





































Fräsen
Fraisage
Fresare
Milling

	Artikel Article	Durchmesser- Bereich Diameter range	Abstufung Incre- ments	Bearbei- tungstiefe Cutting length	Spitzen- winkel Point angle	Spiral- winkel Helix angle	Zähne- zahl Number of teeth
Gravierfräser Fraise à graver							
	70030	0.02–0.15	0.01		30°	0°	1
	70040	0.02–0.15	0.01		40°	0°	1
	70050	0.02–0.15	0.01		50°	0°	1
	70060	0.02–0.15	0.01		60°	0°	1
	70090	0.02–0.15	0.01		90°	0°	1
	70130	0.04–0.10	0.01		30°	0°	1
	70140	0.04–0.10	0.01		40°	0°	1
	70150	0.04–0.10	0.01		50°	0°	1
	70160	0.04–0.10	0.01		60°	0°	1
	70190	0.04–0.10	0.01		90°	0°	1
Mikrofräser Micro fraise							
	72075	0.20–2.00	0.10	0.75× \varnothing		30°	2
	72150	0.10–2.00	0.10	1.5× \varnothing		30°	2
	42000	0.10–3.00	0.05	3× \varnothing		30°	2
	72500	0.30–2.50	0.10	5× \varnothing		30°	2
	72800	0.40–2.50	0.10	8× \varnothing		30°	2
	73130	0.30–3.00	0.10	1.3× \varnothing		30°	3
	73200	0.30–2.90	0.10	2× \varnothing		30°	3








* S. 142+143
p. 142+143

- ✓ hervorragend / excellent / ottimamente / outstanding
- geeignet / approprié / adatto / suitable




Material	Werkstoffgruppe* Workpiece material*							Anwendung* Application*	Seite Page
	P	M	K	N	S	H	O		
Fresa per incidere Engraving mill									
VHM/MD/SC	✓	✓	✓	✓	✓		✓		76
VHM/MD/SC	✓	✓	✓	✓	✓		✓		77
VHM/MD/SC	✓	✓	✓	✓	✓		✓		78
VHM/MD/SC	✓	✓	✓	✓	✓		✓		79
VHM/MD/SC	✓	✓	✓	✓	✓		✓		80
VHM/MD/SC	✓	✓	✓	✓	✓		✓		81
VHM/MD/SC	✓	✓	✓	✓	✓		✓		82
VHM/MD/SC	✓	✓	✓	✓	✓		✓		83
VHM/MD/SC	✓	✓	✓	✓	✓		✓		84
VHM/MD/SC	✓	✓	✓	✓	✓		✓		85
Micro fresa Micro endmill									
VHM/MD/SC	✓	•	✓	✓	•		•		86
VHM/MD/SC	✓	•	✓	✓	•		•		87
VHM/MD/SC	✓	•	✓	✓	•		•		88
VHM/MD/SC	✓	•	✓	✓	•		•		89
VHM/MD/SC	✓	•	✓	✓	•		•		90
VHM/MD/SC	✓	•	✓	•	•		•		91
VHM/MD/SC	✓	•	✓	•	•		•		92

Fräsen / Fraisage
Fresare / Milling









	Artikel Article	Durchmesser- Bereich Diameter range	Abstufung Incre- ments	Bearbei- tungstiefe Cutting length	Spitzen- winkel Point angle	Spiral- winkel Helix angle	Zähne- zahl Number of teeth
	73300	0.30–2.90	0.10	3 × \varnothing		30°	3
	73800	0.50–2.50	0.10	8 × \varnothing		30°	3
	73725	0.30–2.90	0.10	2.5 × \varnothing		45°	3
	43105	0.30–3.00	0.10	1 × \varnothing		35°	3
	43305	0.30–3.00	0.10	3 × \varnothing		35°	3
	74720	0.30–2.90	0.10	2 × \varnothing		40°	4
	74740	0.40–2.90	0.10	4 × \varnothing		40°	4

Radiusfräser Fraise hémisphérique

	74075	0.20–2.00	0.10	0.75 × \varnothing		30°	2
	74150	0.20–2.00	0.10	1.5 × \varnothing		30°	2
	74300	0.20–2.80	0.10	3 × \varnothing		30°	2

