CrazyDrill™ Cool XL

MIKRON

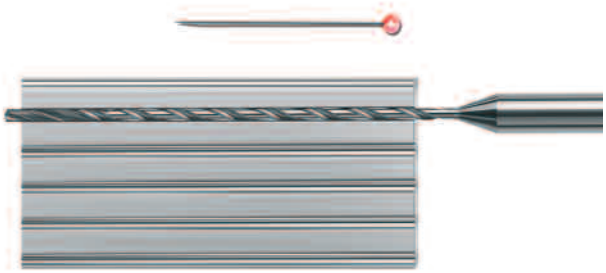
Extra long
High Performance Drills

CRAZYDRILL™
by Mikron Tool
Cool XL

CRAZYDRILL™ by Mikron Tool
Cool XL

1 shot = 1 hole

CrazyDrill Cool XL for deep hole drilling
With the new CrazyDrill Cool XL, the engineers from Mikron Tool have developed a brand new deep hole drilling program for depths up to 40 x d. The CrazyDrill Cool XL, due to its design, produces short chips in all materials and in each phase of the drilling process. An undesired coiling of chips does not occur. High quality carbide alloy of the latest generation and the most precise grinding technology assure that this new product line meets the strictest quality requirements. With a coating developed especially for CrazyDrill Cool XL, excellent cutting conditions and tool life are guaranteed. Simple handling and high precision guarantee trouble free, economical drilling.



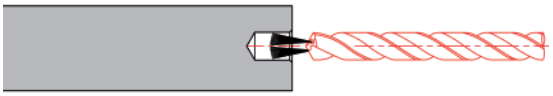
Characteristics
- Through tool internal cooling
- Solid Carbide alloy
- Coated
- Diameter tolerance k6, matched to the pilot drilling program of Mikron Tool
- Standard lengths 15 x ø, 20 x ø, 30 x ø and 40 x ø
- Special lengths and special executions upon request

Five benefits
- No pecking cycles
- Short chips (no spiral chips)
- Maximum drilling speeds
- Highest position accuracy
- Tight diameter accuracy and surface quality

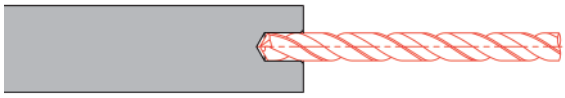
Recommendations for optimal results

Straight surface

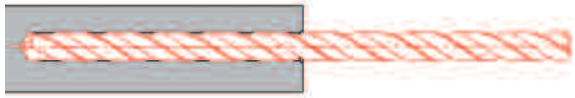
- Pilot hole with CrazyDrill Pilot
- Hole depth approx. 2 x ø
- Guide for precision drilling with CrazyDrill Cool XL



- Start coolant supply before entering the pilot hole
- Maximum speed n = 500 rpm



- Enter 1 - 1.5 x ø into pilot hole with feed v_f = 1000 mm/min (40 ipm) and reduced speed of 500 rpm
- Do not touch bottom of pilot hole with rapid feed



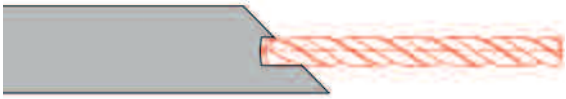
- Drilling with recommended speed and feed rates
- Reach desired depth in one stroke

- After drilling operation retract CrazyDrill Cool XL to depth of pilot hole
- Before clearing the hole reduce speed to 500 rpm.
- Retract drill from hole with reduced speed.

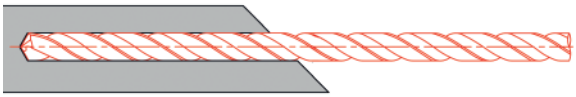
Inclined surface

- Pilot hole with CrazyDrill Crosspilot
- Hole depth 1-2 x ø, depending on inclination (max. 60°)
- Guide for precision drilling with CrazyDrill Cool XL

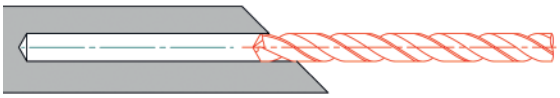
- Start coolant supply before entering the pilot hole
- Maximum speed n = 500 rpm



- Enter 1 - 1.5 x ø into pilot hole with feed v_f = 1000 mm/min (40 ipm) and reduced speed of 500 rpm
- Do not touch bottom of pilot hole with rapid feed



- Drilling with recommended speed and feed rates
- Reach desired depth in one stroke



- After drilling operation retract CrazyDrill Cool XL to about 2 x ø from hole entrance
- Before clearing the hole reduce speed to 500 rpm.
- Retract drill from hole with reduced speed.

