
K		●		●		●		●			
N										●	
S						●					
H											
O											

→ v_c Page 152–155

ℹ **Ø DC$_{m7}$** for Type UNI, P, GG und AL / **Ø DC$_{h7}$** for Type VA

WTX – Holder for Exchangeable drills

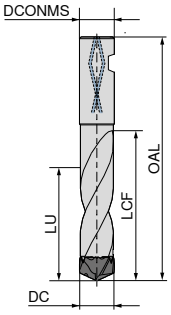
▲ with radial teeth

Scope of supply:

Holder incl. screw driver

≤ 1xD

Change



HB

10 911 ...

DC mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	torque moment Nm	£ W1	
12,00 - 12,49	14	81	29	12.5	1,0	246.87	120
12,50 - 12,99	14	81	29	13.0	1,0	246.87	125
13,00 - 13,49	14	81	31	13.5	1,0	246.87	130
13,50 - 13,99	16	86	32	14.0	1,3	246.87	135
14,00 - 14,49	16	86	33	14.5	1,3	246.87	140
14,50 - 14,99	16	91	34	15.0	1,3	246.87	145
15,00 - 15,49	16	91	36	15.5	1,3	246.87	150
15,50 - 16,49	20	97	38	16.5	1,3	255.07	161
15,50 - 16,49	18	92	38	16.5	1,3	255.07	160
16,50 - 17,49	18	94	40	17.5	3,5	255.07	165
16,50 - 17,49	20	99	40	17.5	3,5	255.07	166
17,50 - 18,49	20	104	43	18.5	3,5	255.07	176
17,50 - 18,49	18	99	43	18.5	3,5	255.07	175
18,50 - 19,49	20	99	45	19.5	3,5	301.44	185
19,50 - 20,49	20	104	47	20.5	3,5	301.44	195
20,50 - 21,49	25	111	49	21.5	3,5	334.17	205
21,50 - 22,49	25	116	52	22.5	3,5	334.17	215
22,50 - 23,49	25	116	54	23.5	3,5	365.56	225
23,50 - 24,49	25	121	56	24.5	4,0	365.56	235
24,50 - 25,49	25	123	59	25.5	4,0	396.91	245
25,50 - 26,49	25	123	61	26.5	4,0	396.91	255
26,50 - 27,49	25	128	63	27.5	4,0	396.91	265
27,50 - 28,49	25	128	66	28.5	4,0	396.91	275
28,50 - 29,49	32	134	68	29.5	4,0	461.02	285
29,50 - 30,49	32	139	70	30.5	4,0	461.02	295
30,50 - 31,49	32	139	75	31.5	4,0	508.75	305
31,50 - 32,49	32	139	75	32.5	4,0	508.75	315
32,50 - 33,49	32	150	78	33.5	6,0	548.31	325
33,50 - 34,49	32	150	79	34.5	6,0	548.31	335
34,50 - 35,49	32	150	82	35.5	6,0	548.31	345
35,50 - 37,49	32	152	86	37.5	6,0	631.51	355
37,50 - 39,49	32	157	91	39.5	6,0	654.71	375
39,50 - 41,00	32	167	95	41.5	6,0	671.08	395

WTX – Holder for Exchangeable drills

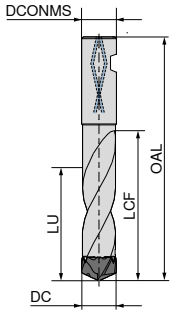
▲ with radial teeth

Scope of supply:

Holder incl. screw driver

≤ 3xD

Change



HB

10 913 ...

DC mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	torque moment Nm	£ W1	
12,00 - 12,49	14	100	53	38.0	1,0	279.13	120
12,50 - 12,99	14	105	55	39.0	1,0	279.13	125
13,00 - 13,49	14	105	57	40.0	1,0	279.13	130
13,50 - 13,99	16	110	59	42.0	1,3	279.13	135
14,00 - 14,49	16	115	61	43.0	1,3	279.13	140
14,50 - 14,99	16	115	63	45.0	1,3	279.13	145
15,00 - 15,49	16	115	65	46.0	1,3	279.13	150
15,50 - 16,49	18	120	70	50.0	1,3	272.28	160
15,50 - 16,49	20	125	70	50.0	1,3	272.28	161
16,50 - 17,49	18	125	74	53.0	3,5	272.28	165
16,50 - 17,49	20	130	74	50.0	3,5	272.28	166
17,50 - 18,49	18	130	78	55.0	3,5	272.28	175
17,50 - 18,49	20	135	78	50.0	3,5	272.28	176
18,50 - 19,49	20	135	82	58.0	3,5	321.99	185
19,50 - 20,49	20	140	87	62.0	3,5	321.99	195
20,50 - 21,49	25	150	91	65.0	3,5	355.56	205
21,50 - 22,49	25	155	95	67.0	3,5	355.56	215
22,50 - 23,49	25	160	99	70.0	3,5	389.26	225
23,50 - 24,49	25	165	103	73.0	3,5	389.26	235
24,50 - 25,49	25	165	108	77.0	4,0	422.79	245
25,50 - 26,49	25	175	112	80.0	4,0	422.79	255
26,50 - 27,49	25	175	116	82.0	4,0	422.79	265
27,50 - 28,49	25	180	120	85.0	4,0	422.79	275
28,50 - 29,49	32	190	124	88.0	4,0	490.09	285
29,50 - 30,49	32	195	129	92.0	4,0	490.09	295
30,50 - 31,49	32	195	133	94.0	4,0	541.33	305
31,50 - 32,49	32	200	137	97.0	4,0	541.33	315
32,50 - 33,49	32	210	144	100.5	6,0	638.34	325
33,50 - 34,49	32	215	148	103.5	6,0	638.34	335
34,50 - 35,49	32	220	153	106.5	6,0	638.34	345
35,50 - 37,49	32	227	161	112.5	6,0	733.82	355
37,50 - 39,49	32	237	170	118.5	6,0	761.10	375
39,50 - 41,00	32	247	178	124.5	6,0	780.20	395

Screw driver

Screw driver

Grub screw

Spare parts for Exchangeable Head Drill-Ø

		80 950 ... £ Y7			80 950 ... £ Y7			10 950 ... £ W1	
12,00 - 12,49	SW 1,3	3.77	132				M2,5 x 0,45 x 5	4.37	025
12,50 - 13,49	SW 1,3	3.77	132				M2,5 x 0,45 x 6	4.37	026
13,50 - 14,49				SW 1,5	4.90	133	M3 x 0,5 x 6	4.37	031
14,50 - 16,49				SW 1,5	4.90	133	M3 x 0,5 x 7	4.50	030
16,50 - 20,49				SW 2	4.67	134	M4 x 0,5 x 7,5	4.50	040
20,50 - 24,49				SW 2	4.67	134	M4 x 0,5 x 10	4.50	041
24,50 - 28,49				SW 2,5	4.38	135	M5 x 0,5 x 11	4.50	050
28,50 - 32,49				SW 2,5	4.38	135	M5 x 0,5 x 14	4.50	051
32,50 - 35,49				SW 3	4.38	136	M6 x 0,5 x 16	8.05	060
35,50 - 39,49				SW 3	4.38	136	M6 x 0,5 x 18	8.05	061
39,50 - 41,00				SW 3	4.38	136	M6 x 0,5 x 20	8.05	062

WTX – Holder for Exchangeable drills

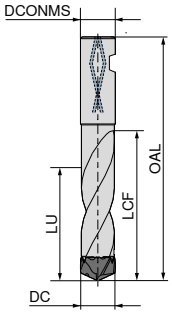
▲ with radial teeth

Scope of supply:

Holder incl. screw driver

≤ 5xD

Change



HB

10 915 ...

DC mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	torque moment Nm	£ W1	
12,00 - 12,49	14	125	78	62.0	1,0	314.22	120
12,50 - 12,99	14	130	81	65.0	1,0	314.22	125
13,00 - 13,49	14	130	84	67.0	1,0	314.22	130
13,50 - 13,99	16	140	88	70.0	1,3	314.22	135
14,00 - 14,49	16	140	90	72.0	1,3	314.22	140
14,50 - 14,99	16	145	94	75.0	1,3	314.22	145
15,00 - 15,49	16	145	96	77.0	1,3	314.22	150
15,50 - 16,49	18	155	103	82.0	1,3	321.99	160
15,50 - 16,49	20	160	103	82.0	1,3	321.99	161
16,50 - 17,49	18	160	109	87.0	3,5	321.99	165
16,50 - 17,49	20	165	109	87.0	3,5	321.99	166
17,50 - 18,49	18	165	115	92.0	3,5	321.99	175
17,50 - 18,49	20	170	115	92.0	3,5	321.99	176
18,50 - 19,49	20	175	121	97.0	3,5	373.24	185
19,50 - 20,49	20	180	128	102.0	3,5	373.24	195
20,50 - 21,49	25	195	134	107.0	3,5	405.28	205
21,50 - 22,49	25	200	140	112.0	3,5	405.28	215
22,50 - 23,49	25	205	146	117.0	3,5	440.50	225
23,50 - 24,49	25	210	152	122.0	3,5	440.50	235
24,50 - 25,49	25	220	159	127.0	4,0	474.08	245
25,50 - 26,49	25	225	165	132.0	4,0	474.08	255
26,50 - 27,49	25	230	171	137.0	4,0	474.08	265
27,50 - 28,49	25	240	177	142.0	4,0	474.08	275
28,50 - 29,49	32	250	183	146.0	4,0	541.33	285
29,50 - 30,49	32	255	190	152.0	4,0	541.33	295
30,50 - 31,49	32	260	196	157.0	4,0	591.03	305
31,50 - 32,49	32	265	202	162.0	4,0	591.03	315
32,50 - 33,49	32	275	210	167.5	6,0	721.54	325
33,50 - 34,49	32	285	217	172.5	6,0	721.54	335
34,50 - 35,49	32	290	224	177.5	6,0	721.54	345
35,50 - 37,49	32	302	236	187.5	6,0	811.55	355
37,50 - 39,49	32	317	249	197.5	6,0	841.59	375
39,50 - 41,00	32	327	261	207.5	6,0	860.65	395

WTX – Holder for Exchangeable drills

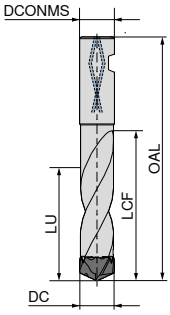
▲ with radial teeth

Scope of supply:

Holder incl. screw driver

≤ 8xD

Change



HB

10 918 ...

DC mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	torque moment Nm	£ W1	
12,00 - 12,49	14	165	116	100	1,0	399.63	120
12,50 - 12,99	14	170	121	104	1,0	399.63	125
13,00 - 13,49	14	175	126	108	1,0	399.63	130
13,50 - 13,99	16	180	129	111	1,3	399.63	135
14,00 - 14,49	16	185	134	115	1,3	399.63	140
14,50 - 14,99	16	190	139	120	1,3	399.63	145
15,00 - 15,49	16	195	144	124	1,3	399.63	150
15,50 - 16,49	18	205	152	131	1,3	407.26	160
15,50 - 16,49	20	210	152	131	1,3	407.26	161
16,50 - 17,49	18	215	161	138	3,5	407.26	165
16,50 - 17,49	20	220	161	138	3,5	407.26	166
17,50 - 18,49	18	220	171	147	3,5	407.26	175
17,50 - 18,49	20	225	171	147	3,5	407.26	176
18,50 - 19,49	20	235	180	155	3,5	468.27	185
19,50 - 20,49	20	240	189	163	3,5	468.27	195
20,50 - 21,49	25	260	198	170	3,5	509.45	205
21,50 - 22,49	25	270	207	178	3,5	509.45	215
22,50 - 23,49	25	275	217	187	3,5	571.99	225
23,50 - 24,49	25	285	226	194	3,5	571.99	235
24,50 - 25,49	25	295	235	202	4,0	654.33	245
25,50 - 26,49	25	305	244	210	4,0	654.33	255
26,50 - 27,49	25	315	253	218	4,0	654.33	265
27,50 - 28,49	25	325	263	226	4,0	654.33	275
28,50 - 29,49	32	340	272	234	4,0	756.54	285
29,50 - 30,49	32	345	281	242	4,0	756.54	295
30,50 - 31,49	32	355	290	249	4,0	838.92	305
31,50 - 32,00	32	360	299	257	4,0	838.92	315

Screw driver

Screw driver

Grub screw

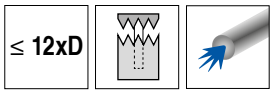
Spare parts for Exchangeable Head Drill-Ø

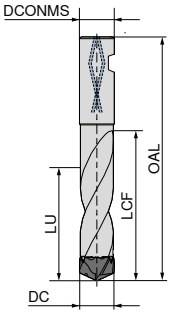
		80 950 ... £ Y7			80 950 ... £ Y7			10 950 ... £ W1	
12,00 - 12,49	SW 1,3	3.77	132				M2,5 x 0,45 x 5	4.37	025
12,50 - 13,49	SW 1,3	3.77	132				M2,5 x 0,45 x 6	4.37	026
13,50 - 14,49				SW 1,5	4.90	133	M3 x 0,5 x 6	4.37	031
14,50 - 16,49				SW 1,5	4.90	133	M3 x 0,5 x 7	4.50	030
16,50 - 20,49				SW 2	4.67	134	M4 x 0,5 x 7,5	4.50	040
20,50 - 24,49				SW 2	4.67	134	M4 x 0,5 x 10	4.50	041
24,50 - 28,49				SW 2,5	4.38	135	M5 x 0,5 x 11	4.50	050
28,50 - 32,49				SW 2,5	4.38	135	M5 x 0,5 x 14	4.50	051
32,50 - 35,49				SW 3	4.38	136	M6 x 0,5 x 16	8.05	060
35,50 - 39,49				SW 3	4.38	136	M6 x 0,5 x 18	8.05	061
39,50 - 41,00				SW 3	4.38	136	M6 x 0,5 x 20	8.05	062

WTX – Holder for Exchangeable drills

▲ with radial teeth

Scope of supply:
Holder incl. screw driver

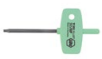




HB

DC mm	DCONMS h6 mm	OAL mm	LCF mm	LU mm	torque moment Nm	10 912 ... £ W1	
12,00 - 12,49	14	210	162	150	1,0	527.93	12000
12,50 - 12,99	14	216	168	156	1,0	527.93	12500
13,00 - 13,49	14	223	175	162	1,0	527.93	13000
13,50 - 13,99	16	235	182	168	1,3	527.93	13500
14,00 - 14,49	16	242	189	174	1,3	527.93	14000
14,50 - 14,99	16	248	195	180	1,3	527.93	14500
15,00 - 15,49	16	255	202	186	1,3	527.93	15000
15,50 - 16,49	18	262	209	198	1,3	575.10	15500
16,50 - 17,49	18	275	222	210	3,5	575.10	16500
17,50 - 18,49	18	289	236	222	3,5	575.10	17500
18,50 - 19,49	20	304	249	234	3,5	696.83	18500
19,50 - 20,49	20	318	263	246	3,5	696.83	19500
20,50 - 21,49	25	337	276	258	3,5	752.73	20500
21,50 - 22,49	25	351	290	270	3,5	752.73	21500
22,50 - 23,49	25	364	303	282	3,5	836.40	22500
23,50 - 24,49	25	378	317	294	3,5	836.40	23500
24,50 - 25,49	25	391	330	306	4,0	948.07	24500
25,50 - 26,49	25	405	344	318	4,0	948.07	25500
26,50 - 27,49	25	418	357	330	4,0	948.07	26500
27,50 - 28,49	25	432	371	342	4,0	948.07	27500
28,50 - 29,49	32	449	384	354	4,0	1,087.26	28500
29,50 - 30,49	32	463	398	366	4,0	1,087.26	29500
30,50 - 31,49	32	476	411	378	4,0	1,199.06	30500
31,50 - 32,00	32	490	425	390	4,0	1,199.06	31500

Screw driver



Screw driver

Grub screw

Spare parts for Exchangeable Head Drill-Ø		80 950 ... £ Y7			80 950 ... £ Y7			10 950 ... £ W1	
12,00 - 12,49	SW 1,3	3.77	132				M2,5 x 0,45 x 5	4.37	025
12,50 - 13,49	SW 1,3	3.77	132				M2,5 x 0,45 x 6	4.37	026
13,50 - 14,49				SW 1,5	4.90	133	M3 x 0,5 x 6	4.37	031
14,50 - 16,49				SW 1,5	4.90	133	M3 x 0,5 x 7	4.50	030
16,50 - 20,49				SW 2	4.67	134	M4 x 0,5 x 7,5	4.50	040
20,50 - 24,49				SW 2	4.67	134	M4 x 0,5 x 10	4.50	041
24,50 - 28,49				SW 2,5	4.38	135	M5 x 0,5 x 11	4.50	050
28,50 - 32,49				SW 2,5	4.38	135	M5 x 0,5 x 14	4.50	051
32,50 - 35,49				SW 3	4.38	136	M6 x 0,5 x 16	8.05	060
35,50 - 39,49				SW 3	4.38	136	M6 x 0,5 x 18	8.05	061
39,50 - 41,00				SW 3	4.38	136	M6 x 0,5 x 20	8.05	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

- 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 SZID: 8, 10, 12, 16, 20 mm

- Short Holder Steel / Solid Carbide
  cylindrical
  Length 85–120 mm
  for SZID: 8, 10, 12, 16, 20 mm

- Holder Steel / Solid Carbide, Short
  87° taper
  Length 85–120 mm
  for SZID: 8, 10, 12, 16, 20 mm

- Solid Carbide Holder Medium
  Cylindrical / Tapered 87°
  Length 110–150 mm
  for SZID: 8, 10, 12, 16, 20 mm

- Holder Steel / Solid Carbide, Long
  cylindrical
  Length 150–200 mm
  for SZID: 8, 10, 12, 16, 20 mm

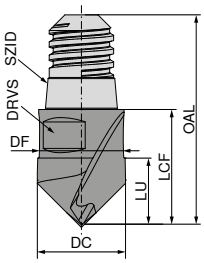
- Holder Steel / Solid Carbide, Long
  87° taper
  Length 150–200 mm
  for SZID: 8, 10, 12, 16, 20 mm

- Steel / Solid Carbide Holder Extra Long
  cylindrical
  Length 200–250 mm
  for SZID: 16 and 20 mm

→ **Catalogue – Clamping technology, Chapter Accessories**

MultiChange – NC Spot Drill

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



DC mm	SZID	LU mm	DF mm	LCF mm	OAL mm	NOF	DRVS mm	TQX Nm	$a_{p\,max}$ mm	◁ 90° Solid carbide 10 709 ... £ T7		◁ 120° Solid carbide 10 712 ... £ T7		◁ 142° Solid carbide 10 714 ... £ T7	
8	06	6.0	7.8	11	20.4	2	6	5.0	4	33.92	**080**	33.92	**080**	33.92	**080**
10	08	7.5	9.8	13	26.9	2	8	12.5	5	37.59	**100**	37.59	**100**	37.59	**100**
12	10	9.0	11.8	16	30.1	2	10	15.0	6	48.23	**120**	48.23	**120**	48.23	**120**
16	12	12.0	15.8	20	37.3	2	13	20.0	8	68.22	**160**	68.22	**160**	68.22	**160**
20	16	15.0	19.8	25	47.2	2	16	25.0	10	99.23	**200**	99.23	**200**	99.23	**200**
P											●		●		●
M											●		●		●
K											●		●		●
N											●		●		●
S															
H															
O															

→ v_c Page 148

Torque wrench should be used for coupling sizes 06 and 08.
For unstable applications, the cutting data should be reduced.

