

CrazyDrill™ SST-Inox

MIKRON

World's Newest Tool



*Solid carbide drill for stainless steel
and super alloys*

CRAZYDRILL™
by Mikron Tool
SST-Inox

CrazyDrill™ SST-Inox

The latest stroke of genius from Mikron Tool
2 drills for stainless steel and super alloys

CRAZYDRILL™
by Mikron Tool
SST-Inox

Mikron Tool offers 2 exclusive solutions for drilling up to 8 x d:

- a) CrazyDrill Inox Type IN for drilling with external cooling.
b) CrazyDrill Inox Type IK for drilling with internal cooling.

1 Shaft
The robust solid carbide shaft allows a stable drilling without vibrations.

3 Solid carbide
The solid carbide especially developed for CrazyDrill SST-Inox fulfills perfectly all requests for the machining of stainless steel and super alloys.

4 Coating
The especially developed high-performance coating eXedur is abrasion and heat resistant. It prevents build up material and supports a smooth chip removal. The result is a long tool life.

5 Digressive flute
The newest patented digressive flute technology guarantees a quick chip evacuation and an high stiffness.

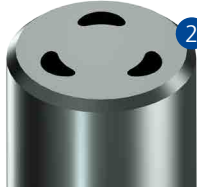
6 Cutting geometry
The drill point geometry is especially developed for stainless steel and super alloys. This new geometry ensures:

- high cutting edge stability
- short chips
- self-centering

Flood cooling Type IN




Through cooling Type IK




2 New cooling concept
The through coolant through the shank provides an efficient cooling to the drill point. The result is a reliable process and an increased productivity.



PATENTED

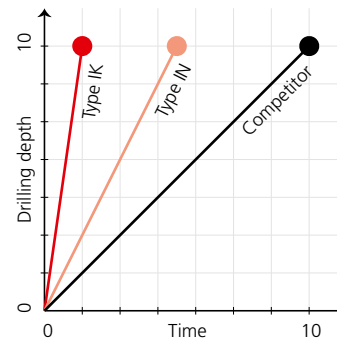
CrazyDrill™ SST-Inox

Best performance in stainless steel and super alloys

Shorter machining time *

- More cutting speed
- Higher feed rate

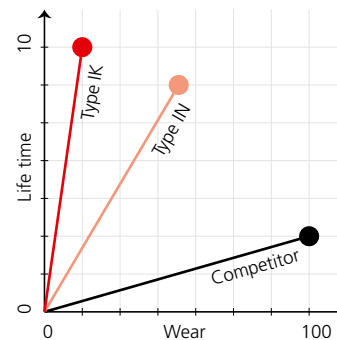
= up to 10 times faster



Longer tool life *

- Special carbide
- High performance coating
- Through coolant

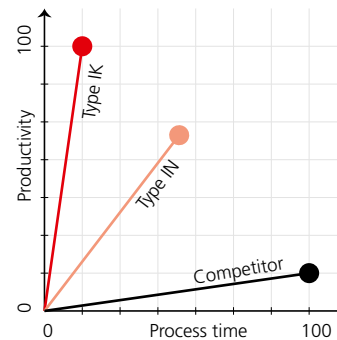
= up to 15 times longer



Higher process reliability *

- Short chips
- Quick chips evacuation

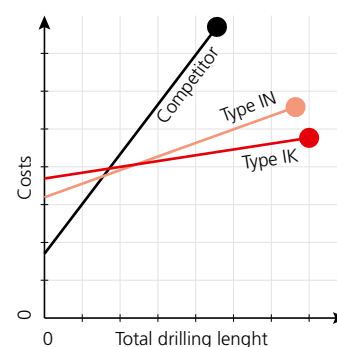
= higher productivity



Lower production costs *

- Shorter machining time
- Longer tool life
- Higher process reliability

= up to 3 times

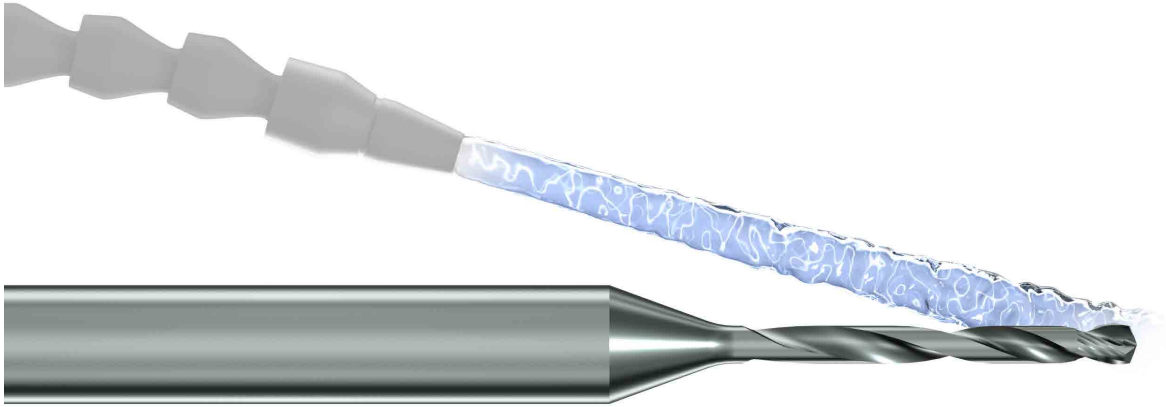


* Comparison based on tools for stainless steel and super alloys available on the market and drilling parameters recommended by the competitors.