The CrazyDrill family

MIKRON

CRAZYDRILL™ by Mikron Tool

Cool XL

Usable flute length 15 x d

Item number coated	d (k6) mm	d (k6) inches	l inches	D (h6) inches	L inches
CD.150100.XL	1.00	.0394	.7087	.1575	2.2835
CD.150105.XL	1.05	.0413	.7441	.1575	2.3228
CD.150110.XL	1.10	.0433	.7795	.1575	2.3622
CD.150115.XL	1.15	.0453	.8150	.1575	2.4016
CD.150120.XL	1.20	.0472	.8504	.1575	2.4409
CD.150125.XL	1.25	.0492	.8858	.1575	2.4409
CD.150130.XL	1.30	.0512	.9213	.1575	2.4803
CD.150135.XL	1.35	.0531	.9567	.1575	2.5197
CD.150140.XL	1.40	.0551	.9921	.1575	2.5591
CD.150145.XL	1.45	.0571	1.0276	.1575	2.5984
CD.150150.XL	1.50	.0591	1.0630	.1575	2.6378
CD.150155.XL	1.55	.0610	1.0984	.1575	2.6772
CD.150160.XL	1.60	.0630	1.1339	.1575	2.6772
CD.150165.XL	1.65	.0650	1.1693	.1575	2.7165
CD.150170.XL	1.70	.0669	1.2047	.1575	2.7559
CD.150175.XL	1.75	.0689	1.2402	.1575	2.7953
CD.150180.XL	1.80	.0709	1.2756	.1575	2.8346
CD.150185.XL	1.85	.0728	1.3110	.1575	2.8740
CD.150190.XL	1.90	.0748	1.3465	.1575	2.9134
CD.150195.XL	1.95	.0768	1.3819	.1575	2.9134
CD.150200.XL	2.00	.0787	1.4173	.1575	2.9528
CD.150205.XL	2.05	.0807	1.4528	.1575	2.9921
CD.150210.XL	2.10	.0827	1.4882	.1575	3.0315
CD.150215.XL	2.15	.0846	1.5236	.1575	3.0709
CD.150220.XL	2.20	.0866	1.5591	.1575	3.1102
CD.150225.XL	2.25	.0886	1.5945	.1575	3.1496
CD.150230.XL	2.30	.0906	1.6299	.1575	3.1496
CD.150235.XL	2.35	.0925	1.6654	.1575	3.1890
CD.150240.XL	2.40	.0945	1.7008	.1575	3.2283
CD.150245.XL	2.45	.0965	1.7362	.1575	3.2677
CD.150250.XL	2.50	.0984	1.7717	.1575	3.3071
CD.150255.XL	2.55	.1004	1.8071	.1575	3.3465
CD.150260.XL	2.60	.1024	1.8425	.1575	3.3858
CD.150265.XL	2.65	.1043	1.8779	.1575	3.3858
CD.150270.XL	2.70	.1063	1.9134	.1575	3.4252
CD.150275.XL	2.75	.1083	1.9488	.1575	3.4646
CD.150280.XL	2.80	.1102	1.9842	.1575	3.5039
CD.150285.XL	2.85	.1122	2.0197	.1575	3.5433
CD.150290.XL	2.90	.1142	2.0551	.1575	3.5827
CD.150295.XL	2.95	.1161	2.0905	.1575	3.6220
CD.150300.XL	3.00	.1181	2.1260	.1575	3.6220
CD.150305.XL	3.05	.1201	2.1614	.2362	3.8976
CD.150310.XL	3.10	.1220	2.1968	.2362	3.9370
CD.150315.XL	3.15	.1240	2.2323	.2362	3.9764
CD.150320.XL	3.20	.1260	2.2677	.2362	4.0157
CD.150325.XL	3.25	.1280	2.3031	.2362	4.0157
CD.150330.XL	3.30	.1299	2.3386	.2362	4.0551
CD.150335.XL	3.35	.1319	2.3740	.2362	4.0945
CD.150340.XL	3.40	.1339	2.4094	.2362	4.1339
CD.150345.XL	3.45	.1358	2.4449	.2362	4.1732
CD.150350.XL	3.50	.1378	2.4803	.2362	4.2126
CD.150355.XL	3.55	.1398	2.5157	.2362	4.2520
CD.150360.XL	3.60	.1417	2.5512	.2362	4.2520
CD.150365.XL	3.65	.1437	2.5866	.2362	4.2913
CD.150370.XL	3.70	.1457	2.6220	.2362	4.3307
CD.150375.XL	3.75	.1476	2.6575	.2362	4.3701
CD.150380.XL	3.80	.1496	2.6929	.2362	4.4094
CD.150385.XL	3.85	.1516	2.7283	.2362	4.4488
CD.150390.XL	3.90	.1535	2.7638	.2362	4.4882
CD.150395.XL	3.95	.1555	2.7992	.2362	4.4882
CD.150400.XL	4.00	.1575	2.8346	.2362	4.5276
CD.150410.XL	4.10	.1614	2.9055	.2362	4.6063
CD.150420.XL	4.20	.1654	2.9764	.2362	4.6850
CD.150430.XL	4.30	.1693	3.0472	.2362	4.7244
CD.150440.XL	4.40	.1732	3.1181	.2362	4.8031
CD.150450.XL	4.50	.1772	3.1890	.2362	4.8819
CD.150460.XL	4.60	.1811	3.2598	.2362	4.9606
CD.150470.XL	4.70	.1850	3.3307	.2362	5.0000
CD.150480.XL	4.80	.1890	3.4016	.2362	5.0787
CD.150490.XL	4.90	.1929	3.4724	.2362	5.1575
CD.150500.XL	5.00	.1969	3.5433	.2362	5.2362
CD.150510.XL	5.10	.2008	3.6142	.2362	5.2756
CD.150520.XL	5.20	.2047	3.6850	.2362	5.3543
CD.150530.XL	5.30	.2087	3.7559	.2362	5.4331
CD.150540.XL	5.40	.2126	3.8268	.2362	5.4724
CD.150550.XL	5.50	.2165	3.8976	.2362	5.5512
CD.150560.XL	5.60	.2205	3.9685	.2362	5.6299
CD.150570.XL	5.70	.2244	4.0394	.2362	5.7087
CD.150580.XL	5.80	.2283	4.1102	.2362	5.7480
CD.150590.XL	5.90	.2323	4.1811	.2362	5.8268
CD.150600.XL	6.00	.2362	4.2520	.2362	5.9055