Fräser Fraise




	40000	2.00–12.00	0.50	DIN 6528		30°	2
	40002	2.00–12.00	0.50	DIN 6528		30°	3
	40004	2.00–12.00	0.50	DIN 6528		30°	4
	47000	3.00–20.00	1.00	1.5–4 × \varnothing		55°	2
	47500	6.00–20.00	2.00	4–8 × \varnothing		55°	2
	76300	1.50–6.00	0.50	1.5–4 × \varnothing		30°	3

* S. 142+143
p. 142+143

- ✓ hervorragend / excellent / ottimamente / outstanding
- geeignet / approprié / adatto / suitable






Material	Werkstoffgruppe* Workpiece material*							Anwendung* Application*	Seite Page
	P	M	K	N	S	H	O		
VHM/MD/SC	✓	•	✓	•	•				93
VHM/MD/SC	✓	•	✓	✓	•				94
VHM/MD/SC	✓	✓	✓	•	✓				95
VHM/MD/SC; Cro-Nova	✓	✓	•	✓	✓	•	•		96
VHM/MD/SC; Cro-Nova	✓	✓	•	✓	✓	•	•		97
VHM/MD/SC	✓	✓	✓	•	•				98
VHM/MD/SC	✓	✓	✓	•	•				99
Fresa a raggio Ball nose Endmill									
VHM/MD/SC	✓	•	✓	✓	•		•		100
VHM/MD/SC	✓	•	✓	✓	•		•		101
VHM/MD/SC	✓	•	✓	✓	•		•		102
Fresa Endmill									
VHM/MD/SC	•		•	✓			•		103
VHM/MD/SC	✓	•	✓	✓					104
VHM/MD/SC	✓	•	✓						105
VHM/MD/SC				✓			•		106
VHM/MD/SC				✓			•		107
VHM/MD/SC	✓	•	✓						108



	Artikel Article	Durchmesser- Bereich Diameter range	Abstufung Incre- ments	Bearbei- tungstiefe Cutting length	Spitzen- winkel Point angle	Spiral- winkel Helix angle	Zähne- zahl Number of teeth
Entgratfräser Fraise à angler							
	73000	0.50–8.00	0.50		90°		3–4
	43400	1.00–6.00	0.50	4 × Ø		12°	3
Einzahnfräser Fraise 1 dent							
	71330	0.20–3.00	0.10				1

* S. 142+143
p. 142+143

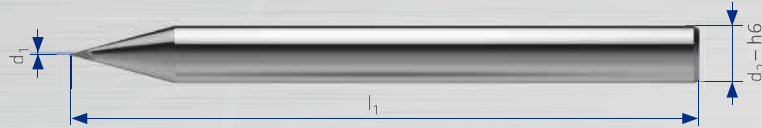
- ✓ hervorragend/excellent/ottimamente/outstanding
- geeignet/approprié/adatto/suitable

Material	Werkstoffgruppe* Workpiece material*							Anwendung* Application*	Seite Page
	P	M	K	N	S	H	O		
Fresa a smusso Chamfering tool									
VHM/MD/SC	✓	•	✓	✓	•				109
VHM/MD/SC; AlTiCrN+S	✓	✓	✓	✓	✓	•	✓		110
Fresa 1 dente Endmill 1 tooth									
VHM/MD/SC	•	•	•	✓	•		•	  	111

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70030

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 30°
- 0°
- Flute direction icons
- End view icon

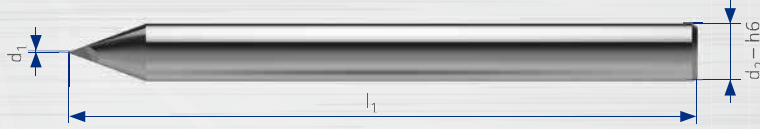


d ₁ mm	α °	l ₁ mm	d ₂ mm
0.02	30	33	3.00
0.03	30	33	3.00
0.04	30	33	3.00
0.05	30	33	3.00
0.06	30	33	3.00
0.07	30	33	3.00
0.08	30	33	3.00
0.09	30	33	3.00
0.10	30	33	3.00
0.12	30	33	3.00
0.15	30	33	3.00

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70040

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 40°
- 0°
- Directional arrows
- End view

