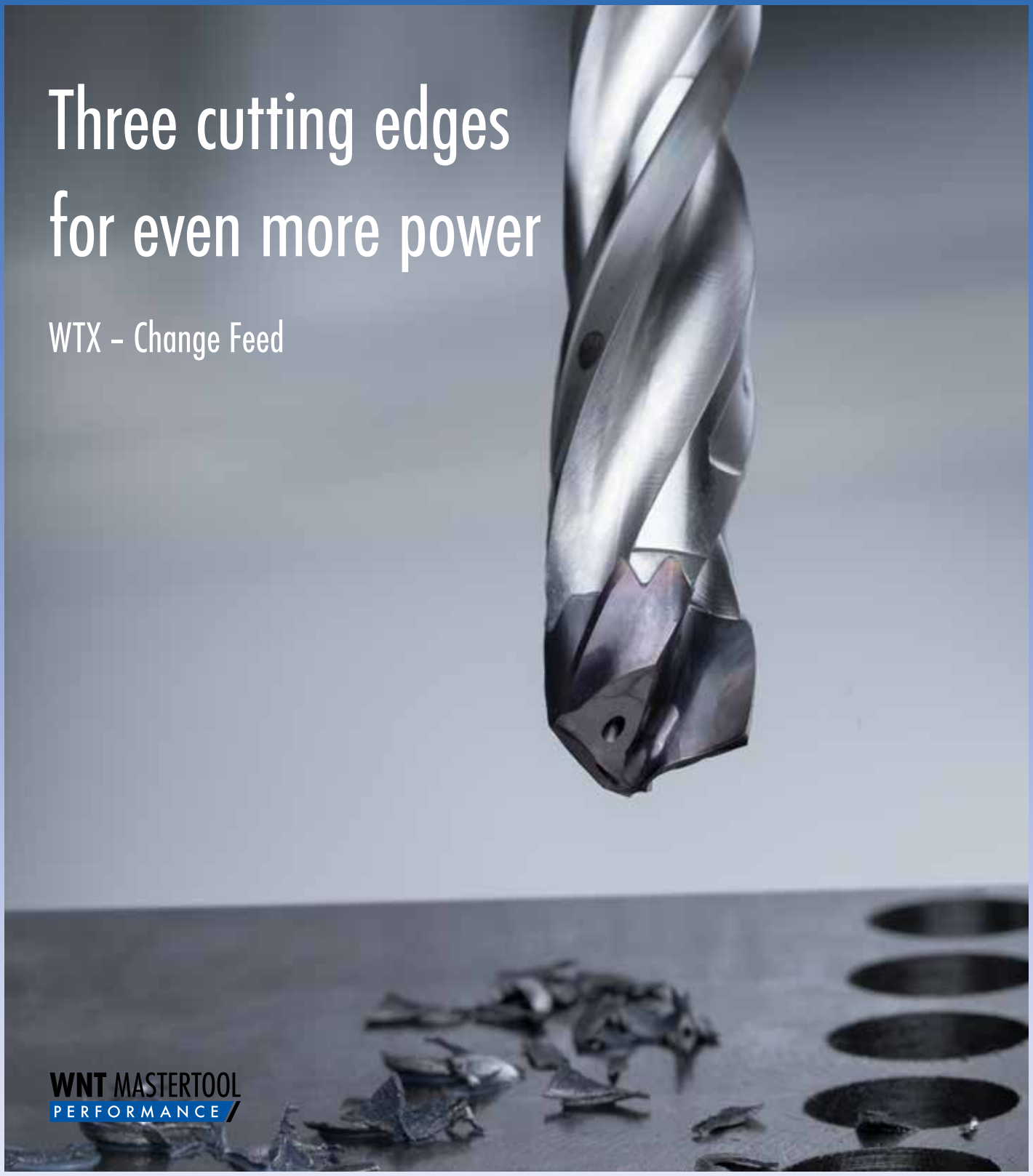
New

September 2017

New products for cutting tool engineers



TOTAL TOOLING = QUALITY x SERVICE ^{2}

WNT (UK) Ltd. • Sheffield Business Park • S9 1XU Sheffield • Tel. 0800 073 2 073 • wnt-uk@wnt.com • www.wnt.com

Three cutting edges for even more power

WNT has combined the best of two established products: the enormous feed force of the WTX – Feed with the cost-effectiveness of the WTX – Change. With the new **WTX – Change Feed**, we present the first three-edged exchangeable head system, which is sure to impress through its dynamism, performance and precision – even under the most adverse drilling conditions.