CrazyDrill™ SST-Inox Type IN

Drilling with external cooling

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Example:



Stainless steel: 316L / 1.4435
d = 0.5 mm, drilling depth 8 x d
 $v_c = 30 \text{ m/min}$
 $f = 0.015 \text{ mm/rev}$
 $Q_1 = 1 \times d$
 $Q_x = 0.5 \times d$

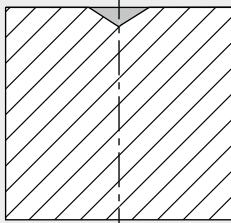
Time for 100 holes = 13 minutes

Process

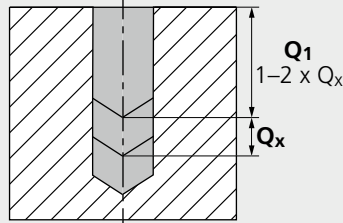
Drilling according to DIN 66025 / PAL:

G83 deep hole drilling cycle with chip pecking, Q = depth of the single step

Step 1
CrazyDrill Twicenter
 Centering
 (see page 13)

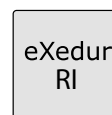
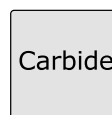
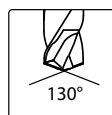
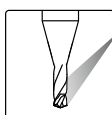
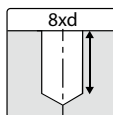
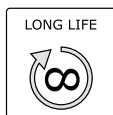


Step 2
CrazyDrill SST-Inox IN
 First step Q_1 and further steps Q_x
 (see chart page 6/7)

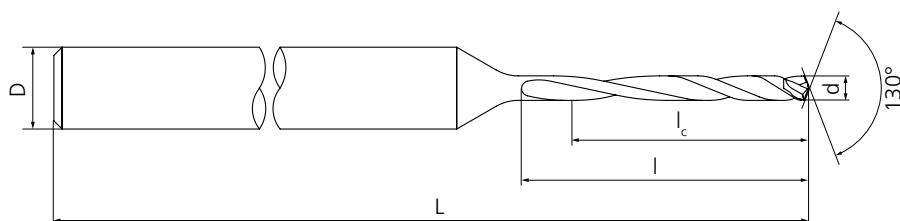


CrazyDrill™ SST-Inox Type IN

Drilling with external cooling



Item number	mm				
	d 0/+0.004 [mm]	l _c [mm]	l [mm]	D (h6) [mm]	L [mm]
CD.080030.IN	0.30	2.4	2.9	3	38.0
CD.080035.IN	0.35	2.8	3.4	3	38.0
CD.080040.IN	0.40	3.2	3.9	3	38.0
CD.080045.IN	0.45	3.6	4.4	3	42.0
CD.080050.IN	0.50	4.0	4.9	3	42.0
CD.080055.IN	0.55	4.4	5.4	3	42.0
CD.080060.IN	0.60	4.8	5.9	3	42.0
CD.080065.IN	0.65	5.2	6.4	3	45.0
CD.080070.IN	0.70	5.6	6.9	3	45.0
CD.080075.IN	0.75	6.0	7.4	3	45.0
CD.080080.IN	0.80	6.4	7.8	3	45.0
CD.080085.IN	0.85	6.8	8.3	3	45.0
CD.080090.IN	0.90	7.2	8.8	3	45.0
CD.080095.IN	0.95	7.6	9.3	3	48.0
CD.080100.IN	1.00	8.0	9.8	3	48.0
CD.080105.IN	1.05	8.4	10.3	3	48.0
CD.080110.IN	1.10	8.8	10.8	3	48.0
CD.080115.IN	1.15	9.2	11.3	3	48.0
CD.080120.IN	1.20	9.6	11.8	3	48.0
CD.080125.IN	1.25	10.0	12.3	3	52.0
CD.080130.IN	1.30	10.4	12.7	3	52.0
CD.080135.IN	1.35	10.8	13.2	3	52.0
CD.080140.IN	1.40	11.2	13.7	3	52.0
CD.080145.IN	1.45	11.6	14.2	3	52.0
CD.080150.IN	1.50	12.0	14.7	3	52.0
CD.080155.IN	1.55	12.4	15.2	3	55.0
CD.080160.IN	1.60	12.8	15.7	3	55.0
CD.080165.IN	1.65	13.2	16.2	3	55.0
CD.080170.IN	1.70	13.6	16.7	3	55.0
CD.080175.IN	1.75	14.0	17.2	3	55.0
CD.080180.IN	1.80	14.4	17.6	3	55.0
CD.080185.IN	1.85	14.8	18.1	3	55.0
CD.080190.IN	1.90	15.2	18.6	3	55.0
CD.080195.IN	1.95	15.6	19.1	3	55.0
CD.080200.IN	2.00	16.0	19.6	3	55.0