Usable flute length 20 x d

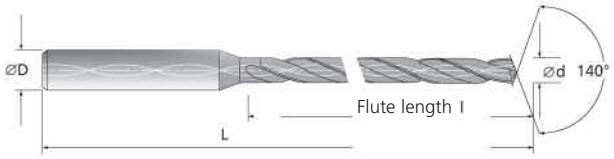
Item number coated	d (k6) mm	d (k6) inches	l inches	D (h6) inches	L inches
CD.200100.XL	1.00	.0394	.9055	.1575	2.4803
CD.200110.XL	1.10	.0433	.9961	.1575	2.5591
CD.200120.XL	1.20	.0472	1.0866	.1575	2.6772
CD.200130.XL	1.30	.0512	1.1772	.1575	2.7559
CD.200140.XL	1.40	.0551	1.2677	.1575	2.8346
CD.200150.XL	1.50	.0591	1.3583	.1575	2.9134
CD.200160.XL	1.60	.0630	1.4488	.1575	2.9921
CD.200170.XL	1.70	.0669	1.5394	.1575	3.1102
CD.200180.XL	1.80	.0709	1.6299	.1575	3.1890
CD.200190.XL	1.90	.0748	1.7205	.1575	3.2677
CD.200200.XL	2.00	.0787	1.8110	.1575	3.3465
CD.200210.XL	2.10	.0827	1.9016	.1575	3.4646
CD.200220.XL	2.20	.0866	1.9921	.1575	3.5433
CD.200230.XL	2.30	.0906	2.0827	.1575	3.6220
CD.200240.XL	2.40	.0945	2.1732	.1575	3.7008
CD.200250.XL	2.50	.0984	2.2638	.1575	3.7795
CD.200260.XL	2.60	.1024	2.3543	.1575	3.8976
CD.200270.XL	2.70	.1063	2.4449	.1575	3.9764
CD.200280.XL	2.80	.1102	2.5354	.1575	4.0551
CD.200290.XL	2.90	.1142	2.6260	.1575	4.1339
CD.200300.XL	3.00	.1181	2.7165	.1575	4.2126
CD.200310.XL	3.10	.1220	2.8071	.2362	4.5276
CD.200320.XL	3.20	.1260	2.8976	.2362	4.6457
CD.200330.XL	3.30	.1299	2.9882	.2362	4.7244
CD.200340.XL	3.40	.1339	3.0787	.2362	4.8031
CD.200350.XL	3.50	.1378	3.1693	.2362	4.8819
CD.200360.XL	3.60	.1417	3.2598	.2362	4.9606
CD.200370.XL	3.70	.1457	3.3504	.2362	5.0787
CD.200380.XL	3.80	.1496	3.4409	.2362	5.1575
CD.200390.XL	3.90	.1535	3.5315	.2362	5.2362
CD.200400.XL	4.00	.1575	3.6220	.2362	5.3150
CD.200410.XL	4.10	.1614	3.7126	.2362	5.4331
CD.200420.XL	4.20	.1654	3.8031	.2362	5.5118
CD.200430.XL	4.30	.1693	3.8937	.2362	5.5905
CD.200440.XL	4.40	.1732	3.9842	.2362	5.6693
CD.200450.XL	4.50	.1772	4.0748	.2362	5.7480
CD.200460.XL	4.60	.1811	4.1653	.2362	5.8661
CD.200470.XL	4.70	.1850	4.2559	.2362	5.9449
CD.200480.XL	4.80	.1890	4.3464	.2362	6.0236
CD.200490.XL	4.90	.1929	4.4370	.2362	6.1024
CD.200500.XL	5.00	.1969	4.5276	.2362	6.2205
CD.200510.XL	5.10	.2008	4.6181	.2362	6.2992
CD.200520.XL	5.20	.2047	4.7087	.2362	6.3779
CD.200530.XL	5.30	.2087	4.7992	.2362	6.4567
CD.200540.XL	5.40	.2126	4.8898	.2362	6.5354
CD.200550.XL	5.50	.2165	4.9803	.2362	6.6535
CD.200560.XL	5.60	.2205	5.0472	.2362	6.7323
CD.200570.XL	5.70	.2244	5.1614	.2362	6.8110
CD.200580.XL	5.80	.2283	5.2520	.2362	6.8898
CD.200590.XL	5.90	.2323	5.3425	.2362	6.9685
CD.200600.XL	6.00	.2362	5.4331	.2362	7.0866