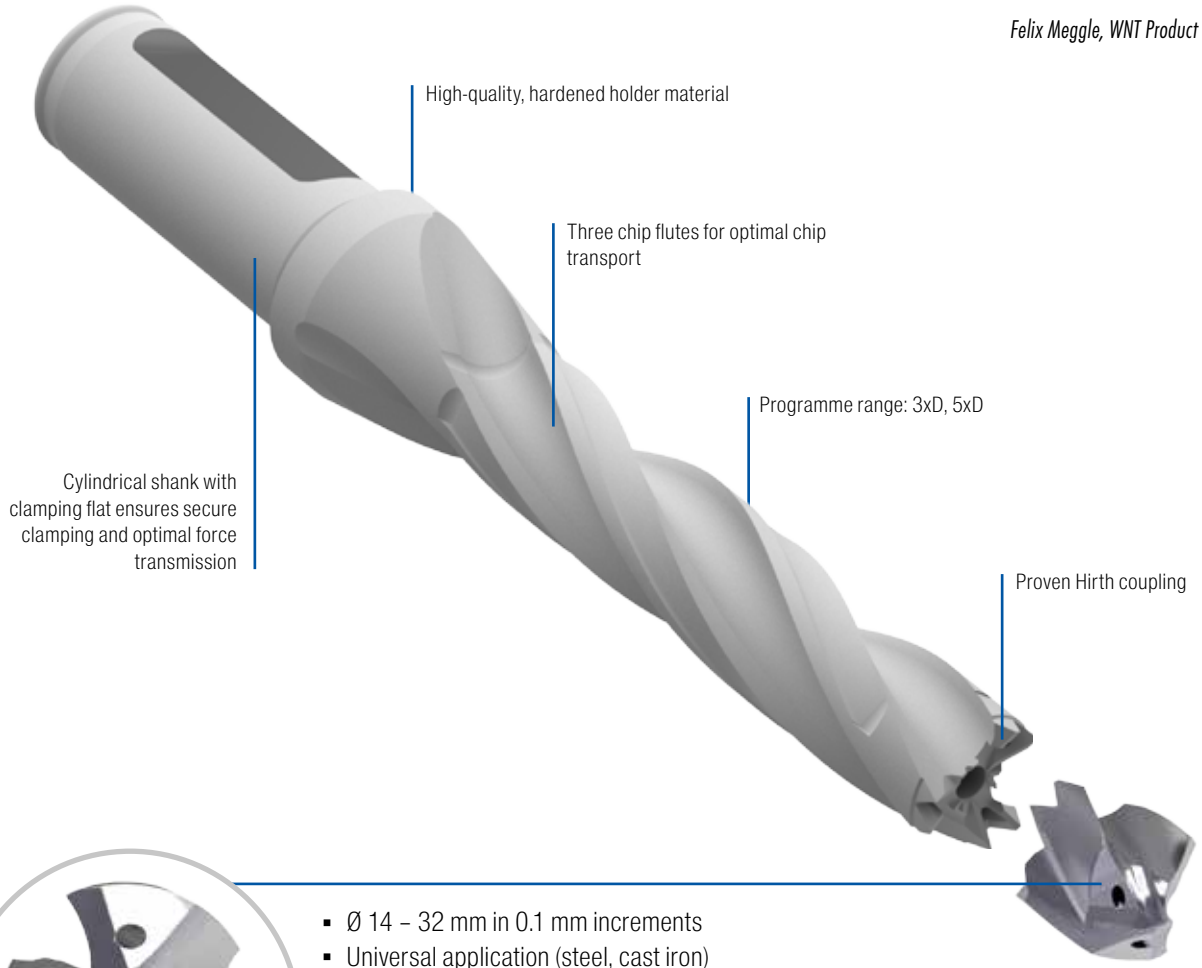
ADVANTAGES

Maximum performance

- 50% – 100% higher feed
  Thanks to three cutting edges
- High Process Security
  Proven Hirth coupling
- Durable base body
  Hardened holder
- Maximum positioning accuracy
  Self-centering chisel edge
- Angled drilling up to 6° possible

"The first three-edged exchangeable head drilling system on the market boasts universal application options and a long service life thanks to high-quality materials"

Felix Meggle, WNT Product Manager Drills



- Ø 14 – 32 mm in 0.1 mm increments
- Universal application (steel, cast iron)
- With thro' coolant
- Innovative point thinning
- Self-centring chisel edge
- Maximum positioning accuracy
- Tried-and-tested Ti 750 coating

Product video: WTX – Change Feed

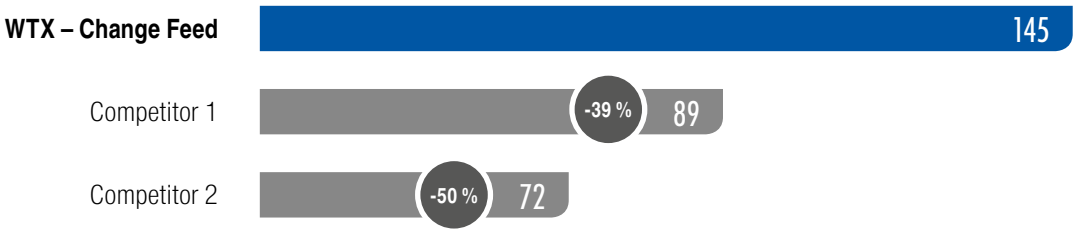
wnt.com/uk/wtx-change-feed

Practical test

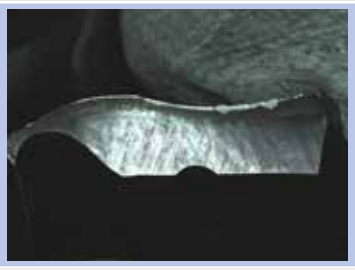
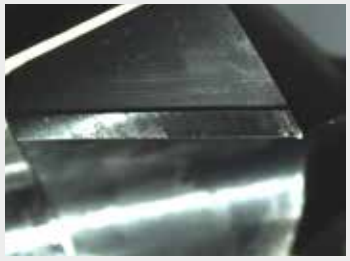
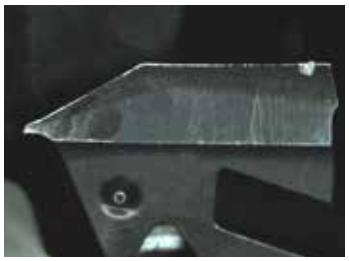
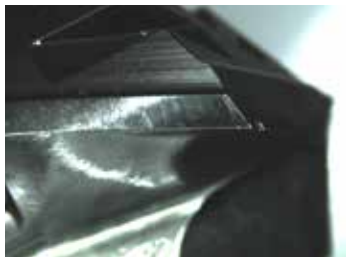
Material: 42CrMo4
Diameter: 18 mm
Hole depth: 90 mm

