DIAMETAL®

DIAMILL MICRO

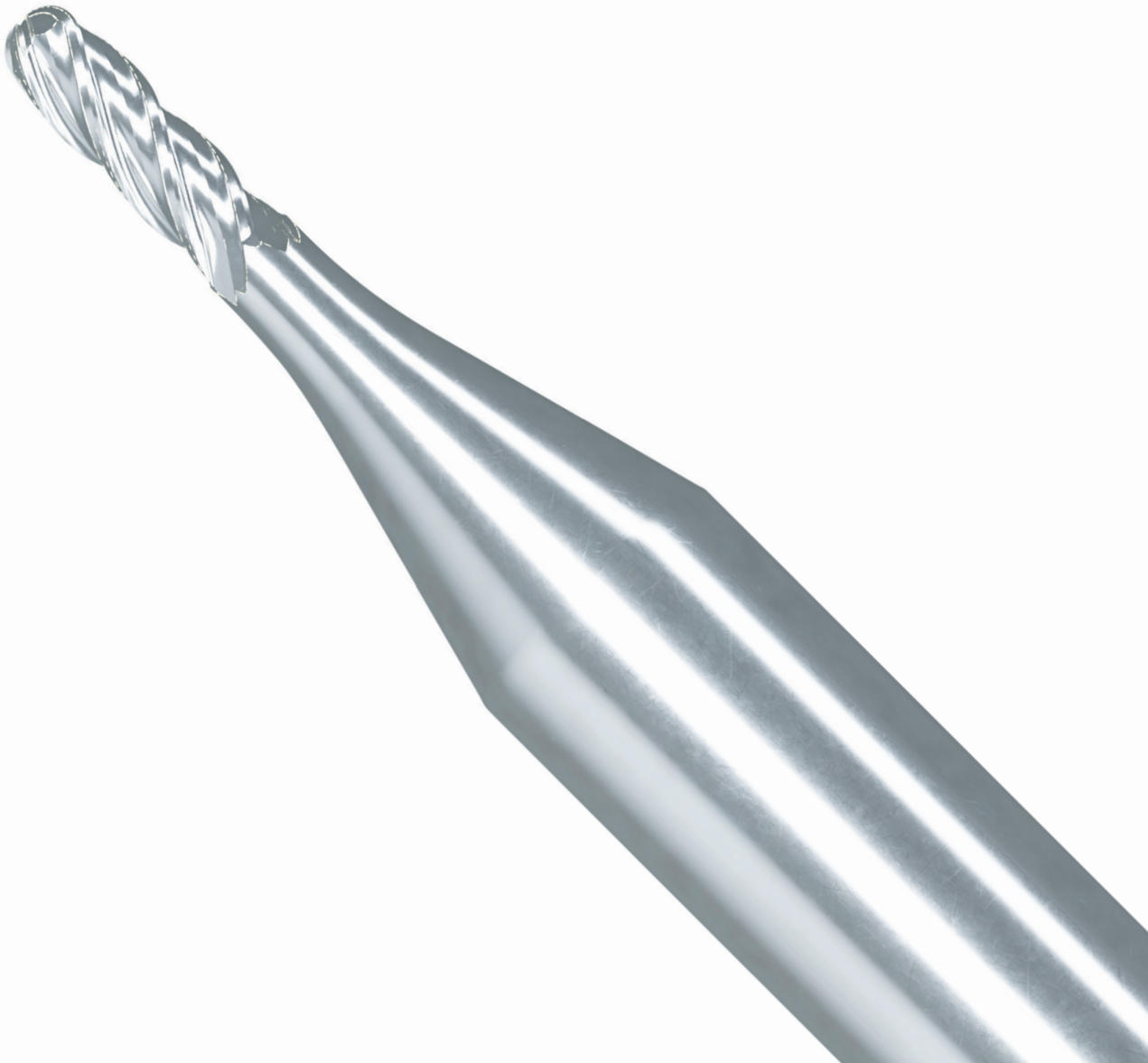
DE·EN

DIAMETAL
SWISS CUTTING TOOLS

DIAmill micro

Komplettlösungen für Mikromaschinen

Complete solutions for micro machines



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DIAmill micro

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74

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DIAmill micro

Anwendungen
Applications

	Werkzeug *Tool*	Schaftfräser mit Fase *Corner chamfer end mill*	Kugelfräser Z2 *Ball end mill Z2*	Kugelfräser Z4 *Ball end mill Z4*
	Stirngeometrien *Profile geometry*			
	Zähnezahl *Number of teeth*			
	Tiefe *Depth*	2.5xD	1.5xD	
	Spiralwinkel *Helix angle*			
	Beschichtung *Coating*	DWS	DWS	DWX
	Kodierung *Codificaion*	MI0114-NR01120	MI0116-NR01102	MI0116-AR01101
				