CRAZYDRILL™ by Mikron Tool

Cool XL

Usable flute length 30 x d

Item number coated	d (k6) mm	d (k6) inches	l inches	D (h6) inches	L inches
CD.300100.XL	1.00	.0394	1.2992	.1575	2.8740
CD.300110.XL	1.10	.0433	1.4291	.1575	2.9921
CD.300120.XL	1.20	.0472	1.5591	.1575	3.1496
CD.300130.XL	1.30	.0512	1.6890	.1575	3.2677
CD.300140.XL	1.40	.0551	1.8189	.1575	3.3858
CD.300150.XL	1.50	.0591	1.9488	.1575	3.5039
CD.300160.XL	1.60	.0630	2.0787	.1575	3.6220
CD.300170.XL	1.70	.0669	2.2087	.1575	3.7795
CD.300180.XL	1.80	.0709	2.3386	.1575	3.8976
CD.300190.XL	1.90	.0748	2.4685	.1575	4.0157
CD.300200.XL	2.00	.0787	2.5984	.1575	4.1339
CD.300210.XL	2.10	.0827	2.7283	.1575	4.2913
CD.300220.XL	2.20	.0866	2.8583	.1575	4.4094
CD.300230.XL	2.30	.0906	2.9882	.1575	4.5276
CD.300240.XL	2.40	.0945	3.1181	.1575	4.6457
CD.300250.XL	2.50	.0984	3.2480	.1575	4.7638
CD.300260.XL	2.60	.1024	3.3779	.1575	4.9213
CD.300270.XL	2.70	.1063	3.5079	.1575	5.0394
CD.300280.XL	2.80	.1102	3.6378	.1575	5.1575
CD.300290.XL	2.90	.1142	3.7677	.1575	5.2756
CD.300300.XL	3.00	.1181	3.8976	.1575	5.3937
CD.300310.XL	3.10	.1220	4.0276	.2362	5.7480
CD.300320.XL	3.20	.1260	4.1575	.2362	5.9055
CD.300330.XL	3.30	.1299	4.2874	.2362	6.0236
CD.300340.XL	3.40	.1339	4.4173	.2362	6.1417
CD.300350.XL	3.50	.1378	4.5472	.2362	6.2598
CD.300360.XL	3.60	.1417	4.6772	.2362	6.3779
CD.300370.XL	3.70	.1457	4.8071	.2362	6.5354
CD.300380.XL	3.80	.1496	4.9370	.2362	6.6535
CD.300390.XL	3.90	.1535	5.0669	.2362	6.7716
CD.300400.XL	4.00	.1575	5.1968	.2362	6.8898
CD.300410.XL	4.10	.1614	5.3268	.2362	7.0472
CD.300420.XL	4.20	.1654	5.4567	.2362	7.1653
CD.300430.XL	4.30	.1693	5.5866	.2362	7.2835
CD.300440.XL	4.40	.1732	5.7165	.2362	7.4016
CD.300450.XL	4.50	.1772	5.8464	.2362	7.5197
CD.300460.XL	4.60	.1811	5.9764	.2362	7.6772
CD.300470.XL	4.70	.1850	6.0163	.2362	7.7953
CD.300480.XL	4.80	.1890	6.2362	.2362	7.9134
CD.300490.XL	4.90	.1929	6.3661	.2362	8.0315
CD.300500.XL	5.00	.1969	6.4961	.2362	8.1890
CD.300510.XL	5.10	.2008	6.6260	.2362	8.3071
CD.300520.XL	5.20	.2047	6.7559	.2362	8.4252
CD.300530.XL	5.30	.2087	6.8858	.2362	8.5433
CD.300540.XL	5.40	.2126	7.0157	.2362	8.6614
CD.300550.XL	5.50	.2165	7.1457	.2362	8.8189