Cutting data	WTX – Change Feed	Competitor product Two fluted exchangeable head system	
		Competitor 1	Competitor 2
v_c in m/min	90	110	
f in mm/rev.	0,55	0,34	
v_f in mm/min	**876** +33 %	662	

Tool life in m

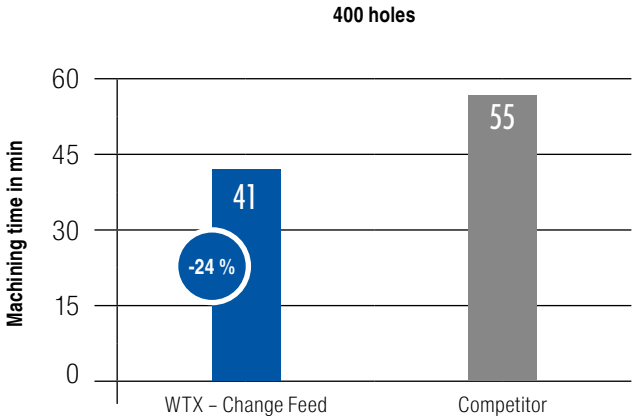


Wear

			End of service life
WTX – Change Feed			**After 1611 holes**
Competitor 1			After 988 holes
Competitor 2			After 800 holes

Machining Time

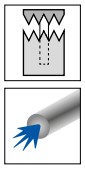
Owing to the high feeds of the WTX – Change Feed, the machining time has been significantly reduced. A mere 41 minutes was required for these 400 holes to be produced in the practical test.

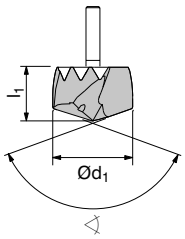


WTX – Drilling Head for Exchangeable drills

- Extra Long Head Type

Scope of supply:
Drill head incl. differential screw





Change Feed UNI
Ti 750

140°
Solid carbide

$d_{1\ m7}$ DC mm	l_1 OAL mm	NEW W2 Article no. 10 925 ... £	
14.0	13.5	94.53	140
14.1	13.5	94.53	141
14.2	13.5	94.53	142
14.3	13.5	94.53	143
14.4	13.5	94.53	144
14.5	14.0	94.53	145
14.6	14.0	94.53	146
14.7	14.0	94.53	147
14.8	14.0	94.53	148
14.9	14.0	94.53	149
15.0	14.4	94.53	150
15.1	14.4	94.53	151
15.2	14.4	94.53	152
15.3	14.4	94.53	153
15.4	14.4	94.53	154
15.5	15.4	105.88	155
15.6	15.4	105.88	156
15.7	15.4	105.88	157
15.8	15.4	105.88	158
15.9	15.4	105.88	159
16.0	15.4	105.88	160
16.1	15.4	105.88	161
16.2	15.4	105.88	162
16.3	15.4	105.88	163
16.4	15.4	105.88	164
16.5	16.3	105.88	165
16.6	16.3	105.88	166
16.7	16.3	105.88	167
16.8	16.3	105.88	168
16.9	16.3	105.88	169
17.0	16.3	105.88	170
17.1	16.3	105.88	171
17.2	16.3	105.88	172
17.3	16.3	105.88	173
17.4	16.3	105.88	174
17.5	17.2	120.18	175
17.6	17.2	120.18	176
17.7	17.2	120.18	177
17.8	17.2	120.18	178
17.9	17.2	120.18	179
18.0	17.2	120.18	180
18.1	17.2	120.18	181
18.2	17.2	120.18	182
18.3	17.2	120.18	183
18.4	17.2	120.18	184
18.5	18.2	120.18	185
18.6	18.2	120.18	186
18.7	18.2	120.18	187
18.8	18.2	120.18	188
18.9	18.2	120.18	189
19.0	18.2	120.18	190

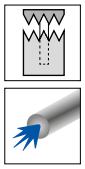
$d_{1\ m7}$ DC mm	l_1 OAL mm	NEW W2 Article no. 10 925 ... £	
19.1	18.2	120.18	191
19.2	18.2	120.18	192
19.3	18.2	120.18	193
19.4	18.2	120.18	194
19.5	19.1	137.89	195
19.6	19.1	137.89	196
19.7	19.1	137.89	197
19.8	19.1	137.89	198
19.9	19.1	137.89	199
20.0	19.1	137.89	200
20.1	19.1	137.89	201
20.2	19.1	137.89	202
20.3	19.1	137.89	203
20.4	19.1	137.89	204
20.5	20.0	137.89	205
20.6	20.0	137.89	206
20.7	20.0	137.89	207
20.8	20.0	137.89	208
20.9	20.0	137.89	209
21.0	20.0	137.89	210
21.1	20.0	137.89	211
21.2	20.0	137.89	212
21.3	20.0	137.89	213
21.4	20.0	137.89	214
21.5	21.0	137.89	215
21.6	21.0	137.89	216
21.7	21.0	137.89	217
21.8	21.0	137.89	218
21.9	21.0	137.89	219
22.0	21.0	137.89	220
22.1	21.0	137.89	221
22.2	21.0	137.89	222
22.3	21.0	137.89	223
22.4	21.0	137.89	224
22.5	21.9	153.41	225
22.6	21.9	153.41	226
22.7	21.9	153.41	227
22.8	21.9	153.41	228
22.9	21.9	153.41	229
23.0	21.9	153.41	230
23.1	21.9	153.41	231
23.2	21.9	153.41	232
23.3	21.9	153.41	233
23.4	21.9	153.41	234
23.5	22.8	153.41	235
23.6	22.8	153.41	236
23.7	22.8	153.41	237
23.8	22.8	153.41	238
23.9	22.8	153.41	239
24.0	22.8	153.41	240
24.1	22.8	153.41	241
24.2	22.8	153.41	242
24.3	22.8	153.41	243
24.4	22.8	153.41	244
24.5	23.8	173.88	245
24.6	23.8	173.88	246
24.7	23.8	173.88	247
24.8	23.8	173.88	248
24.9	23.8	173.88	249
25.0	23.8	173.88	250