Material examples for cutting data tables

2

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

* Tensile strength

Cutting data standard values – WTX – Speed

	Drilling depth 3xD Speed UNI 10 781 ...						Drilling depth 5xD Speed UNI 10 771 ...					
Index	v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.	v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	185	0,17	0,24	0,33	0,40	0,45	185	0,17	0,24	0,33	0,40	0,45
P.1.2	180	0,16	0,23	0,31	0,38	0,43	180	0,16	0,23	0,31	0,38	0,43
P.1.3	170	0,16	0,22	0,30	0,36	0,41	170	0,16	0,22	0,30	0,36	0,41
P.1.4	160	0,15	0,21	0,28	0,35	0,39	160	0,15	0,21	0,28	0,35	0,39
P.1.5	155	0,14	0,20	0,27	0,33	0,37	155	0,14	0,20	0,27	0,33	0,37
P.2.1	185	0,20	0,29	0,39	0,47	0,53	185	0,20	0,29	0,39	0,47	0,53
P.2.2	170	0,18	0,26	0,35	0,43	0,49	170	0,18	0,26	0,35	0,43	0,49
P.2.3	155	0,17	0,24	0,32	0,39	0,44	155	0,17	0,24	0,32	0,39	0,44
P.2.4	120	0,16	0,21	0,28	0,34	0,38	120	0,16	0,21	0,28	0,34	0,38
P.3.1	130	0,16	0,23	0,32	0,39	0,44	130	0,16	0,23	0,32	0,39	0,44
P.3.2	100	0,14	0,20	0,26	0,32	0,36	100	0,14	0,20	0,26	0,32	0,36
P.3.3	100	0,12	0,16	0,20	0,25	0,28	100	0,12	0,16	0,20	0,25	0,28
P.4.1	100	0,11	0,16	0,21	0,25	0,29	100	0,11	0,16	0,21	0,25	0,29
P.4.2	100	0,11	0,16	0,21	0,25	0,29	100	0,11	0,16	0,21	0,25	0,29
M.1.1	65	0,08	0,12	0,16	0,19	0,22	65	0,08	0,12	0,16	0,19	0,22
M.2.1	60	0,07	0,10	0,14	0,17	0,19	60	0,07	0,10	0,14	0,17	0,19
M.3.1	60	0,07	0,10	0,14	0,17	0,19	60	0,07	0,10	0,14	0,17	0,19
K.1.1	150	0,18	0,28	0,40	0,49	0,56	150	0,18	0,28	0,40	0,49	0,56
K.1.2	125	0,16	0,24	0,32	0,39	0,45	125	0,16	0,24	0,32	0,39	0,45
K.2.1	200	0,18	0,27	0,37	0,46	0,52	200	0,18	0,27	0,37	0,46	0,52
K.2.2	125	0,16	0,24	0,32	0,39	0,45	125	0,16	0,24	0,32	0,39	0,45
K.3.1	115	0,18	0,25	0,34	0,42	0,48	115	0,18	0,25	0,34	0,42	0,48
K.3.2	100	0,15	0,21	0,28	0,34	0,38	100	0,15	0,21	0,28	0,34	0,38
N.1.1												
N.1.2												
N.2.1												
N.2.2												
N.2.3												
N.3.1												
N.3.2												
N.3.3												
N.4.1												
S.1.1												
S.1.2												
S.2.1												
S.2.2												
S.2.3												
S.3.1												
S.3.2												
S.3.3												
H.1.1												
H.1.2												
H.1.3												
H.1.4												
H.2.1												
H.3.1												
O.1.1												
O.1.2												
O.2.1												
O.2.2												
O.3.1												

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

	Index	Drilling depth 8xD Speed UNI 10 782 ... v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
	P.1.1	185	0,17	0,24	0,33	0,40	0,45
	P.1.2	180	0,16	0,23	0,31	0,38	0,43
	P.1.3	170	0,16	0,22	0,30	0,36	0,41
	P.1.4	160	0,15	0,21	0,28	0,35	0,39
	P.1.5	155	0,14	0,20	0,27	0,33	0,37
	P.2.1	185	0,20	0,29	0,39	0,47	0,53
	P.2.2	170	0,18	0,26	0,35	0,43	0,49
	P.2.3	155	0,17	0,24	0,32	0,39	0,44
	P.2.4	120	0,16	0,21	0,28	0,34	0,38
	P.3.1	130	0,16	0,23	0,32	0,39	0,44
	P.3.2	100	0,14	0,20	0,26	0,32	0,36
	P.3.3	100	0,12	0,16	0,20	0,25	0,28
	P.4.1	100	0,11	0,16	0,21	0,25	0,29
	P.4.2	100	0,11	0,16	0,21	0,25	0,29
	M.1.1	65	0,08	0,12	0,16	0,19	0,22
	M.2.1	60	0,07	0,10	0,14	0,17	0,19
	M.3.1	60	0,07	0,10	0,14	0,17	0,19
	K.1.1	150	0,18	0,28	0,40	0,49	0,56
	K.1.2	125	0,16	0,24	0,32	0,39	0,45
	K.2.1	200	0,18	0,27	0,37	0,46	0,52
	K.2.2	125	0,16	0,24	0,32	0,39	0,45
	K.3.1	115	0,18	0,25	0,34	0,42	0,48
	K.3.2	100	0,15	0,21	0,28	0,34	0,38
	N.1.1						
	N.1.2						
	N.2.1						
	N.2.2						
	N.2.3						
	N.3.1						
	N.3.2						
	N.3.3						
	N.4.1						
	S.1.1						
	S.1.2						
	S.2.1						
	S.2.2						
	S.2.3						
	S.3.1						
	S.3.2						
	S.3.3						
	H.1.1						
	H.1.2						
	H.1.3						
	H.1.4						
	H.2.1						
	H.3.1						
	O.1.1						
	O.1.2						
	O.2.1						
	O.2.2						
	O.3.1						

Cutting data standard values – WTX – Feed

	Drilling depth 5xD Feed UNI 10 789 ...								
Index	v_c m/min with through coolant	Ø 4–6 f mm/rev.	Ø 6–7 f mm/rev.	Ø 7–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	Ø 12–15 f mm/rev.	Ø 15–17 f mm/rev.	Ø 17–20 f mm/rev.
P.1.1	125	0,28	0,34	0,37	0,42	0,48	0,54	0,59	0,63
P.1.2	120	0,27	0,32	0,35	0,40	0,46	0,52	0,56	0,60
P.1.3	115	0,25	0,31	0,34	0,38	0,44	0,49	0,54	0,57
P.1.4	110	0,24	0,29	0,32	0,36	0,41	0,47	0,51	0,54
P.1.5	105	0,23	0,27	0,30	0,34	0,39	0,44	0,48	0,52
P.2.1	125	0,33	0,40	0,44	0,50	0,57	0,64	0,70	0,75
P.2.2	115	0,30	0,36	0,40	0,45	0,51	0,58	0,63	0,68
P.2.3	105	0,27	0,32	0,36	0,41	0,46	0,52	0,57	0,61
P.2.4	80	0,25	0,29	0,32	0,36	0,41	0,46	0,50	0,54
P.3.1	85	0,27	0,32	0,36	0,41	0,46	0,52	0,57	0,61
P.3.2	70	0,23	0,27	0,30	0,33	0,38	0,43	0,47	0,50
P.3.3	70	0,18	0,22	0,24	0,26	0,30	0,33	0,36	0,38
P.4.1	70	0,18	0,21	0,24	0,27	0,30	0,34	0,38	0,40
P.4.2	70	0,18	0,21	0,24	0,27	0,30	0,34	0,38	0,40
M.1.1	55	0,13	0,16	0,18	0,20	0,23	0,26	0,28	0,30
M.2.1	50	0,11	0,14	0,15	0,17	0,20	0,22	0,24	0,26
M.3.1	50	0,11	0,14	0,15	0,17	0,20	0,22	0,24	0,26
K.1.1	140	0,38	0,47	0,53	0,61	0,70	0,80	0,89	0,95
K.1.2	115	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
K.2.1	185	0,37	0,45	0,50	0,57	0,66	0,75	0,82	0,88
K.2.2	115	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
K.3.1	105	0,35	0,42	0,47	0,53	0,61	0,69	0,76	0,81
K.3.2	90	0,29	0,35	0,38	0,43	0,49	0,55	0,60	0,64
N.1.1	380	0,28	0,34	0,37	0,42	0,48	0,54	0,59	0,63
N.1.2	345	0,25	0,31	0,34	0,38	0,44	0,49	0,54	0,57
N.2.1	290	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
N.2.2	255	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
N.2.3	205	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
N.3.1	230	0,38	0,47	0,53	0,61	0,70	0,80	0,89	0,95
N.3.2	140	0,24	0,29	0,33	0,37	0,43	0,48	0,53	0,57
N.3.3									
N.4.1									
S.1.1									
S.1.2									
S.2.1									
S.2.2									
S.2.3									
S.3.1									
S.3.2									
S.3.3									
H.1.1									
H.1.2									
H.1.3									
H.1.4									
H.2.1									
H.3.1									
O.1.1									
O.1.2									
O.2.1									
O.2.2									
O.3.1									

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

		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.
	P.1.1	**125**	0,28	0,34	0,37	0,42	0,48	0,54	0,59	0,63
	P.1.2	**120**	0,27	0,32	0,35	0,40	0,46	0,52	0,56	0,60
	P.1.3	**115**	0,25	0,31	0,34	0,38	0,44	0,49	0,54	0,57
	P.1.4	**110**	0,24	0,29	0,32	0,36	0,41	0,47	0,51	0,54
	P.1.5	**105**	0,23	0,27	0,30	0,34	0,39	0,44	0,48	0,52
	P.2.1	**125**	0,33	0,40	0,44	0,50	0,57	0,64	0,70	0,75
	P.2.2	**115**	0,30	0,36	0,40	0,45	0,51	0,58	0,63	0,68
	P.2.3	**105**	0,27	0,32	0,36	0,41	0,46	0,52	0,57	0,61
	P.2.4	**80**	0,25	0,29	0,32	0,36	0,41	0,46	0,50	0,54
	P.3.1	**85**	0,27	0,32	0,36	0,41	0,46	0,52	0,57	0,61
	P.3.2	**70**	0,23	0,27	0,30	0,33	0,38	0,43	0,47	0,50
	P.3.3	**70**	0,18	0,22	0,24	0,26	0,30	0,33	0,36	0,38
	P.4.1	**70**	0,18	0,21	0,24	0,27	0,30	0,34	0,38	0,40
	P.4.2	**70**	0,18	0,21	0,24	0,27	0,30	0,34	0,38	0,40
	M.1.1	**55**	0,13	0,16	0,18	0,20	0,23	0,26	0,28	0,30
	M.2.1	**50**	0,11	0,14	0,15	0,17	0,20	0,22	0,24	0,26
	M.3.1	**50**	0,11	0,14	0,15	0,17	0,20	0,22	0,24	0,26
	K.1.1	**140**	0,38	0,47	0,53	0,61	0,70	0,80	0,89	0,95
	K.1.2	**115**	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
	K.2.1	**185**	0,37	0,45	0,50	0,57	0,66	0,75	0,82	0,88
	K.2.2	**115**	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
	K.3.1	**105**	0,35	0,42	0,47	0,53	0,61	0,69	0,76	0,81
	K.3.2	**90**	0,29	0,35	0,38	0,43	0,49	0,55	0,60	0,64
	N.1.1	380	0,28	0,34	0,37	0,42	0,48	0,54	0,59	0,63
	N.1.2	345	0,25	0,31	0,34	0,38	0,44	0,49	0,54	0,57
	N.2.1	290	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
	N.2.2	255	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
	N.2.3	205	0,32	0,39	0,44	0,50	0,57	0,64	0,70	0,75
	N.3.1	230	0,38	0,47	0,53	0,61	0,70	0,80	0,89	0,95
	N.3.2	140	0,24	0,29	0,33	0,37	0,43	0,48	0,53	0,57
	N.3.3									
	N.4.1									
	S.1.1									
	S.1.2									
	S.2.1									
	S.2.2									
	S.2.3									
	S.3.1									
	S.3.2									
	S.3.3									
	H.1.1									
	H.1.2									
	H.1.3									
	H.1.4									
	H.2.1									
	H.3.1									
	O.1.1									
	O.1.2									
	O.2.1									
	O.2.2									
	O.3.1									

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 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.	Ø 20–25 f mm/rev.
P.1.1	**110**	**120**	0,13	0,18	0,25	0,30	0,34	0,37
P.1.2	**105**	**115**	0,12	0,18	0,24	0,29	0,33	0,36
P.1.3	**100**	**110**	0,12	0,17	0,23	0,28	0,31	0,34
P.1.4	**95**	**105**	0,11	0,16	0,21	0,26	0,30	0,32
P.1.5	**90**	**100**	0,11	0,15	0,20	0,25	0,28	0,30
P.2.1	**105**	**120**	0,15	0,22	0,29	0,36	0,41	0,44
P.2.2	**95**	**110**	0,14	0,20	0,27	0,33	0,37	0,40
P.2.3	**85**	**100**	0,13	0,18	0,24	0,29	0,33	0,36
P.2.4	**65**	**75**	0,12	0,16	0,21	0,26	0,29	0,32
P.3.1	**70**	**85**	0,12	0,18	0,24	0,29	0,33	0,36
P.3.2	**60**	**65**	0,11	0,15	0,20	0,24	0,27	0,29
P.3.3	**50**	**65**	0,09	0,12	0,15	0,19	0,21	0,23
P.4.1	**50**	**65**	0,08	0,12	0,16	0,19	0,22	0,24
P.4.2	**50**	**65**	0,08	0,12	0,16	0,19	0,22	0,24
M.1.1								
M.2.1								
M.3.1								
K.1.1	**85**	**120**	0,17	0,26	0,36	0,45	0,52	0,56
K.1.2	**75**	**100**	0,15	0,22	0,29	0,36	0,41	0,45
K.2.1	**100**	**160**	0,17	0,25	0,34	0,42	0,48	0,52
K.2.2	**75**	**100**	0,15	0,22	0,29	0,36	0,41	0,45
K.3.1	**80**	**90**	0,16	0,23	0,32	0,39	0,44	0,48
K.3.2	**70**	**80**	0,14	0,19	0,25	0,31	0,35	0,38
N.1.1								
N.1.2								
N.2.1								
N.2.2								
N.2.3								
N.3.1								
N.3.2								
N.3.3								
N.4.1								
S.1.1								
S.1.2								
S.2.1								
S.2.2								
S.2.3								
S.3.1								
S.3.2								
S.3.3								
H.1.1	25	25	0,06	0,08	0,11	0,14	0,15	0,17
H.1.2								
H.1.3								
H.1.4								
H.2.1	35	35	0,08	0,11	0,14	0,18	0,20	0,22
H.3.1								
O.1.1								
O.1.2								
O.2.1								
O.2.2								
O.3.1								

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

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 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.	Ø 20–25 f mm/rev.	v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	**110**	**120**	0,13	0,18	0,25	0,30	0,34	0,37	**110**	0,13	0,18	0,25	0,30	0,34
P.1.2	**105**	**115**	0,12	0,18	0,24	0,29	0,33	0,36	**105**	0,12	0,18	0,24	0,29	0,33
P.1.3	**100**	**110**	0,12	0,17	0,23	0,28	0,31	0,34	**100**	0,12	0,17	0,23	0,28	0,31
P.1.4	**95**	**105**	0,11	0,16	0,21	0,26	0,30	0,32	**95**	0,11	0,16	0,21	0,26	0,30
P.1.5	**90**	**100**	0,11	0,15	0,20	0,25	0,28	0,30	**90**	0,11	0,15	0,20	0,25	0,28
P.2.1	**105**	**120**	0,15	0,22	0,29	0,36	0,41	0,44	**105**	0,15	0,22	0,29	0,36	0,41
P.2.2	**95**	**110**	0,14	0,20	0,27	0,33	0,37	0,40	**95**	0,14	0,20	0,27	0,33	0,37
P.2.3	**85**	**100**	0,13	0,18	0,24	0,29	0,33	0,36	**85**	0,13	0,18	0,24	0,29	0,33
P.2.4	**65**	**75**	0,12	0,16	0,21	0,26	0,29	0,32	**65**	0,12	0,16	0,21	0,26	0,29
P.3.1	**70**	**85**	0,12	0,18	0,24	0,29	0,33	0,36	**70**	0,12	0,18	0,24	0,29	0,33
P.3.2	**60**	**65**	0,11	0,15	0,20	0,24	0,27	0,29	**60**	0,11	0,15	0,20	0,24	0,27
P.3.3	**50**	**65**	0,09	0,12	0,15	0,19	0,21	0,23	**50**	0,09	0,12	0,15	0,19	0,21
P.4.1	**50**	**65**	0,08	0,12	0,16	0,19	0,22	0,24	**50**	0,08	0,12	0,16	0,19	0,22
P.4.2	**50**	**65**	0,08	0,12	0,16	0,19	0,22	0,24	**50**	0,08	0,12	0,16	0,19	0,22
M.1.1														
M.2.1														
M.3.1														
K.1.1	**85**	**120**	0,17	0,26	0,36	0,45	0,52	0,56	**85**	0,17	0,26	0,36	0,45	0,52
K.1.2	**75**	**100**	0,15	0,22	0,29	0,36	0,41	0,45	**75**	0,15	0,22	0,29	0,36	0,41
K.2.1	**100**	**160**	0,17	0,25	0,34	0,42	0,48	0,52	**100**	0,17	0,25	0,34	0,42	0,48
K.2.2	**75**	**100**	0,15	0,22	0,29	0,36	0,41	0,45	**75**	0,15	0,22	0,29	0,36	0,41
K.3.1	**80**	**90**	0,16	0,23	0,32	0,39	0,44	0,48	**80**	0,16	0,23	0,32	0,39	0,44
K.3.2	**70**	**80**	0,14	0,19	0,25	0,31	0,35	0,38	**70**	0,14	0,19	0,25	0,31	0,35
N.1.1														
N.1.2														
N.2.1														
N.2.2														
N.2.3														
N.3.1														
N.3.2														
N.3.3														
N.4.1														
S.1.1														
S.1.2														
S.2.1														
S.2.2														
S.2.3														
S.3.1														
S.3.2														
S.3.3														
H.1.1	25	25	0,06	0,08	0,11	0,14	0,15	0,17	25	0,06	0,08	0,11	0,14	0,15
H.1.2														
H.1.3														
H.1.4														
H.2.1	35	35	0,08	0,11	0,14	0,18	0,20	0,22	35	0,08	0,11	0,14	0,18	0,20
H.3.1														
O.1.1														
O.1.2														
O.2.1														
O.2.2														
O.3.1														

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	Ø 2–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.	v_c m/min without through coolant	v_c m/min with through coolant	Ø 2–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	100	110	0,09	0,13	0,18	0,22	0,25	100	110	0,09	0,13	0,18	0,22	0,25
P.1.2	95	105	0,09	0,13	0,17	0,21	0,24	95	105	0,09	0,13	0,17	0,21	0,24
P.1.3	90	100	0,09	0,12	0,16	0,20	0,23	90	100	0,09	0,12	0,16	0,20	0,23
P.1.4	85	95	0,08	0,12	0,16	0,19	0,22	85	95	0,08	0,12	0,16	0,19	0,22
P.1.5	80	90	0,08	0,11	0,15	0,18	0,20	80	90	0,08	0,11	0,15	0,18	0,20
P.2.1	95	110	0,11	0,16	0,21	0,26	0,29	95	110	0,11	0,16	0,21	0,26	0,29
P.2.2	85	100	0,10	0,14	0,19	0,24	0,27	85	100	0,10	0,14	0,19	0,24	0,27
P.2.3	75	90	0,09	0,13	0,17	0,21	0,24	75	90	0,09	0,13	0,17	0,21	0,24
P.2.4	60	70	0,09	0,12	0,16	0,19	0,21	60	70	0,09	0,12	0,16	0,19	0,21
P.3.1	65	75	0,09	0,13	0,17	0,21	0,24	65	75	0,09	0,13	0,17	0,21	0,24
P.3.2	55	60	0,08	0,11	0,14	0,17	0,20	55	60	0,08	0,11	0,14	0,17	0,20
P.3.3	45	60	0,06	0,09	0,11	0,14	0,15	45	60	0,06	0,09	0,11	0,14	0,15
P.4.1	45	60	0,06	0,09	0,11	0,14	0,16	45	60	0,06	0,09	0,11	0,14	0,16
P.4.2	45	60	0,06	0,09	0,11	0,14	0,16	45	60	0,06	0,09	0,11	0,14	0,16
M.1.1	**35**	**55**	0,08	0,11	0,14	0,18	0,20	**35**	**55**	0,08	0,11	0,14	0,18	0,20
M.2.1	**30**	**50**	0,06	0,09	0,12	0,15	0,17	**30**	**50**	0,06	0,09	0,12	0,15	0,17
M.3.1	**30**	**50**	0,06	0,09	0,12	0,15	0,17	**30**	**50**	0,06	0,09	0,12	0,15	0,17
K.1.1	85	120	0,15	0,24	0,33	0,41	0,47	85	120	0,15	0,24	0,33	0,41	0,47
K.1.2	75	100	0,14	0,20	0,27	0,33	0,37	75	100	0,14	0,20	0,27	0,33	0,37
K.2.1	100	160	0,15	0,22	0,31	0,38	0,43	100	160	0,15	0,22	0,31	0,38	0,43
K.2.2	75	100	0,14	0,20	0,27	0,33	0,37	75	100	0,14	0,20	0,27	0,33	0,37
K.3.1	80	90	0,15	0,21	0,29	0,35	0,40	80	90	0,15	0,21	0,29	0,35	0,40
K.3.2	70	80	0,12	0,17	0,23	0,28	0,32	70	80	0,12	0,17	0,23	0,28	0,32
N.1.1	220	330	0,10	0,16	0,22	0,30	0,33	220	330	0,10	0,16	0,22	0,30	0,33
N.1.2	200	300	0,09	0,12	0,20	0,25	0,30	200	300	0,09	0,12	0,20	0,25	0,30
N.2.1	180	250	0,11	0,15	0,26	0,33	0,39	180	250	0,11	0,15	0,26	0,33	0,39
N.2.2	150	220	0,11	0,15	0,26	0,33	0,39	150	220	0,11	0,15	0,26	0,33	0,39
N.2.3	120	180	0,11	0,15	0,26	0,33	0,39	120	180	0,11	0,15	0,26	0,33	0,39
N.3.1	160	200	0,15	0,24	0,33	0,41	0,47	160	200	0,15	0,24	0,33	0,41	0,47
N.3.2	90	120	0,14	0,20	0,27	0,33	0,37	90	120	0,14	0,20	0,27	0,33	0,37
N.3.3														
N.4.1														
S.1.1	**20**	**30**	0,06	0,09	0,11	0,14	0,16	**20**	**30**	0,06	0,09	0,11	0,14	0,16
S.1.2	**15**	**20**	0,04	0,06	0,08	0,10	0,11	**15**	**20**	0,04	0,06	0,08	0,10	0,11
S.2.1	**15**	**20**	0,04	0,06	0,08	0,10	0,11	**15**	**20**	0,04	0,06	0,08	0,10	0,11
S.2.2	**10**	**15**	0,05	0,08	0,10	0,13	0,14	**10**	**15**	0,05	0,08	0,10	0,13	0,14
S.2.3	**10**	**15**	0,04	0,06	0,08	0,10	0,11	**10**	**15**	0,04	0,06	0,08	0,10	0,11
S.3.1														
S.3.2	**20**	**30**	0,06	0,09	0,12	0,15	0,17	**20**	**30**	0,06	0,09	0,12	0,15	0,17
S.3.3	**15**	**25**	0,05	0,08	0,10	0,13	0,14	**15**	**25**	0,05	0,08	0,10	0,13	0,14
H.1.1														
H.1.2														
H.1.3														
H.1.4														
H.2.1														
H.3.1														
O.1.1														
O.1.2														
O.2.1														
O.2.2														
O.3.1														

