

CrazyDrill™ Steel

Mikron Tool 



The cost-effective  
high-performance small drill

**CRAZYDRILL™**  
by Mikron Tool  
Steel



# The high-performance data

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## High-speed data for steel:

Carbon Steels - Tool Steels - Cast Iron / Short lengths up to 4 x d (CD.040xxx.S)

Materials to be machined	Strength / Hardness (N/mm <sup>2</sup> )	Examples	Cutting speed V <sub>C</sub> (m/min)	Feed f in mm / revolution in relation to diameter										
				0,4 mm	0,8 mm	1,0 mm	1,25 mm	1,5 mm	2,0 mm	2,5 mm	3,0 mm	4,0 mm	5,0 mm	6,0 mm
Non-alloy steels	up to 800	Cq15, C15, St.37, St.60, CK45 9SMnPb28, C35, 45Mn6, GS58	50 to 120	up to 0,04	up to 0,10	up to 0,12	up to 0,15	up to 0,20	up to 0,25	up to 0,27	up to 0,35	up to 0,37	up to 0,39	up to 0,40
Low-alloy steels	800 to 1000	16MnCr5, CK60, 53MnSi4, 90MnCrV8, 31NiCr14, 41CrAlMo7	50 to 100	up to 0,015	up to 0,04	up to 0,10	up to 0,15	up to 0,25	up to 0,28	up to 0,30	up to 0,35	up to 0,37	up to 0,39	up to 0,40
Alloy steels	1000 to 1400	14CrNi14, 100Cr6, 100MnCrW4, 31CrMo12, 20MnCr5, 42CrMo4	40 to 80	up to 0,015	up to 0,03	up to 0,08	up to 0,12	up to 0,16	up to 0,20	up to 0,23	up to 0,25	up to 0,27	up to 0,30	up to 0,32
Tool steels	up to 1200	X210CrW12, 75CrMoNi6-7, X165CrMoV12, 56NiCrMoV7	30 to 60	up to 0,02	up to 0,07	up to 0,12	up to 0,15	up to 0,20	up to 0,25	up to 0,28	up to 0,30	up to 0,32	up to 0,34	up to 0,35
Cast iron	up to 300 HB	GG20-GG50 GGG40-GGG70 GTW / GTS	up to 150	up to 0,04	up to 0,15	up to 0,20	up to 0,25	up to 0,30	up to 0,35	up to 0,40	up to 0,45	up to 0,47	up to 0,49	up to 0,50

### Important operating criteria

For optimum results Mikron Tool recommends the use of cutting oil as a coolant. Alternatively emulsion can also be used (with EP additives).

### Drills up to 7 x d (long length)

In the case of drill depths over 4 x d, Mikron Tool SA recommends centering or a pilot hole. It can be drilled using the CrazyDrill Pilot. Standard feed rates should be reduced by about 30%. In the case of drill depths greater than 4 x d, we recommend pecking cycles.

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### Five benefits:

1. Maximum drilling speeds
2. Enhanced tool life
3. Self-centering
4. Highly accurate hole dimensions (H7/H8)
5. Excellent surface quality





## The high-performance service

### Star Service

With its Star Service (Standard Tool Adjustment & Record Service) Mikron Tool offers high-performance drills in non-standard sizes.

Within 48 hours of your request you will receive a quote, including both a drawing and a firm delivery date.

### Regrinding Recoating

Mikron Tool offers a regrinding and recoating service for its CrazyDrill range (drill diameters starting at 1.5 mm), making Mikron Tool products an even better value for money.

### Top-quality coating

In Balzers AG, Mikron Tool has found an ideal partner for high-performance drilling. "Balinit Futura" is an impressive coating with outstanding properties. It combines superior strength and durability with excellent thermal and chemical stability. The coating is designed to match the specific geometry of the CrazyDrill range and so guarantees superb performance.



Advanced coating systems create the conditions required for the high performance and excellent productivity of the Mikron Tool range.

# High performance tools from Mikron Tool

## CrazyDrill: for large production lots and materials difficult to machine.

CrazyDrill is ideally suited for high volume production of precision parts. CrazyDrill offers, comparing to standard drills, much higher cutting speeds and feeds.



## MiquDrill: for smaller production lots and a variety of work pieces

Mikron Tool standard quality drills MiquDrill are the perfect solution for the machining of small to midsize work pieces, guaranteeing at the same time quality and process reliability.



## Special tools: customer tailored solutions for machining of precision parts

Developed for particular machining operations; special tools guarantee the best conditions for a process-sure, efficient machining of precision parts.

## Special tools