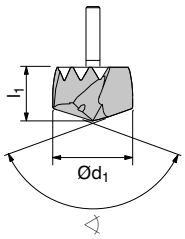
Steel	●
Stainless steel	
Cast iron	●
Non ferrous metals	
Heat resistant alloys	

WTX – Drilling Head for Exchangeable drills

- Extra Long Head Type

Scope of supply:
Drill head incl. differential screw





Change Feed UNI

Ti 750

140°
Solid carbide

$d_{1\ m7}$ DC mm	l_1 OAL mm	NEW W2 Article no. 10 925 ... £	
25.1	23.8	173.88	**251**
25.2	23.8	173.88	**252**
25.3	23.8	173.88	**253**
25.4	23.8	173.88	**254**
25.5	24.7	173.88	**255**
25.6	24.7	173.88	**256**
25.7	24.7	173.88	**257**
25.8	24.7	173.88	**258**
25.9	24.7	173.88	**259**
26.0	24.7	173.88	**260**
26.1	24.7	173.88	**261**
26.2	24.7	173.88	**262**
26.3	24.7	173.88	**263**
26.4	24.7	173.88	**264**
26.5	25.6	187.57	**265**
26.6	25.6	187.57	**266**
26.7	25.6	187.57	**267**
26.8	25.6	187.57	**268**
26.9	25.6	187.57	**269**
27.0	25.6	187.57	**270**
27.1	25.6	187.57	**271**
27.2	25.6	187.57	**272**
27.3	25.6	187.57	**273**
27.4	25.6	187.57	**274**
27.5	26.6	187.57	**275**
27.6	26.6	187.57	**276**
27.7	26.6	187.57	**277**
27.8	26.6	187.57	**278**
27.9	26.6	187.57	**279**
28.0	26.6	187.57	**280**
28.1	26.6	187.57	**281**
28.2	26.6	187.57	**282**
28.3	26.6	187.57	**283**
28.4	26.6	187.57	**284**
28.5	27.5	206.89	**285**
28.6	27.5	206.89	**286**
28.7	27.5	206.89	**287**
28.8	27.5	206.89	**288**
28.9	27.5	206.89	**289**
29.0	27.5	206.89	**290**
29.1	27.5	206.89	**291**
29.2	27.5	206.89	**292**
29.3	27.5	206.89	**293**
29.4	27.5	206.89	**294**
29.5	28.4	206.89	**295**
29.6	28.4	206.89	**296**
29.7	28.4	206.89	**297**
29.8	28.4	206.89	**298**
29.9	28.4	206.89	**299**
30.0	28.4	206.89	**300**
30.1	28.4	206.89	**301**
30.2	28.4	206.89	**302**
30.3	28.4	206.89	**303**
30.4	28.4	206.89	**304**
30.5	29.3	225.86	**305**
30.6	29.3	225.86	**306**
30.7	29.3	225.86	**307**
30.8	29.3	225.86	**308**
30.9	29.3	225.86	**309**
31.0	29.3	225.86	**310**
31.1	29.3	225.86	**311**
31.2	29.3	225.86	**312**
31.3	29.3	225.86	**313**
31.4	29.3	225.86	**314**
31.5	30.3	225.86	**315**
31.6	30.3	225.86	**316**
31.7	30.3	225.86	**317**
31.8	30.3	225.86	**318**
31.9	30.3	225.86	**319**
32.0	30.3	225.86	**320**

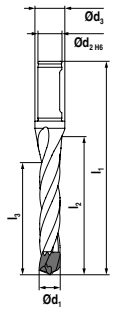
Steel	●
Stainless steel	
Cast iron	●
Non ferrous metals	
Heat resistant alloys	

WTX – Holder for Exchangeable drills

Scope of supply:
Holder incl. blade holder and blade

≤ 3xD

Change Feed



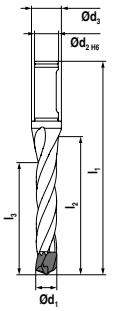
Ø d_1	$d_{2\ h6}$ DCONMS	d_3 DN	l_1	l_2	l_3	NEW W1 Article no. 10 914 ...	
mm	mm	mm	mm	mm	mm	£	
14,00 - 14,49	16	20	120	72	48	246.80	140
14,50 - 14,99	16	20	122	74	49	246.80	145
15,00 - 15,49	16	25	124	76	51	246.80	150
15,50 - 16,49	20	25	131	81	54	255.00	155
16,50 - 17,49	20	25	135	85	58	255.00	165
17,50 - 18,49	20	25	140	90	61	255.00	175
18,50 - 19,49	25	31	150	94	64	300.40	185
19,50 - 20,49	25	31	155	99	68	303.10	195
20,50 - 21,49	25	31	159	103	71	331.90	205
21,50 - 22,49	25	31	164	108	74	331.90	215
22,50 - 23,49	25	31	168	112	78	363.70	225
23,50 - 24,49	25	31	173	117	81	363.70	235
24,50 - 25,49	32	38	182	122	84	409.30	245
25,50 - 26,49	32	38	186	126	87	409.30	255
26,50 - 27,49	32	38	191	131	91	409.30	265
27,50 - 28,49	32	38	195	135	94	409.30	275
28,50 - 29,49	32	38	200	140	97	471.70	285
29,50 - 30,49	32	38	204	144	101	471.70	295
30,50 - 31,49	32	38	209	149	104	516.00	305
31,50 - 32,49	32	38	213	153	107	516.00	315