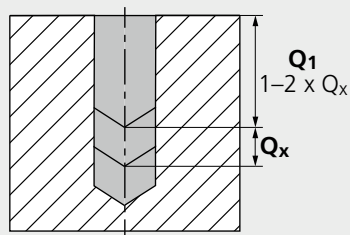
l_c = Cutting length
l = Flute length

CrazyDrill™ SST-Inox Type IN

Drilling with external cooling

CrazyDrill SST-Inox IN

First step Q_1
and further steps Q_x



Material group	Material	Material number	DIN	AISI/ASTM/UNS	
M	Stainless steel - ferritic	1.4016	X6Cr17	S18235	
		1.4105	X6CrMoS17	AISI 430F	
	Stainless steel - martensitic	1.4028	X30Cr13	AISI 420B	
		1.4034	X46Cr13	AISI 420C	
		1.4057	X17CrNi16-2	AISI 431	
		1.4112	X90CrMoV18	AISI 440B	
		1.4125	X105CrMo17	AISI 440C	
	Stainless steel - martensitic - PH	1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH	
		1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH	
	Stainless steel - austenitic	1.4305	X8CrNiS 18-9	AISI 303	
		1.4301	X5CrNi 18-10	AISI 304	
		1.4435	X2CrNiMo 18-14-3	AISI 316L	
		1.4441	X2CrNiMo 18-14-3	AISI 316LM	
		1.4539	X1NiCrMoCu 25-20-5	AISI 904L	
N	Copper	2.0040	Cu-OF	OF C	
		2.0065	Cu-ETP	ETP C	
	Brass lead free	2.0321	CuZn37 CW508L	C27400	
		2.0360	CuZn40 CW509L	C28000	
S	Super alloys	2.4856		Inconel 625	
		2.4668		Inconel 718	
		2.4617	NiMo28	Hastelloy B-2	
		2.4665	NiCr22Fe18Mo	Hastelloy X	
	Cr-Co alloys		CrCoMo28	F-1537	
		2.4964	CoCr20W15Ni	Haynes 25	

Recommendation for tool holders
see page 18

Cutting data chart

CRAZYDRILL™
by Mikron Tool
SST-Inox

	v_c [m/min]	$\varnothing d$ 0.3–0.5 f Q_x [mm/rev]		$\varnothing d$ 0.6–0.8 f Q_x [mm/rev]		$\varnothing d$ 0.9–1.1 f Q_x [mm/rev]		$\varnothing d$ 1.2–1.4 f Q_x [mm/rev]		$\varnothing d$ 1.5–1.7 f Q_x [mm/rev]		$\varnothing d$ 1.8–2.0 f Q_x [mm/rev]	
	30–40	0.01–0.015	1/2xØ	0.015–0.025	1/2xØ	0.025–0.03	1/2xØ	0.03–0.04	1/2xØ	0.04–0.05	1/2xØ	0.05–0.06	1/2xØ
	30–40	0.015–0.025	1/2xØ	0.025–0.035	1/2xØ	0.035–0.04	1/2xØ	0.04–0.05	1/2xØ	0.05–0.06	1/2xØ	0.06–0.07	1/2xØ
	30–40	0.01–0.015	1/2xØ	0.015–0.02	1/2xØ	0.02–0.03	1/2xØ	0.03–0.04	1/2xØ	0.04–0.05	1/2xØ	0.05–0.06	1/2xØ
	25–35	0.01–0.015	1/2xØ	0.015–0.02	1/2xØ	0.02–0.03	1/2xØ	0.03–0.04	1/2xØ	0.04–0.045	1/2xØ	0.04–0.06	1/2xØ
	30–100	0.03–0.06	2xØ	0.04–0.08	2xØ	0.05–0.1	2xØ	0.06–0.12	2xØ	0.07–0.15	2xØ	0.08–0.18	2xØ
	30–100	0.03–0.06	1xØ–2xØ	0.04–0.08	1xØ–2xØ	0.05–0.1	1xØ–2xØ	0.06–0.12	1xØ–2xØ	0.07–0.15	1xØ–2xØ	0.08–0.18	1xØ–2xØ
	15–25	0.005–0.01	1/4xØ	0.01–0.015	1/4xØ	0.015–0.02	1/4xØ	0.02–0.025	1/4xØ	0.03–0.035	1/4xØ	0.03–0.04	1/4xØ
	25–35	0.015–0.025	1/2xØ	0.025–0.035	1/2xØ	0.04–0.05	1/2xØ	0.05–0.06	1/2xØ	0.06–0.07	1/2xØ	0.07–0.08	1/2xØ

CrazyDrill™ SST-Inox Type IK

Drilling with internal cooling

CRAZYDRILL™
by Mikron Tool
SST-Inox



Example:



Stainless steel: 316L / 1.4435
d = 0.5 mm, drilling depth 8 x d
 $v_c = 35 \text{ m/min}$
 $f_c = 0.015 \text{ mm/rev}$
 $Q_1 = 2 \times d$
 $Q_x = 1 \times d$

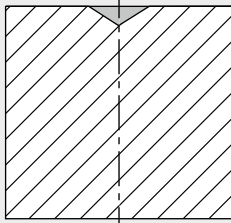
Time for 100 holes = 7 minutes

Process

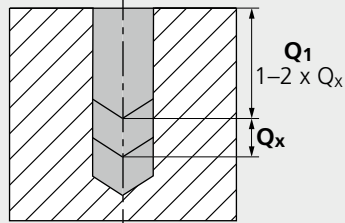
Drilling according to DIN 66025 / PAL:

G83 deep hole drilling cycle with chip pecking, Q = depth of the single step

Step 1
CrazyDrill Twicenter
 Centering
 (see page 13)

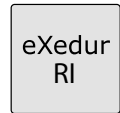
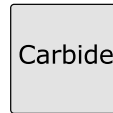
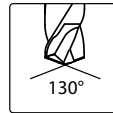
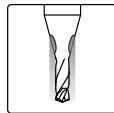
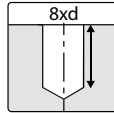
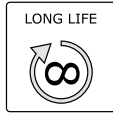