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

Index	Drilling depth 8xD VA 10 770 ...					
	V_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	110	0,09	0,13	0,18	0,22	0,25
P.1.2	105	0,09	0,13	0,17	0,21	0,24
P.1.3	100	0,09	0,12	0,16	0,20	0,23
P.1.4	95	0,08	0,12	0,16	0,19	0,22
P.1.5	90	0,08	0,11	0,15	0,18	0,20
P.2.1	110	0,11	0,16	0,21	0,26	0,29
P.2.2	100	0,10	0,14	0,19	0,24	0,27
P.2.3	90	0,09	0,13	0,17	0,21	0,24
P.2.4	70	0,09	0,12	0,16	0,19	0,21
P.3.1	75	0,09	0,13	0,17	0,21	0,24
P.3.2	60	0,08	0,11	0,14	0,17	0,20
P.3.3	60	0,06	0,09	0,11	0,14	0,15
P.4.1	60	0,06	0,09	0,11	0,14	0,16
P.4.2	60	0,06	0,09	0,11	0,14	0,16
M.1.1	**55**	0,08	0,11	0,14	0,18	0,20
M.2.1	**50**	0,06	0,09	0,12	0,15	0,17
M.3.1	**50**	0,06	0,09	0,12	0,15	0,17
K.1.1	120	0,15	0,24	0,33	0,41	0,47
K.1.2	100	0,14	0,20	0,27	0,33	0,37
K.2.1	160	0,15	0,22	0,31	0,38	0,43
K.2.2	100	0,14	0,20	0,27	0,33	0,37
K.3.1	90	0,15	0,21	0,29	0,35	0,40
K.3.2	80	0,12	0,17	0,23	0,28	0,32
N.1.1	330	0,10	0,16	0,22	0,30	0,33
N.1.2	300	0,09	0,12	0,20	0,25	0,30
N.2.1	250	0,11	0,15	0,26	0,33	0,39
N.2.2	220	0,11	0,15	0,26	0,33	0,39
N.2.3	180	0,11	0,15	0,26	0,33	0,39
N.3.1	200	0,15	0,24	0,33	0,41	0,47
N.3.2	120	0,14	0,20	0,27	0,33	0,37
N.3.3						
N.4.1						
S.1.1	**30**	0,06	0,09	0,11	0,14	0,16
S.1.2	**20**	0,04	0,06	0,08	0,10	0,11
S.2.1	**20**	0,04	0,06	0,08	0,10	0,11
S.2.2	**15**	0,05	0,08	0,10	0,13	0,14
S.2.3	**15**	0,04	0,06	0,08	0,10	0,11
S.3.1						
S.3.2	**30**	0,06	0,09	0,12	0,15	0,17
S.3.3	**25**	0,05	0,08	0,10	0,13	0,14
H.1.1						
H.1.2						
H.1.3						
H.1.4						
H.2.1						
H.3.1						
O.1.1						
O.1.2						
O.2.1						
O.2.2						
O.3.1						

Cutting data standard values – WTX – Speed VA

Index	Drilling depth 5xD Speed VA 10 773 ...						Drilling depth 12xD Speed VA 10 774 ...					
	v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.	v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	**165**	0,12	0,17	0,23	0,28	0,31	**110**	0,09	0,13	0,18	0,22	0,25
P.1.2	**160**	0,11	0,16	0,22	0,26	0,30	**105**	0,09	0,13	0,17	0,21	0,24
P.1.3	**150**	0,11	0,15	0,20	0,25	0,28	**100**	0,09	0,12	0,16	0,20	0,23
P.1.4	**145**	0,10	0,15	0,19	0,24	0,27	**95**	0,08	0,12	0,16	0,19	0,22
P.1.5	**135**	0,10	0,14	0,18	0,23	0,26	**90**	0,08	0,11	0,15	0,18	0,20
P.2.1	**165**	0,14	0,20	0,27	0,33	0,37	**110**	0,11	0,16	0,21	0,26	0,29
P.2.2	**150**	0,13	0,18	0,24	0,30	0,34	**100**	0,10	0,14	0,19	0,24	0,27
P.2.3	**135**	0,11	0,16	0,22	0,27	0,30	**90**	0,09	0,13	0,17	0,21	0,24
P.2.4	**105**	0,11	0,15	0,19	0,24	0,27	**70**	0,09	0,12	0,16	0,19	0,21
P.3.1	**115**	0,11	0,16	0,22	0,27	0,30	**75**	0,09	0,13	0,17	0,21	0,24
P.3.2	**90**	0,10	0,13	0,18	0,22	0,25	**60**	0,08	0,11	0,14	0,17	0,20
P.3.3	**90**	0,08	0,11	0,14	0,17	0,19	**60**	0,06	0,09	0,11	0,14	0,15
P.4.1	**70**	0,08	0,11	0,14	0,18	0,20	**60**	0,06	0,09	0,11	0,14	0,16
P.4.2	**70**	0,08	0,11	0,14	0,18	0,20	**60**	0,06	0,09	0,11	0,14	0,16
M.1.1	**80**	0,09	0,13	0,18	0,22	0,25	**55**	0,08	0,11	0,14	0,18	0,20
M.2.1	**75**	0,08	0,11	0,15	0,19	0,21	**50**	0,06	0,09	0,12	0,15	0,17
M.3.1	**75**	0,08	0,11	0,15	0,19	0,21	**50**	0,06	0,09	0,12	0,15	0,17
K.1.1	**150**	0,15	0,24	0,33	0,41	0,47	**120**	0,15	0,24	0,33	0,41	0,47
K.1.2	**125**	0,14	0,20	0,27	0,33	0,37	**100**	0,14	0,20	0,27	0,33	0,37
K.2.1	**200**	0,15	0,22	0,31	0,38	0,43	**160**	0,15	0,22	0,31	0,38	0,43
K.2.2	**125**	0,14	0,20	0,27	0,33	0,37	**100**	0,14	0,20	0,27	0,33	0,37
K.3.1	**115**	0,15	0,21	0,29	0,35	0,40	**90**	0,15	0,21	0,29	0,35	0,40
K.3.2	**100**	0,12	0,17	0,23	0,28	0,32	**80**	0,12	0,17	0,23	0,28	0,32
N.1.1												
N.1.2												
N.2.1												
N.2.2												
N.2.3												
N.3.1							200	0,15	0,24	0,33	0,41	0,47
N.3.2	145	0,14	0,20	0,27	0,33	0,37	120	0,14	0,20	0,27	0,33	0,37
N.3.3												
N.4.1												
S.1.1	**35**	0,07	0,10	0,14	0,17	0,19	**30**	0,06	0,09	0,11	0,14	0,16
S.1.2	**25**	0,05	0,07	0,10	0,12	0,14	**20**	0,04	0,06	0,08	0,10	0,11
S.2.1	**25**	0,05	0,07	0,10	0,12	0,14	**20**	0,04	0,06	0,08	0,10	0,11
S.2.2	**20**	0,06	0,09	0,12	0,15	0,17	**15**	0,05	0,08	0,10	0,13	0,14
S.2.3	**20**	0,05	0,07	0,10	0,12	0,14	**15**	0,04	0,06	0,08	0,10	0,11
S.3.1												
S.3.2	**35**	0,08	0,11	0,15	0,18	0,20	**30**	0,06	0,09	0,12	0,15	0,17
S.3.3	**30**	0,06	0,09	0,12	0,15	0,17	**25**	0,05	0,08	0,10	0,13	0,14
H.1.1												
H.1.2												
H.1.3												
H.1.4												
H.2.1												
H.3.1												
O.1.1												
O.1.2												
O.2.1												
O.2.2												
O.3.1												

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

2

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 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.	v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1												
P.1.2												
P.1.3												
P.1.4												
P.1.5												
P.2.1												
P.2.2												
P.2.3												
P.2.4												
P.3.1												
P.3.2												
P.3.3												
P.4.1												
P.4.2												
M.1.1												
M.2.1												
M.3.1												
K.1.1	**145**	0,12	0,19	0,26	0,33	0,38	**145**	0,12	0,19	0,26	0,33	0,38
K.1.2												
K.2.1	**190**	0,12	0,18	0,25	0,30	0,35	**190**	0,12	0,18	0,25	0,30	0,35
K.2.2												
K.3.1												
K.3.2												
N.1.1												
N.1.2												
N.2.1	300	0,11	0,16	0,21	0,26	0,30	300	0,11	0,16	0,21	0,26	0,30
N.2.2	265	0,11	0,16	0,21	0,26	0,30	265	0,11	0,16	0,21	0,26	0,30
N.2.3	215	0,11	0,16	0,21	0,26	0,30	215	0,11	0,16	0,21	0,26	0,30
N.3.1	240	0,12	0,19	0,26	0,33	0,38	240	0,12	0,19	0,26	0,33	0,38
N.3.2												
N.3.3												
N.4.1												
S.1.1												
S.1.2												
S.2.1												
S.2.2												
S.2.3												
S.3.1												
S.3.2												
S.3.3												
H.1.1												
H.1.2												
H.1.3												
H.1.4												
H.2.1												
H.3.1												
O.1.1												
O.1.2												
O.2.1												
O.2.2												
O.3.1												

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

Cutting data standard values – WTX – Quattro 4F

	Drilling depth 5xD Quattro 4F 10 730 ..., 10 735...							Drilling depth 8xD Quattro 4F 10 736 ...					
Index	V_c m/min without through coolant	V_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.	V_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	**100**	**110**	0,12	0,17	0,23	0,28	0,31	**110**	0,12	0,17	0,23	0,28	0,31
P.1.2	**95**	**105**	0,11	0,16	0,22	0,26	0,30	**105**	0,11	0,16	0,22	0,26	0,30
P.1.3	**90**	**100**	0,11	0,15	0,20	0,25	0,28	**100**	0,11	0,15	0,20	0,25	0,28
P.1.4	**85**	**95**	0,10	0,15	0,19	0,24	0,27	**95**	0,10	0,15	0,19	0,24	0,27
P.1.5	**80**	**90**	0,10	0,14	0,18	0,23	0,26	**90**	0,10	0,14	0,18	0,23	0,26
P.2.1	**95**	**110**	0,14	0,20	0,27	0,33	0,37	**110**	0,14	0,20	0,27	0,33	0,37
P.2.2	**85**	**100**	0,13	0,18	0,24	0,30	0,34	**100**	0,13	0,18	0,24	0,30	0,34
P.2.3	**75**	**90**	0,11	0,16	0,22	0,27	0,30	**90**	0,11	0,16	0,22	0,27	0,30
P.2.4	**60**	**70**	0,11	0,15	0,19	0,24	0,27	**70**	0,11	0,15	0,19	0,24	0,27
P.3.1	**65**	**75**	0,11	0,16	0,22	0,27	0,30	**75**	0,11	0,16	0,22	0,27	0,30
P.3.2	**55**	**60**	0,10	0,13	0,18	0,22	0,25	**60**	0,10	0,13	0,18	0,22	0,25
P.3.3	**45**	**60**	0,08	0,11	0,14	0,17	0,19	**60**	0,08	0,11	0,14	0,17	0,19
P.4.1	**45**	**60**	0,08	0,11	0,14	0,18	0,20	**60**	0,08	0,11	0,14	0,18	0,20
P.4.2	**45**	**60**	0,08	0,11	0,14	0,18	0,20	**60**	0,08	0,11	0,14	0,18	0,20
M.1.1													
M.2.1													
M.3.1													
K.1.1	**85**	**120**	0,15	0,24	0,33	0,41	0,47	**120**	0,15	0,24	0,33	0,41	0,47
K.1.2	**75**	**100**	0,14	0,20	0,27	0,33	0,37	**100**	0,14	0,20	0,27	0,33	0,37
K.2.1	**100**	**160**	0,15	0,22	0,31	0,38	0,43	**160**	0,15	0,22	0,31	0,38	0,43
K.2.2	**75**	**100**	0,14	0,20	0,27	0,33	0,37	**100**	0,14	0,20	0,27	0,33	0,37
K.3.1	**80**	**90**	0,15	0,21	0,29	0,35	0,40	**90**	0,15	0,21	0,29	0,35	0,40
K.3.2	**70**	**80**	0,12	0,17	0,23	0,28	0,32	**80**	0,12	0,17	0,23	0,28	0,32
N.1.1													
N.1.2													
N.2.1													
N.2.2													
N.2.3													
N.3.1													
N.3.2													
N.3.3													
N.4.1													
S.1.1													
S.1.2													
S.2.1													
S.2.2													
S.2.3													
S.3.1													
S.3.2													
S.3.3													
H.1.1	25	25	0,05	0,07	0,09	0,12	0,13	25	0,052	0,073	0,098	0,120	0,136
H.1.2													
H.1.3													
H.1.4													
H.2.1	30	30	0,06	0,09	0,12	0,15	0,17	30	0,067	0,095	0,128	0,156	0,177
H.3.1													
O.1.1													
O.1.2													
O.2.1													
O.2.2													
O.3.1													

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

	Drilling depth 12xD Quattro 4F 10 737 ...					
Index	v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	110	0,12	0,17	0,23	0,28	0,31
P.1.2	105	0,11	0,16	0,22	0,26	0,30
P.1.3	100	0,11	0,15	0,20	0,25	0,28
P.1.4	95	0,10	0,15	0,19	0,24	0,27
P.1.5	90	0,10	0,14	0,18	0,23	0,26
P.2.1	110	0,14	0,20	0,27	0,33	0,37
P.2.2	100	0,13	0,18	0,24	0,30	0,34
P.2.3	90	0,11	0,16	0,22	0,27	0,30
P.2.4	70	0,11	0,15	0,19	0,24	0,27
P.3.1	75	0,11	0,16	0,22	0,27	0,30
P.3.2	60	0,10	0,13	0,18	0,22	0,25
P.3.3	60	0,08	0,11	0,14	0,17	0,19
P.4.1	60	0,08	0,11	0,14	0,18	0,20
P.4.2	60	0,08	0,11	0,14	0,18	0,20
M.1.1						
M.2.1						
M.3.1						
K.1.1	120	0,15	0,24	0,33	0,41	0,47
K.1.2	100	0,14	0,20	0,27	0,33	0,37
K.2.1	160	0,15	0,22	0,31	0,38	0,43
K.2.2	100	0,14	0,20	0,27	0,33	0,37
K.3.1	90	0,15	0,21	0,29	0,35	0,40
K.3.2	80	0,12	0,17	0,23	0,28	0,32
N.1.1						
N.1.2						
N.2.1						
N.2.2						
N.2.3						
N.3.1						
N.3.2						
N.3.3						
N.4.1						
S.1.1						
S.1.2						
S.2.1						
S.2.2						
S.2.3						
S.3.1						
S.3.2						
S.3.3						
H.1.1	25	0,052	0,073	0,098	0,120	0,136
H.1.2						
H.1.3						
H.1.4						
H.2.1	30	0,067	0,095	0,128	0,156	0,177
H.3.1						
O.1.1						
O.1.2						
O.2.1						
O.2.2						
O.3.1						

Cutting data standard values – WTX – AL

	Drilling depth 5xD AL 10 791 ...											
Index	v_c m/min with through coolant	Ø 2–3 f mm/rev.	Ø 3–4 f mm/rev.	Ø 4–5 f mm/rev.	Ø 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	Ø 12–14 f mm/rev.	Ø 14–16 f mm/rev.	Ø 16–18 f mm/rev.	Ø 18–20 f mm/rev.
P.1.1												
P.1.2												
P.1.3												
P.1.4												
P.1.5												
P.2.1												
P.2.2												
P.2.3												
P.2.4												
P.3.1												
P.3.2												
P.3.3												
P.4.1												
P.4.2												
M.1.1												
M.2.1												
M.3.1												
K.1.1												
K.1.2												
K.2.1												
K.2.2												
K.3.1												
K.3.2												
N.1.1	**360**	0,15	0,20	0,23	0,25	0,29	0,32	0,35	0,40	0,45	0,50	0,55
N.1.2	**400**	0,15	0,20	0,23	0,25	0,29	0,32	0,35	0,40	0,45	0,50	0,55
N.2.1	**360**	0,20	0,23	0,25	0,28	0,32	0,35	0,38	0,45	0,50	0,55	0,60
N.2.2	**400**	0,20	0,23	0,25	0,28	0,32	0,35	0,38	0,45	0,50	0,55	0,60
N.2.3	**350**	0,15	0,20	0,23	0,25	0,29	0,32	0,35	0,40	0,45	0,50	0,55
N.3.1	**200**	0,08	0,11	0,13	0,15	0,19	0,23	0,26	0,30	0,34	0,38	0,42
N.3.2	**200**	0,08	0,11	0,13	0,15	0,19	0,23	0,26	0,30	0,34	0,38	0,42
N.3.3	**160**	0,08	0,11	0,13	0,15	0,19	0,23	0,26	0,30	0,34	0,38	0,42
N.4.1												
S.1.1												
S.1.2												
S.2.1												
S.2.2												
S.2.3												
S.3.1												
S.3.2												
S.3.3												
H.1.1												
H.1.2												
H.1.3												
H.1.4												
H.2.1												
H.3.1												
O.1.1												
O.1.2												
O.2.1												
O.2.2												
O.3.1												

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

2

	Drilling depth 8xD AL 10 792 ...										
Index	v_c m/min with through coolant	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
		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.
P.1.1											
P.1.2											
P.1.3											
P.1.4											
P.1.5											
P.2.1											
P.2.2											
P.2.3											
P.2.4											
P.3.1											
P.3.2											
P.3.3											
P.4.1											
P.4.2											
M.1.1											
M.2.1											
M.3.1											
K.1.1											
K.1.2											
K.2.1											
K.2.2											
K.3.1											
K.3.2											
N.1.1	**320**	0,20	0,23	0,25	0,29	0,32	0,35	0,40	0,45	0,50	0,55
N.1.2	**360**	0,20	0,23	0,25	0,29	0,32	0,35	0,40	0,45	0,50	0,55
N.2.1	**320**	0,23	0,25	0,28	0,32	0,35	0,38	0,45	0,50	0,55	0,60
N.2.2	**360**	0,23	0,25	0,28	0,32	0,35	0,38	0,45	0,50	0,55	0,60
N.2.3	**310**	0,20	0,23	0,25	0,29	0,32	0,35	0,40	0,45	0,50	0,55
N.3.1	**160**	0,11	0,13	0,15	0,19	0,23	0,26	0,30	0,34	0,38	0,42
N.3.2	**160**	0,11	0,13	0,15	0,19	0,23	0,26	0,30	0,34	0,38	0,42
N.3.3	**140**	0,11	0,13	0,15	0,19	0,23	0,26	0,30	0,34	0,38	0,42
N.4.1											
S.1.1											
S.1.2											
S.2.1											
S.2.2											
S.2.3											
S.3.1											
S.3.2											
S.3.3											
H.1.1											
H.1.2											
H.1.3											
H.1.4											
H.2.1											
H.3.1											
O.1.1											
O.1.2											
O.2.1											
O.2.2											
O.3.1											

Cutting data standard values – WTX – AL

	Drilling depth 12xD AL 10 793 ...										
Index	v_c m/min with through coolant	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
		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.
P.1.1											
P.1.2											
P.1.3											
P.1.4											
P.1.5											
P.2.1											
P.2.2											
P.2.3											
P.2.4											
P.3.1											
P.3.2											
P.3.3											
P.4.1											
P.4.2											
M.1.1											
M.2.1											
M.3.1											
K.1.1											
K.1.2											
K.2.1											
K.2.2											
K.3.1											
K.3.2											
N.1.1	**250**	0,20	0,22	0,25	0,29	0,32	0,35	0,40	0,45	0,50	0,55
N.1.2	**280**	0,20	0,22	0,25	0,29	0,32	0,35	0,40	0,45	0,50	0,55
N.2.1	**250**	0,20	0,22	0,28	0,32	0,35	0,38	0,45	0,50	0,55	0,60
N.2.2	**280**	0,20	0,22	0,28	0,32	0,35	0,38	0,45	0,50	0,55	0,60
N.2.3	**245**	0,20	0,22	0,25	0,29	0,32	0,35	0,40	0,45	0,50	0,55
N.3.1	**150**	0,11	0,13	0,15	0,19	0,23	0,26	0,30	0,34	0,38	0,04
N.3.2	**150**	0,11	0,13	0,15	0,19	0,23	0,26	0,30	0,34	0,38	0,04
N.3.3	**120**	0,11	0,13	0,15	0,19	0,23	0,26	0,30	0,34	0,38	0,04
N.4.1											
S.1.1											
S.1.2											
S.2.1											
S.2.2											
S.2.3											
S.3.1											
S.3.2											
S.3.3											
H.1.1											
H.1.2											
H.1.3											
H.1.4											
H.2.1											
H.3.1											
O.1.1											
O.1.2											
O.2.1											
O.2.2											
O.3.1											