WTX – Holder for Exchangeable drills

Scope of supply:
Holder incl. blade holder and blade

≤ 5xD

Change Feed



Ø d_1	$d_{2\ h6}$ DCONMS	d_3 DN	l_1	l_2	l_3	NEW W1 Article no. 10 916 ...	
mm	mm	mm	mm	mm	mm	£	
14,00 - 14,49	16	20	149	101	77	272.60	140
14,50 - 14,99	16	20	152	104	79	272.60	145
15,00 - 15,49	16	25	155	107	82	272.60	150
15,50 - 16,49	20	25	164	114	87	295.20	155
16,50 - 17,49	20	25	170	120	93	295.20	165
17,50 - 18,49	20	25	177	127	98	295.20	175
18,50 - 19,49	25	31	189	133	103	337.70	185
19,50 - 20,49	25	31	196	140	109	340.30	195
20,50 - 21,49	25	31	202	146	114	371.40	205
21,50 - 22,49	25	31	209	153	119	371.40	215
22,50 - 23,49	25	31	215	159	124	400.00	225
23,50 - 24,49	25	31	222	166	130	400.00	235
24,50 - 25,49	32	38	233	173	135	444.70	245
25,50 - 26,49	32	38	239	179	140	444.70	255
26,50 - 27,49	32	38	246	186	146	444.70	265
27,50 - 28,49	32	38	252	192	151	444.70	275
28,50 - 29,49	32	38	259	199	156	506.00	285
29,50 - 30,49	32	38	265	205	162	506.00	295
30,50 - 31,49	32	38	272	212	167	549.50	305
31,50 - 32,49	32	38	278	218	172	549.50	315

Spare parts Ø d_1	W1 Interchangeable blade Article no. 80 022 ... £		Y7  Blade holder Article no. 80 020 ... £		W1 Torque handle Article no. 80 023 ... £		W2 Differential screw Article no. 10 950 ... £	
14,00 - 14,49	18.95	007	31.00	025	278.60	012	6.20	064
14,50 - 14,99	18.95	007	31.00	025	278.60	012	6.20	064
15,00 - 15,49	18.95	007	31.00	025	278.60	012	6.20	064
15,50 - 16,49	18.95	007	31.00	025	278.60	012	6.20	064
16,50 - 17,49	18.95	007	31.00	025	278.60	012	6.20	064
17,50 - 18,49	18.95	008	31.00	025	298.20	060	6.20	065
18,50 - 19,49	18.95	008	31.00	025	298.20	060	6.20	065
19,50 - 20,49	22.05	010	31.00	025	298.20	060	6.20	066
20,50 - 21,49	22.05	010	31.00	025	298.20	060	6.20	066
21,50 - 22,49	22.05	010	31.00	025	298.20	060	6.20	066
22,50 - 23,49	22.05	010	31.00	025	298.20	060	6.20	066
23,50 - 24,49	22.05	010	31.00	025	298.20	060	6.20	066
24,50 - 25,49	35.61	015	31.00	025	298.20	060	6.20	067
25,50 - 26,49	35.61	015	31.00	025	298.20	060	6.20	067
26,50 - 27,49	35.61	015	31.00	025	298.20	060	6.20	067
27,50 - 28,49	35.61	015	31.00	025	298.20	060	6.20	067
28,50 - 29,49	35.61	015	31.00	025	298.20	060	6.20	068
29,50 - 30,49	35.61	015	31.00	025	298.20	060	6.20	068
30,50 - 31,49	35.61	015	31.00	025	298.20	060	6.20	068
31,50 - 32,49	35.61	015	31.00	025	298.20	060	6.20	068