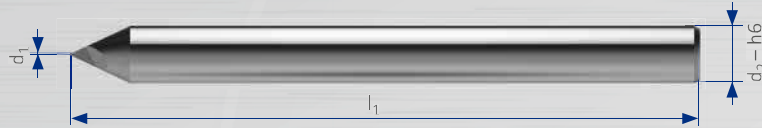


d ₁ mm	α °	l ₁ mm	d ₂ mm
0.02	40	33	3.00
0.03	40	33	3.00
0.04	40	33	3.00
0.05	40	33	3.00
0.06	40	33	3.00
0.07	40	33	3.00
0.08	40	33	3.00
0.09	40	33	3.00
0.10	40	33	3.00
0.12	40	33	3.00
0.15	40	33	3.00

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70050

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 50°
- 0°
- Flute direction icons
- End view icon

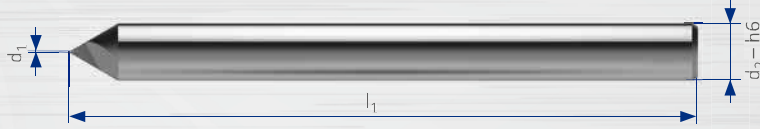


d ₁ mm	α °	l ₁ mm	d ₂ mm
0.02	50	33	3.00
0.03	50	33	3.00
0.04	50	33	3.00
0.05	50	33	3.00
0.06	50	33	3.00
0.07	50	33	3.00
0.08	50	33	3.00
0.09	50	33	3.00
0.10	50	33	3.00
0.12	50	33	3.00
0.15	50	33	3.00

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70060

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 60°
- 0°
- Flute direction icons
- End view icon

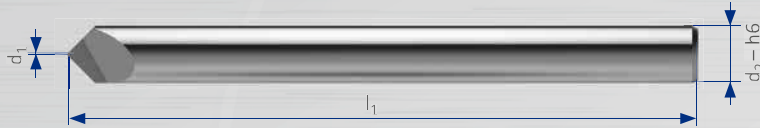


d ₁ mm	α °	l ₁ mm	d ₂ mm
0.02	60	33	3.00
0.03	60	33	3.00
0.04	60	33	3.00
0.05	60	33	3.00
0.06	60	33	3.00
0.07	60	33	3.00
0.08	60	33	3.00
0.09	60	33	3.00
0.10	60	33	3.00
0.12	60	33	3.00
0.15	60	33	3.00

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70090

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 90°
- 0°
- ↕ ↔
- ⊗ ⊙

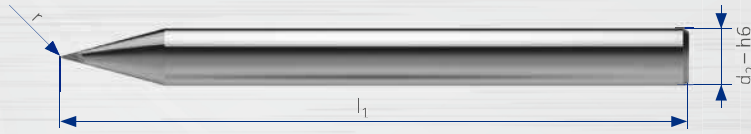


d ₁ mm	α °	l ₁ mm	d ₂ mm
0.02	90	33	3.00
0.03	90	33	3.00
0.04	90	33	3.00
0.05	90	33	3.00
0.06	90	33	3.00
0.07	90	33	3.00
0.08	90	33	3.00
0.09	90	33	3.00
0.10	90	33	3.00
0.12	90	33	3.00
0.15	90	33	3.00

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70130

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 30°
- 0°
- Flute direction icons
- End view icon

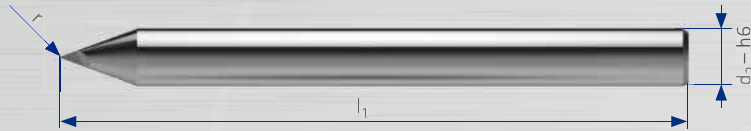


r	α	l_1	d_2
mm	°	mm	mm
0.04	30	33	3.00
0.05	30	33	3.00
0.06	30	33	3.00
0.07	30	33	3.00
0.08	30	33	3.00
0.09	30	33	3.00
0.10	30	33	3.00

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70140

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 40°
- 0°
- Flute direction icons
- End view icon

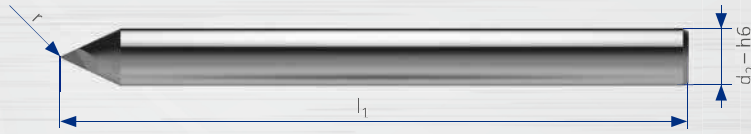


r	α	l_1	d_2
mm	°	mm	mm
0.04	40	33	3.00
0.05	40	33	3.00
0.06	40	33	3.00
0.07	40	33	3.00
0.08	40	33	3.00
0.09	40	33	3.00
0.10	40	33	3.00

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70150

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 50°
- 0°
- Flute direction icons
- End view icon