	Seiten *Pages*	70	72	74
ISO	Werkstoffe *Materials*	Ø 0.30 - 3.00	Ø 0.20 - 3.00	Ø 1.00 - 3.00
P1	Automatenstahl *Free-cutting steel*			
P2	Automatenstahl bleifrei *Lead-free free-cutting steel*			
P3	Unlegierter Stahl (Rm < 800 N/mm²) *Unalloyed steel (Rm < 800 N/mm²)*			
P4	Niedriglegierter Stahl (Rm < 900 N/mm²) *Low alloy steel (Rm < 900 N/mm²)*			
P5	Hochlegierter Stahl (Rm < 1200 N/mm²) *High alloy steel (Rm < 1200 N/mm²)*			
M1	Ferritischer rostfreier Stahl *Ferritic stainless steel*			
M2	Martensitischer rostfreier Stahl *Martensitic stainless steel*			
M3	Austenitischer rostfreier Stahl *Austenitic stainless steel*			
K1	Gusseisen *Cast iron*			
N1	Aluminiumguss *Cast aluminum*			
N2	Aluminium Legierungen *Aluminum alloys*			
N3	Messing, Bronze *Brass, Bronze*			
N4	Messing bleifrei *Lead-free brass*			
N5	Kupfer *Copper*			
N6	Edelmetalle *Precious metals*			
N7	Platin, Palladium *Platinum, Palladium*			
N8	Kunststoffe *Plastics*			
S1	Titan rein *Pure Titanium*			
S2	Titan Legierungen *Titanium alloys*			
S3	Super Legierungen (Cr, Co, Ni) *Superalloys (Cr, Co, Ni)*			
H1	Gehärteter Stahl (< 55 HRC) *Hardened steel (< 55 HRC)*			
H2	Gehärteter Stahl (> 55 HRC) *Hardened steel (> 55 HRC)*			

▸▸▸ Optimal / *Optimal* ▸▸ Gut / *Good* ▸ Funktionell / *Functional*

Richtwerte
Indicative values

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MI0114-NR01120

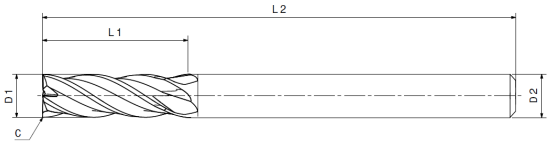
Schaftfräser mit Fase
Corner chamfer end mill



P1	P2	P3	P4	P5	M1	M2	M3	K1	N1	N2
N3	N4	N5	N6	N7	N8	S1	S2	S3	H1	







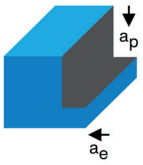
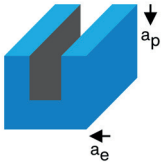
D1	L1	D2	L2	Z	C	DWS Art. N°
0.30	0.75	3	29	3	0.01x45°	**460517**
0.40	1.00	3	29	4	0.01x45°	**460518**
0.50	1.25	3	29	4	0.01x45°	**460519**
0.60	1.50	3	29	4	0.01x45°	**460520**
0.80	2.00	3	29	4	0.01x45°	**460521**
1.00	2.50	3	29	4	0.01x45°	**460522**
1.50	3.75	3	29	4	0.01x45°	**460523**
2.00	5.00	3	29	4	0.01x45°	**460524**
2.50	6.25	3	29	4	0.01x45°	**460525**
3.00	7.50	4	29	4	0.01x45°	**460526**

Weitere Beschichtungen oder kundenspezifische Lösungen auf Anfrage
Other coatings or customized solutions are available on request