CD.300560.XL	5.60	.2205	7.2756	.2362	8.9370
CD.300570.XL	5.70	.2244	7.4055	.2362	9.0551
CD.300580.XL	5.80	.2283	7.5354	.2362	9.1732
CD.300590.XL	5.90	.2323	7.6653	.2362	9.2913
CD.300600.XL	6.00	.2362	7.7953	.2362	9.4488



Usable flute length 40 x d

Item number coated	d (k6) mm	d (k6) inches	l inches	D (h6) inches	L inches
CD.400200.XL	2.00	.0787	3.3858	.1575	4.9213
CD.400210.XL	2.10	.0827	3.5551	.1575	5.1181
CD.400220.XL	2.20	.0866	3.7244	.1575	5.2756
CD.400230.XL	2.30	.0906	3.8937	.1575	5.4331
CD.400240.XL	2.40	.0945	4.0630	.1575	5.5905
CD.400250.XL	2.50	.0984	4.2323	.1575	5.7480
CD.400260.XL	2.60	.1024	4.4016	.1575	5.9449
CD.400270.XL	2.70	.1063	4.5709	.1575	6.1024
CD.400280.XL	2.80	.1102	4.7401	.1575	6.2598
CD.400290.XL	2.90	.1142	4.9094	.1575	6.4173
CD.400300.XL	3.00	.1181	5.0787	.1575	6.5748
CD.400310.XL	3.10	.1220	5.2480	.2362	6.9685
CD.400320.XL	3.20	.1260	5.4173	.2362	7.1653
CD.400330.XL	3.30	.1299	5.5866	.2362	7.3228
CD.400340.XL	3.40	.1339	5.7559	.2362	7.4803
CD.400350.XL	3.50	.1378	5.9252	.2362	7.6378
CD.400360.XL	3.60	.1417	6.0945	.2362	7.7953
CD.400370.XL	3.70	.1457	6.2638	.2362	7.9921
CD.400380.XL	3.80	.1496	6.4331	.2362	8.1496
CD.400390.XL	3.90	.1535	6.6023	.2362	8.3071
CD.400400.XL	4.00	.1575	6.7716	.2362	8.4646
CD.400410.XL	4.10	.1614	6.9409	.2362	8.6614
CD.400420.XL	4.20	.1654	7.1102	.2362	8.8189
CD.400430.XL	4.30	.1693	7.2795	.2362	8.9764
CD.400440.XL	4.40	.1732	7.4488	.2362	9.1338
CD.400450.XL	4.50	.1772	7.6181	.2362	9.2913
CD.400460.XL	4.60	.1811	7.7874	.2362	9.4882
CD.400470.XL	4.70	.1850	7.9567	.2362	9.6457
CD.400480.XL	4.80	.1890	8.1260	.2362	9.8031
CD.400490.XL	4.90	.1929	8.2953	.2362	9.9606
CD.400500.XL	5.00	.1969	8.4646	.2362	10.1575
CD.400510.XL	5.10	.2008	8.6338	.2362	10.3149
CD.400520.XL	5.20	.2047	8.8031	.2362	10.4724
CD.400530.XL	5.30	.2087	8.9724	.2362	10.6299
CD.400540.XL	5.40	.2126	9.1417	.2362	10.7874
CD.400550.XL	5.50	.2165	9.3110	.2362	10.9842
CD.400560.XL	5.60	.2205	9.4803	.2362	11.1417
CD.400570.XL	5.70	.2244	9.6496	.2362	11.2992
CD.400580.XL	5.80	.2283	9.8189	.2362	11.4567
CD.400590.XL	5.90	.2323	9.9882	.2362	11.6142
CD.400600.XL	6.00	.2362	10.1575	.2362	11.8110