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

Cutting data standard values – WTX – Ti

2

Index	Hole depth 3xD / 5xD Ti 10 786 ..., 10 787 ...										
	v_c m/min with through coolant	Ø 3–4 f mm/rev.	Ø 4–5 f mm/rev.	Ø 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	Ø 12–14 f mm/rev.	Ø 14–16 f mm/rev.	Ø 16–18 f mm/rev.	Ø 18–20 f mm/rev.
P.1.1											
P.1.2											
P.1.3											
P.1.4											
P.1.5											
P.2.1											
P.2.2											
P.2.3											
P.2.4											
P.3.1											
P.3.2											
P.3.3											
P.4.1	75	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18
P.4.2	65	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18
M.1.1	**70**	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18
M.2.1	**70**	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18
M.3.1	**70**	0,03	0,04	0,05	0,06	0,08	0,10	0,12	0,14	0,15	0,18
K.1.1											
K.1.2											
K.2.1											
K.2.2											
K.3.1											
K.3.2											
N.1.1											
N.1.2											
N.2.1											
N.2.2											
N.2.3											
N.3.1											
N.3.2											
N.3.3											
N.4.1											
S.1.1	**45**	0,02	0,02	0,02	0,04	0,05	0,07	0,09	0,11	0,13	0,16
S.1.2	**45**	0,02	0,02	0,02	0,04	0,05	0,07	0,09	0,11	0,13	0,16
S.2.1	**40**	0,02	0,02	0,02	0,04	0,05	0,07	0,09	0,11	0,13	0,16
S.2.2	**40**	0,02	0,02	0,02	0,04	0,05	0,07	0,09	0,11	0,13	0,16
S.2.3											
S.3.1	**55**	0,02	0,02	0,02	0,04	0,05	0,07	0,09	0,11	0,13	0,16
S.3.2	**45**	0,02	0,02	0,02	0,04	0,05	0,07	0,09	0,11	0,13	0,16
S.3.3											
H.1.1											
H.1.2											
H.1.3											
H.1.4											
H.2.1											
H.3.1											
O.1.1											
O.1.2											
O.2.1											
O.2.2											
O.3.1											

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

Cutting data standard values – WTX – H

	Drilling depth 3xD H 10 776 ...								
Index	v_c m/min with through coolant	Ø 2–3 f mm/rev.	Ø 3–4 f mm/rev.	Ø 4–5 f mm/rev.	Ø 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	Ø 12–14 f mm/rev.
P.1.1	120	0,05	0,07	0,08	0,10	0,14	0,18	0,21	0,24
P.1.2	110	0,05	0,06	0,08	0,09	0,13	0,16	0,19	0,22
P.1.3	100	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21
P.1.4	100	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21
P.1.5	120	0,05	0,07	0,08	0,10	0,14	0,18	0,21	0,24
P.2.1	110	0,05	0,07	0,08	0,10	0,14	0,18	0,21	0,24
P.2.2	100	0,05	0,06	0,08	0,09	0,13	0,16	0,19	0,22
P.2.3	100	0,05	0,06	0,08	0,09	0,13	0,16	0,19	0,22
P.2.4	100	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21
P.3.1									
P.3.2	80	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21
P.3.3	80	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21
P.4.1									
P.4.2									
M.1.1									
M.2.1									
M.3.1									
K.1.1	**115**	0,08	0,10	0,13	0,15	0,19	0,23	0,27	0,34
K.1.2	**95**	0,08	0,10	0,13	0,15	0,19	0,23	0,27	0,34
K.2.1	**95**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	0,25
K.2.2	**90**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	0,25
K.3.1	**95**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	0,25
K.3.2	**90**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	0,25
N.1.1									
N.1.2									
N.2.1									
N.2.2									
N.2.3									
N.3.1									
N.3.2									
N.3.3									
N.4.1									
S.1.1									
S.1.2									
S.2.1									
S.2.2									
S.2.3	80	0,04	0,05	0,07	0,08	0,12	0,15	0,18	0,21
S.3.1									
S.3.2									
S.3.3									
H.1.1	**30**	0,01	0,01	0,02	0,02	0,03	0,04	0,06	0,08
H.1.2	**15**	0,01	0,02	0,02	0,03	0,04	0,06	0,08	0,10
H.1.3	**10**	0,01	0,02	0,02	0,03	0,03	0,04	0,05	0,06
H.1.4									
H.2.1									
H.3.1									
O.1.1									
O.1.2									
O.2.1									
O.2.2									
O.3.1									

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

Index	v_c m/min without through coolant	Drilling depth 3xD H 10 777 ... Ø 2–3 f mm/rev.	Ø 3–4 f mm/rev.	Ø 4–5 f mm/rev.	Ø 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	Ø 12–14 f mm/rev.
P.1.1	80	0,05	0,07	0,08	0,10	0,14	0,18	0,21	0,24
P.1.2	70	0,04	0,05	0,06	0,08	0,12	0,15	0,18	0,21
P.1.3	70	0,04	0,05	0,06	0,08	0,12	0,15	0,18	0,21
P.1.4	70	0,04	0,05	0,06	0,08	0,12	0,15	0,18	0,21
P.1.5	80	0,05	0,07	0,08	0,10	0,14	0,18	0,21	0,24
P.2.1	75	0,05	0,07	0,08	0,10	0,14	0,18	0,21	0,24
P.2.2	70	0,04	0,06	0,08	0,09	0,13	0,16	0,19	0,22
P.2.3	70	0,04	0,05	0,06	0,08	0,12	0,15	0,18	0,21
P.2.4	70	0,04	0,05	0,06	0,08	0,12	0,15	0,18	0,21
P.3.1									
P.3.2									
P.3.3									
P.4.1									
P.4.2									
M.1.1									
M.2.1									
M.3.1									
K.1.1	**85**	0,10	0,10	0,10	0,20	0,20	0,20	0,30	0,30
K.1.2	**80**	0,10	0,10	0,10	0,20	0,20	0,20	0,30	0,30
K.2.1	**85**	0,10	0,10	0,10	0,10	0,20	0,20	0,20	0,30
K.2.2	**80**	0,10	0,10	0,10	0,10	0,20	0,20	0,20	0,30
K.3.1	**85**	0,10	0,10	0,10	0,10	0,20	0,20	0,20	0,30
K.3.2	**80**	0,10	0,10	0,10	0,10	0,20	0,20	0,20	0,30
N.1.1									
N.1.2									
N.2.1									
N.2.2									
N.2.3									
N.3.1									
N.3.2									
N.3.3									
N.4.1									
S.1.1									
S.1.2									
S.2.1									
S.2.2									
S.2.3									
S.3.1									
S.3.2									
S.3.3									
H.1.1	**30**	0,04	0,05	0,05	0,06	0,07	0,08	0,09	0,10
H.1.2	**15**	0,04	0,05	0,05	0,06	0,07	0,08	0,09	0,10
H.1.3	**10**	0,03	0,04	0,04	0,05	0,06	0,06	0,07	0,07
H.1.4	**10**	0,03	0,04	0,04	0,05	0,06	0,06	0,07	0,07
H.2.1									
H.3.1									
O.1.1									
O.1.2									
O.2.1									
O.2.2									
O.3.1									

Cutting data standard values – WTX – 180

	Drilling depth 3xD Type 180 10 720 ...						
Index	v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.	Ø 20–25 f mm/rev.
P.1.1	90	0,09	0,13	0,18	0,22	0,25	0,27
P.1.2	85	0,09	0,13	0,17	0,21	0,24	0,26
P.1.3	80	0,09	0,12	0,16	0,20	0,23	0,25
P.1.4	75	0,08	0,12	0,16	0,19	0,22	0,23
P.1.5	70	0,08	0,11	0,15	0,18	0,20	0,22
P.2.1	90	0,11	0,16	0,21	0,26	0,29	0,32
P.2.2	80	0,10	0,14	0,19	0,24	0,27	0,29
P.2.3	70	0,09	0,13	0,17	0,21	0,24	0,26
P.2.4	55	0,09	0,12	0,16	0,19	0,21	0,23
P.3.1	60	0,09	0,13	0,17	0,21	0,24	0,26
P.3.2	50	0,08	0,11	0,14	0,17	0,20	0,21
P.3.3	50	0,06	0,09	0,11	0,14	0,15	0,16
P.4.1	50	0,06	0,09	0,11	0,14	0,16	0,17
P.4.2	50	0,06	0,09	0,11	0,14	0,16	0,17
M.1.1	45	0,06	0,09	0,11	0,14	0,16	0,17
M.2.1	40	0,05	0,07	0,10	0,12	0,14	0,15
M.3.1	40	0,05	0,07	0,10	0,12	0,14	0,15
K.1.1	95	0,12	0,19	0,26	0,33	0,38	0,41
K.1.2	80	0,11	0,16	0,21	0,26	0,30	0,32
K.2.1	130	0,12	0,18	0,25	0,30	0,35	0,38
K.2.2	80	0,11	0,16	0,21	0,26	0,30	0,32
K.3.1	70	0,12	0,17	0,23	0,28	0,32	0,35
K.3.2	65	0,10	0,14	0,18	0,22	0,25	0,28
N.1.1							
N.1.2							
N.2.1							
N.2.2							
N.2.3							
N.3.1							
N.3.2							
N.3.3							
N.4.1							
S.1.1							
S.1.2							
S.2.1							
S.2.2							
S.2.3							
S.3.1							
S.3.2							
S.3.3							
H.1.1							
H.1.2							
H.1.3							
H.1.4							
H.2.1							
H.3.1							
O.1.1							
O.1.2							
O.2.1							
O.2.2							
O.3.1							

	Index	Drilling depth 5xD Type 180 10 721 ...					
		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.
	P.1.1	90	0,09	0,13	0,18	0,22	0,25
	P.1.2	85	0,09	0,13	0,17	0,21	0,24
	P.1.3	80	0,09	0,12	0,16	0,20	0,23
	P.1.4	75	0,08	0,12	0,16	0,19	0,22
	P.1.5	70	0,08	0,11	0,15	0,18	0,20
	P.2.1	90	0,11	0,16	0,21	0,26	0,29
	P.2.2	80	0,10	0,14	0,19	0,24	0,27
	P.2.3	70	0,09	0,13	0,17	0,21	0,24
	P.2.4	55	0,09	0,12	0,16	0,19	0,21
	P.3.1	60	0,09	0,13	0,17	0,21	0,24
	P.3.2	50	0,08	0,11	0,14	0,17	0,20
	P.3.3	50	0,06	0,09	0,11	0,14	0,15
	P.4.1	50	0,06	0,09	0,11	0,14	0,16
	P.4.2	50	0,06	0,09	0,11	0,14	0,16
	M.1.1	45	0,06	0,09	0,11	0,14	0,16
	M.2.1	40	0,05	0,07	0,10	0,12	0,14
	M.3.1	40	0,05	0,07	0,10	0,12	0,14
	K.1.1	95	0,12	0,19	0,26	0,33	0,38
	K.1.2	80	0,11	0,16	0,21	0,26	0,30
	K.2.1	130	0,12	0,18	0,25	0,30	0,35
	K.2.2	80	0,11	0,16	0,21	0,26	0,30
	K.3.1	70	0,12	0,17	0,23	0,28	0,32
	K.3.2	65	0,10	0,14	0,18	0,22	0,25
	N.1.1						
	N.1.2						
	N.2.1						
	N.2.2						
	N.2.3						
	N.3.1						
	N.3.2						
	N.3.3						
	N.4.1						
	S.1.1						
	S.1.2						
	S.2.1						
	S.2.2						
	S.2.3						
	S.3.1						
	S.3.2						
	S.3.3						
	H.1.1						
	H.1.2						
	H.1.3						
	H.1.4						
	H.2.1						
	H.3.1						
	O.1.1						
	O.1.2						
	O.2.1						
	O.2.2						
	O.3.1						

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

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 – Type N – Twist drills

Index	Drilling depth 3xD Type N (similar DIN 1897) 10 700 ...													
	v_c m/min without through coolant	Ø 0,5–1,5	Ø 1,5–2	Ø 2–3	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
		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.
P.1.1	75	0,03	0,04	0,05	0,07	0,08	0,1	0,12	0,14	0,16	0,2	0,02	0,02	0,3
P.1.2	65	0,03	0,04	0,05	0,07	0,08	0,1	0,12	0,14	0,16	0,2	0,02	0,02	0,3
P.1.3	65	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.1.4	65	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.1.5	70	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.2.1	70	0,03	0,04	0,05	0,07	0,08	0,1	0,12	0,14	0,16	0,2	0,02	0,02	0,3
P.2.2	65	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.2.3	65	0,03	0,04	0,05	0,07	0,08	0,1	0,12	0,14	0,16	0,2	0,02	0,02	0,3
P.2.4	65	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.3.1														
P.3.2														
P.3.3														
P.4.1														
P.4.2														
M.1.1														
M.2.1														
M.3.1														
K.1.1	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,12	0,14	0,17	0,2	0,2	0,3
K.1.2	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
K.2.1	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
K.2.2	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
K.3.1	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
K.3.2	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
N.1.1	**200**	0,007	0,01	0,01	0,013	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.1.2	**200**	0,007	0,01	0,01	0,013	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.1	**160**	0,007	0,01	0,01	0,013	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.2	**180**	0,007	0,01	0,01	0,013	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.3	**130**	0,007	0,01	0,01	0,013	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.3.1	**160**	0,003	0,004	0,005	0,007	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,13
N.3.2	**160**	0,003	0,004	0,005	0,007	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,13
N.3.3	**100**	0,003	0,004	0,005	0,007	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,13
N.4.1	**200**	0,007	0,008	0,01	0,013	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
S.1.1														
S.1.2														
S.2.1														
S.2.2														
S.2.3														
S.3.1	30	0,002	0,002	0,003	0,003	0,004	0,005	0,01	0,02	0,03	0,04	0,05	0,06	0,07
S.3.2	20	0,002	0,002	0,003	0,003	0,004	0,005	0,01	0,02	0,03	0,04	0,05	0,06	0,07
S.3.3														
H.1.1														
H.1.2														
H.1.3														
H.1.4														
H.2.1														
H.3.1														
O.1.1														
O.1.2														
O.2.1														
O.2.2														
O.3.1														

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

	Drilling depth 5xD Type N (similar DIN 338) 10 710 ...													
Index	v_c m/min without through coolant	Ø 0,5–1,5	Ø 1,5–2	Ø 2–3	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
		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.
P.1.1	75	0,03	0,04	0,05	0,07	0,08	0,1	0,12	0,14	0,16	0,2	0,02	0,02	0,3
P.1.2	65	0,03	0,04	0,05	0,07	0,08	0,1	0,12	0,14	0,16	0,2	0,02	0,02	0,3
P.1.3	65	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.1.4	65	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.1.5	70	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.2.1	70	0,03	0,04	0,05	0,07	0,08	0,1	0,12	0,14	0,16	0,2	0,02	0,02	0,3
P.2.2	65	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.2.3	65	0,03	0,04	0,05	0,07	0,08	0,1	0,12	0,14	0,16	0,2	0,02	0,02	0,3
P.2.4	65	0,03	0,04	0,04	0,05	0,06	0,07	0,1	0,11	0,13	0,15	0,02	0,02	0,23
P.3.1														
P.3.2														
P.3.3														
P.4.1														
P.4.2														
M.1.1														
M.2.1														
M.3.1														
K.1.1	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,12	0,14	0,17	0,2	0,2	0,3
K.1.2	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
K.2.1	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
K.2.2	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
K.3.1	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
K.3.2	**70**	0,02	0,03	0,04	0,05	0,06	0,07	0,1	0,11	0,12	0,15	0,18	0,2	0,23
N.1.1	**200**	0,007	0,01	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.1.2	**200**	0,007	0,01	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.1	**160**	0,007	0,01	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.2	**180**	0,007	0,01	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.3	**130**	0,007	0,01	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.3.1	**160**	0,003	0,004	0,005	0,007	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,13
N.3.2	**160**	0,003	0,004	0,005	0,007	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,13
N.3.3	**100**	0,003	0,004	0,005	0,007	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,13
N.4.1	**200**	0,007	0,008	0,010	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
S.1.1														
S.1.2														
S.2.1														
S.2.2														
S.2.3														
S.3.1	30	0,002	0,002	0,003	0,003	0,004	0,005	0,01	0,02	0,03	0,04	0,05	0,06	0,07
S.3.2	20	0,002	0,002	0,003	0,003	0,004	0,005	0,01	0,02	0,03	0,04	0,05	0,06	0,07
S.3.3														
H.1.1														
H.1.2														
H.1.3														
H.1.4														
H.2.1														
H.3.1														
O.1.1														
O.1.2														
O.2.1														
O.2.2														
O.3.1														

Cutting data standard values – WPC – UNI

	Drilling depth 3xD UNI 11 600 ..., 11 601 ..., 11 603 ..., 11 604 ...									
Index	v_c m/min without through coolant	v_c m/min with through coolant	Ø 1–1,5 f mm/rev.	Ø 1,5–2 f mm/rev.	Ø 2–3 f mm/rev.	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	**75**	**85**	0,05	0,06	0,08	0,11	0,15	0,20	0,25	0,28
P.1.2	**70**	**80**	0,05	0,05	0,07	0,10	0,14	0,19	0,24	0,27
P.1.3	**70**	**75**	0,05	0,05	0,07	0,10	0,14	0,18	0,23	0,26
P.1.4	**65**	**70**	0,04	0,05	0,07	0,09	0,13	0,18	0,21	0,24
P.1.5	**60**	**70**	0,04	0,05	0,06	0,09	0,12	0,17	0,20	0,23
P.2.1	**70**	**85**	0,06	0,07	0,09	0,13	0,18	0,24	0,29	0,33
P.2.2	**65**	**75**	0,05	0,06	0,08	0,11	0,16	0,22	0,27	0,30
P.2.3	**55**	**70**	0,05	0,06	0,07	0,10	0,15	0,20	0,24	0,27
P.2.4	**45**	**55**	0,05	0,06	0,07	0,10	0,13	0,17	0,21	0,24
P.3.1	**50**	**55**	0,05	0,05	0,07	0,10	0,15	0,20	0,24	0,27
P.3.2	**40**	**45**	0,04	0,05	0,06	0,09	0,12	0,16	0,20	0,22
P.3.3	**35**	**45**	0,04	0,04	0,06	0,07	0,10	0,13	0,15	0,17
P.4.1	**35**	**45**	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
P.4.2	**35**	**45**	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
M.1.1										
M.2.1										
M.3.1										
K.1.1	**60**	**80**	0,04	0,06	0,09	0,14	0,21	0,30	0,37	0,42
K.1.2	**50**	**70**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
K.2.1	**70**	**110**	0,05	0,07	0,09	0,14	0,20	0,28	0,34	0,39
K.2.2	**50**	**70**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
K.3.1	**55**	**60**	0,06	0,07	0,09	0,13	0,19	0,26	0,32	0,36
K.3.2	**50**	**55**	0,05	0,06	0,08	0,11	0,16	0,21	0,25	0,29
N.1.1										
N.1.2										
N.2.1										
N.2.2										
N.2.3										
N.3.1										
N.3.2										
N.3.3										
N.4.1										
S.1.1										
S.1.2										
S.2.1										
S.2.2										
S.2.3										
S.3.1										
S.3.2										
S.3.3										
H.1.1										
H.1.2										
H.1.3										
H.1.4										
H.2.1										
H.3.1										
O.1.1										
O.1.2										
O.2.1										
O.2.2										
O.3.1										

The cutting data is 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 without through coolant	v_c m/min with through coolant	Ø 1–1,5 f mm/rev.	Ø 1,5–2 f mm/rev.	Ø 2–3 f mm/rev.	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	75	85	0,05	0,06	0,08	0,11	0,15	0,20	0,25	0,28
P.1.2	70	80	0,05	0,05	0,07	0,10	0,14	0,19	0,24	0,27
P.1.3	70	75	0,05	0,05	0,07	0,10	0,14	0,18	0,23	0,26
P.1.4	65	70	0,04	0,05	0,07	0,09	0,13	0,18	0,21	0,24
P.1.5	60	70	0,04	0,05	0,06	0,09	0,12	0,17	0,20	0,23
P.2.1	70	85	0,06	0,07	0,09	0,13	0,18	0,24	0,29	0,33
P.2.2	65	75	0,05	0,06	0,08	0,11	0,16	0,22	0,27	0,30
P.2.3	55	70	0,05	0,06	0,07	0,10	0,15	0,20	0,24	0,27
P.2.4	45	55	0,05	0,06	0,07	0,10	0,13	0,17	0,21	0,24
P.3.1	50	55	0,05	0,05	0,07	0,10	0,15	0,20	0,24	0,27
P.3.2	40	45	0,04	0,05	0,06	0,09	0,12	0,16	0,20	0,22
P.3.3	35	45	0,04	0,04	0,06	0,07	0,10	0,13	0,15	0,17
P.4.1	35	45	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
P.4.2	35	45	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
M.1.1										
M.2.1										
M.3.1										
K.1.1	60	80	0,04	0,06	0,09	0,14	0,21	0,30	0,37	0,42
K.1.2	50	70	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
K.2.1	70	110	0,05	0,07	0,09	0,14	0,20	0,28	0,34	0,39
K.2.2	50	70	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
K.3.1	55	60	0,06	0,07	0,09	0,13	0,19	0,26	0,32	0,36
K.3.2	50	55	0,05	0,06	0,08	0,11	0,16	0,21	0,25	0,29
N.1.1										
N.1.2										
N.2.1										
N.2.2										
N.2.3										
N.3.1										
N.3.2										
N.3.3										
N.4.1										
S.1.1										
S.1.2										
S.2.1										
S.2.2										
S.2.3										
S.3.1										
S.3.2										
S.3.3										
H.1.1										
H.1.2										
H.1.3										
H.1.4										
H.2.1										
H.3.1										
O.1.1										
O.1.2										
O.2.1										
O.2.2										
O.3.1										

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 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.	v_c m/min with through coolant	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–18 f mm/rev.
P.1.1	**85**	0,11	0,15	0,20	0,25	0,28	**85**	0,11	0,15	0,20	0,25	0,28
P.1.2	**80**	0,10	0,14	0,19	0,24	0,27	**80**	0,10	0,14	0,19	0,24	0,27
P.1.3	**75**	0,10	0,14	0,18	0,23	0,26	**75**	0,10	0,14	0,18	0,23	0,26
P.1.4	**70**	0,09	0,13	0,18	0,21	0,24	**70**	0,09	0,13	0,18	0,21	0,24
P.1.5	**70**	0,09	0,12	0,17	0,20	0,23	**70**	0,09	0,12	0,17	0,20	0,23
P.2.1	**85**	0,13	0,18	0,24	0,29	0,33	**85**	0,13	0,18	0,24	0,29	0,33
P.2.2	**75**	0,11	0,16	0,22	0,27	0,30	**75**	0,11	0,16	0,22	0,27	0,30
P.2.3	**70**	0,10	0,15	0,20	0,24	0,27	**70**	0,10	0,15	0,20	0,24	0,27
P.2.4	**55**	0,10	0,13	0,17	0,21	0,24	**55**	0,10	0,13	0,17	0,21	0,24
P.3.1	**55**	0,10	0,15	0,20	0,24	0,27	**55**	0,10	0,15	0,20	0,24	0,27
P.3.2	**45**	0,09	0,12	0,16	0,20	0,22	**45**	0,09	0,12	0,16	0,20	0,22
P.3.3	**45**	0,07	0,10	0,13	0,15	0,17	**45**	0,07	0,10	0,13	0,15	0,17
P.4.1	**45**	0,07	0,10	0,13	0,16	0,18	**45**	0,07	0,10	0,13	0,16	0,18
P.4.2	**45**	0,07	0,10	0,13	0,16	0,18	**45**	0,07	0,10	0,13	0,16	0,18
M.1.1												
M.2.1												
M.3.1												
K.1.1	**80**	0,14	0,21	0,30	0,37	0,42	**80**	0,14	0,21	0,30	0,37	0,42
K.1.2	**70**	0,12	0,18	0,24	0,30	0,34	**70**	0,12	0,18	0,24	0,30	0,34
K.2.1	**110**	0,14	0,20	0,28	0,34	0,39	**110**	0,14	0,20	0,28	0,34	0,39
K.2.2	**70**	0,12	0,18	0,24	0,30	0,34	**70**	0,12	0,18	0,24	0,30	0,34
K.3.1	**60**	0,13	0,19	0,26	0,32	0,36	**60**	0,13	0,19	0,26	0,32	0,36
K.3.2	**55**	0,11	0,16	0,21	0,25	0,29	**55**	0,11	0,16	0,21	0,25	0,29
N.1.1												
N.1.2												
N.2.1												
N.2.2												
N.2.3												
N.3.1												
N.3.2												
N.3.3												
N.4.1												
S.1.1												
S.1.2												
S.2.1												
S.2.2												
S.2.3												
S.3.1												
S.3.2												
S.3.3												
H.1.1												
H.1.2												
H.1.3												
H.1.4												
H.2.1												
H.3.1												
O.1.1												
O.1.2												
O.2.1												
O.2.2												
O.3.1												

Recommended application for WPC 8xD and 12xD

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

1. 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.