Step 2
CrazyDrill SST-Inox IK
 First step Q_1 and further steps Q_x
 (see chart page 10/11)

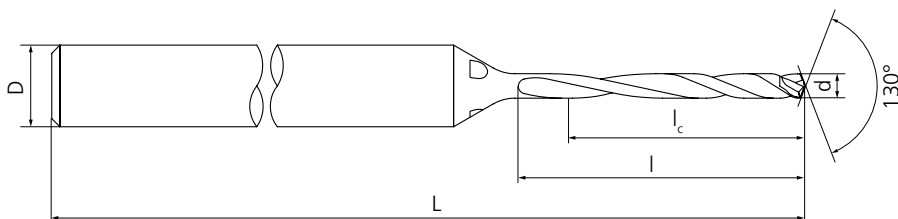


CrazyDrill™ SST-Inox Type IK

Drilling with internal cooling



Item number	mm				
	d 0/+0.004 [mm]	l _c [mm]	l [mm]	D (h6) [mm]	L [mm]
CD.080030.IK	0.30	2.4	2.9	3	38.0
CD.080035.IK	0.35	2.8	3.4	3	38.0
CD.080040.IK	0.40	3.2	3.9	3	38.0
CD.080045.IK	0.45	3.6	4.4	3	42.0
CD.080050.IK	0.50	4.0	4.9	3	42.0
CD.080055.IK	0.55	4.4	5.4	3	42.0
CD.080060.IK	0.60	4.8	5.9	3	42.0
CD.080065.IK	0.65	5.2	6.4	3	45.0
CD.080070.IK	0.70	5.6	6.9	3	45.0
CD.080075.IK	0.75	6.0	7.4	3	45.0
CD.080080.IK	0.80	6.4	7.8	3	45.0
CD.080085.IK	0.85	6.8	8.3	3	45.0
CD.080090.IK	0.90	7.2	8.8	3	45.0
CD.080095.IK	0.95	7.6	9.3	3	48.0
CD.080100.IK	1.00	8.0	9.8	3	48.0
CD.080105.IK	1.05	8.4	10.3	3	48.0
CD.080110.IK	1.10	8.8	10.8	3	48.0
CD.080115.IK	1.15	9.2	11.3	3	48.0
CD.080120.IK	1.20	9.6	11.8	3	48.0
CD.080125.IK	1.25	10.0	12.3	4	52.0
CD.080130.IK	1.30	10.4	12.7	4	52.0
CD.080135.IK	1.35	10.8	13.2	4	52.0
CD.080140.IK	1.40	11.2	13.7	4	52.0
CD.080145.IK	1.45	11.6	14.2	4	52.0
CD.080150.IK	1.50	12.0	14.7	4	52.0
CD.080155.IK	1.55	12.4	15.2	4	55.0
CD.080160.IK	1.60	12.8	15.7	4	55.0
CD.080165.IK	1.65	13.2	16.2	4	55.0
CD.080170.IK	1.70	13.6	16.7	4	55.0
CD.080175.IK	1.75	14.0	17.2	4	55.0
CD.080180.IK	1.80	14.4	17.6	4	55.0
CD.080185.IK	1.85	14.8	18.1	4	55.0
CD.080190.IK	1.90	15.2	18.6	4	55.0
CD.080195.IK	1.95	15.6	19.1	4	55.0
CD.080200.IK	2.00	16.0	19.6	4	55.0



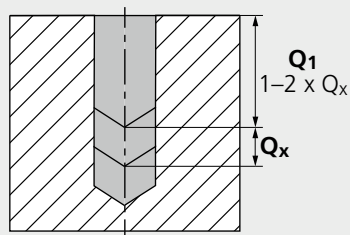
l_c = Cutting length
l = Flute length

CrazyDrill™ SST-Inox Type IK

Drilling with internal cooling

CrazyDrill SST-Inox IK

First step Q_1
and further steps Q_x



Material group	Material	Material number	DIN	AISI/ASTM/UNS	
M	Stainless steel - ferritic	1.4016	X6Cr17	S18235	
		1.4105	X6CrMoS17	AISI 430F	
	Stainless steel - martensitic	1.4028	X30Cr13	AISI 420B	
		1.4034	X46Cr13	AISI 420C	
		1.4057	X17CrNi16-2	AISI 431	
		1.4112	X90CrMoV18	AISI 440B	
		1.4125	X105CrMo17	AISI 440C	
	Stainless steel - martensitic - PH	1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH	
		1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH	
	Stainless steel - austenitic	1.4305	X8CrNiS 18-9	AISI 303	
		1.4301	X5CrNi 18-10	AISI 304	
		1.4435	X2CrNiMo 18-14-3	AISI 316L	
		1.4441	X2CrNiMo 18-14-3	AISI 316LM	
		1.4539	X1NiCrMoCu 25-20-5	AISI 904L	
N	Copper	2.0040	Cu-OF	OF C	
		2.0065	Cu-ETP	ETP C	
	Brass lead free	2.0321	CuZn37 CW508L	C27400	
		2.0360	CuZn40 CW509L	C28000	
S	Super alloys	2.4856		Inconel 625	
		2.4668		Inconel 718	
		2.4617	NiMo28	Hastelloy B-2	
		2.4665	NiCr22Fe18Mo	Hastelloy X	
	Cr-Co alloys		CrCoMo28	F-1537	
		2.4964	CoCr20W15Ni	Haynes 25	