Material examples referring to the WNT cutting data tables

	Index	Material	Strength N/mm² / HB / HRC	Material number	Material designation	Material number	Material designation	Material number	Material designation
P	1.1	General construction steel	< 800 N/mm²	1.0402	EN3B				
	1.2	Free cutting steel	< 800 N/mm²	1.0711	EN1A				
	1.3	Hardened steel, non alloyed	< 800 N/mm²	1.0401	EN32C				
	1.4	Alloyed hardened steel	< 1000 N/mm²	1.7325	25 CD4				
	1.5	Tempering steel, unalloyed	< 850 N/mm²	1.5752	EN36	1.0535	EN9		
	1.6	Tempering steel, unalloyed	< 1000 N/mm²	1.6582	EN24				
	1.7	Tempering steel, alloyed	< 800 N/mm²	1.7225	EN19				
	1.8	Tempering steel, alloyed	< 1300 N/mm²	1.8515	EN40B				
	1.9	Steel castings	< 850 N/mm²	0.9650	G-X 260 Cr 27	1.6750	GS-20 NiCrMo 3.7	1.6582	GS-34 CrNiMo 6
	1.10	Nitriding steel	< 1000 N/mm²	1.8509	EN41B				
	1.11	Nitriding steel	< 1200 N/mm²	1.1186	EN8	1.1160	EN14A		
	1.12	Roller bearing steel	< 1200 N/mm²	1.3505	534A99				
	1.13	Spring steel	< 1200 N/mm²		EN45		EN47		EN43
	1.14	High-speed steel	< 1300 N/mm²	1.3343	M2	1.3249	M34		
	1.15	Cold working tool steel	< 1300 N/mm²	1.2379	D2	1.2311	P20		
	1.16	Hot working tool steel	< 1300 N/mm²	1.2344	H13				
M	2.1	Cast steel and sulphured stainless steel	< 850 N/mm²	1.4581	318				
	2.2	Stainless steel, ferritic	< 750 N/mm²	1.4000	403				
	2.3	Stainless steel, martensitic	< 900 N/mm²	1.4057	EN57				
	2.4	Stainless steel, ferritic / martensitic	<1100 N/mm²	1.4028	EN56B				
	2.5	Stainless steel, austenitic / ferritic	< 850 N/mm²	1.4542	17-4PH				
	2.6	Stainless steel, austenitic	< 750 N/mm²	1.4305	303	1.4401	316	1.4301	304
	2.7	Heat resistant steel	< 1100 N/mm²	1.4876	Incoloy 800				
K	3.1	Grey cast iron with lamellar graphite	100–350 N/mm²	0.6015	Grade 150	0.6020	Grade 220	0.6025	Grade 260
	3.2	Grey cast iron with lamellar graphite	300–500 N/mm²	0.6030	Grade 300	0.6035	Grade 350	0.6040	Grade 400
	3.3	Gray cast iron with spheroidal graphite	300–500 N/mm²	0.7040	SG 400-12	0.7043	SG 370-17	0.7050	SG 500-7
	3.4	Gray cast iron with spheroidal graphite	500–900 N/mm²	0.7060	SG 600-3	0.7070	SG 700-2	0.7080	SG 800-2
	3.5	White malleable cast iron	270–450 N/mm²	0.8035	GTW-35	0.8045	GTW-45		
	3.6	White malleable cast iron	500–650 N/mm²	0.8055	GTW-55	0.8065	GTW-65		
	3.7	Black malleable cast iron	300–450 N/mm²	0.8135	GTS-35	0.8145	GTS-45		
	3.8	Black malleable cast iron	500–800 N/mm²	0.8155	GTS-55	0.8170	GTS-70		
N	4.1	Aluminium (non alloyed, low alloyed)	< 350 N/mm²	3.0255	1050 A	3.0275	1070 A	3.0285	1080 A (A8)
	4.2	Aluminium alloys < 0.5% Si	< 500 N/mm²	3.1325	2017 A (AU4G)	3.4335	7005 (AZ5G)	3.4365	7075 (AZ5GU)
	4.3	Aluminium alloy 0,5 - 10% Si	< 400 N/mm²	3.2315	A- G S1	3.2373	A-S9 G	3.2151	A-S 6 U4
	4.4	Aluminium alloys 10 - 15% Si	< 400 N/mm²	3.2581	A-S12	3.2583	A-S12 U		
	4.5	Aluminum alloys > 15% Si	< 400 N/mm²		A-S18	A-S17 U4			
	4.6	Copper (non alloyed, low alloyed)	< 350 N/mm²	2.0040	Cu-c1	2.0060	Cu-a1	2.0090	Cu-b1
	4.7	Copper wrought alloys	< 700 N/mm²	2.1247	Cub2 (Berylium Copper)	2.0855	CuN2S (Nickel Copper)	2.1310	CU-Fe2P
	4.8	Special copper alloys	< 200 HB	2.0916	Cu-A5	2.1525	Cu-S3 M		Ampco 8 (Cu-A6Fe2)
	4.9	Special copper alloys	< 300 HB	2.0978	Cu-Al11 Fe5 Ni5)		Ampco 18 (Cu- A10 Fe3)		
	4.10	Special copper alloys	> 300 HB	2.1247	Cu Be2		Ampco M4		
	4.11	Short-chipping brass, bronze, red bronze	< 600 N/mm²	2.0331	Cu Zn36 Pb1,5	2.0380	Cu Zn39 Pb2 (Ms 56)	2.0410	Cu Zn44 Pb2
	4.12	Long-chipping brass	< 600 N/mm²	2.0335	Cu Zn 36 (Ms63)	2.1293	Cu Cr1 Zr		
	4.13	Thermoplastics		PE	PVC	PS	Polystyrene		Plexiglas
	4.14	Duroplastics		PF	Bakelite		Pertinax		
	4.15	Fibre-reinforced plastics			Carbon Fibre		Fibreglass		Aramid Fibre (Kevlar)
	4.16	Magnesium and magnesium alloys	< 850 N/mm²	3.5812	Mg A7 Z1	3.5662	Mg A9	3.5105	Mg Tr3 Z2 Zn 1
	4.17	Graphite			R8500X		R8650		Technograph 15
	4.18	Tungsten and tungsten alloys			W-Ni Fe (Densimet)		W- Ni Cu (Inermet)		Denal
	4.19	Molybdenum and molybdenum alloys			TZM		MHQ		Mo W
S	5.1	Pure nickel		2.4066	Ni99 (Nickel 200)	2.4068	Lc Ni99 (Nickel 201)		
	5.2	Nickel alloys		1.3912	Fe-Ni36 (Invar)	1.3917	Fe -Ni42 (N42)	1.3922	Fe-Ni48 (N48)
	5.3	Nickel alloys	< 850 N/mm²	2.4375	Ni Cu30 Al (Monel K500)	2.4360	Ni Cu30Fe (Monel 400)	2.4668	
	5.4	Nickel molybdenum alloys		2.4600	Ni Mo30Cr2 (Hastelloy B4)	2.4617	Ni Mo28 (Hastelloy B2)	2.4819	Ni Mo16Cr16 Hastell. C276
	5.5	Nickel-chromium alloys	< 1300 N/mm²	2.4951	Ni Cr20TiAl (Nimonic 80A)	2.4858	Ni Cr21Mo (Inconel 825)	2.4856	Ni Cr22Mo9Nb Inconel 625
	5.6	Cobalt Chrome Alloys	< 1300 N/mm²	2.4964	Co Cr20 W15 Ni10		Co Cr20 Ni16 Mo7		Co Cr28 Mo 6
	5.7	Heat resistant alloys	< 1300 N/mm²	1.4718	Z45 C S 9-3	1.4747	Z80 CSN 20-02	1.4845	Z12 CN 25-20
	5.8	Nickel-cobalt-chromium alloys	< 1400 N/mm²	2.4851	Ni Cr23Fe (Inconel 601)	2.4668	Ni Cr19NbMo (Inconel 718)	2.4602	Ni Cr21Mo14 Hastelloy C22
	5.9	Pure titanium	< 900 N/mm²	3.7025	T35 (Titanium Grade 1)	3.7034	T40 (Titanium Grade 2)	3.7064	T60 (Titanium Grade 4)
	5.10	Titanium alloys	< 700 N/mm²		T-A6-Nb7 (367)		T-A5-Sn2-Mo4-Cr4 (Ti17)		T-A3-V2,5 (Gr18)
	5.11	Titanium alloys	< 1200 N/mm²	3.7165	T-A6-V4 (Ta6V)		T-A4-3V-Mo2-Fe2 (SP700)		T-A5-Sn1-Zr1-V1-Mo (Gr32)
H	6.1		< 45 HRC						
	6.2		46–55 HRC						
	6.3	Tempered steel	56–60 HRC						
	6.4		61–65 HRC						
	6.5		65–70 HRC						