2. 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!

3. 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

2

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.
P.1.1	75	85	0,04	0,05	0,06	0,09	0,12	0,16	0,20	0,22
P.1.2	70	80	0,04	0,04	0,06	0,08	0,12	0,15	0,19	0,21
P.1.3	70	75	0,04	0,04	0,06	0,08	0,11	0,15	0,18	0,20
P.1.4	65	70	0,03	0,04	0,05	0,07	0,10	0,14	0,17	0,19
P.1.5	60	70	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
P.2.1	70	85	0,05	0,05	0,07	0,10	0,14	0,19	0,23	0,27
P.2.2	65	75	0,04	0,05	0,07	0,09	0,13	0,17	0,21	0,24
P.2.3	55	70	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,22
P.2.4	45	55	0,04	0,04	0,06	0,08	0,11	0,14	0,17	0,19
P.3.1	50	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,22
P.3.2	40	45	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
P.3.3	35	45	0,03	0,04	0,04	0,06	0,08	0,10	0,12	0,14
P.4.1	35	45	0,03	0,03	0,04	0,05	0,08	0,10	0,13	0,14
P.4.2	35	45	0,03	0,03	0,04	0,05	0,08	0,10	0,13	0,14
M.1.1	**30**	**45**	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
M.2.1	**25**	**45**	0,03	0,03	0,04	0,06	0,08	0,11	0,14	0,15
M.3.1	**25**	**45**	0,03	0,03	0,04	0,06	0,08	0,11	0,14	0,15
K.1.1	**65**	**90**	0,04	0,06	0,09	0,14	0,21	0,30	0,37	0,42
K.1.2	**55**	**75**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
K.2.1	**75**	**120**	0,05	0,07	0,09	0,14	0,20	0,28	0,34	0,39
K.2.2	**55**	**75**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
K.3.1	**60**	**70**	0,06	0,07	0,09	0,13	0,19	0,26	0,32	0,36
K.3.2	**55**	**60**	0,05	0,06	0,08	0,11	0,16	0,21	0,25	0,29
N.1.1	**185**	**280**	0,05	0,06	0,08	0,11	0,15	0,20	0,25	0,28
N.1.2	**170**	**255**	0,05	0,05	0,07	0,10	0,14	0,18	0,23	0,26
N.2.1	**155**	**215**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
N.2.2	**130**	**185**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
N.2.3	**100**	**155**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
N.3.1	**135**	**170**	0,04	0,06	0,09	0,14	0,21	0,30	0,37	0,42
N.3.2	**75**	**100**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
N.3.3	**85**	**120**	0,05	0,05	0,07	0,10	0,14	0,18	0,23	0,26
N.4.1										
S.1.1										
S.1.2										
S.2.1										
S.2.2										
S.2.3										
S.3.1										
S.3.2										
S.3.3										
H.1.1										
H.1.2										
H.1.3										
H.1.4										
H.2.1										
H.3.1										
O.1.1										
O.1.2										
O.2.1										
O.2.2										
O.3.1										

The cutting data depends extremely on the external conditions, 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

	Drilling depth 5xD VA 11 629 ..., 11 630 ...								
Index	v_c m/min with through coolant	Ø 1–1,5 f mm/rev.	Ø 1,5–2 f mm/rev.	Ø 2–3 f mm/rev.	Ø 3–5 f mm/rev.	Ø 5–8 f mm/rev.	Ø 8–12 f mm/rev.	Ø 12–16 f mm/rev.	Ø 16–20 f mm/rev.
P.1.1	85	0,04	0,05	0,06	0,09	0,12	0,16	0,20	0,22
P.1.2	80	0,04	0,04	0,06	0,08	0,12	0,15	0,19	0,21
P.1.3	75	0,04	0,04	0,06	0,08	0,11	0,15	0,18	0,20
P.1.4	70	0,03	0,04	0,05	0,07	0,10	0,14	0,17	0,19
P.1.5	70	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
P.2.1	85	0,05	0,05	0,07	0,10	0,14	0,19	0,23	0,27
P.2.2	75	0,04	0,05	0,07	0,09	0,13	0,17	0,21	0,24
P.2.3	70	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,22
P.2.4	55	0,04	0,04	0,06	0,08	0,11	0,14	0,17	0,19
P.3.1	55	0,04	0,04	0,06	0,08	0,12	0,16	0,19	0,22
P.3.2	45	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
P.3.3	45	0,03	0,04	0,04	0,06	0,08	0,10	0,12	0,14
P.4.1	45	0,03	0,03	0,04	0,05	0,08	0,10	0,13	0,14
P.4.2	45	0,03	0,03	0,04	0,05	0,08	0,10	0,13	0,14
M.1.1	**45**	0,03	0,04	0,05	0,07	0,10	0,13	0,16	0,18
M.2.1	**45**	0,03	0,03	0,04	0,06	0,08	0,11	0,14	0,15
M.3.1	**45**	0,03	0,03	0,04	0,06	0,08	0,11	0,14	0,15
K.1.1	**90**	0,04	0,06	0,09	0,14	0,21	0,30	0,37	0,42
K.1.2	**75**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
K.2.1	**120**	0,05	0,07	0,09	0,14	0,20	0,28	0,34	0,39
K.2.2	**75**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
K.3.1	**70**	0,06	0,07	0,09	0,13	0,19	0,26	0,32	0,36
K.3.2	**60**	0,05	0,06	0,08	0,11	0,16	0,21	0,25	0,29
N.1.1	**280**	0,05	0,06	0,08	0,11	0,15	0,20	0,25	0,28
N.1.2	**255**	0,05	0,05	0,07	0,10	0,14	0,18	0,23	0,26
N.2.1	**215**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
N.2.2	**185**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
N.2.3	**155**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
N.3.1	**170**	0,04	0,06	0,09	0,14	0,21	0,30	0,37	0,42
N.3.2	**100**	0,05	0,06	0,09	0,12	0,18	0,24	0,30	0,34
N.3.3	**120**	0,05	0,05	0,07	0,10	0,14	0,18	0,23	0,26
N.4.1									
S.1.1									
S.1.2									
S.2.1									
S.2.2									
S.2.3									
S.3.1									
S.3.2									
S.3.3									
H.1.1									
H.1.2									
H.1.3									
H.1.4									
H.2.1									
H.3.1									
O.1.1									
O.1.2									
O.2.1									
O.2.2									
O.3.1									

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

2

Cutting data standard values – WTX – HFDS – high-feed drill

Index	Drilling depth 3xD HFDS 10 797 ...						Drilling depth 5xD HFDS 10 798 ...					
	v_c m/min with through coolant	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	Ø 12–14 f mm/rev.	Ø 14–16 f mm/rev.	v_c m/min with through coolant	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	Ø 12–14 f mm/rev.	Ø 14–16 f mm/rev.
P.1.1	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9
P.1.2	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9
P.1.3	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9
P.1.4	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9
P.1.5	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9
P.2.1	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9
P.2.2	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9	**100**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9
P.2.3	**90**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9	**90**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9
P.2.4	**90**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9	**90**	0,3–0,4	0,5–0,6	0,7–0,8	0,8–0,9	0,8–0,9
P.3.1	**85**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7	**85**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7
P.3.2	**70**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7	**70**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7
P.3.3	**70**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7	**70**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7
P.4.1	**65**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7	**65**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7
P.4.2	**65**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7	**65**	0,2–0,3	0,3–0,4	0,5–0,6	0,6–0,7	0,6–0,7
M.1.1	65	0,2–0,25	0,3–0,4	0,5–0,6	0,6–0,6	0,6–0,6	65	0,2–0,25	0,3–0,4	0,5–0,6	0,6–0,6	0,6–0,6
M.2.1	65	0,2–0,25	0,3–0,4	0,5–0,6	0,6–0,6	0,6–0,6	65	0,2–0,25	0,3–0,4	0,5–0,6	0,6–0,6	0,6–0,6
M.3.1	55	0,2–0,25	0,3–0,4	0,5–0,6	0,6–0,6	0,6–0,6	55	0,2–0,25	0,3–0,4	0,5–0,6	0,6–0,6	0,6–0,6
K.1.1	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
K.1.2	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
K.2.1	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
K.2.2	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
K.3.1	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
K.3.2	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	**130**	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
N.1.1												
N.1.2												
N.2.1												
N.2.2												
N.2.3												
N.3.1	130	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	130	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
N.3.2	130	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	130	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
N.3.3	130	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	130	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
N.4.1	130	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9	130	0,4–0,6	0,5–0,7	0,6–0,8	0,7–0,9	0,7–0,9
S.1.1												
S.1.2												
S.2.1												
S.2.2												
S.2.3												
S.3.1												
S.3.2												
S.3.3												
H.1.1												
H.1.2												
H.1.3												
H.1.4												
H.2.1												
H.3.1												
O.1.1												
O.1.2												
O.2.1												
O.2.2												
O.3.1	110	0,6	0,6	0,8	0,9	1,0	110	0,6	0,6	0,8	0,9	1,0

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

	Drilling depth 5xD Mini 11 770 ...				
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
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
P.1.1	75	0,01	0,01	0,0125	0,015
P.1.2	65	0,02	0,02	0,025	0,03
P.1.3	65	0,01	0,01	0,0125	0,015
P.1.4	65	0,01	0,01	0,0125	0,015
P.1.5	70	0,01	0,01	0,0125	0,015
P.2.1	70	0,01	0,01	0,0125	0,015
P.2.2	65	0,01	0,01	0,0125	0,015
P.2.3	65	0,02	0,02	0,025	0,03
P.2.4	65	0,01	0,01	0,0125	0,015
P.3.1					
P.3.2					
P.3.3					
P.4.1					
P.4.2					
M.1.1					
M.2.1					
M.3.1					
K.1.1	**70**	0,01	0,01	0,0125	0,015
K.1.2	**70**	0,01	0,01	0,0125	0,015
K.2.1	**70**	0,01	0,01	0,0125	0,015
K.2.2	**70**	0,01	0,01	0,0125	0,015
K.3.1	**70**	0,01	0,01	0,0125	0,015
K.3.2	**70**	0,01	0,01	0,0125	0,015
N.1.1	**200**	0,01	0,01	0,0125	0,015
N.1.2	**200**	0,01	0,01	0,0125	0,015
N.2.1	**160**	0,01	0,01	0,0125	0,015
N.2.2	**180**	0,01	0,01	0,0125	0,015
N.2.3	**130**	0,01	0,01	0,0125	0,015
N.3.1	**160**	0,01	0,01	0,0125	0,015
N.3.2	**160**	0,01	0,01	0,0125	0,015
N.3.3	**100**	0,01	0,01	0,0125	0,015
N.4.1	**200**	0,01	0,01	0,0125	0,015
S.1.1					
S.1.2					
S.2.1					
S.2.2					
S.2.3					
S.3.1	30	0,01	0,01	0,0125	0,015
S.3.2	20	0,01	0,01	0,0125	0,015
S.3.3					
H.1.1					
H.1.2					
H.1.3					
H.1.4					
H.2.1					
H.3.1					
O.1.1					
O.1.2					
O.2.1					
O.2.2					
O.3.1					

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

Cutting data standard values – WTX – Micro

2

Index	Drilling depth 5xD Micro 10 693 ...							
	v_c m/min with through coolant	v_c m/min MMS	< Ø 1,0	> Ø 1,0–1,25	> Ø 1,25–1,5	> Ø 1,5–2,0	> Ø 2,0–2,5	> Ø 2,5–3,0
			f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
P.1.1	**60**	**50**	0,024	0,028	0,034	0,05	0,07	0,095
P.1.2	**50**	**45**	0,024	0,028	0,034	0,05	0,07	0,095
P.1.3	**50**	**45**	0,024	0,028	0,034	0,05	0,07	0,095
P.1.4	**50**	**45**	0,024	0,028	0,034	0,05	0,07	0,095
P.1.5	**50**	**45**	0,024	0,028	0,034	0,05	0,07	0,095
P.2.1	**60**	**50**	0,024	0,028	0,034	0,05	0,07	0,095
P.2.2	**50**	**45**	0,024	0,028	0,034	0,05	0,07	0,095
P.2.3	**50**	**45**	0,024	0,028	0,034	0,05	0,07	0,095
P.2.4								
P.3.1	**50**	**45**	0,024	0,028	0,034	0,05	0,07	0,095
P.3.2	**40**	**35**	0,024	0,028	0,034	0,05	0,07	0,095
P.3.3								
P.4.1	**40**		0,012	0,015	0,018	0,028	0,04	0,06
P.4.2	**25**		0,012	0,015	0,018	0,028	0,04	0,06
M.1.1	**30**		0,012	0,015	0,018	0,028	0,04	0,06
M.2.1	**30**		0,012	0,015	0,018	0,028	0,04	0,06
M.3.1	**30**		0,012	0,015	0,018	0,028	0,04	0,06
K.1.1	**60**	**50**	0,024	0,028	0,034	0,05	0,07	0,095
K.1.2	**60**	**50**	0,024	0,028	0,034	0,05	0,07	0,095
K.2.1	**60**	**50**	0,024	0,028	0,034	0,05	0,07	0,095
K.2.2	**60**	**50**	0,024	0,028	0,034	0,05	0,07	0,095
K.3.1	**60**	**50**	0,024	0,028	0,034	0,05	0,07	0,095
K.3.2	**60**	**50**	0,024	0,028	0,034	0,05	0,07	0,095
N.1.1								
N.1.2								
N.2.1								
N.2.2								
N.2.3								
N.3.1								
N.3.2								
N.3.3								
N.4.1								
S.1.1	15		0,012	0,015	0,018	0,028	0,04	0,06
S.1.2	15		0,012	0,015	0,018	0,028	0,04	0,06
S.2.1	10		0,012	0,015	0,018	0,028	0,04	0,06
S.2.2	10		0,012	0,015	0,018	0,028	0,04	0,06
S.2.3								
S.3.1	20		0,012	0,015	0,018	0,028	0,04	0,06
S.3.2	10		0,012	0,015	0,018	0,028	0,04	0,06
S.3.3								
H.1.1								
H.1.2								
H.1.3								
H.1.4								
H.2.1								
H.3.1								
O.1.1								
O.1.2								
O.2.1								
O.2.2								
O.3.1								

Cutting data standard values – WTX – Micro

	Hole depth 8xD / 12xD Micro 10 694 ..., 10 695 ...							
Index	v_c m/min with through coolant	v_c m/min MMS	< Ø 1,0 f mm/rev.	> Ø 1,0–1,25 f mm/rev.	> Ø 1,25–1,5 f mm/rev.	> Ø 1,5–2,0 f mm/rev.	> Ø 2,0–2,5 f mm/rev.	> Ø 2,5–3,0 f mm/rev.
P.1.1	60	50	0,024	0,028	0,034	0,05	0,07	0,095
P.1.2	50	45	0,024	0,028	0,034	0,05	0,07	0,095
P.1.3	50	45	0,024	0,028	0,034	0,05	0,07	0,095
P.1.4	50	45	0,024	0,028	0,034	0,05	0,07	0,095
P.1.5	50	45	0,024	0,028	0,034	0,05	0,07	0,095
P.2.1	60	50	0,024	0,028	0,034	0,05	0,07	0,095
P.2.2	50	45	0,024	0,028	0,034	0,05	0,07	0,095
P.2.3	50	45	0,024	0,028	0,034	0,05	0,07	0,095
P.2.4								
P.3.1	50	45	0,024	0,028	0,034	0,05	0,07	0,095
P.3.2	40	35	0,024	0,028	0,034	0,05	0,07	0,095
P.3.3								
P.4.1	40		0,012	0,015	0,018	0,028	0,04	0,06
P.4.2	25		0,012	0,015	0,018	0,028	0,04	0,06
M.1.1	30		0,012	0,015	0,018	0,028	0,04	0,06
M.2.1	30		0,012	0,015	0,018	0,028	0,04	0,06
M.3.1	30		0,012	0,015	0,018	0,028	0,04	0,06
K.1.1	60	50	0,024	0,028	0,034	0,05	0,07	0,095
K.1.2	60	50	0,024	0,028	0,034	0,05	0,07	0,095
K.2.1	60	05	0,024	0,028	0,034	0,05	0,07	0,095
K.2.2	60	50	0,024	0,028	0,034	0,05	0,07	0,095
K.3.1	60	50	0,024	0,028	0,034	0,05	0,07	0,095
K.3.2	60	50	0,024	0,028	0,034	0,05	0,07	0,095
N.1.1								
N.1.2								
N.2.1								
N.2.2								
N.2.3								
N.3.1								
N.3.2								
N.3.3								
N.4.1								
S.1.1	15		0,012	0,015	0,018	0,028	0,04	0,06
S.1.2	15		0,012	0,015	0,018	0,028	0,04	0,06
S.2.1	10		0,012	0,015	0,018	0,028	0,04	0,06
S.2.2	10		0,012	0,015	0,018	0,028	0,04	0,06
S.2.3								
S.3.1	20		0,012	0,015	0,018	0,028	0,04	0,06
S.3.2	10		0,012	0,015	0,018	0,028	0,04	0,06
S.3.3								
H.1.1								
H.1.2								
H.1.3								
H.1.4								
H.2.1								
H.3.1								
O.1.1								
O.1.2								
O.2.1								
O.2.2								
O.3.1								

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

2

	Hole depth 16xD / 20xD / 25xD / 30xD Micro 10 696 ..., 10 697 ..., 10 698 ..., 10 699 ...						
Index	v_c m/min with through coolant	< Ø 1,0	> Ø 1,0–1,25	> Ø 1,25–1,5	> Ø 1,5–2,0	> Ø 2,0–2,5	> Ø 2,5–3,0
		f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.	f mm/rev.
P.1.1	50	0,024	0,028	0,034	0,05	0,07	0,095
P.1.2	40	0,024	0,028	0,034	0,05	0,07	0,095
P.1.3	40	0,024	0,028	0,034	0,05	0,07	0,095
P.1.4	40	0,024	0,028	0,034	0,05	0,07	0,095
P.1.5	40	0,024	0,028	0,034	0,05	0,07	0,095
P.2.1	50	0,024	0,028	0,034	0,05	0,07	0,095
P.2.2	40	0,024	0,028	0,034	0,05	0,07	0,095
P.2.3	40	0,024	0,028	0,034	0,05	0,07	0,095
P.2.4							
P.3.1	40	0,024	0,028	0,034	0,05	0,07	0,095
P.3.2	30	0,024	0,028	0,034	0,05	0,07	0,095
P.3.3							
P.4.1	30	0,012	0,015	0,018	0,028	0,04	0,06
P.4.2	20	0,012	0,015	0,018	0,028	0,04	0,06
M.1.1	25	0,012	0,015	0,018	0,028	0,04	0,06
M.2.1	25	0,012	0,015	0,018	0,028	0,04	0,06
M.3.1	25	0,012	0,015	0,018	0,028	0,04	0,06
K.1.1	50	0,024	0,028	0,034	0,05	0,07	0,095
K.1.2	50	0,024	0,028	0,034	0,05	0,07	0,095
K.2.1	50	0,024	0,028	0,034	0,05	0,07	0,095
K.2.2	50	0,024	0,028	0,034	0,05	0,07	0,095
K.3.1	50	0,024	0,028	0,034	0,05	0,07	0,095
K.3.2	50	0,024	0,028	0,034	0,05	0,07	0,095
N.1.1							
N.1.2							
N.2.1							
N.2.2							
N.2.3							
N.3.1							
N.3.2							
N.3.3							
N.4.1							
S.1.1							
S.1.2							
S.2.1							
S.2.2							
S.2.3							
S.3.1							
S.3.2							
S.3.3							
H.1.1							
H.1.2							
H.1.3							
H.1.4							
H.2.1							
H.3.1							
O.1.1							
O.1.2							
O.2.1							
O.2.2							
O.3.1							