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MIO114-NRO1120

Schnittparameter
Cutting parameters

Anwendung *Application*	Eckfräsen *Side Milling*		Nutenfräsen *Slotting*	
Funktion *Function*				
	a_p	$2xD_1$	a_p	$0.1xD_1$
	a_e	$0.02xD_1$	a_e	$1xD_1$

		f_z [mm]		
ISO	V_c [m/min]	Ø 0.30 - 0.80	Ø 0.90 - 1.20	Ø 1.30 - 3.00
P1	320 - 400	0.008 - 0.020	0.015 - 0.030	0.020 - 0.040
P2	320 - 400	0.008 - 0.020	0.015 - 0.030	0.020 - 0.040
P3	320 - 400	0.008 - 0.020	0.015 - 0.030	0.020 - 0.040
P4	270 - 330	0.008 - 0.020	0.015 - 0.030	0.020 - 0.040
P5	250 - 320	0.008 - 0.020	0.015 - 0.030	0.020 - 0.040
M1	280 - 350	0.007 - 0.015	0.010 - 0.030	0.015 - 0.035
M2	280 - 350	0.007 - 0.015	0.010 - 0.030	0.015 - 0.035
M3	280 - 350	0.007 - 0.015	0.010 - 0.030	0.015 - 0.035
K1	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.060
N1	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.060
N2	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.060
N3	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.060
N4	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.060
N5	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.060
N6	250 - 300	0.008 - 0.025	0.020 - 0.040	0.030 - 0.060
N7	250 - 300	0.008 - 0.025	0.020 - 0.040	0.030 - 0.060
N8	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.060
S1	280 - 350	0.008 - 0.015	0.015 - 0.030	0.025 - 0.045
S2	280 - 350	0.008 - 0.015	0.015 - 0.030	0.025 - 0.045
S3	280 - 350	0.008 - 0.015	0.015 - 0.030	0.025 - 0.045
H1	280 - 350	0.003 - 0.005	0.004 - 0.006	0.005 - 0.008
H2				

Richtwerte
Indicative values

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MI0116-NR01102

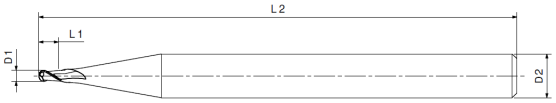
Kugelfräser Z2
Ball end mill Z2



P1	P2	P3	P4	P5	M1	M2	M3	K1	N1	N2
N3	N4	N5	N6	N7	N8	S1	S2	S3	H1	







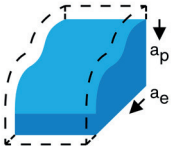
D1	L1	D2	L2	Z	DWX Art. N°
0.20	0.30	3	29	2	**460466**
0.30	0.45	3	29	2	**460467**
0.40	0.60	3	29	2	**460468**
0.50	0.75	3	29	2	**460469**
0.60	0.90	3	29	2	**460470**
0.70	1.05	3	29	2	**460471**
0.80	1.20	3	29	2	**460472**
0.90	1.35	3	29	2	**460473**
1.00	1.50	3	29	2	**460474**
1.10	1.65	3	29	2	**460475**
1.20	1.80	3	29	2	**460476**
1.30	1.95	3	29	2	**460477**
1.40	2.10	3	29	2	**460478**
1.50	2.25	3	29	2	**460479**
1.60	2.40	3	29	2	**460480**
1.70	2.50	3	29	2	**460481**
1.80	2.70	3	29	2	**460482**
1.90	2.85	3	29	2	**460483**
2.00	3.00	3	29	2	**460484**
2.50	3.75	3	29	2	**460485**
3.00	4.50	3	29	2	**460486**
3.00	9.00	3	29	2	**460487**

Weitere Beschichtungen oder kundenspezifische Lösungen auf Anfrage
Other coatings or customized solutions are available on request