Cutting data standard values – WTX – Change Feed

Change Feed UNI Art. No. 10 925 ...								
Index	v_c in m/min with through coolant	v_c in m/min With external coolant	v_c in m/min MMS	> Ø 14,0 mm f mm/rev.	>Ø 17,5 mm f mm/rev.	>Ø 21,5mm f mm/rev.	>Ø 26,0 mm f mm/rev.	Ø 32,0 mm f mm/rev.
1.1	90	80	80	0,42	0,46	0,51	0,54	0,55
1.2	90	80	80	0,42	0,46	0,51	0,54	0,55
1.3	90	80	80	0,42	0,46	0,51	0,54	0,55
1.4	90	75	75	0,49	0,55	0,60	0,64	0,66
1.5	90	80	80	0,42	0,46	0,51	0,54	0,55
1.6	80	70	70	0,52	0,58	0,64	0,68	0,69
1.7	90	75	75	0,49	0,55	0,60	0,64	0,66
1.8	65	55	55	0,39	0,43	0,48	0,50	0,51
1.9	90	75	75	0,49	0,55	0,60	0,64	0,66
1.10	90	75	75	0,49	0,55	0,60	0,64	0,66
1.11	65	55	55	0,39	0,43	0,48	0,50	0,51
1.12	70	60	60	0,44	0,49	0,54	0,58	0,59
1.13	55	50	50	0,36	0,40	0,44	0,47	0,48
1.14	55	50	50	0,36	0,40	0,44	0,47	0,48
1.15	55	50	50	0,36	0,40	0,44	0,47	0,48
1.16	70	60	60	0,44	0,49	0,54	0,58	0,59
2.1								
2.2								
2.3								
2.4								
2.5								
2.6								
2.7								
3.1	110	75	75	0,69	0,77	0,85	0,91	0,93
3.2	90	70	70	0,55	0,61	0,67	0,72	0,73
3.3	145	90	110	0,64	0,71	0,78	0,83	0,85
3.4	90	70	70	0,55	0,61	0,67	0,72	0,73
3.5	80	70	70	0,59	0,66	0,72	0,77	0,78
3.6	70	65	65	0,47	0,52	0,57	0,61	0,62
3.7	80	70	70	0,59	0,66	0,72	0,77	0,78
3.8	70	65	65	0,47	0,52	0,57	0,61	0,62
4.1								
4.2								
4.3								
4.4								
4.5								
4.6								
4.7								
4.8								
4.9								
4.10								
4.11								
4.12								
4.13								
4.14								
4.15								
4.16								
4.17								
4.18								
4.19								
5.1								
5.2								
5.3								
5.4								
5.5								
5.6								
5.7								
5.8								
5.9								
5.10								
5.11								
6.1								
6.2								
6.3								
6.4								
6.5								

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 !

Components

Key

1 Blade Holder

2 Blade

3 WTX drill head for exchangeable head drill with differential screw

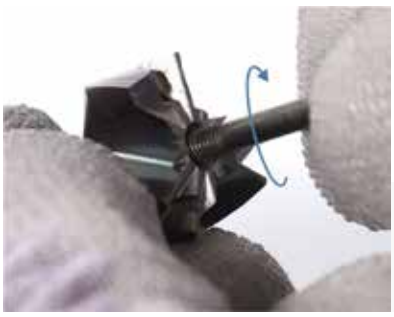
4 WTX – holder for exchangeable head drill

The scope of supply always includes a holder, blade and blade holder.

Key

1 WTX – drill head for exchangeable head drill

2 Differential screw



The differential screw is already fitted to the exchangeable drill head on delivery. If it is loose, it must be refitted to the exchangeable drill head by screwing it in.

