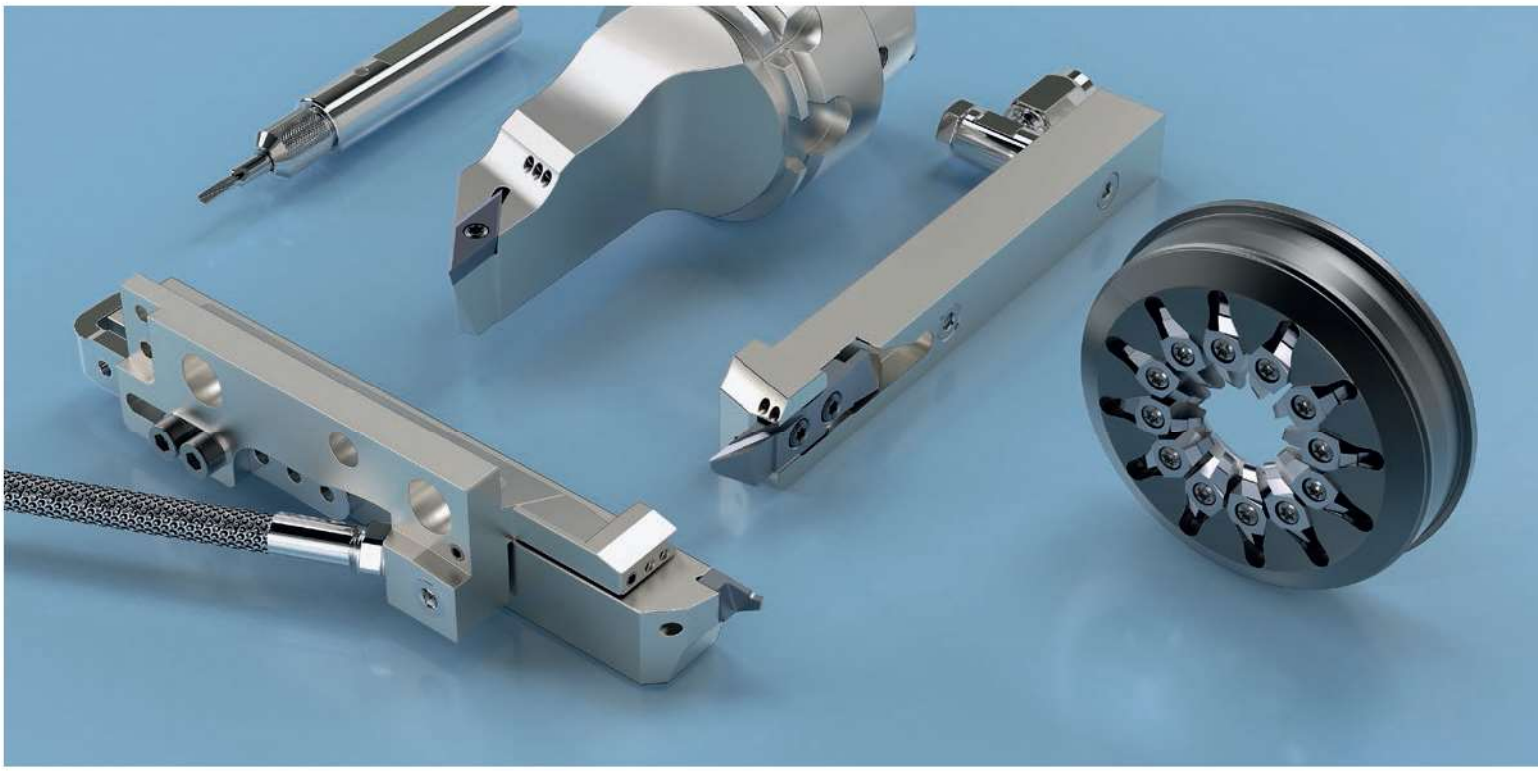
UTILIS
multidec®
swiss type tools

GENERAL CATALOG 2020/21



PRECISION TOOLS
FOR SMALL PART MANUFACTURING AND MICRO-CUTTING

future since 1915

UTILIS®
Tooling for High Technology

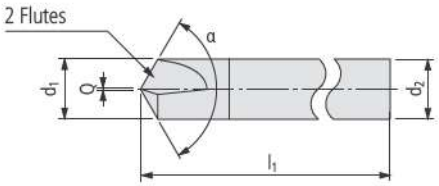
multidec®-DRILL contains of a wide range of high-precision solid carbide drills and centre drills. This includes the range from Ø 0.5 to 6 mm and centre drills with tip angles of 90°, 120° or 140°. multidec®-DRILL is characterised by its high stability and precision, and makes a decisive contribution to achieving high quality because of its excellent positioning capability and self-centering characteristic, and makes the work easier. The design also provides good chip removal and the tool life is increased significantly because of the HX and TX+ coatings.