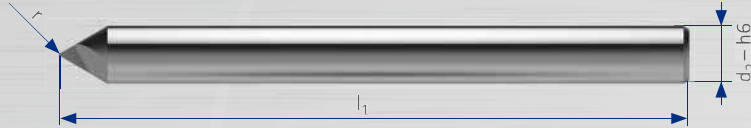


r	α	l_1	d_2
mm	°	mm	mm
0.04	50	33	3.00
0.05	50	33	3.00
0.06	50	33	3.00
0.07	50	33	3.00
0.08	50	33	3.00
0.09	50	33	3.00
0.10	50	33	3.00

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70160

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 60°
- 0°
- Flute direction icons
- End view icon

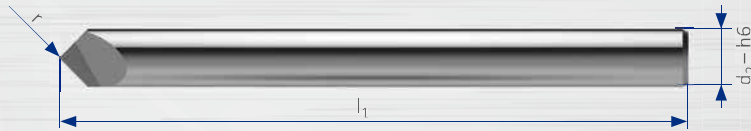


r	α	l_1	d_2
mm	°	mm	mm
0.04	60	33	3.00
0.05	60	33	3.00
0.06	60	33	3.00
0.07	60	33	3.00
0.08	60	33	3.00
0.09	60	33	3.00
0.10	60	33	3.00

Gravierfräser
 Fraise à graver
 Fresa per incidere
 Engraving mill

Art. 70190

- P1-3
- M1,2
- K1,2
- N1-8
- S1
- O1



- VHM MD/SC
- Z 1
- 90°
- 0°
- Flute direction icons
- End view icon



r	α	l_1	d_2
mm	°	mm	mm
0.04	90	33	3.00
0.05	90	33	3.00
0.06	90	33	3.00
0.07	90	33	3.00
0.08	90	33	3.00
0.09	90	33	3.00
0.10	90	33	3.00

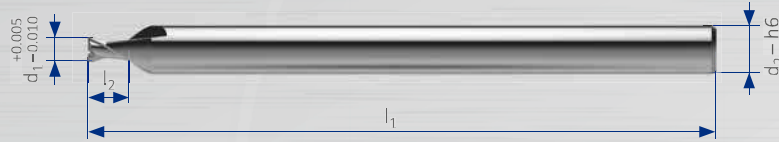
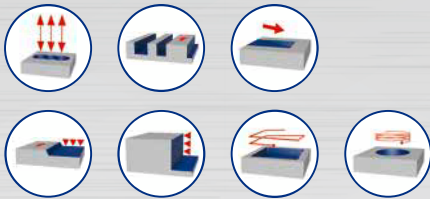
Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 72075

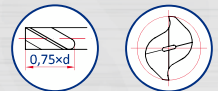
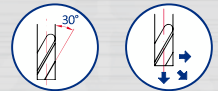
P1-3 M1,2

K1,2 N1-3

N5,6 S1 O1



VHM MD/SC Z 2



d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.20	0.15	39	3.00
0.30	0.25	39	3.00
0.40	0.30	39	3.00
0.50	0.37	39	3.00
0.60	0.45	39	3.00
0.70	0.53	39	3.00
0.80	0.60	39	3.00
0.90	0.70	39	3.00
1.00	0.75	39	3.00
1.10	0.90	39	3.00
1.20	0.90	39	3.00
1.30	1.00	39	3.00
1.40	1.10	39	3.00
1.50	1.15	39	3.00
1.60	1.20	39	3.00
1.70	1.30	39	3.00
1.80	1.40	39	3.00
1.90	1.45	39	3.00
2.00	1.50	39	3.00

Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 72150



d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.10	0.15	39	3.00
0.15	0.20	39	3.00
0.20	0.30	39	3.00
0.25	0.35	39	3.00
0.30	0.45	39	3.00
0.40	0.60	39	3.00
0.50	0.75	39	3.00
0.60	0.90	39	3.00
0.70	1.05	39	3.00
0.80	1.20	39	3.00
0.90	1.35	39	3.00
1.00	1.50	39	3.00
1.10	1.65	39	3.00
1.20	1.80	39	3.00
1.30	1.95	39	3.00
1.40	2.10	39	3.00
1.50	2.25	39	3.00
1.60	2.40	39	3.00
1.70	2.55	39	3.00
1.80	2.70	39	3.00
1.90	2.85	39	3.00
2.00	3.00	39	3.00