Recommendation for tool holders
see page 18

Cutting data chart

CRAZYDRILL™
by Mikron Tool
SST-Inox

	v_c [m/min]	$\varnothing d$ 0.3–0.5 f Q_x [mm/rev]		$\varnothing d$ 0.6–0.8 f Q_x [mm/rev]		$\varnothing d$ 0.9–1.1 f Q_x [mm/rev]		$\varnothing d$ 1.2–1.4 f Q_x [mm/rev]		$\varnothing d$ 1.5–1.7 f Q_x [mm/rev]		$\varnothing d$ 1.8–2.0 f Q_x [mm/rev]	
	35–50	0.015–0.02	1x $\varnothing$ –2x $\varnothing$	0.02–0.03	1x $\varnothing$ –2x $\varnothing$	0.03–0.04	1x $\varnothing$ –2x $\varnothing$	0.04–0.05	1x $\varnothing$ –2x $\varnothing$	0.05–0.06	1x $\varnothing$ –2x $\varnothing$	0.06–0.07	1x $\varnothing$ –2x $\varnothing$
	35–50	0.02–0.03	1x $\varnothing$ –2x $\varnothing$	0.03–0.04	1x $\varnothing$ –2x $\varnothing$	0.05–0.06	1x $\varnothing$ –2x $\varnothing$	0.06–0.07	1x $\varnothing$ –2x $\varnothing$	0.07–0.08	1x $\varnothing$ –2x $\varnothing$	0.08–0.1	1x $\varnothing$ –2x $\varnothing$
	35–50	0.015–0.02	1x $\varnothing$ –2x $\varnothing$	0.02–0.025	1x $\varnothing$ –2x $\varnothing$	0.025–0.035	1x $\varnothing$ –2x $\varnothing$	0.04–0.05	1x $\varnothing$ –2x $\varnothing$	0.05–0.06	1x $\varnothing$ –2x $\varnothing$	0.06–0.07	1x $\varnothing$ –2x $\varnothing$
	30–45	0.01–0.02	1x $\varnothing$ –2x $\varnothing$	0.015–0.025	1x $\varnothing$ –2x $\varnothing$	0.025–0.035	1x $\varnothing$ –2x $\varnothing$	0.035–0.045	1x $\varnothing$ –2x $\varnothing$	0.045–0.055	1x $\varnothing$ –2x $\varnothing$	0.055–0.06	1x $\varnothing$ –2x $\varnothing$
	40–100	0.04–0.06	4x $\varnothing$	0.05–0.08	4x $\varnothing$	0.06–0.1	4x $\varnothing$	0.08–0.12	4x $\varnothing$	0.1–0.15	4x $\varnothing$	0.12–0.18	4x $\varnothing$
	40–100	0.04–0.06	4x $\varnothing$	0.05–0.08	4x $\varnothing$	0.06–0.1	4x $\varnothing$	0.08–0.12	4x $\varnothing$	0.1–0.15	4x $\varnothing$	0.12–0.18	4x $\varnothing$
	15–30	0.01–0.015	1/2x $\varnothing$	0.015–0.02	1/2x $\varnothing$	0.02–0.025	1/2x $\varnothing$	0.025–0.035	1/2x $\varnothing$	0.035–0.04	1/2x $\varnothing$	0.045–0.055	1/2x $\varnothing$
	40–50	0.02–0.03	1x $\varnothing$ –2x $\varnothing$	0.03–0.04	1x $\varnothing$ –2x $\varnothing$	0.05–0.06	1x $\varnothing$ –2x $\varnothing$	0.06–0.07	1x $\varnothing$ –2x $\varnothing$	0.07–0.08	1x $\varnothing$ –2x $\varnothing$	0.08–0.1	1x $\varnothing$ –2x $\varnothing$

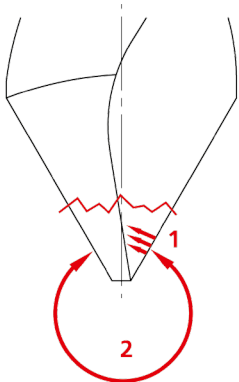


CrazyDrill™ Twicenter

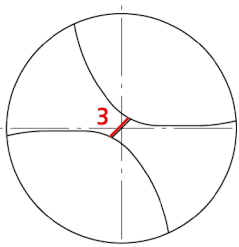
The perfect spot drill for CrazyDrill SST-Inox

CRAZYDRILL™
by Mikron Tool
Twicenter

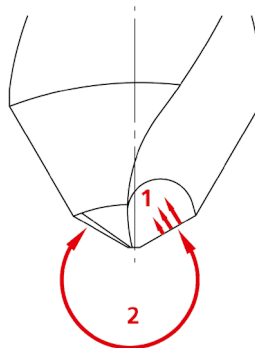
Traditional design:



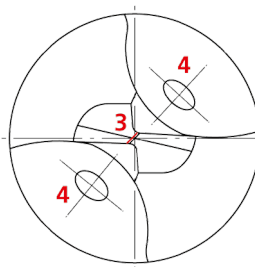
1. Poor chip removal: risk of failure.
2. 60° / 90° point angle results in insufficient cutting speed and high pressure on the point: risk of breakage.
3. Large web requires high penetration force and causes high pressure on the point: risk of breakage.