Benefits:

– High degree of accuracy and stability
– Self-centering
– Excellent positioning capability
– Good chip removal
– Complete range of solid carbide twist drills from Ø 0.5 – 6 mm
– Centre drills with tip angle of 90°, 120° or 140°
– HX and TX+ coatings for longer tool life
– Diameter coordinated to metric thread sizes
– Intermediate sizes possible on request

Overview – multidec®-DRILL

Center drilling

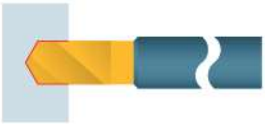


UTILIS multidec swiss type tools

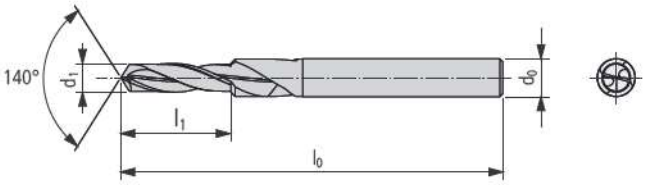
DRP …

Order designation	Carbide			20	Dimensions													
	○	●	●															
	○	●	●															
	○	●	●															
	●	○	–															
	–	–	○															
R	UHM 20	UHM 20 HX	UHM 20 TX+		d_1	d_2	l_1	Q	α									
PREMIUM-LINE																		
DRP 338 090 R …	■	■	▫		3	3	38	0.04	90°									
DRP 338 120 R …	■	■	▫		3	3	38	0.04	120°									
DRP 338 140 R …	■	■	▫		3	3	38	0.04	140°									
DRP 442 090 R …	■	■	▫		4	4	42	0.05	90°									
DRP 442 120 R …	■	■	▫		4	4	42	0.05	120°									
DRP 442 140 R …	■	■	▫		4	4	42	0.05	140°									
DRP 650 090 R …	■	■	▫		6	6	50	0.06	90°									
DRP 650 120 R …	■	■	▫		6	6	50	0.06	120°									
DRP 650 140 R …	■	■	▫		6	6	50	0.06	140°									