Cutting data standard values – WTX – Feed BR

Index	Drilling depth 3xD Feed BR 10 707 ..., 10 711 ...										
	v_c m/min with through coolant	v_c m/min with external coolant	v_c m/min MMS	Ø 4 f mm/rev.	Ø 5 f mm/rev.	Ø 6 f mm/rev.	Ø 8 f mm/rev.	Ø 10 f mm/rev.	Ø 12 f mm/rev.	Ø 14 f mm/rev.	Ø 16 f mm/rev.
P.1.1	75	70	70	0,19	0,22	0,25	0,31	0,36	0,40	0,44	0,47
P.1.2	75	65	65	0,18	0,21	0,24	0,30	0,34	0,39	0,42	0,45
P.1.3	70	65	65	0,17	0,20	0,23	0,28	0,33	0,37	0,40	0,43
P.1.4	65	60	60	0,16	0,19	0,22	0,27	0,31	0,35	0,38	0,41
P.1.5	65	55	55	0,16	0,18	0,21	0,25	0,29	0,33	0,36	0,39
P.2.1	75	65	65	0,22	0,26	0,30	0,37	0,43	0,48	0,52	0,56
P.2.2	70	60	60	0,20	0,24	0,27	0,33	0,39	0,43	0,47	0,51
P.2.3	65	55	55	0,18	0,22	0,25	0,30	0,35	0,39	0,43	0,46
P.2.4	50	40	40	0,17	0,20	0,22	0,27	0,31	0,35	0,38	0,40
P.3.1	55	45	45	0,18	0,21	0,24	0,30	0,35	0,39	0,43	0,46
P.3.2	40	40	40	0,15	0,18	0,20	0,25	0,29	0,32	0,35	0,37
P.3.3	40	30	35	0,13	0,15	0,16	0,20	0,23	0,25	0,27	0,29
P.4.1	40	30	35	0,12	0,14	0,16	0,20	0,23	0,26	0,28	0,30
P.4.2	40	30	35	0,12	0,14	0,16	0,20	0,23	0,26	0,28	0,30
M.1.1	40	25	25	0,09	0,11	0,12	0,15	0,17	0,19	0,21	0,23
M.2.1	35	20	20	0,08	0,09	0,10	0,13	0,15	0,17	0,18	0,19
M.3.1	35	20	20	0,08	0,09	0,10	0,13	0,15	0,17	0,18	0,19
K.1.1	100	70	70	0,25	0,30	0,35	0,45	0,53	0,60	0,66	0,71
K.1.2	85	65	65	0,22	0,26	0,30	0,37	0,43	0,48	0,53	0,56
K.2.1	135	85	100	0,24	0,29	0,34	0,42	0,49	0,56	0,61	0,66
K.2.2	85	65	65	0,22	0,26	0,30	0,37	0,43	0,48	0,53	0,56
K.3.1	75	70	70	0,23	0,28	0,32	0,39	0,46	0,52	0,57	0,61
K.3.2	70	60	60	0,20	0,23	0,26	0,32	0,37	0,41	0,45	0,48
N.1.1											
N.1.2											
N.2.1											
N.2.2											
N.2.3											
N.3.1											
N.3.2											
N.3.3											
N.4.1											
S.1.1											
S.1.2											
S.2.1											
S.2.2											
S.2.3											
S.3.1											
S.3.2											
S.3.3											
H.1.1											
H.1.2											
H.1.3											
H.1.4											
H.2.1											
H.3.1											
O.1.1											
O.1.2											
O.2.1											
O.2.2											
O.3.1											

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

2

		Drilling depth 5xD Feed BR 10 713 ..., 10 719 ...												
	Index	v_c m/min with through coolant	v_c m/min with external coolant	v_c m/min MMS	Ø 4 f mm/rev.	Ø 5 f mm/rev.	Ø 6 f mm/rev.	Ø 8 f mm/rev.	Ø 10 f mm/rev.	Ø 12 f mm/rev.	Ø 14 f mm/rev.	Ø 16 f mm/rev.	Ø 18 f mm/rev.	Ø 20 f mm/rev.
	P.1.1	75	70	70	0,19	0,22	0,25	0,31	0,36	0,40	0,44	0,47	0,50	0,52
	P.1.2	75	65	65	0,18	0,21	0,24	0,30	0,34	0,39	0,42	0,45	0,48	0,50
	P.1.3	70	65	65	0,17	0,20	0,23	0,28	0,33	0,37	0,40	0,43	0,45	0,47
	P.1.4	65	60	60	0,16	0,19	0,22	0,27	0,31	0,35	0,38	0,41	0,43	0,45
	P.1.5	65	55	55	0,16	0,18	0,21	0,25	0,29	0,33	0,36	0,39	0,41	0,43
	P.2.1	75	65	65	0,22	0,26	0,30	0,37	0,43	0,48	0,52	0,56	0,59	0,62
	P.2.2	70	60	60	0,20	0,24	0,27	0,33	0,39	0,43	0,47	0,51	0,54	0,56
	P.2.3	65	55	55	0,18	0,22	0,25	0,30	0,35	0,39	0,43	0,46	0,48	0,50
	P.2.4	50	40	40	0,17	0,20	0,22	0,27	0,31	0,35	0,38	0,40	0,42	0,44
	P.3.1	55	45	45	0,18	0,21	0,24	0,30	0,35	0,39	0,43	0,46	0,48	0,50
	P.3.2	40	40	40	0,15	0,18	0,20	0,25	0,29	0,32	0,35	0,37	0,39	0,41
	P.3.3	40	30	35	0,13	0,15	0,16	0,20	0,23	0,25	0,27	0,29	0,30	0,32
	P.4.1	40	30	35	0,12	0,14	0,16	0,20	0,23	0,26	0,28	0,30	0,32	0,33
	P.4.2	40	30	35	0,12	0,14	0,16	0,20	0,23	0,26	0,28	0,30	0,32	0,33
	M.1.1	40	25	25	0,09	0,11	0,12	0,15	0,17	0,19	0,21	0,23	0,24	0,25
	M.2.1	35	20	20	0,08	0,09	0,10	0,13	0,15	0,17	0,18	0,19	0,20	0,21
	M.3.1	35	20	20	0,08	0,09	0,10	0,13	0,15	0,17	0,18	0,19	0,20	0,21
	K.1.1	100	70	70	0,25	0,30	0,35	0,45	0,53	0,60	0,66	0,71	0,75	0,79
	K.1.2	85	65	65	0,22	0,26	0,30	0,37	0,43	0,48	0,53	0,56	0,60	0,62
	K.2.1	135	85	100	0,24	0,29	0,34	0,42	0,49	0,56	0,61	0,66	0,69	0,72
	K.2.2	85	65	65	0,22	0,26	0,30	0,37	0,43	0,48	0,53	0,56	0,60	0,62
	K.3.1	75	70	70	0,23	0,28	0,32	0,39	0,46	0,52	0,57	0,61	0,64	0,67
	K.3.2	70	60	60	0,20	0,23	0,26	0,32	0,37	0,41	0,45	0,48	0,51	0,53
	N.1.1													
	N.1.2													
	N.2.1													
	N.2.2													
	N.2.3													
	N.3.1													
	N.3.2													
	N.3.3													
	N.4.1													
	S.1.1													
	S.1.2													
	S.2.1													
	S.2.2													
	S.2.3													
	S.3.1													
	S.3.2													
	S.3.3													
	H.1.1													
	H.1.2													
	H.1.3													
	H.1.4													
	H.2.1													
	H.3.1													
	O.1.1													
	O.1.2													
	O.2.1													
	O.2.2													
	O.3.1													

Cutting data standard values – WTX – Co-pilot deep hole twist drills

	Hole depth 20xD CP 20 UNI 11 018 ...					
Index	v_c m/min	Ø > 3–4 f mm/rev.	Ø > 4–5 f mm/rev.	Ø > 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.
P.1.1	**100**	0,07	0,08	0,10	0,12	0,14
P.1.2	**90**	0,07	0,08	0,10	0,12	0,14
P.1.3	**90**	0,05	0,06	0,08	0,10	0,11
P.1.4	**90**	0,05	0,06	0,08	0,10	0,11
P.1.5	**95**	0,05	0,06	0,08	0,10	0,11
P.2.1	**95**	0,07	0,08	0,10	0,12	0,14
P.2.2	**90**	0,05	0,06	0,08	0,10	0,11
P.2.3	**90**	0,07	0,08	0,10	0,12	0,14
P.2.4	**90**	0,05	0,06	0,08	0,10	0,11
P.3.1	**45**	0,03	0,04	0,05	0,06	0,08
P.3.2	**70**	0,05	0,06	0,08	0,10	0,11
P.3.3	**70**	0,05	0,06	0,08	0,10	0,11
P.4.1	**70**	0,03	0,04	0,05	0,06	0,08
P.4.2	**45**	0,03	0,04	0,05	0,06	0,08
M.1.1	**50**	0,03	0,04	0,05	0,06	0,08
M.2.1	**50**	0,03	0,04	0,05	0,06	0,08
M.3.1	**50**	0,03	0,04	0,05	0,06	0,08
K.1.1	**100**	0,10	0,13	0,15	0,19	0,23
K.1.2	**95**	0,10	0,13	0,15	0,19	0,23
K.2.1	**100**	0,08	0,10	0,13	0,16	0,18
K.2.2	**95**	0,08	0,10	0,13	0,16	0,18
K.3.1	**100**	0,08	0,10	0,13	0,16	0,18
K.3.2	**95**	0,08	0,10	0,13	0,16	0,18
N.1.1						
N.1.2						
N.2.1						
N.2.2						
N.2.3						
N.3.1						
N.3.2						
N.3.3						
N.4.1						
S.1.1						
S.1.2						
S.2.1						
S.2.2						
S.2.3	70	0,05	0,06	0,08	0,10	0,11
S.3.1	30	0,01	0,02	0,02	0,03	0,04
S.3.2	20	0,01	0,02	0,02	0,03	0,04
S.3.3						
H.1.1						
H.1.2						
H.1.3						
H.1.4						
H.2.1						
H.3.1						
O.1.1						
O.1.2						
O.2.1						
O.2.2						
O.3.1						

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

2

Cutting data standard values – WTX – TB UNI

Index	Hole depth 16xD TB UNI 11 016 ...								Hole depth 20xD TB UNI 11 020 ...							
	v_c m/min	Ø 2–3 f mm/rev.	Ø > 3–4 f mm/rev.	Ø > 4–5 f mm/rev.	Ø > 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	v_c m/min	Ø 2–3 f mm/rev.	Ø > 3–4 f mm/rev.	Ø > 4–5 f mm/rev.	Ø > 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.
P.1.1	**105**	0,05	0,07	0,08	0,10	0,12	0,14	0,16	**100**	0,05	0,07	0,08	0,10	0,12	0,14	0,16
P.1.2	**95**	0,05	0,07	0,08	0,10	0,12	0,14	0,16	**90**	0,05	0,07	0,08	0,10	0,12	0,14	0,16
P.1.3	**95**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**90**	0,038	0,05	0,06	0,075	0,10	0,11	0,13
P.1.4	**95**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**90**	0,038	0,05	0,06	0,075	0,10	0,11	0,13
P.1.5	**100**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**95**	0,038	0,05	0,06	0,075	0,10	0,11	0,13
P.2.1	**100**	0,05	0,07	0,08	0,10	0,12	0,14	0,16	**95**	0,05	0,07	0,08	0,10	0,12	0,14	0,16
P.2.2	**95**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**90**	0,038	0,05	0,06	0,075	0,10	0,11	0,13
P.2.3	**95**	0,05	0,07	0,08	0,10	0,12	0,14	0,16	**90**	0,05	0,07	0,08	0,10	0,12	0,14	0,16
P.2.4	**95**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**90**	0,038	0,05	0,06	0,075	0,10	0,11	0,13
P.3.1	**50**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**45**	0,025	0,03	0,04	0,045	0,06	0,08	0,10
P.3.2	**75**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**70**	0,038	0,05	0,06	0,075	0,10	0,11	0,13
P.3.3	**75**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**70**	0,038	0,05	0,06	0,075	0,10	0,11	0,13
P.4.1	**75**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**70**	0,025	0,03	0,04	0,045	0,06	0,08	0,10
P.4.2	**50**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**45**	0,025	0,03	0,04	0,045	0,06	0,08	0,10
M.1.1	**55**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**50**	0,03	0,03	0,04	0,05	0,06	0,08	0,10
M.2.1	**55**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**50**	0,03	0,03	0,04	0,05	0,06	0,08	0,10
M.3.1	**55**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**50**	0,03	0,03	0,04	0,05	0,06	0,08	0,10
K.1.1	**105**	0,08	0,10	0,13	0,15	0,19	0,23	0,27	**100**	0,08	0,10	0,13	0,15	0,19	0,23	0,27
K.1.2	**100**	0,08	0,10	0,13	0,15	0,19	0,23	0,27	**95**	0,08	0,10	0,13	0,15	0,19	0,23	0,27
K.2.1	**105**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**100**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
K.2.2	**100**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**95**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
K.3.1	**105**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**100**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
K.3.2	**100**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**95**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
N.1.1																
N.1.2																
N.2.1																
N.2.2																
N.2.3																
N.3.1																
N.3.2																
N.3.3																
N.4.1																
S.1.1																
S.1.2																
S.2.1																
S.2.2																
S.2.3	75	0,04	0,05	0,06	0,08	0,10	0,11	0,13	70	0,04	0,05	0,06	0,08	0,10	0,11	0,13
S.3.1	35	0,01	0,01	0,02	0,02	0,03	0,04	0,05	30	0,01	0,01	0,02	0,02	0,03	0,04	0,05
S.3.2	25	0,01	0,01	0,02	0,02	0,03	0,04	0,05	20	0,01	0,01	0,02	0,02	0,03	0,04	0,05
S.3.3																
H.1.1																
H.1.2																
H.1.3																
H.1.4																
H.2.1																
H.3.1																
O.1.1																
O.1.2																
O.2.1																
O.2.2																
O.3.1																

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 160**.

Cutting data standard values – WTX – TB UNI

Index	Hole depth 25xD TB UNI 11 025 ...								Hole depth 30xD TB UNI 11 030 ...							
	v_c m/min	Ø 2–3	Ø > 3–4	Ø > 4–5	Ø > 5–6	Ø 6–8	Ø 8–10	Ø 10–12	v_c m/min	Ø 2–3	Ø > 3–4	Ø > 4–5	Ø > 5–6	Ø 6–8	Ø 8–10	Ø 10–12
		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.
P.1.1	**90**	0,05	0,07	0,08	0,10	0,12	0,14	0,16	**85**	0,05	0,07	0,08	0,10	0,12	0,14	0,16
P.1.2	**80**	0,05	0,07	0,08	0,10	0,12	0,14	0,16	**75**	0,05	0,07	0,08	0,10	0,12	0,14	0,16
P.1.3	**80**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**75**	0,04	0,05	0,06	0,08	0,10	0,11	0,13
P.1.4	**80**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**75**	0,04	0,05	0,06	0,08	0,10	0,11	0,13
P.1.5	**85**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**80**	0,04	0,05	0,06	0,08	0,10	0,11	0,13
P.2.1	**85**	0,05	0,07	0,08	0,10	0,12	0,14	0,16	**80**	0,05	0,07	0,08	0,10	0,12	0,14	0,16
P.2.2	**80**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**75**	0,04	0,05	0,06	0,08	0,10	0,11	0,13
P.2.3	**80**	0,05	0,07	0,08	0,10	0,12	0,14	0,16	**75**	0,05	0,07	0,08	0,10	0,12	0,14	0,16
P.2.4	**80**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**75**	0,04	0,05	0,06	0,08	0,10	0,11	0,13
P.3.1	**45**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**40**	0,03	0,03	0,04	0,05	0,06	0,08	0,10
P.3.2	**65**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**60**	0,04	0,05	0,06	0,08	0,10	0,11	0,13
P.3.3	**65**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	**60**	0,04	0,05	0,06	0,08	0,10	0,11	0,13
P.4.1	**65**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**60**	0,03	0,03	0,04	0,05	0,06	0,08	0,10
P.4.2	**45**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**40**	0,03	0,03	0,04	0,05	0,06	0,08	0,10
M.1.1	**50**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**45**	0,03	0,03	0,04	0,05	0,06	0,08	0,10
M.2.1	**50**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**45**	0,03	0,03	0,04	0,05	0,06	0,08	0,10
M.3.1	**50**	0,03	0,03	0,04	0,05	0,06	0,08	0,10	**45**	0,03	0,03	0,04	0,05	0,06	0,08	0,10
K.1.1	**90**	0,08	0,10	0,13	0,15	0,19	0,23	0,27	**85**	0,08	0,10	0,13	0,15	0,19	0,23	0,27
K.1.2	**85**	0,08	0,10	0,13	0,15	0,19	0,23	0,27	**80**	0,08	0,10	0,13	0,15	0,19	0,23	0,27
K.2.1	**90**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**85**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
K.2.2	**85**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**80**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
K.3.1	**90**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**85**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
K.3.2	**85**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**80**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
N.1.1																
N.1.2																
N.2.1																
N.2.2																
N.2.3																
N.3.1																
N.3.2																
N.3.3																
N.4.1																
S.1.1																
S.1.2																
S.2.1																
S.2.2																
S.2.3	65	0,04	0,05	0,06	0,08	0,10	0,11	0,13	60	0,04	0,05	0,06	0,08	0,10	0,11	0,13
S.3.1																
S.3.2																
S.3.3																
H.1.1																
H.1.2																
H.1.3																
H.1.4																
H.2.1																
H.3.1																
O.1.1																
O.1.2																
O.2.1																
O.2.2																
O.3.1																

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

2

Index	Hole depth 40xD TB UNI 11 040 ...						Hole depth 50xD TB UNI 11 050 ...				
	v_c m/min	Ø > 3–4 f mm/rev.	Ø > 4–5 f mm/rev.	Ø > 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	v_c m/min	Ø > 3–4 f mm/rev.	Ø > 4–5 f mm/rev.	Ø > 5–6 f mm/rev.	Ø 6–8 f mm/rev.
P.1.1	**70**	0,05	0,06	0,08	0,10	0,11	**70**	0,05	0,06	0,08	0,10
P.1.2	**60**	0,05	0,06	0,08	0,10	0,11	**60**	0,05	0,06	0,08	0,10
P.1.3	**60**	0,03	0,04	0,05	0,06	0,08	**60**	0,03	0,04	0,05	0,06
P.1.4	**60**	0,03	0,04	0,05	0,06	0,08	**60**	0,03	0,04	0,05	0,06
P.1.5	**65**	0,03	0,04	0,05	0,06	0,08	**65**	0,03	0,04	0,05	0,06
P.2.1	**65**	0,05	0,06	0,08	0,10	0,11	**65**	0,05	0,06	0,08	0,10
P.2.2	**60**	0,03	0,04	0,05	0,06	0,08	**60**	0,03	0,04	0,05	0,06
P.2.3	**60**	0,05	0,06	0,08	0,10	0,11	**60**	0,05	0,06	0,08	0,10
P.2.4	**60**	0,03	0,04	0,05	0,06	0,08	**60**	0,03	0,04	0,05	0,06
P.3.1	**35**	0,03	0,03	0,04	0,05	0,06	**35**	0,03	0,03	0,04	0,05
P.3.2	**50**	0,03	0,04	0,05	0,06	0,08	**50**	0,03	0,04	0,05	0,06
P.3.3	**50**	0,03	0,04	0,05	0,06	0,08	**50**	0,03	0,04	0,05	0,06
P.4.1	**50**	0,03	0,03	0,04	0,05	0,06	**50**	0,03	0,03	0,04	0,05
P.4.2	**35**	0,03	0,03	0,04	0,05	0,06	**35**	0,03	0,03	0,04	0,05
M.1.1	**40**	0,03	0,03	0,04	0,05	0,06	**40**	0,03	0,03	0,04	0,05
M.2.1	**40**	0,03	0,03	0,04	0,05	0,06	**40**	0,03	0,03	0,04	0,05
M.3.1	**40**	0,03	0,03	0,04	0,05	0,06	**40**	0,03	0,03	0,04	0,05
K.1.1	**70**	0,08	0,10	0,13	0,16	0,18	**70**	0,08	0,10	0,13	0,16
K.1.2	**65**	0,08	0,10	0,13	0,16	0,18	**65**	0,08	0,10	0,13	0,16
K.2.1	**70**	0,07	0,08	0,10	0,12	0,14	**70**	0,07	0,08	0,10	0,12
K.2.2	**65**	0,07	0,08	0,10	0,12	0,14	**65**	0,07	0,08	0,10	0,12
K.3.1	**70**	0,07	0,08	0,10	0,12	0,14	**70**	0,07	0,08	0,10	0,12
K.3.2	**65**	0,07	0,08	0,10	0,12	0,14	**65**	0,07	0,08	0,10	0,12
N.1.1											
N.1.2											
N.2.1											
N.2.2											
N.2.3											
N.3.1											
N.3.2											
N.3.3											
N.4.1											
S.1.1											
S.1.2											
S.2.1											
S.2.2											
S.2.3	50	0,03	0,04	0,05	0,06	0,08	50	0,03	0,04	0,05	0,06
S.3.1											
S.3.2											
S.3.3											
H.1.1											
H.1.2											
H.1.3											
H.1.4											
H.2.1											
H.3.1											
O.1.1											
O.1.2											
O.2.1											
O.2.2											
O.3.1											

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 160**.