CrazyDrill Twicenter:



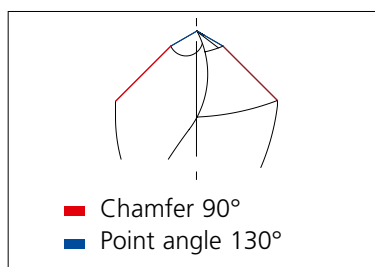
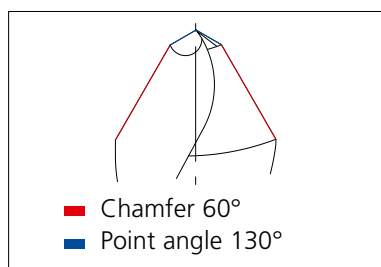
1. 130° point angle favors chip evacuation.
2. 130° point angle reduces the pressure on the point.
3. Short web reduces penetration force on the point.
4. Through tool coolant supply guarantees optimal cooling and lubrication.



The double point

Two versions for different chamfers.

For chamfers of 60° and 90° the "double point" guarantees excellent rigidity.



Coolant supply



Internal



External

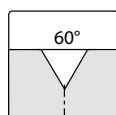
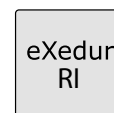
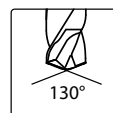
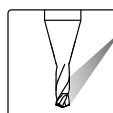
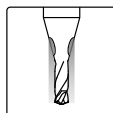
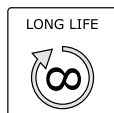
5 advantages

- Centering and chamfering in one single step
- High process reliability due to robust point angle
- Each CrazyDrill Twicenter can prepare the holes for various drill diameters
- Increased tool life due to through tool coolant and matching coating
- Recommended for machining with and without through tool coolant capabilities

CrazyDrill™ Twicenter

Centering and Chamfering in one step

CRAZYDRILL™
by Mikron Tool
Twicenter

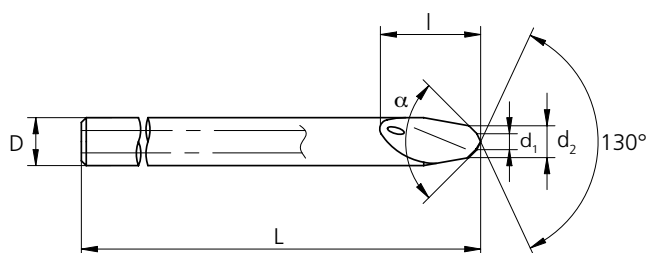
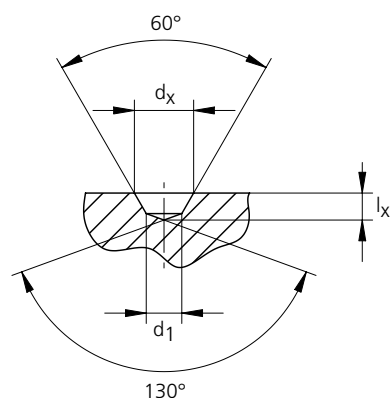


Centering – Chamfering 60°

CrazyDrill Twicenter for a chamfer of 60°

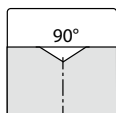
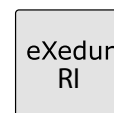
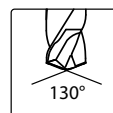
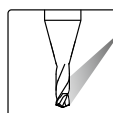
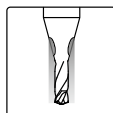
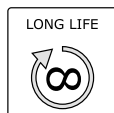
Item number	Point angle	Chamfer α	d_1 [mm]	d_2 [mm]	l [mm]	D (h6) [mm]	L [mm]
CC.03010.60	130°	60°	0.3	1.0	6	3	40
CC.05014.60	130°	60°	0.5	1.4	6	3	40
CC.10020.60	130°	60°	1.0	2.0	6	3	40
CC.15030.60	130°	60°	1.5	3.0	6	3	40
CC.20040.60	130°	60°	2.0	4.0	8	4	50

$\varnothing dx$	lx – Drilling depths, in relation to required chamfer diameter (with chamfer of 60°)				
	CC.03010.60	CC.05014.60	CC.10020.60	CC.15030.60	CC.20040.60
0.4	0.16				
0.8	0.50	0.38			
1.0		0.55			
1.5			0.67		
2.0				0.78	
2.5				1.22	0.90
3.0					1.33
3.5					1.77



CrazyDrill™ Twicenter

Centering and Chamfering in one step

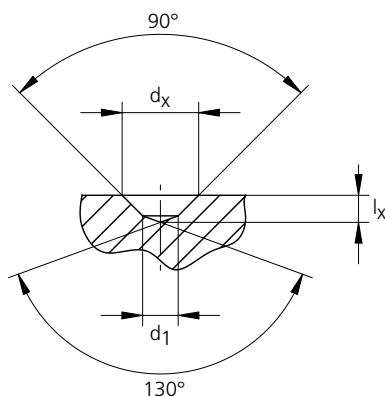


Centering – Chamfering 90°

CrazyDrill Twicenter for a chamfer of 90°

Item number	Point angle	Chamfer α	d_1 [mm]	d_2 [mm]	l [mm]	D (h6) [mm]	L [mm]
CC.03010.90	130°	90°	0.3	1.0	6	3	40
CC.05014.90	130°	90°	0.5	1.4	6	3	40
CC.10020.90	130°	90°	1.0	2.0	6	3	40
CC.15030.90	130°	90°	1.5	3.0	6	3	40
CC.20040.90	130°	90°	2.0	4.0	8	4	50