CRAZYDRILL™ by Mikron Tool

Cool XL

Guidelines for cutting parameters

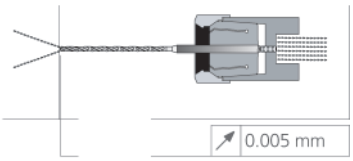
Materials to be machined	Examples	Cutting speed v_c m/min (SFM)	Drilling depth l/d	Feed f in inch/revolution (ipr) in relation to diameter (indicative)								
				1.0 mm .0394"	1.25 mm .0492"	1.5 mm .0591"	2.0 mm .0787"	2.5 mm .0984"	3.0 mm .1181"	4.0 mm .1575"	5.0 mm .1969"	6.0 mm .2362"
Non- and low-alloy steels	1010 - 1044 - 1215 - 1527	50 - 100 (165 - 330)	15 / 20 30	.0024 .0012	.0024 .0016	.0031 .0020	.0039 .0031	.0047 .0031	.0059 .0039	.0071 .0047	.0087 .0055	.0098 .0063
Low-alloy tool steels	4140 - 4340 - 5140 8640 - 52100 - M50	50 - 100 (165 - 330)	15 / 20 30	.0024 .0012	.0024 .0020	.0031 .0024	.0039 .0031	.0047 .0039	.0059 .0047	.0059 .0055	.0071 .0063	.0079 .0071
High-alloy steels	A2 - D2 - D3 - M2	40 - 80 (130 - 260)	15 / 20 30	.0016 .0012	.0024 .0020	.0031 .0024	.0039 .0031	.0047 .0039	.0059 .0047	.0071 .0055	.0079 .0063	.0087 .0067
Cast iron	Gray Cast Iron 15 to 60 Ductile Cast Iron F36200	100 - 200 (330 - 660)	15 / 20 30	.0024 .0016	.0031 .0024	.0039 .0031	.0047 .0039	.0059 .0047	.0071 .0059	.0079 .0071	.0098 .0079	.0118 .0098
Hardened Steels	>50HRc	25 - 50 (82 - 165)	15 / 20 30	.0002 .0002	.0002 .0002	.0002 .0002	.0002 .0002	.0004 .0004	.0006 .0006	.0008 .0008	.0012 .0012	.0012 .0012
Ferretic stainless Martensitic stainless	405 - 409 - 430 - 442 403 - 410 - 414 - 420	30 - 60 (100 - 200)	15 / 20 30	.0008	.0012	.0016	.0024	.0028	.0039	.0047	.0059	.0071
				<---------- being tested ---------->								
Austenitic stainless steel	303 - 304 - 316 - 321	30 - 60 (100 - 200)	15 / 20 30	.0008	.0012	.0016	.0024	.0028	.0039	.0047	.0059	.0071
				<---------- being tested ---------->								
Aluminum alloy wrought	6061 - 7075	100 - 200 (330 - 660)	15 / 20 30	.0016 .0012	.0024 .0016	.0031 .0020	.0047 .0028	.0063 .0039	.0079 .0047	.0098 .0059	.0118 .0079	.0118 .0079
Aluminum alloy cast	355 - 360 - 385 - 413	100 - 200 (330 - 660)	15 / 20 30	.0016 .0012	.0024 .0016	.0031 .0020	.0039 .0024	.0047 .0031	.0059 .0039	.0079 .0047	.0098 .0059	.0118 .0079

Important: for drilling depths of 40 x ø, the cutting parameters have to be adapted to the available machine and the specific application! Please contact our tooling technology consultants for information and support.