Cutting data standard values – WTX – TB ALU

Index	Hole depth 16xD TB ALU 11 017 ...								Hole depth 20xD TB ALU 11 021 ...							
	v_c m/min	Ø 2–3 f mm/rev.	Ø > 3–4 f mm/rev.	Ø > 4–5 f mm/rev.	Ø > 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	v_c m/min	Ø 2–3 f mm/rev.	Ø > 3–4 f mm/rev.	Ø > 4–5 f mm/rev.	Ø > 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.
P.1.1																
P.1.2																
P.1.3																
P.1.4																
P.1.5																
P.2.1																
P.2.2																
P.2.3																
P.2.4																
P.3.1																
P.3.2																
P.3.3																
P.4.1																
P.4.2																
M.1.1																
M.2.1																
M.3.1																
K.1.1																
K.1.2																
K.2.1																
K.2.2																
K.3.1																
K.3.2																
N.1.1	**160**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**150**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
N.1.2	**180**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**170**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
N.2.1	**160**	0,08	0,11	0,13	0,15	0,19	0,23	0,26	**150**	0,08	0,11	0,13	0,15	0,19	0,23	0,26
N.2.2	**190**	0,08	0,11	0,13	0,15	0,19	0,23	0,26	**180**	0,08	0,11	0,13	0,15	0,19	0,23	0,26
N.2.3	**140**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**130**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
N.3.1	**115**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**100**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
N.3.2	**115**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**100**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
N.3.3	**90**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**80**	0,06	0,08	0,10	0,13	0,16	0,18	0,22
N.4.1																
S.1.1																
S.1.2																
S.2.1																
S.2.2																
S.2.3																
S.3.1																
S.3.2																
S.3.3																
H.1.1																
H.1.2																
H.1.3																
H.1.4																
H.2.1																
H.3.1																
O.1.1																
O.1.2																
O.2.1																
O.2.2																
O.3.1																

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

2

Index	Hole depth 25xD TB ALU 11 026 ...								Hole depth 30xD TB ALU 11 031 ...							
	v_c m/min	Ø 2–3 f mm/rev.	Ø > 3–4 f mm/rev.	Ø > 4–5 f mm/rev.	Ø > 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	v_c m/min	Ø 2–3 f mm/rev.	Ø > 3–4 f mm/rev.	Ø > 4–5 f mm/rev.	Ø > 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.
P.1.1																
P.1.2																
P.1.3																
P.1.4																
P.1.5																
P.2.1																
P.2.2																
P.2.3																
P.2.4																
P.3.1																
P.3.2																
P.3.3																
P.4.1																
P.4.2																
M.1.1																
M.2.1																
M.3.1																
K.1.1																
K.1.2																
K.2.1																
K.2.2																
K.3.1																
K.3.2																
N.1.1	**130**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**120**	0,04	0,05	0,07	0,08	0,12	0,15	0,18
N.1.2	**150**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**140**	0,04	0,05	0,07	0,08	0,12	0,15	0,18
N.2.1	**130**	0,08	0,11	0,13	0,15	0,19	0,23	0,26	**120**	0,08	0,11	0,13	0,15	0,19	0,23	0,26
N.2.2	**160**	0,08	0,11	0,13	0,15	0,19	0,23	0,26	**150**	0,08	0,11	0,13	0,15	0,19	0,23	0,26
N.2.3	**120**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**110**	0,04	0,05	0,07	0,08	0,12	0,15	0,18
N.3.1	**90**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**80**	0,04	0,05	0,07	0,08	0,12	0,15	0,18
N.3.2	**90**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**80**	0,04	0,05	0,07	0,08	0,12	0,15	0,18
N.3.3	**75**	0,06	0,08	0,10	0,13	0,16	0,18	0,22	**70**	0,04	0,05	0,07	0,08	0,12	0,15	0,18
N.4.1																
S.1.1																
S.1.2																
S.2.1																
S.2.2																
S.2.3																
S.3.1																
S.3.2																
S.3.3																
H.1.1																
H.1.2																
H.1.3																
H.1.4																
H.2.1																
H.3.1																
O.1.1																
O.1.2																
O.2.1																
O.2.2																
O.3.1																

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 160**.

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 Centre Drills ZB 10 708 ...							
Index	v_c m/min	Ø 8 f mm/rev.	Ø 10 f mm/rev.	Ø 12 f mm/rev.	Ø 16 f mm/rev.	Ø 20 f mm/rev.	v_c m/min without through coolant	Ø 0,5–1,5 f mm/rev.	Ø 1,5–2 f mm/rev.	Ø 2–3 f mm/rev.	Ø 3–4 f mm/rev.	Ø 4–5 f mm/rev.	Ø 5–6 f mm/rev.	Ø 6–8 f mm/rev.
P.1.1	160	0,08	0,10	0,11	0,14	0,16	75	0,03	0,04	0,05	0,07	0,08	0,10	0,12
P.1.2	160	0,08	0,10	0,11	0,14	0,16	65	0,03	0,04	0,05	0,07	0,08	0,10	0,12
P.1.3	160	0,08	0,10	0,11	0,14	0,16	65	0,03	0,03	0,04	0,05	0,06	0,08	0,10
P.1.4	160	0,08	0,10	0,11	0,14	0,16	65	0,03	0,03	0,04	0,05	0,06	0,08	0,10
P.1.5	130	0,08	0,09	0,11	0,13	0,15	70	0,03	0,03	0,04	0,05	0,06	0,08	0,10
P.2.1	145	0,08	0,10	0,11	0,14	0,16	70	0,03	0,04	0,05	0,07	0,08	0,10	0,12
P.2.2	100	0,07	0,08	0,09	0,12	0,14	65	0,03	0,03	0,04	0,05	0,06	0,08	0,10
P.2.3	80	0,07	0,08	0,10	0,12	0,14	65	0,03	0,04	0,05	0,07	0,08	0,10	0,12
P.2.4	80	0,07	0,08	0,10	0,12	0,14	65	0,03	0,03	0,04	0,05	0,06	0,08	0,10
P.3.1	95	0,08	0,09	0,11	0,13	0,16								
P.3.2	95	0,08	0,09	0,11	0,13	0,16								
P.3.3	95	0,08	0,09	0,11	0,13	0,16								
P.4.1	65	0,04	0,05	0,05	0,07	0,08								
P.4.2	65	0,04	0,05	0,05	0,07	0,08								
M.1.1	45	0,05	0,06	0,07	0,08	0,10								
M.2.1	45	0,05	0,06	0,07	0,08	0,10								
M.3.1	40	0,04	0,05	0,06	0,07	0,08								
K.1.1	175	0,13	0,16	0,19	0,24	0,27	70	0,03	0,03	0,04	0,05	0,06	0,08	0,10
K.1.2	160	0,11	0,14	0,16	0,2	0,23	70	0,03	0,03	0,04	0,05	0,06	0,08	0,10
K.2.1	130	0,09	0,11	0,13	0,17	0,19	70	0,03	0,03	0,04	0,05	0,06	0,08	0,10
K.2.2	130	0,09	0,11	0,13	0,17	0,19	70	0,03	0,03	0,04	0,05	0,06	0,08	0,10
K.3.1	160	0,11	0,14	0,16	0,20	0,23	70	0,03	0,03	0,04	0,05	0,06	0,08	0,10
K.3.2	130	0,09	0,11	0,13	0,17	0,19	70	0,03	0,03	0,04	0,05	0,06	0,08	0,10
N.1.1	600	0,13	0,16	0,19	0,24	0,27	200	0,01	0,01	0,01	0,01	0,02	0,02	0,03
N.1.2	400	0,14	0,17	0,11	0,25	0,29	200	0,01	0,01	0,01	0,01	0,02	0,02	0,03
N.2.1	320	0,15	0,18	0,28	0,26	0,30	160	0,01	0,01	0,01	0,01	0,02	0,02	0,03
N.2.2	320	0,15	0,18	0,28	0,26	0,30	180	0,01	0,01	0,01	0,01	0,02	0,02	0,03
N.2.3	230	0,16	0,19	0,23	0,28	0,33	130	0,01	0,01	0,01	0,01	0,02	0,02	0,03
N.3.1	175	0,11	0,13	0,15	0,19	0,22	160	0,01	0,01	0,01	0,01	0,01	0,01	0,02
N.3.2	230	0,11	0,13	0,15	0,19	0,22	160	0,01	0,01	0,01	0,01	0,01	0,01	0,02
N.3.3	175	0,11	0,13	0,15	0,19	0,22	100	0,01	0,01	0,01	0,01	0,01	0,01	0,02
N.4.1	290	0,07	0,08	0,09	0,12	0,14								
S.1.1														
S.1.2														
S.2.1														
S.2.2														
S.2.3														
S.3.1														
S.3.2														
S.3.3														
H.1.1														
H.1.2														
H.1.3														
H.1.4														
H.2.1														
H.3.1														
O.1.1														
O.1.2														
O.2.1														
O.2.2														
O.3.1														

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

2

Index	Solid Carbide NC Spot Drills NC-A 10 702 ..., 10 703 ..., 10 704 ...,											
	v_c m/min without through coolant	Ø 2–3	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
		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.
P.1.1	75	0,05	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,28	0,31
P.1.2	65	0,05	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,28	0,31
P.1.3	65	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.1.4	65	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.1.5	70	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.2.1	70	0,05	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,28	0,31
P.2.2	65	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.2.3	65	0,05	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,28	0,31
P.2.4	65	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.3.1												
P.3.2												
P.3.3												
P.4.1												
P.4.2												
M.1.1												
M.2.1												
M.3.1												
K.1.1	70	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26
K.1.2	70	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
K.2.1	70	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
K.2.2	70	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
K.3.1	70	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
K.3.2	70	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
N.1.1	200	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.1.2	200	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.1	160	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.2	180	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.3	130	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.3.1	160	0,01	0,01	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,14
N.3.2	160	0,01	0,01	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,14
N.3.3	100	0,01	0,01	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,14
N.4.1												
S.1.1												
S.1.2												
S.2.1												
S.2.2												
S.2.3												
S.3.1												
S.3.2												
S.3.3												
H.1.1												
H.1.2												
H.1.3												
H.1.4												
H.2.1												
H.3.1												
O.1.1												
O.1.2												
O.2.1												
O.2.2												
O.3.1												

Cutting data standard values – Solid Carbide NC-A TiAlN

Index	Solid Carbide NC Spot Drill NC-A TiAlN 10 716 ..., 10 717 ..., 10 718 ...											
	v_c m/min without through coolant	Ø 2–3	Ø 3–4	Ø 4–5	Ø 5–6	Ø 6–8	Ø 8–10	Ø 10–12	Ø 12–14	Ø 14–16	Ø 16–18	Ø 18–20
		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.
P.1.1	75	0,05	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,28	0,31
P.1.2	65	0,05	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,28	0,31
P.1.3	65	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.1.4	65	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.1.5	70	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.2.1	70	0,05	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,28	0,31
P.2.2	65	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.2.3	65	0,05	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,28	0,31
P.2.4	65	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
P.3.1												
P.3.2												
P.3.3												
P.4.1												
P.4.2												
M.1.1												
M.2.1												
M.3.1												
K.1.1	**70**	0,04	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20	0,23	0,26
K.1.2	**70**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
K.2.1	**70**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
K.2.2	**70**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
K.3.1	**70**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
K.3.2	**70**	0,04	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18	0,20	0,23
N.1.1	**200**	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.1.2	**200**	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.1	**160**	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.2	**180**	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.2.3	**130**	0,01	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09	0,11	0,13
N.3.1	**160**	0,01	0,01	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,14
N.3.2	**160**	0,01	0,01	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,14
N.3.3	**100**	0,01	0,01	0,01	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,14
N.4.1												
S.1.1												
S.1.2												
S.2.1												
S.2.2												
S.2.3												
S.3.1												
S.3.2												
S.3.3												
H.1.1	28	0,02	0,03	0,04	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,08
H.1.2	16	0,02	0,03	0,04	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,08
H.1.3												
H.1.4												
H.2.1												
H.3.1												
O.1.1												
O.1.2												
O.2.1												
O.2.2												
O.3.1												

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

2

Index	Solid Carbide NC Spot Drills, long NC-A TiAlN 10 724 ..., 10 726 ..., 10 727 ...								
	v_c m/min without through coolant	Ø 3–4 f mm/rev.	Ø 4–5 f mm/rev.	Ø 5–6 f mm/rev.	Ø 6–8 f mm/rev.	Ø 8–10 f mm/rev.	Ø 10–12 f mm/rev.	Ø 12–14 f mm/rev.	Ø 14–16 f mm/rev.
P.1.1	75	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24
P.1.2	65	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24
P.1.3	65	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
P.1.4	65	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
P.1.5	70	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
P.2.1	70	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24
P.2.2	65	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
P.2.3	65	0,07	0,08	0,10	0,12	0,14	0,16	0,20	0,24
P.2.4	65	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
P.3.1									
P.3.2									
P.3.3									
P.4.1									
P.4.2									
M.1.1									
M.2.1									
M.3.1									
K.1.1	**70**	0,05	0,06	0,08	0,10	0,13	0,15	0,18	0,20
K.1.2	**70**	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
K.2.1	**70**	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
K.2.2	**70**	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
K.3.1	**70**	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
K.3.2	**70**	0,05	0,06	0,08	0,10	0,11	0,13	0,15	0,18
N.1.1	**200**	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09
N.1.2	**200**	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09
N.2.1	**160**	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09
N.2.2	**180**	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09
N.2.3	**130**	0,01	0,02	0,02	0,03	0,04	0,05	0,07	0,09
N.3.1	**160**	0,01	0,01	0,01	0,02	0,03	0,04	0,06	0,09
N.3.2	**160**	0,01	0,01	0,01	0,02	0,03	0,04	0,06	0,09
N.3.3	**100**	0,01	0,01	0,01	0,02	0,03	0,04	0,06	0,09
N.4.1									
S.1.1									
S.1.2									
S.2.1									
S.2.2									
S.2.3									
S.3.1									
S.3.2									
S.3.3									
H.1.1	30	0,03	0,04	0,04	0,05	0,06	0,06	0,07	0,07
H.1.2	15	0,03	0,04	0,04	0,05	0,06	0,06	0,07	0,07
H.1.3									
H.1.4									
H.2.1									
H.3.1									
O.1.1									
O.1.2									
O.2.1									
O.2.2									
O.3.1									

Cutting data standard values – WTX – Change

		Change UNI 10 919 ...				
Index	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.	> Ø 32–41 f mm/rev.
P.1.1	120	0,27	0,31	0,34	0,36	0,36
P.1.2	115	0,26	0,30	0,32	0,34	0,35
P.1.3	110	0,25	0,28	0,31	0,32	0,33
P.1.4	105	0,24	0,27	0,29	0,31	0,31
P.1.5	100	0,22	0,25	0,28	0,29	0,30
P.2.1	120	0,32	0,37	0,40	0,42	0,43
P.2.2	110	0,29	0,33	0,36	0,38	0,39
P.2.3	100	0,26	0,30	0,33	0,35	0,35
P.2.4	75	0,23	0,26	0,29	0,30	0,31
P.3.1	85	0,26	0,30	0,33	0,35	0,35
P.3.2	65	0,22	0,25	0,27	0,28	0,29
P.3.3	65	0,17	0,19	0,21	0,22	0,22
P.4.1	65	0,17	0,20	0,22	0,23	0,23
P.4.2	65	0,17	0,20	0,22	0,23	0,23
M.1.1						
M.2.1						
M.3.1						
K.1.1	110	0,37	0,42	0,46	0,49	0,50
K.1.2	90	0,29	0,33	0,36	0,38	0,39
K.2.1	145	0,34	0,39	0,42	0,45	0,46
K.2.2	90	0,29	0,33	0,36	0,38	0,39
K.3.1	80	0,35	0,40	0,44	0,46	0,47
K.3.2	70	0,28	0,32	0,34	0,36	0,37
N.1.1						
N.1.2						
N.2.1						
N.2.2						
N.2.3						
N.3.1						
N.3.2						
N.3.3						
N.4.1						
S.1.1						
S.1.2						
S.2.1						
S.2.2						
S.2.3						
S.3.1						
S.3.2						
S.3.3						
H.1.1						
H.1.2						
H.1.3						
H.1.4						
H.2.1						
H.3.1						
O.1.1						
O.1.2						
O.2.1						
O.2.2						
O.3.1						

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

Index	v_c m/min	Change P 10 923 ... > 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.	> Ø 32–41 f mm/rev.
P.1.1	120	0,32	0,36	0,39	0,41	0,42
P.1.2	115	0,30	0,34	0,37	0,39	0,40
P.1.3	110	0,29	0,32	0,35	0,37	0,38
P.1.4	105	0,27	0,31	0,34	0,35	0,36
P.1.5	100	0,26	0,29	0,32	0,34	0,34
P.2.1	120	0,37	0,42	0,46	0,49	0,49
P.2.2	110	0,34	0,38	0,42	0,44	0,45
P.2.3	100	0,30	0,35	0,38	0,40	0,40
P.2.4	75	0,27	0,30	0,33	0,35	0,35
P.3.1	85	0,30	0,35	0,38	0,40	0,40
P.3.2	65	0,25	0,28	0,31	0,32	0,33
P.3.3	65	0,19	0,22	0,24	0,25	0,25
P.4.1	65	0,20	0,23	0,25	0,26	0,27
P.4.2	65	0,20	0,23	0,25	0,26	0,27
M.1.1						
M.2.1						
M.3.1						
K.1.1	110	0,41	0,47	0,51	0,54	0,55
K.1.2	90	0,33	0,37	0,41	0,43	0,43
K.2.1	145	0,38	0,43	0,47	0,50	0,51
K.2.2	90	0,33	0,37	0,41	0,43	0,43
K.3.1	80	0,35	0,40	0,44	0,46	0,47
K.3.2	70	0,28	0,32	0,34	0,36	0,37
N.1.1						
N.1.2						
N.2.1						
N.2.2						
N.2.3						
N.3.1						
N.3.2						
N.3.3						
N.4.1						
S.1.1						
S.1.2						
S.2.1						
S.2.2						
S.2.3						
S.3.1						
S.3.2						
S.3.3						
H.1.1						
H.1.2						
H.1.3						
H.1.4						
H.2.1						
H.3.1						
O.1.1						
O.1.2						
O.2.1						
O.2.2						
O.3.1						

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

	Change VA 10 921 ...					Change GG 10 924 ...				
Index	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.	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.
P.1.1	110	0,25	0,28	0,30	0,32					
P.1.2	105	0,24	0,27	0,29	0,31					
P.1.3	100	0,22	0,25	0,28	0,29					
P.1.4	95	0,21	0,24	0,26	0,28					
P.1.5	90	0,20	0,23	0,25	0,26					
P.2.1	110	0,29	0,33	0,36	0,38					
P.2.2	100	0,26	0,30	0,33	0,35					
P.2.3	90	0,24	0,27	0,29	0,31					
P.2.4	70	0,21	0,24	0,26	0,27					
P.3.1	75	0,24	0,27	0,30	0,31					
P.3.2	60	0,19	0,22	0,24	0,25					
P.3.3	60	0,15	0,17	0,18	0,19					
P.4.1	60	0,16	0,18	0,19	0,20					
P.4.2	60	0,16	0,18	0,19	0,20					
M.1.1	**55**	0,20	0,23	0,25	0,26					
M.2.1	**50**	0,17	0,19	0,21	0,22					
M.3.1	**50**	0,17	0,19	0,21	0,22					
K.1.1	**95**	0,37	0,42	0,46	0,49	**120**	0,49	0,56	0,62	0,65
K.1.2	**80**	0,29	0,33	0,36	0,38	**100**	0,39	0,45	0,49	0,51
K.2.1	**130**	0,34	0,39	0,42	0,45	**160**	0,45	0,52	0,57	0,60
K.2.2	**80**	0,29	0,33	0,36	0,38	**100**	0,39	0,45	0,49	0,51
K.3.1	**70**	0,32	0,36	0,39	0,41	**90**	0,42	0,48	0,52	0,55
K.3.2	**65**	0,25	0,28	0,31	0,33	**80**	0,34	0,38	0,41	0,44
N.1.1										
N.1.2										
N.2.1										
N.2.2										
N.2.3										
N.3.1										
N.3.2										
N.3.3										
N.4.1										
S.1.1	**30**	0,14	0,16	0,17	0,18					
S.1.2	**20**	0,10	0,11	0,12	0,13					
S.2.1	**20**	0,10	0,11	0,12	0,13					
S.2.2	**15**	0,12	0,14	0,15	0,16					
S.2.3	**15**	0,10	0,11	0,12	0,13					
S.3.1	**40**	0,17	0,20	0,22	0,23					
S.3.2	**30**	0,15	0,17	0,18	0,19					
S.3.3	**25**	0,12	0,14	0,15	0,16					
H.1.1										
H.1.2										
H.1.3										
H.1.4										
H.2.1										
H.3.1										
O.1.1										
O.1.2										
O.2.1										
O.2.2										
O.3.1										

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

2

		Change AL 10 922 ...			
Index	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.
P.1.1					
P.1.2					
P.1.3					
P.1.4					
P.1.5					
P.2.1					
P.2.2					
P.2.3					
P.2.4					
P.3.1					
P.3.2					
P.3.3					
P.4.1					
P.4.2					
M.1.1					
M.2.1					
M.3.1					
K.1.1					
K.1.2					
K.2.1					
K.2.2					
K.3.1					
K.3.2					
N.1.1	330	0,27	0,31	0,34	0,36
N.1.2	300	0,25	0,28	0,31	0,32
N.2.1	250	0,33	0,37	0,41	0,43
N.2.2	220	0,33	0,37	0,41	0,43
N.2.3	180	0,33	0,37	0,41	0,43
N.3.1	200	0,41	0,47	0,51	0,54
N.3.2	120	0,33	0,37	0,41	0,43
N.3.3	140	0,25	0,28	0,31	0,32
N.4.1					
S.1.1					
S.1.2					
S.2.1					
S.2.2					
S.2.3					
S.3.1					
S.3.2					
S.3.3					
H.1.1					
H.1.2					
H.1.3					
H.1.4					
H.2.1					
H.3.1					
O.1.1					
O.1.2					
O.2.1					
O.2.2					
O.3.1					

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.