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MI0116-NR01102

Schnittparameter
Cutting parameters

Anwendung *Application*	3D Kopie *3D copy milling*
Funktion *Function*	

a_p	$0.1xD_1$
a_e	$0.3xD_1$

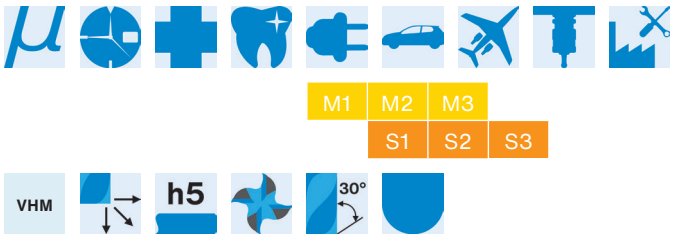
ISO	V_c [m/min]	f_z [mm] Ø 0.30 - 0.80	Ø 0.90 - 1.20	Ø 1.30 - 3.00
P1	320 - 400	0.008 - 0.020	0.015 - 0.030	0.025 - 0.045
P2	320 - 400	0.008 - 0.020	0.015 - 0.030	0.025 - 0.045
P3	320 - 400	0.008 - 0.020	0.015 - 0.030	0.025 - 0.045
P4	270 - 330	0.008 - 0.020	0.015 - 0.030	0.025 - 0.045
P5	250 - 320	0.008 - 0.020	0.015 - 0.030	0.025 - 0.045
M1	280 - 350	0.007 - 0.015	0.010 - 0.030	0.020 - 0.040
M2	280 - 350	0.007 - 0.015	0.010 - 0.030	0.020 - 0.040
M3	280 - 350	0.007 - 0.015	0.010 - 0.030	0.020 - 0.040
K1	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.050
N1	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.050
N2	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.050
N3	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.050
N4	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.050
N5	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.050
N6	250 - 300	0.008 - 0.025	0.020 - 0.040	0.030 - 0.050
N7	250 - 300	0.008 - 0.025	0.020 - 0.040	0.030 - 0.050
N8	350 - 450	0.008 - 0.025	0.020 - 0.040	0.030 - 0.050
S1	280 - 350	0.008 - 0.015	0.015 - 0.030	0.025 - 0.035
S2	280 - 350	0.008 - 0.015	0.015 - 0.030	0.025 - 0.035
S3	280 - 350	0.008 - 0.015	0.015 - 0.030	0.025 - 0.035
H1	280 - 350	0.003 - 0.005	0.004 - 0.006	0.005 - 0.007
H2				

Richtwerte
Indicative values

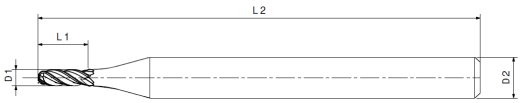
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MI0116-AR01101

Kugelfräser Z4
Ball end mill Z4







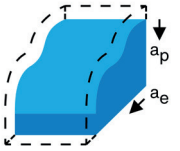
D1	L1	D2	L2	Z	DWX Art. N°
1.00	3.00	3	29	4	**460496**
1.50	4.50	3	29	4	**460497**
2.00	6.00	3	29	4	**460498**
2.50	7.00	3	29	4	**460499**
3.00	8.00	6	29	4	**460500**

Weitere Beschichtungen oder kundenspezifische Lösungen auf Anfrage
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MI0116-AR01101

Schnittparameter
Cutting parameters

Anwendung *Application*	3D Kopie *3D copy milling*
Funktion *Function*	

a_p	$0.1xD_1$
a_e	$0.1xD_1$

ISO	V_c [m/min]	f_z [mm] Ø 0.30 - 0.80	Ø 0.90 - 1.20	Ø 1.30 - 3.00
P1				
P2				
P3				
P4				
P5				
M1	280 - 350	0.007 - 0.015	0.010 - 0.030	0.020 - 0.040
M2	280 - 350	0.007 - 0.015	0.010 - 0.030	0.020 - 0.040
M3	280 - 350	0.007 - 0.015	0.010 - 0.030	0.020 - 0.040
K1				
N1				
N2				
N3				
N4				
N5				
N6				
N7				
N8				
S1	280 - 350	0.008 - 0.015	0.015 - 0.030	0.025 - 0.035
S2	280 - 350	0.008 - 0.015	0.015 - 0.030	0.025 - 0.035
S3	280 - 350	0.008 - 0.015	0.015 - 0.030	0.025 - 0.035
H1				
H2				

Richtwerte
Indicative values

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