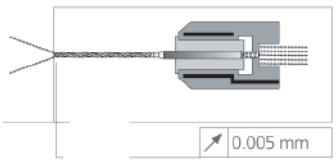
General criteria:
These values are intended to represent approximate ranges. This data is indicative. Different conditions due to machine, spindle, working direction vertical or horizontal, coolant, etc. can influence the performance.

Clamping equipment

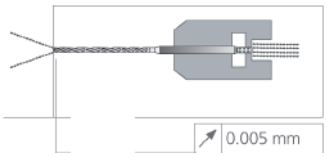
High-precision collet systems for minimal run out (T.I.R). Length presetting and axial protection with mechanical stop.



Hydraulic expansion chuck with intermediate bushing for force-closed clamping. Guaranteeing minimal run out (T.I.R).



Shrink-fit chucks guarantee minimal run out (T.I.R.) with secure friction-type locking providing an optimum connection between tool and tool holder.



Cooling lubricant

Type of lubricant
For best results, Mikron Tool recommends the use of cutting oil as lubricant. The use of water based coolant with high pressure additives is also possible as an alternative.

Power chamber
The shank is provided with a power chamber for small diameters up to 3 mm.
This guarantees:
- sufficiently large flow of coolant even at lower pressure
- greater coolant flow at identical pressure

Coolant pressure
For lengths of 15 x ø and more, we recommend a minimum pressure of 60 bar (870 PSI) at the spindle. General rule: the smaller and longer the drill, the higher the needed pressure.

Filter quality
A good filter quality is particularly important for small diameters:
- Filter quality of 10 microns for diameters < 2 mm
- Filter quality of 20 microns for diameters range 2–3 mm

Pecking
No pecking cycles are required for CrazyDrill Cool XL

CRAZYDRILL™ by Mikron Tool

Cool XL

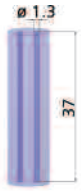
The chip shape is crucial

Perfect chips Critical chips

The chip formation determines the success of deep hole drilling
Speed and feed have to be tuned for the perfect chips.

Examples:

Automotive:
- Hole depth 30 x ø
- Ball bearing steel 52100
- CrazyDrill Cool XL, ø 1.3 mm (.051”)
- Cutting speed v_C 80 m/min (262 SFM)
- Feed f 0.06 mm/rev (.0026 ipr)
- Hole quality:
- Perpendicularity 0.037 (.0015”)
- Straightness 0.013 (.0005”)
- Roundness 0.005 (.0002”)



Mechanical Components:
- Hole depth 20 x ø
- GGG 40
- CrazyDrill Cool XL, ø 4.0 mm (.1574”)
- Cutting speed v_C 120 m/min (393 SFM)
- Feed f 0.20 mm/rev (.0079 ipr)

Hydraulics:
- Hole depth 30 x ø
- Aluminium alloy wrought (AlMgSi 1)
- CrazyDrill Cool XL, ø 3.0 mm (.118”)
- Cutting speed v_C 150 m/min (490 SFM)
- Feed f 0.20 mm/rev (.0079 ipr)

Services that complete the concept

Engineering and Consulting
Mikron Tool supports our customers on the selection of suitable tools with respect to material and geometry, required tolerances and ideal operating parameters, and partners with them from the initial trials through mass production.

Regrinding
CrazyDrill Cool XL can be reground and recoated which considerably increases the cost-effectiveness of this drill. This service is offered at all Mikron Tool locations. The performance of a reground CrazyDrill Cool XL in regard of performance, precision and hole quality is equal to a new drill.

Certifications
Mikron Tool is certified to:
ISO 9001:2008 for quality
ISO 14001:2004 for environment
OHSAS 18001:2007 for occupational health and safety management.

MIKRON

Your contacts

Headquarter and Production:

Mikron Tool SA Agno
P.O. Box 340
6934 Bioggio
Switzerland
Phone +41 91 610 40 00
Fax +41 91 610 40 10
mto@mikron.com

North and South America Sales:

Mikron Corp. Monroe
P.O. Box 268
200 Main Street
Monroe, CT 06468
USA
Phone +1 203 261 3100
Fax +1 203 268 4752
mmo@mikron.com
www.mikron.com/tool-us

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