$\varnothing dx$	lx – Drilling depths, in relation to required chamfer diameter (with chamfer of 90°)				
	CC.03010.90	CC.05014.90	CC.10020.90	CC.15030.90	CC.20040.90
0.4	0.12				
0.8	0.32	0.27			
1.0		0.37			
1.5			0.48		
2.0				0.60	
2.5				0.85	0.72
3.0					0.97
3.5					1.22



CrazyDrill™ Twicenter

The perfect spot drill for CrazyDrill SST-Inox

Material group	Material	Material number	DIN	AISI/ASTM/UNS	
M	Stainless steel - ferritic	1.4016	X6Cr17	S18235	
		1.4105	X6CrMoS17	AISI 430F	
	Stainless steel - martensitic	1.4028	X30Cr13	AISI 420B	
		1.4034	X46Cr13	AISI 420C	
		1.4057	X17CrNi16-2	AISI 431	
		1.4112	X90CrMoV18	AISI 440B	
		1.4125	X105CrMo17	AISI 440C	
	Stainless steel - martensitic - PH	1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH	
		1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH	
	Stainless steel - austenitic	1.4305	X8CrNiS 18-9	AISI 303	
		1.4301	X5CrNi 18-10	AISI 304	
		1.4435	X2CrNiMo 18-14-3	AISI 316L	
		1.4441	X2CrNiMo 18-14-3	AISI 316LM	
		1.4539	X1NiCrMoCu 25-20-5	AISI 904L	
N	Copper	2.0040	Cu-OF	OF C	
		2.0065	Cu-ETP	ETP C	
	Brass lead free	2.0321	CuZn37 CW508L	C27400	
		2.0360	CuZn40 CW509L	C28000	
S	Super alloys	2.4856		Inconel 625	
		2.4668		Inconel 718	
		2.4617	NiMo28	Hastelloy B-2	
		2.4665	NiCr22Fe18Mo	Hastelloy X	
	Cr-Co alloys		CrCoMo28	F-1537	
		2.4964	CoCr20W15Ni	Haynes 25	

Cutting data chart

CRAZYDRILL™
by Mikron Tool
Twicenter

	v_c [m/min]	$\varnothing d$ 0.3 f [mm/rev]	$\varnothing d$ 0.5 f [mm/rev]	$\varnothing d$ 1.0 f [mm/rev]	$\varnothing d$ 1.5 f [mm/rev]	$\varnothing d$ 2.0 f [mm/rev]
	40 – 50	0.020	0.030	0.040	0.060	0.080
	40 – 50	0.030	0.040	0.050	0.070	0.100
	40 – 50	0.020	0.030	0.040	0.060	0.080
	30 – 40	0.015	0.025	0.030	0.040	0.060
	60 – 100	0.040	0.060	0.090	0.110	0.130
	60 – 100	0.040	0.060	0.090	0.110	0.130
	10 – 20	0.015	0.025	0.030	0.040	0.050
	40 – 50	0.020	0.030	0.040	0.060	0.080

CrazyDrill™ SST-Inox

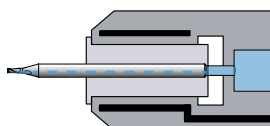
Technical information

CRAZYDRILL™
by Mikron Tool
SST-Inox

Tool holders

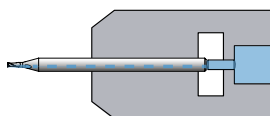
- **Hydraulic tool holder:**

Minimal run out (T.I.R.). Direct clamping for shank diameter 6 mm and with intermediate sleeve for smaller shaft diameter.



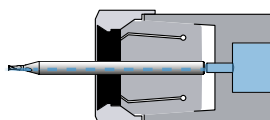
- **Shrink-fit tool holder:**

Guarantees minimal run out (T.I.R.) with secure friction-type locking and provides an optimum connection between tool and holder.



- **High-precision collets:**

For minimal run out (T.I.R.).



Presetting set screw:

Presetting set screw must not cover through feed holes on cutting tool.

Cooling lubricant / filter:

For optimum results Mikron Tool recommends the use of cutting oil as coolant. Alternatively emulsion could be used.

Large coolant holes enable to use standard filter, 50µm or better.

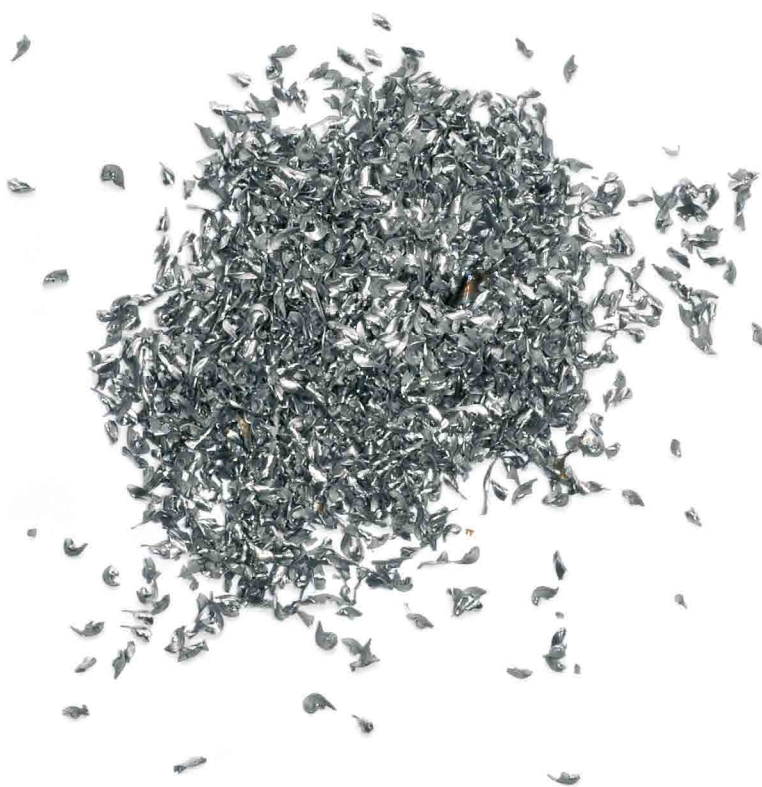
Pressure and quantity:

