

MICRO FX
5xd SOLID
5xd Without Internal Spiral Coolant Holes
 5xD Mikroboreher ohne Innenkühlung

- 100% Self Centered | Rigid Core | Free Flowing Chiproom | No peckings
 100% Selbstzentrierend | Stabiler Kern | Freifließender Spanraum
- Working Material Group : Alloyed Steels Upto 38 HRC & Stainless Steels, Titanium
 Materialgruppe : Legierte Stähle bis 38 HRC & Rostfreie Stähle, Titan



Tolerance / Toleranz	
$d_1 : h_7$	$l_2 : \pm 0.5$
$d_2 : h_6$	$l_1 : \pm 0.8$

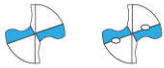


d_1	d_2	l_2	l_1	z	Catalogue Code / Bestellnummer HA Pertura	d_1	d_2	l_2	l_1	z	Catalogue Code / Bestellnummer HA Pertura
0.40	3	3.60	38.00	2	DFMP 0510 0040	1.70	3	12.00	38.00	2	DFMP 0510 0170
0.45	3	3.80	38.00	2	DFMP 0510 0045	1.75	3	12.30	38.00	2	DFMP 0510 0175
0.50	3	4.00	38.00	2	DFMP 0510 0050	1.80	3	12.50	38.00	2	DFMP 0510 0180
0.55	3	4.60	38.00	2	DFMP 0510 0055	1.85	3	12.80	38.00	2	DFMP 0510 0185
0.60	3	4.80	38.00	2	DFMP 0510 0060	1.90	3	13.00	38.00	2	DFMP 0510 0190
0.65	3	5.00	38.00	2	DFMP 0510 0065	1.95	3	13.50	38.00	2	DFMP 0510 0195
0.70	3	6.00	38.00	2	DFMP 0510 0070	2.00	3	14.00	46.00	2	DFMP 0510 0200
0.75	3	6.20	38.00	2	DFMP 0510 0075	2.05	3	14.50	46.00	2	DFMP 0510 0205
0.80	3	6.40	38.00	2	DFMP 0510 0080	2.10	3	15.00	46.00	2	DFMP 0510 0210
0.85	3	6.70	38.00	2	DFMP 0510 0085	2.15	3	15.50	46.00	2	DFMP 0510 0215
0.90	3	7.00	38.00	2	DFMP 0510 0090	2.20	3	16.00	46.00	2	DFMP 0510 0220
0.95	3	7.30	38.00	2	DFMP 0510 0095	2.25	3	16.50	46.00	2	DFMP 0510 0225
1.00	3	7.50	38.00	2	DFMP 0510 0100	2.30	3	17.00	46.00	2	DFMP 0510 0230
1.05	3	7.80	38.00	2	DFMP 0510 0105	2.35	3	17.50	46.00	2	DFMP 0510 0235
1.10	3	8.00	38.00	2	DFMP 0510 0110	2.40	3	18.00	46.00	2	DFMP 0510 0240
1.15	3	8.30	38.00	2	DFMP 0510 0115	2.45	3	18.50	46.00	2	DFMP 0510 0245
1.20	3	8.50	38.00	2	DFMP 0510 0120	2.50	3	19.00	46.00	2	DFMP 0510 0250
1.25	3	8.80	38.00	2	DFMP 0510 0125	2.55	3	19.50	50.00	2	DFMP 0510 0255
1.30	3	9.00	38.00	2	DFMP 0510 0130	2.60	3	20.00	50.00	2	DFMP 0510 0260
1.35	3	9.50	38.00	2	DFMP 0510 0135	2.65	3	20.50	50.00	2	DFMP 0510 0265
1.40	3	10.00	38.00	2	DFMP 0510 0140	2.70	3	21.00	50.00	2	DFMP 0510 0270
1.45	3	10.50	38.00	2	DFMP 0510 0145	2.75	3	21.50	50.00	2	DFMP 0510 0275
1.50	3	11.00	38.00	2	DFMP 0510 0150	2.80	3	22.00	50.00	2	DFMP 0510 0280
1.55	3	11.30	38.00	2	DFMP 0510 0155	2.85	3	22.50	50.00	2	DFMP 0510 0285
1.60	3	11.50	38.00	2	DFMP 0510 0160	2.90	3	23.00	50.00	2	DFMP 0510 0290
1.65	3	11.80	38.00	2	DFMP 0510 0165						

MICRO FX DRILLS



Application Parameters / Anwendungsparameter



Materials / Materialgruppen	Diameter / Durchmesser (d ₁) (mm)	3xD-5xD Without Internal Spiral Coolant Holes 3xD-5xD Mikroböhrer ohne Innenkühlung (mm/min)				3xD-12xD With Internal Spiral Coolant Holes 3xD-12xD Mikroböhrer mit Innenkühlung				15xD-30xD With Internal Spiral Coolant Holes 15xD-30xD Mikroböhrer mit Innenkühlung			
		Ø	RPM	f	Peck	VC (m/min)			f	VC (m/min)			f
						Min	Ideal	Max		Min	Ideal	Max	
P MILD STEELS / Weichstahl HRC ≤ 20 N/mm ² ≤ 750	0.40-0.49	20000	0.004	0.05	-	-	-	-	-	-	-	-	-
	0.50-0.79	20000	0.010	0.10	-	-	-	-	-	-	-	-	-
	0.80-0.99	20000	0.041	0.30	-	-	-	-	-	-	-	-	-
	100-2.95	20000	0.089	-	165	200	230	0.079	165	200	230	0.079	
P ALLOY STEELS / Legierte Stähle 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 50100 HRC ≤ 40 N/mm ² ≤ 1260	0.40-0.49	20000	0.004	0.05	-	-	-	-	-	-	-	-	-
	0.50-0.79	20000	0.010	0.10	-	-	-	-	-	-	-	-	-
	0.80-0.99	20000	0.041	0.30	-	-	-	-	-	-	-	-	-
	100-2.95	17500	0.064	-	130	165	200	0.079	65	100	130	0.041	
K CAST IRONS / Gusseisen (Low & Medium Alloy) Gray, Malleable, Ductile	0.40-0.49	20000	0.004	0.05	-	-	-	-	-	-	-	-	-
	0.50-0.79	20000	0.010	0.10	-	-	-	-	-	-	-	-	-
	0.80-0.99	20000	0.041	0.30	-	-	-	-	-	-	-	-	-
	100-2.95	25000	0.076	-	130	165	200	0.081	100	130	165	0.071	
M STAINLESS STEELS / Rostfreie Stähle (Free Machining) 303, 416, 420F, 430F 440F	0.40-0.49	15000	0.004	0.05	-	-	-	-	-	-	-	-	-
	0.50-0.79	10000	0.010	0.10	-	-	-	-	-	-	-	-	-
	0.80-0.99	6000	0.020	0.20	-	-	-	-	-	-	-	-	-
	100-2.95	16000	0.038	-	65	100	130	0.051	65	100	130	0.030	
S Titanium Alloys / Titanlegierungen Pure Titanium, Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si	0.40-0.49	4000	0.003	0.05	-	-	-	-	-	-	-	-	-
	0.50-0.79	3000	0.005	0.10	-	-	-	-	-	-	-	-	-
	0.80-0.99	1800	0.010	0.20	-	-	-	-	-	-	-	-	-
	100-2.95	4000	0.051	-	15	35	50	0.030	15	30	50	0.020	