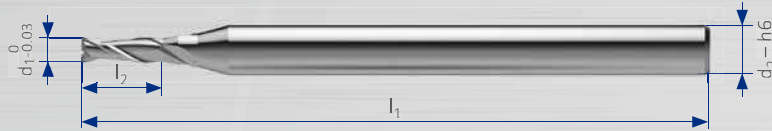
Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 42000

P1-3 M1,2

K1,2 N1-3

N5,6 S1 O1



VHM
MD/SC

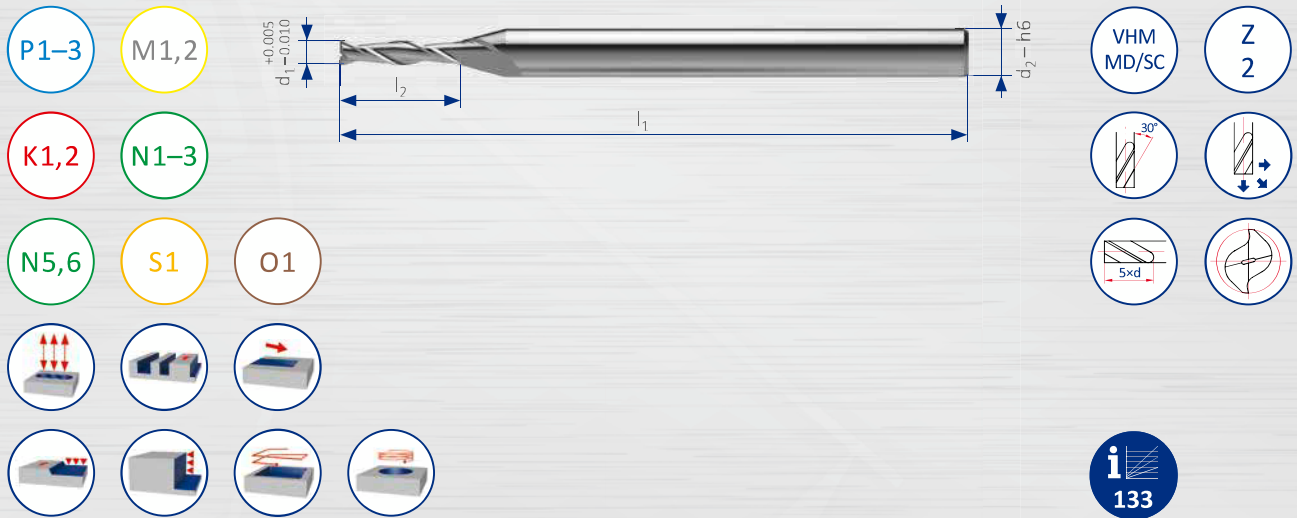
Z
2



d ₁ mm	l ₂ mm	l ₁ mm	d ₂ mm	d ₁ mm	l ₂ mm	l ₁ mm	d ₂ mm
0.10	0.30	38	3.00	2.00	6.00	38	3.00
0.15	0.45	38	3.00	2.10	6.30	38	3.00
0.20	0.60	38	3.00	2.20	6.60	38	3.00
0.25	0.75	38	3.00	2.30	6.90	38	3.00
0.30	0.90	38	3.00	2.40	7.20	38	3.00
0.35	1.05	38	3.00	2.50	7.50	38	3.00
0.40	1.10	38	3.00	2.60	7.80	38	3.00
0.45	1.35	38	3.00	2.70	8.10	38	3.00
0.50	1.50	38	3.00	2.80	8.40	38	3.00
0.55	1.65	38	3.00	2.90	8.70	38	3.00
0.60	1.70	38	3.00	3.00	9.00	38	3.00
0.65	1.95	38	3.00				
0.70	2.10	38	3.00				
0.75	2.25	38	3.00				
0.80	2.40	38	3.00				
0.85	2.55	38	3.00				
0.90	2.70	38	3.00				
0.95	2.85	38	3.00				
1.00	3.00	38	3.00				
1.05	3.10	38	3.00				
1.10	3.30	38	3.00				
1.15	3.40	38	3.00				
1.20	3.60	38	3.00				
1.25	3.70	38	3.00				
1.30	3.90	38	3.00				
1.35	4.00	38	3.00				
1.40	4.20	38	3.00				
1.45	4.30	38	3.00				
1.50	4.50	38	3.00				
1.55	4.60	38	3.00				
1.60	4.80	38	3.00				
1.65	4.90	38	3.00				
1.70	5.10	38	3.00				
1.75	5.20	38	3.00				
1.80	5.40	38	3.00				
1.85	5.50	38	3.00				
1.90	5.70	38	3.00				
1.95	5.80	38	3.00				

Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 72500



d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.30	1.50	39	3.00
0.40	2.00	39	3.00
0.50	2.50	39	3.00
0.60	3.00	39	3.00
0.70	3.50	39	3.00
0.80	4.00	39	3.00
0.90	4.50	39	3.00
1.00	5.00	39	3.00
1.10	5.50	39	3.00
1.20	6.00	39	3.00
1.50	7.50	39	3.00
2.00	10.00	39	3.00
2.50	12.50	39	3.00

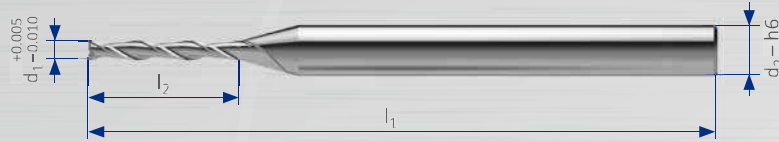
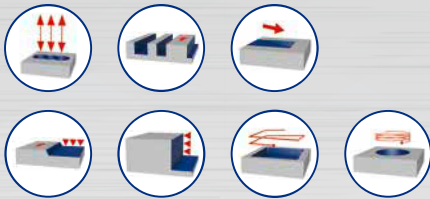
Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 72800

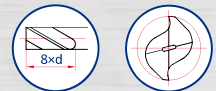
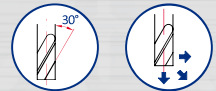
P1-3 M1,2

K1,2 N1-3

N5,6 S1 O1



VHM MD/SC Z 2



d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.40	3.20	39	3.00
0.50	4.00	39	3.00
0.60	5.00	39	3.00
0.70	5.60	39	3.00
0.80	6.00	39	3.00
0.90	7.20	39	3.00
1.00	8.00	39	3.00
1.20	9.00	39	3.00
1.50	12.00	50	4.00
2.00	16.00	50	4.00
2.50	20.00	50	4.00

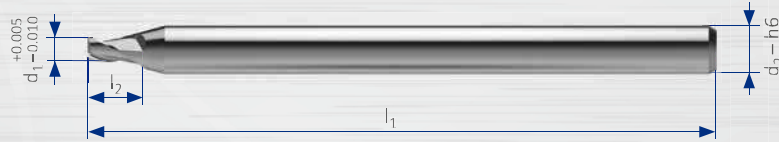
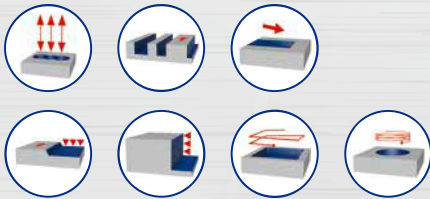
Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 73130

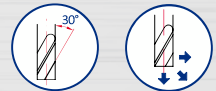
P1-3 M1,2

K1,2 N2,3

N5,6 S1



VHM MD/SC Z 3



d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.30	0.40	39	3.00
0.40	0.50	39	3.00
0.45	0.60	39	3.00
0.50	0.70	39	3.00
0.60	0.80	39	3.00
0.70	0.90	39	3.00
0.80	1.00	39	3.00
0.90	1.30	39	3.00
1.00	1.30	39	3.00
1.10	1.50	39	3.00
1.20	1.60	39	3.00
1.30	1.80	39	3.00
1.40	1.80	39	3.00
1.50	2.00	39	3.00
1.60	2.00	39	3.00
1.70	2.00	39	3.00
1.80	2.40	39	3.00
1.90	2.40	39	3.00
2.00	2.60	39	3.00
2.20	3.00	39	3.00
2.50	3.30	39	3.00
2.80	3.50	39	3.00
2.90	3.50	39	3.00

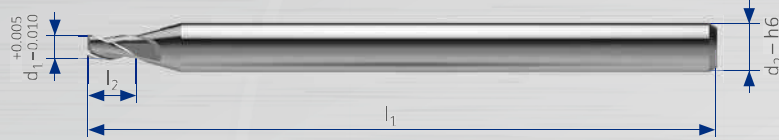
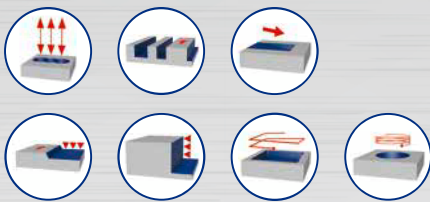
Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 73200