Legend ..... 8…



Drilling

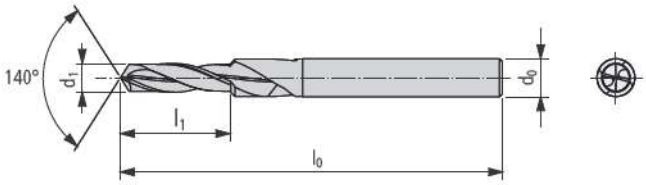


DRS …

Order designation	Carbide ▯20			Dimensions								Core hole drill for
	○ ● ●											
	○ ● ●											
	○ ● ●											
	● ○ –											
	– – ○											
	UHM 20	UHM 20 HX	UHM 20 TX+	d_1	l_1	d_0	l_0					
PREMIUM-LINE												
DRS 338 050 …	■	■	▫	0.5	1.5	3	38					–
DRS 338 065 …	■	■	▫	0.65	2	3	38					T2
DRS 338 075 …	■	■	▫	0.75	2.3	3	38					M1 | T3
DRS 338 085 …	■	■	▫	0.85	2.6	3	38					M1.1
DRS 338 095 …	■	■	▫	0.95	2.9	3	38					M1.2
DRS 338 100 …	■	■	▫	1	3	3	38					SW1 | T5
DRS 338 110 …	■	■	▫	1.1	3.3	3	38					M1.4
DRS 338 120 …	■	■	▫	1.2	3.6	3	38					T6
DRS 338 125 …	■	■	▫	1.25	3.8	3	38					M1.6 | 0-80 UNF
DRS 338 145 …	■	■	▫	1.45	4.4	3	38					M1.8
DRS 338 150 …	■	■	▫	1.5	4.5	3	38					1-64 UNC | 1-72 UNF | SW1.5
DRS 338 160 …	■	■	▫	1.6	4.8	3	38					M2.0
DRS 338 165 …	■	■	▫	1.65	5	3	38					T8
DRS 338 175 …	■	■	▫	1.75	5.3	3	38					M2.2 | 2-56 UNC
DRS 338 190 …	■	■	▫	1.9	5.7	3	38					M2.3 | 2-64 UNF
DRS 338 195 …	■	■	▫	1.95	5.9	3	38					T10
DRS 338 200 …	■	■	▫	2	6	3	38					SW2
DRS 338 205 …	■	■	▫	2.05	6.2	3	38					M2.5 | 3-48 UNC
DRS 338 215 …	■	■	▫	2.15	6.5	3	38					3-56 UNF
DRS 338 230 …	■	■	▫	2.3	6.9	3	38					4-40 UNC | T15
DRS 338 240 …	■	■	▫	2.4	7.2	3	38					4-48 UNF
DRS 338 250 …	■	■	▫	2.5	7.5	3	38					M3 | SW2.5
DRS 338 260 …	■	■	▫	2.6	7.8	3	38					5-40 UNC
DRS 338 270 …	■	■	▫	2.7	8.1	3	38					5-44 UNF
DRS 338 275 …	■	■	▫	2.75	8.3	3	38					6-32 UNC | T20
DRS 338 280 …	■	■	▫	2.8	8.4	3	38					–
DRS 442 290 …	■	■	▫	2.9	8.7	4	42					M3.5 | 6-40 UNF
DRS 442 300 …	■	■	▫	3	9	4	42					SW3
DRS 442 315 …	■	■	▫	3.15	9.5	4	42					T25
DRS 442 330 …	■	■	▫	3.3	9.9	4	42					M4
DRS 442 340 …	■	■	▫	3.4	10.2	4	42					8-32 UNC
DRS 442 350 …	■	■	▫	3.5	10.5	4	42					8-36 UNF | SW3.5
DRS 442 370 …	■	■	▫	3.7	11.1	4	42					M4.5
DRS 650 390 …	■	■	▫	3.9	11.7	6	50					T30
DRS 650 400 …	■	■	▫	4	12	6	50					SW4
DRS 650 410 …	■	■	▫	4.1	12.3	6	50					10-32 UNF
DRS 650 425 …	■	■	▫	4.25	12.8	6	50					M5
DRS 650 450 …	■	■	▫	4.5	13.5	6	50					–
DRS 650 470 …	■	■	▫	4.7	14.1	6	50					T40
DRS 650 500 …	■	■	▫	5	15	6	50					M6 | SW5
DRS 650 600 …	■	■	▫	6	18	6	50					M7 | SW6

Legend ▯8…

Drilling



DRL ...

UTILIS multidec® swiss type tools

PREMIUM-LINE

Order designation	Carbide ▯20			Dimensions								Core hole drill for
	○ ○ ○ ● –	● ● ● ○ –	● ● ● – ○	d_1	l_1	d_0	l_0					
	UHM 20	UHM 20 HX	UHM 20 TX+									
DRL 338 050 ...	■	■	▫	0.5	3	3	38					–
DRL 338 065 ...	■	■	▫	0.65	3.9	3	38					T2
DRL 338 075 ...	■	■	▫	0.75	4.5	3	38					M1 | T3
DRL 338 085 ...	■	■	▫	0.85	5.1	3	38					M1.1
DRL 338 095 ...	■	■	▫	0.95	5.7	3	38					M1.2
DRL 338 100 ...	■	■	▫	1	6	3	38					SW1 | T5
DRL 338 110 ...	■	■	▫	1.1	6.6	3	38					M1.4
DRL 338 120 ...	■	■	▫	1.2	7.2	3	38					T6
DRL 338 125 ...	■	■	▫	1.25	7.5	3	38					M1.6 | 0-80 UNF
DRL 338 145 ...	■	■	▫	1.45	8.7	3	38					M1.8
DRL 338 150 ...	■	■	▫	1.5	9	3	38					1-64 UNC | 1-72 UNF | SW1.5
DRL 338 160 ...	■	■	▫	1.6	9.6	3	38					M2
DRL 338 165 ...	■	■	▫	1.65	9.9	3	38					T8
DRL 338 175 ...	■	■	▫	1.75	10.5	3	38					M2.2 | 2-056 UNC
DRL 338 190 ...	■	■	▫	1.9	11.4	3	38					M2.3 | 2-64 UNF
DRL 338 195 ...	■	■	▫	1.95	11.7	3	38					T10
DRL 338 200 ...	■	■	▫	2	12	3	38					SW2
DRL 338 205 ...	■	■	▫	2.05	12.3	3	38					M2.5 | 3-48 UNC
DRL 338 215 ...	■	■	▫	2.15	12.9	3	38					3-56 UNF
DRL 338 230 ...	■	■	▫	2.3	13.8	3	38					4-40 UNC | T15
DRL 338 240 ...	■	■	▫	2.4	14.4	3	38					4-48 UNF
DRL 338 250 ...	■	■	▫	2.5	15	3	38					M3 | SW2.5
DRL 338 260 ...	■	■	▫	2.6	15.6	3	38					5-40 UNC
DRL 338 270 ...	■	■	▫	2.7	16.2	3	38					5-44 UNF
DRL 338 275 ...	■	■	▫	2.75	16.5	3	38					6-32 UNC | T20
DRL 338 280 ...	■	■	▫	2.8	16.8	3	38					–
DRL 442 290 ...	■	■	▫	2.9	17.4	4	42					M3.5 | 6-40 UNF
DRL 442 300 ...	■	■	▫	3	18	4	42					SW3
DRL 442 315 ...	■	■	▫	3.15	18.9	4	42					T25
DRL 442 330 ...	■	■	▫	3.3	19.8	4	42					M4
DRL 442 340...	■	■	▫	3.4	20.4	4	42					8-32 UNC
DRL 442 350 ...	■	■	▫	3.5	21	4	42					8-36 UNF | SW3.5
DRL 442 370 ...	■	■	▫	3.7	22.2	4	42					M4.5
DRL 650 390 ...	■	■	▫	3.9	23.4	6	50					T30
DRL 650 400 ...	■	■	▫	4	24	6	50					SW4
DRL 650 410 ...	■	■	▫	4.1	24.6	6	50					10-32 UNF
DRL 650 425 ...	■	■	▫	4.25	25.5	6	50					M5
DRL 650 450 ...	■	■	▫	4.5	27	6	50					–
DRL 650 470 ...	■	■	▫	4.7	28.2	6	50					T40
DRL 650 500 ...	■	■	▫	5	30	6	50					M6 | SW5
DRL 660 600 ...	■	■	▫	6	36	6	60					M7 | SW6