Cutting data standard values – WTX – Change Feed

				Change Feed UNI 10 925 ...				
Index	v_c m/min with through coolant	v_c m/min with external coolant	v_c m/min MMS	> Ø 14,0 f mm/rev.	> Ø 17,5 f mm/rev.	> Ø 21,5 f mm/rev.	> Ø 26,0 f mm/rev.	Ø 32,0 f mm/rev.
P.1.1	100	90	90	0,45	0,51	0,55	0,58	0,60
P.1.2	95	85	85	0,43	0,48	0,53	0,55	0,57
P.1.3	90	80	80	0,41	0,46	0,50	0,53	0,54
P.1.4	85	75	75	0,39	0,44	0,48	0,50	0,51
P.1.5	80	75	75	0,37	0,42	0,45	0,47	0,49
P.2.1	100	85	85	0,54	0,60	0,65	0,69	0,71
P.2.2	90	75	75	0,49	0,55	0,59	0,62	0,64
P.2.3	80	70	70	0,44	0,49	0,53	0,56	0,58
P.2.4	65	55	55	0,39	0,43	0,47	0,49	0,51
P.3.1	70	60	60	0,44	0,49	0,53	0,56	0,58
P.3.2	55	50	50	0,36	0,40	0,43	0,46	0,47
P.3.3	55	40	45	0,28	0,31	0,33	0,35	0,36
P.4.1	55	40	45	0,29	0,32	0,35	0,37	0,38
P.4.2	55	40	45	0,29	0,32	0,35	0,37	0,38
M.1.1								
M.2.1								
M.3.1								
K.1.1	110	75	75	0,68	0,77	0,83	0,88	0,90
K.1.2	90	70	70	0,54	0,61	0,66	0,69	0,71
K.2.1	145	90	110	0,63	0,71	0,77	0,81	0,83
K.2.2	90	70	70	0,54	0,61	0,66	0,69	0,71
K.3.1	80	70	70	0,58	0,65	0,71	0,75	0,77
K.3.2	70	65	65	0,46	0,52	0,56	0,59	0,61
N.1.1								
N.1.2								
N.2.1								
N.2.2								
N.2.3								
N.3.1								
N.3.2								
N.3.3								
N.4.1								
S.1.1								
S.1.2								
S.2.1								
S.2.2								
S.2.3								
S.3.1								
S.3.2								
S.3.3								
H.1.1								
H.1.2								
H.1.3								
H.1.4								
H.2.1								
H.3.1								
O.1.1								
O.1.2								
O.2.1								
O.2.2								
O.3.1								

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

2

Cutting data standard values – WTX – SB

	Drilling depth 3xD SB 10 767 ..., 10 772 ..., 10 783 ..., 10 788 ...					
Index	v_c m/min without through coolant	v_c m/min with 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.
P.1.1	**110**	**120**	0,13	0,18	0,25	0,30
P.1.2	**105**	**115**	0,12	0,18	0,24	0,29
P.1.3	**100**	**110**	0,12	0,17	0,23	0,28
P.1.4	**95**	**105**	0,11	0,16	0,21	0,26
P.1.5	**90**	**100**	0,11	0,15	0,20	0,25
P.2.1	**105**	**120**	0,15	0,22	0,29	0,36
P.2.2	**95**	**110**	0,14	0,20	0,27	0,33
P.2.3	**85**	**100**	0,13	0,18	0,24	0,29
P.2.4	**65**	**75**	0,12	0,16	0,21	0,26
P.3.1	**70**	**85**	0,12	0,18	0,24	0,29
P.3.2	**60**	**65**	0,11	0,15	0,20	0,24
P.3.3	**50**	**65**	0,09	0,12	0,15	0,19
P.4.1	**50**	**65**	0,08	0,12	0,16	0,19
P.4.2	**50**	**65**	0,08	0,12	0,16	0,19
M.1.1						
M.2.1						
M.3.1						
K.1.1	**85**	**120**	0,17	0,26	0,36	0,45
K.1.2	**75**	**100**	0,15	0,22	0,29	0,36
K.2.1	**100**	**160**	0,17	0,25	0,34	0,42
K.2.2	**75**	**100**	0,15	0,22	0,29	0,36
K.3.1	**80**	**90**	0,16	0,23	0,32	0,39
K.3.2	**70**	**80**	0,14	0,19	0,25	0,31
N.1.1						
N.1.2						
N.2.1						
N.2.2						
N.2.3						
N.3.1						
N.3.2						
N.3.3						
N.4.1						
S.1.1						
S.1.2						
S.2.1						
S.2.2						
S.2.3						
S.3.1						
S.3.2						
S.3.3						
H.1.1	25	25	0,06	0,08	0,11	0,14
H.1.2						
H.1.3						
H.1.4						
H.2.1	35	35	0,08	0,11	0,14	0,18
H.3.1						
O.1.1						
O.1.2						
O.2.1						
O.2.2						
O.3.1						

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

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/gb/en/type-overview-wtx**

UNI		▲ high-performance solid carbide drill for universal application, for all materials up to 1200 N/mm²	DRAGONSKIN	▶
Feed UNI		▲ solid carbide high feed drills with 3 cutting edges ▲ very good positional accuracy	DRAGONSKIN	▶
Speed UNI		▲ for double the cutting speed ▲ asymetric point geometry permits performance improvement when drilling steel and cast iron by up to 60 %	DRAGONSKIN	▶
Quattro 4F		▲ with additional guide land for best alignment accuracy, concentricity and positional accuracy	DRAGONSKIN	
180		▲ for inclined surfaces up to 45° and flat bottom holes		
TB		▲ solid carbide deep hole drill, up to 50xD without peck drilling ▲ 4 or 6 facet head geometry for excellent alignment accuracy		
CP		▲ Ensures an even safer deep hole drilling process ▲ For optimal guidance of the deep hole twist drill for hole depths > 30xD		
VA		▲ first choice for corrosion and acid resistant seels ▲ for volume production		
AL		▲ solid carbide high performance drill specailly for the machining of aluminium, copper and brass ▲ 6 facet geometry for excellent hole quality		
GG		▲ for cast materials to 250 HB ▲ straight flutes		
Ti		▲ specialist for cost effective machining of titanium, titanium alloys and heat resistant alloys	DRAGONSKIN	
H		▲ high-performance drill for hardened steels from 45 to 70 HRC	DRAGONSKIN	▶
HFDS		▲ Four fluted high-feed drill ▲ Specially designed for steel processing ▲ Innovative cutting edge geometry guarantees high positioning accuracy	DRAGONSKIN	▶
MINI		▲ solid carbide micro drill for the precise manufacture of very small holes from Ø 0.1 to 2.9 mm		
MICRO		▲ Universal high-performance micro drill ▲ Specialised geometry and coating ▲ Pilot drill for WTX Micro deep hole twist drill	DRAGONSKIN	▶
Change		▲ replaceable head drills with the performance level of a solid carbide drill, from Ø 12.0 mm to 41.0 mm		▶
Change Feed		▲ exchangeable head drill with three cutting edges for even greater performance, from Ø 14.0 mm to 32.0 mm		▶
Feed BR		▲ Solid carbide high-performance drill reamer ▲ Drilling and reaming in one operation ▲ Three drilling edges and six reaming edges	DRAGONSKIN	
SB		▲ core hole plus countersink for tapping and thread forming	DRAGONSKIN	

2

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.

Cooling lubricant
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 ≤ 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 1.5 x D 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.

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.

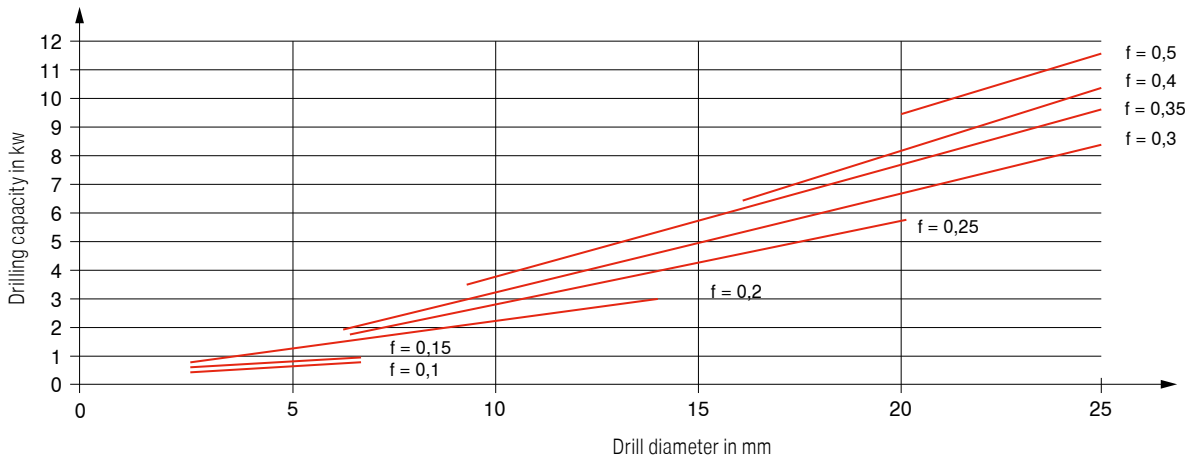
Workpiece clamping
To avoid tool breakages, care must be taken to ensure a proper workpiece clamping without vibration or workpiece deflection.

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)

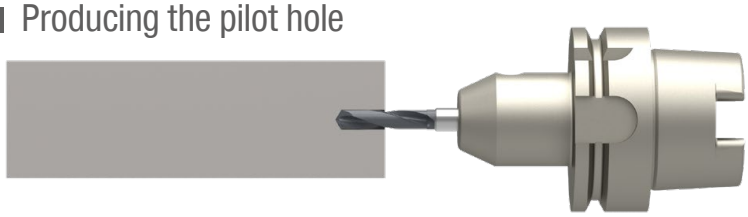
Cutting data table
To control the chip length (comma chip) the feed rates should be no lower than the lower limits quoted in the cutting data table.

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



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

1 Producing the pilot hole

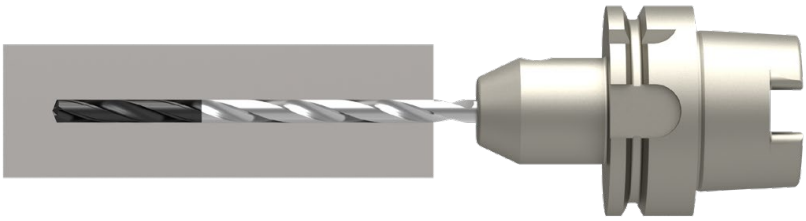


- For the pilot hole, we recommend a WTX drill 3xD/5xD with the same nominal diameter.
- The pilot hole should be 0.01–0.03 mm larger in diameter and at least 3xD deep.
- It is essential to ensure that the point angle of the pilot drill is bigger than the point angle of the deep hole drill.
- From a hole depth of 40xD, we recommend a pilot hole with our Co-Pilot deep hole twist drill CP 20 UNI.

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 = 200–300 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 = 200–300 U/min).
- Use normal rapid feed (V_f = 3000 mm/min) when exiting the hole.

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.

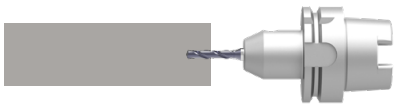
It is essential to ensure that deep hole drills never run unsupported at full speed in the machine !

WTX – Micro – recommended application

General references

- During vertical machining, a pilot hole is not required for regular and straight surfaces from Ø 1.0 mm up to a length of 12xD due to the excellent self-centring. During horizontal drilling, a pilot drill must be used for irregular and angled surfaces.
  The WTX Micro 5xD is recommended as a pilot drill.
- To guarantee problem-free insertion of the deep hole twist drill in the pilot hole, during horizontal machining 90° countersinking with suitable NC countersink is recommended.
- During vertical machining, drills from Ø 1.0 mm up to a length of 12xD can also be operated outside the pilot hole without a reduction in speed.
- For through holes, the feed per revolution must be reduced by 50 % before exiting the hole.
- For long-chipping materials, pecking may be required every 3xD from a hole depth of 10xD. Peck drilling (retraction) should occur at the pilot hole depth.
- Due to the small thro' coolant Ø during micro drilling, effective filtration of the cooling medium is of the utmost importance.
  Drill < Ø 2.0 mm Filter ≤ 0.010 mm
  Drill < Ø 3.0 mm Filter ≤ 0.020 mm
- The longer the coolant is in the machine, suspended particles and particulate matter in the cooling medium prevent effective coolant flow.
  Regular replacement of the coolant is therefore recommended.
- A suitable clamping device with maximum radial run-out accuracy and balance quality is required for process-secure production.
  Radial run-out accuracy ≤ 0.003 mm
  Suitable for high-speed areas
- To guarantee a process-secure drilling process, a minimum pressure of 30 bar must be present.

1 Producing the pilot hole



- Pilot hole depth: min. 3xD
- It must be ensured that the prepared pilot hole is free from chips to avoid blocking of the micro deep hole twist drill cutting edges

2 Entering the pilot hole with a deep hole twist drill

- Speed 300 rpm (reverse rotation sometimes possible)
- Entry speed approx. 1000 mm/min
- Switch on cooling
- Increase parameters 0.5-1.0 mm before reaching the bottom of the pilot hole

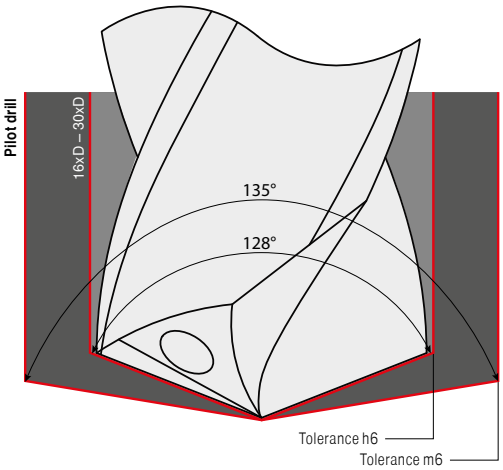
3 Deep hole drilling

- At hole depth without pecking

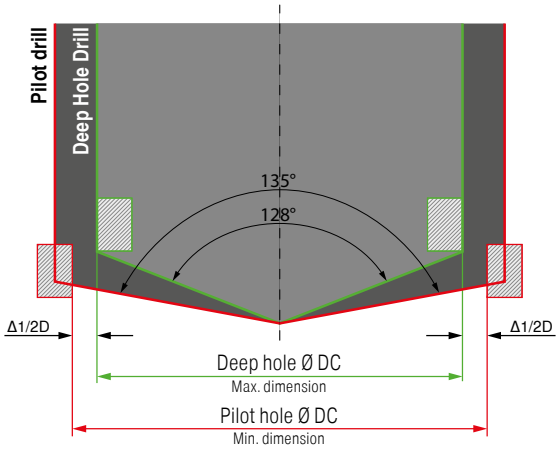
4 Retracting the drill

- Retract drill approx. 1xD
- Reduce speed to 300 rpm
- Exit speed approx. 1000 mm/min
- Switch off emulsion before exiting the hole

Tolerances and angles



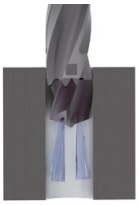
The following must apply to use the pilot and deep hole twist drill consecutively and without collisions:
ΔD = ØD (pilot hole) – ØD (deep hole) > 0



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

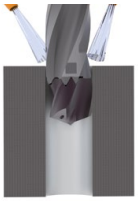
Coolant conditions

Coolant pressure dependent on drilling depth:



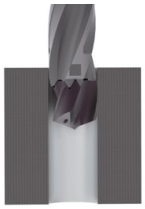
1xD: 8 bar	✓
3xD: 8 bar	✓
5xD: 12 bar	✓
8xD: 25 bar	✓
12xD: 25 bar	✓

with external cooling



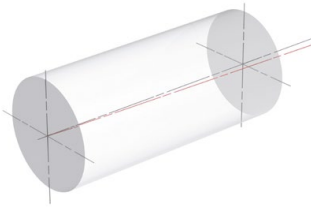
1xD: 8 bar	✓
3xD: 8 bar	✓
5xD: 12 bar	✗
8xD: 25 bar	✗
12xD: 25 bar	✗

without coolant supply

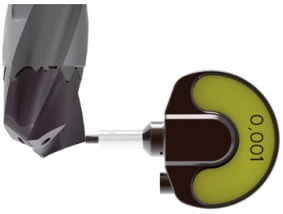


max. bore depth: 3xD

Runout accuracy

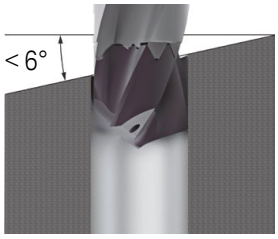


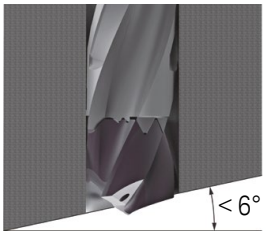
max. 0,02 mm



max. 0,04 mm

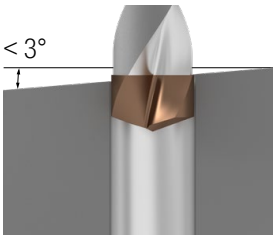
Max. entry and exit angle for the WTX – Change Feed

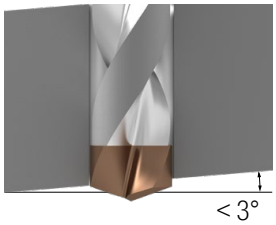




When entering and exiting angled surfaces, reduce v_f by 50 %.

Max. entry and exit angle for the WTX – Change

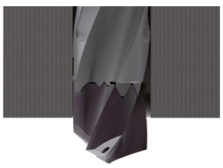




When entering and exiting angled surfaces, reduce v_f by 50 %.

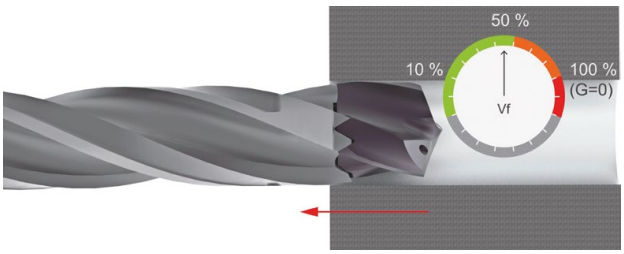
Exiting a through hole

▲ WTX – Change Feed and WTX – Change

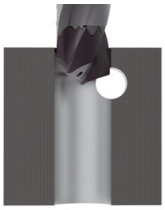


Do not retract at rapid feedrate

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

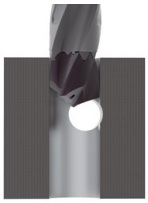


Machining situations



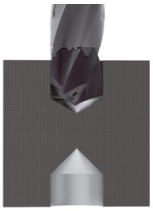
Offset cross hole point is engaged

WTX – Change Feed ✓
WTX – Change ✓



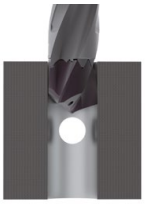
Offset cross hole point is not engaged

WTX – Change Feed ✗
WTX – Change ✗



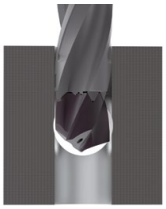
Breakthrough at counterbore

WTX – Change Feed ✓
WTX – Change ✗



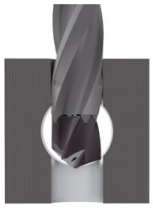
Hole on centre and smaller Ø

WTX – Change Feed ✓
WTX – Change ✓



Hole on centre and same Ø

WTX – Change Feed ✗
WTX – Change ✗



Hole on centre and larger Ø

WTX – Change Feed ✗
WTX – Change ✗

Recommendations for solid carbide drilling operations

2

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

DPX74S
DRAGONSKIN
- Special TiAlN nanolayer coating
- Maximum application temperature: 1000 °C

DPA54
DRAGONSKIN
- Special multilayer coating
- High hardness and heat resistance
- Maximum application temperature: 800 °C

DPX64S
DRAGONSKIN
- TiAlN monolayer coating
- Perfected for hardened materials
- Optimised coating and surface structure
- Maximum application temperature: 800 °C

DPX14S
DRAGONSKIN
- TiAlN nanolayer coating
- Coefficient of friction (dry, against steel) = 0.35
- Maximum application temperature: 1000 °C

DPX64U
DRAGONSKIN
- Special TiAlN monolayer coating
- Perfected for hardened materials
- Optimised coating and surface structure
- Maximum application temperature: 800 °C

DPX74M
DRAGONSKIN
- Universal AlCrN-based monolayer coating developed for micro tools
- High oxidation, heat and wear resistance
- Maximum application temperature 1100°C