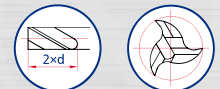
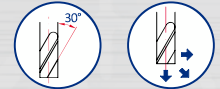
P1-3 M1,2

K1,2 N1-3

N5,6 S1



VHM MD/SC Z 3



d ₁ mm	l ₂ mm	l ₁ mm	d ₂ mm
0.30	0.60	39	3.00
0.40	0.80	39	3.00
0.50	1.00	39	3.00
0.60	1.20	39	3.00
0.70	1.40	39	3.00
0.75	1.50	39	3.00
0.80	1.60	39	3.00
0.90	1.80	39	3.00
1.00	2.00	39	3.00
1.10	2.20	39	3.00
1.20	2.40	39	3.00
1.30	2.60	39	3.00
1.40	2.80	39	3.00
1.50	3.00	39	3.00
1.60	3.20	39	3.00
1.70	3.40	39	3.00
1.80	3.60	39	3.00
1.90	3.80	39	3.00
2.00	4.00	39	3.00
2.10	4.20	39	3.00
2.20	4.40	39	3.00
2.30	4.60	39	3.00
2.40	4.80	39	3.00
2.50	5.00	39	3.00
2.60	5.20	39	3.00
2.70	5.40	39	3.00
2.80	5.60	39	3.00
2.90	5.80	39	3.00

Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 73300



d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.30	0.90	39	3.00
0.40	1.20	39	3.00
0.50	1.50	39	3.00
0.60	2.00	39	3.00
0.70	2.00	39	3.00
0.75	2.00	39	3.00
0.80	2.50	39	3.00
0.90	2.50	39	3.00
1.00	3.00	39	3.00
1.10	3.30	39	3.00
1.20	4.00	39	3.00
1.30	4.00	39	3.00
1.40	4.00	39	3.00
1.50	4.50	39	3.00
1.60	4.50	39	3.00
1.70	5.00	39	3.00
1.80	6.00	39	3.00
1.90	6.00	39	3.00
2.00	6.00	39	3.00
2.10	6.00	39	3.00
2.20	6.50	39	3.00
2.30	7.00	39	3.00
2.40	7.00	39	3.00
2.50	7.50	39	3.00
2.60	7.50	39	3.00
2.70	8.00	39	3.00
2.80	8.00	39	3.00
2.90	8.50	39	3.00

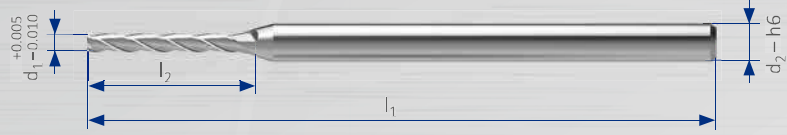
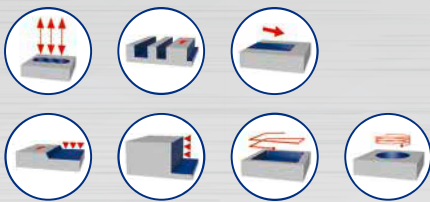
Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 73800

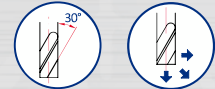
P1-3 M1,2

K1,2 N1-3

N5,6 S1



VHM MD/SC Z 3



i
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d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.50	4.00	39	3.00
0.60	5.00	39	3.00
0.70	5.60	39	3.00
0.80	6.00	39	3.00
0.90	7.20	39	3.00
1.00	8.00	39	3.00
1.20	9.00	39	3.00
1.50	12.00	50	4.00
2.00	16.00	50	4.00
2.50	20.00	50	4.00