Legend ..... ▯8...

	Steel unalloyed			Steel low alloyed			Steel high alloyed		
Hardness value (HB) / (HRC)	125–300 HB			180–250 HB			200–350 HB		
Category	I			II			III		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Cutting speeds	v_c (m/min)								
Cutting material carbide									
UHM 20	–	–	35–50	–	–	35–50	–	–	20–45
UHM 20 HX	–	–	60–110	–	–	50–90	–	–	50–80
UHM 20 TX+	–	–	–	–	–	–	–	–	40–70

	Stainless steel			Stainless steel			Titanium		
Hardness value (HB) / (HRC)	180–220 HB			220–330 HB			–		
Category	V			VI			IV		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Cutting speeds	v_c (m/min)								
Cutting material carbide									
UHM 20	–	–	20–30	–	–	20–30	–	–	10–40
UHM 20 HX	–	–	60–70	–	–	60–70	–	–	20–40
UHM 20 TX+	–	–	40–70	–	–	40–60	–	–	20–40

	Aluminum			Brass			Hard materials		
Hardness value (HB) / (HRC)	60–130 HB			–			45–70 HRC		
Category	VII			VIII			X		
Machining method	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼	▼	▼▼	▼▼▼
Cutting speeds	v_c (m/min)								
Cutting material carbide									
UHM 20	–	–	60–100	–	–	30–80	–	–	–
UHM 20 HX	–	–	50–135	–	–	50–100	–	–	–
UHM 20 TX+	–	–	–	–	–	–	–	–	15–40

DRP – DRS – DRL

	Steel unalloyed	Steel low alloyed	Steel high alloyed	Stainless steel	Titanium	Aluminum / Brass	Hard materials
D (mm)	f (mm/U)	f (mm/U)	f (mm/U)	f (mm/U)	f (mm/U)	f (mm/U)	f (mm/U)
≤1	0.03-0.07	0.03-0.07	0.03-0.07	0.03-0.07	0.03-0.07	0.03-0.08	0.03-0.07
2	0.03-0.08	0.03-0.08	0.03-0.08	0.03-0.08	0.03-0.08	0.04-0.09	0.03-0.08
3	0.04-0.10	0.04-0.10	0.04-0.10	0.04-0.10	0.04-0.10	0.05-0.11	0.04-0.10
4	0.05-0.11	0.05-0.11	0.05-0.11	0.05-0.11	0.05-0.11	0.06-0.12	0.05-0.11
5	0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12	0.07-0.14	0.06-0.12
6	0.07-0.14	0.07-0.14	0.07-0.14	0.07-0.14	0.07-0.14	0.09-0.16	0.07-0.14

Legend ... 8...