Mikron Tool recommends lubricant pressure as defined in the chart below. Higher pressure is generally better for cooling the tool and flushing of chips.

Chart for coolant pressure and flow rate:

Cooling lubricant: cutting oil

Revolution [rpm]	< 10'000	> 10'000
Minimal pressure [bar]	15	30
Ød Tool [mm]	Flow rate [l/min]	
0.3	0.05	0.1
0.5	0.15	0.3
1.0	1.20	1.8
2.0	1.50	2.0



CrazyDrill™ SST-Inox

Applications



Dental



Aerospace



Watches



Machine
Building



Conveyor
Technique



Petrochemistry



Jewelry



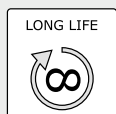
Medical



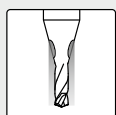
Food
Industry



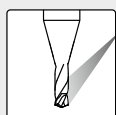
Highest performance



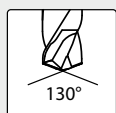
Excellent tool life



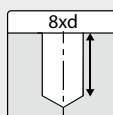
Drill with internal cooling



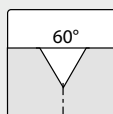
Drill with external cooling



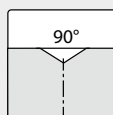
Point angle 130°



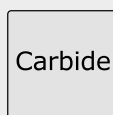
Max. drilling depth 8 x d



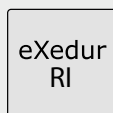
Chamfer 60°



Chamfer 90°



Solid carbide drill



High-performance coating

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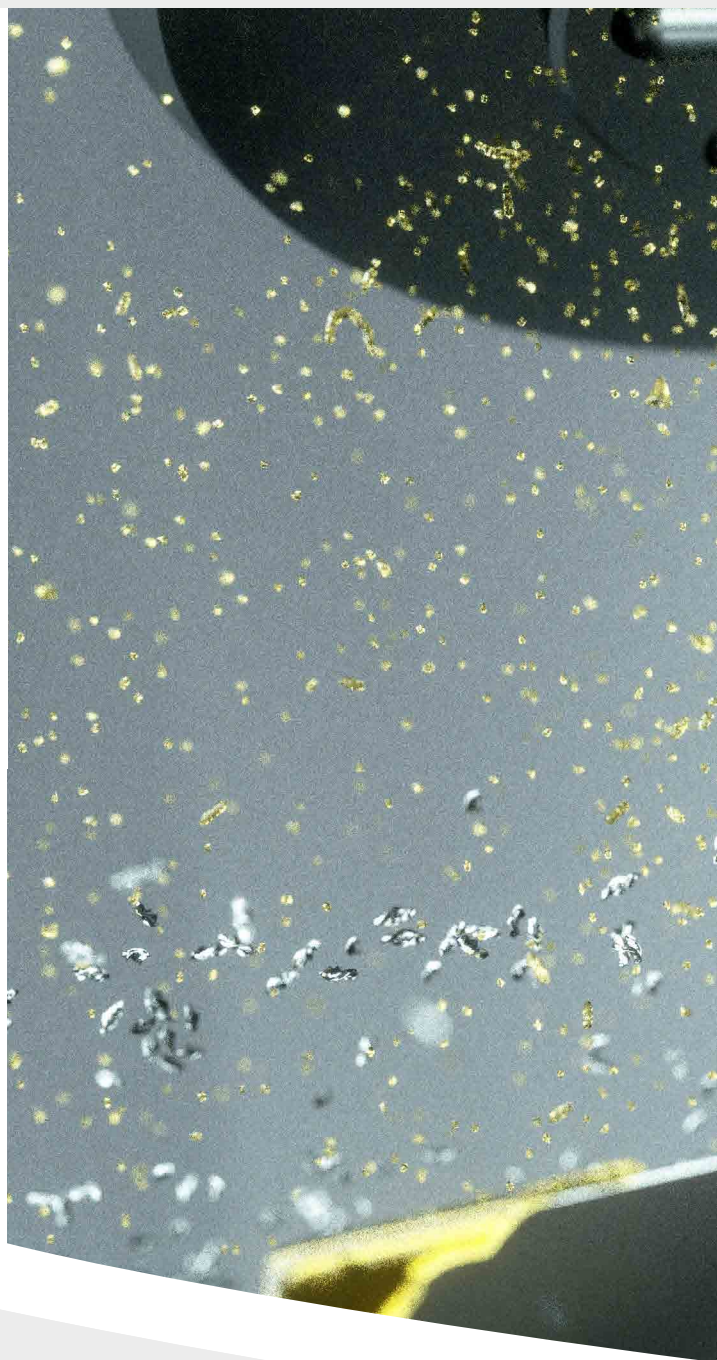
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