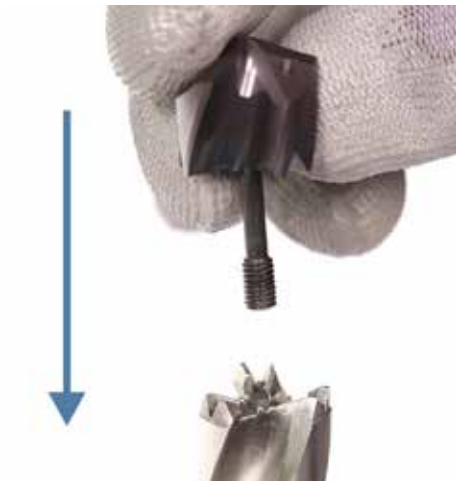
1. Insert the short threaded end of the differential screw into the hole on the exchangeable drill head.
2. Turn the differential screw clockwise as far as it will go.

Operation

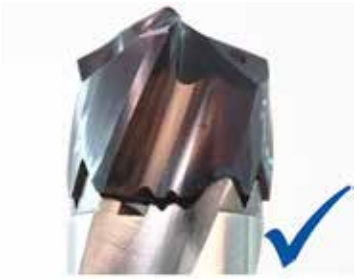
Fitting the exchangeable drill head onto the exchangeable drill holder

1 Clean the exchangeable drill holder and exchangeable drill head with compressed air.

2 Place the exchangeable drill head onto the exchangeable drill holder.



3 Check whether the chip flute and tooth profile on the exchangeable drill head and exchangeable drill holder line up. If they do not, turn the exchangeable drill head until the chip flute and tooth profile line up.



Chip flute and tooth profile line up

Chip flute and tooth profile do not line up

4 Turn counter clockwise to clamp the head!

Diameter range mm	Threading		Torx size	Torque moment Nm
	Tool holder	Replaceable head		
14,0 – 17,49	M3,5x0,6	M2,5x0,5	T7	0,7
17,5 – 19,49	M4x0,7	M3x0,5	T8	1,3
19,5 – 24,49	M5x0,8	M3,5x0,6	T10	20
24,5 – 28,49	M6x1,0	M4x0,7	T15	3,1
28,5 – 32,0	M6x1,0	M5x0,8	T15	5,6

It is recommended to use the appropriate torque key; however, tightening the connection by hand is also sufficient.

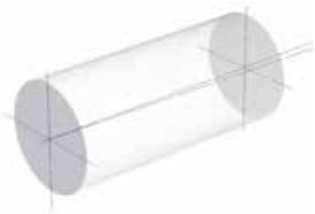
Application notes for WTX – Change Feed exchangeable head drills

Coolant conditions

Coolant pressure dependent on drilling depth:

3xD: 8 bar
5xD: 12 bar

Runout accuracy

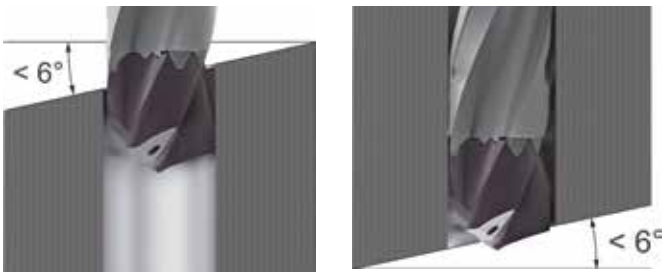


max. 0,02 mm

max. 0,04 mm

Through-hole

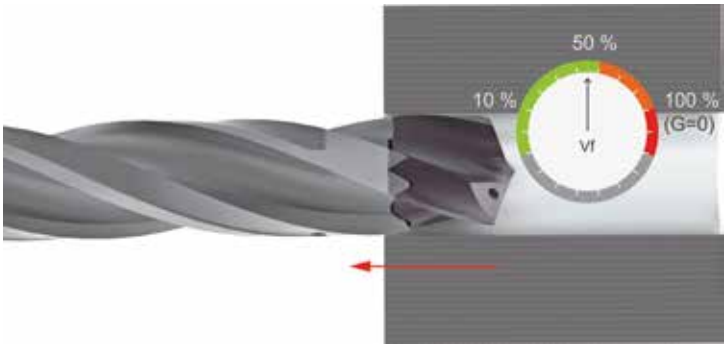
Maximum entry and exit angle



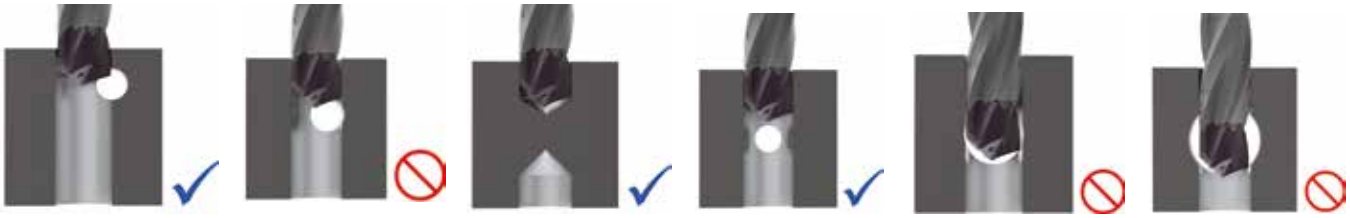
When entering and exiting angled surfaces, reduce v_f by 50%.

Do not retract at rapid feedrate

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



Machining situations



Offset cross hole point is engaged

Offset cross hole point is not engaged

Breakthrough at counterbore

Hole on centre and smaller Ø

Hole on centre and same Ø

Hole on centre and larger Ø

www.wnt.com

09/2017 - 99 022 00216

TOTAL TOOLING = QUALITY x SERVICE ^{2}