Mikrofräser
Micro fraise
Micro fresa
Micro endmill

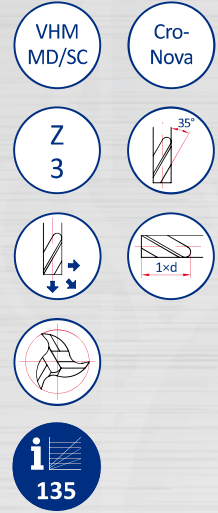
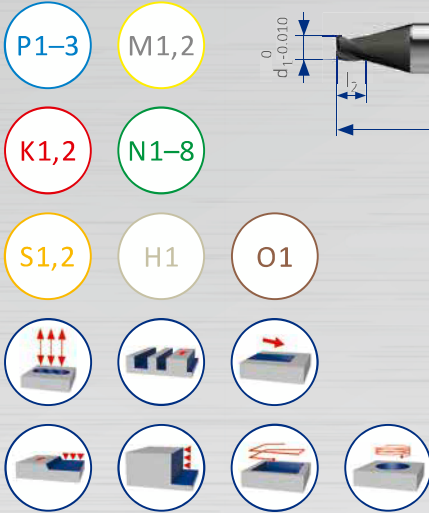
Art. 73725



d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.30	0.80	39	3.00
0.40	1.00	39	3.00
0.50	1.30	39	3.00
0.60	1.50	39	3.00
0.70	1.70	39	3.00
0.80	2.00	39	3.00
0.90	2.30	39	3.00
1.00	2.50	39	3.00
1.10	2.80	39	3.00
1.20	3.00	39	3.00
1.30	3.30	39	3.00
1.40	3.50	39	3.00
1.50	3.80	39	3.00
1.60	4.00	39	3.00
1.70	4.30	39	3.00
1.80	4.50	39	3.00
1.90	4.80	39	3.00
2.00	5.00	39	3.00
2.10	5.30	39	3.00
2.20	5.50	39	3.00
2.30	5.80	39	3.00
2.40	6.00	39	3.00
2.50	6.30	39	3.00
2.60	6.50	39	3.00
2.70	6.80	39	3.00
2.80	7.00	39	3.00
2.90	7.30	39	3.00

Mikrofräser
Micro fraise
Micro fresa
Micro endmill

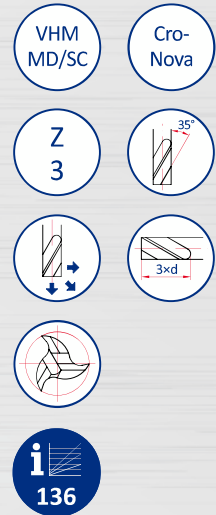
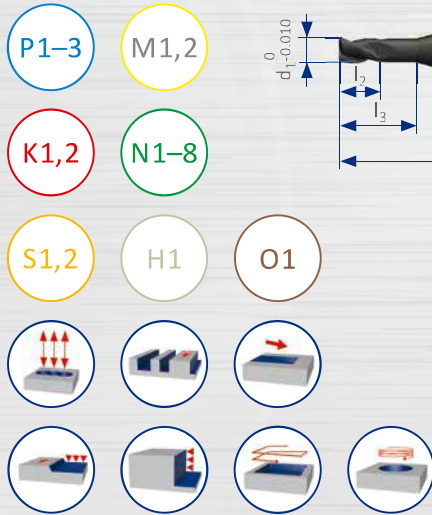
Art. 43105



d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.30	0.30	38	3.00
0.40	0.40	38	3.00
0.50	0.50	38	3.00
0.60	0.60	38	3.00
0.70	0.70	38	3.00
0.80	0.80	38	3.00
0.90	0.90	38	3.00
1.00	1.00	38	3.00
1.10	1.10	38	3.00
1.20	1.20	38	3.00
1.30	1.30	38	3.00
1.40	1.40	38	3.00
1.50	1.50	38	3.00
1.60	1.60	38	3.00
1.70	1.70	38	3.00
1.80	1.80	38	3.00
1.90	1.90	38	3.00
2.00	2.00	38	3.00
2.10	2.10	38	3.00
2.20	2.20	38	3.00
2.30	2.30	38	3.00
2.40	2.40	38	3.00
2.50	2.50	38	3.00
2.60	2.60	38	3.00
2.70	2.70	38	3.00
2.80	2.80	38	3.00
2.90	2.90	38	3.00
3.00	3.00	38	3.00

Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 43305



d ₁	l ₂	l ₃	l ₁	d ₂
mm	mm	mm	mm	mm
0.30	0.30	0.90	38	3.00
0.40	0.40	1.20	38	3.00
0.50	0.50	1.50	38	3.00
0.60	0.60	1.80	38	3.00
0.70	0.70	2.10	38	3.00
0.80	0.80	2.40	38	3.00
0.90	0.90	2.70	38	3.00
1.00	1.00	3.00	38	3.00
1.10	1.10	3.30	38	3.00
1.20	1.20	3.60	38	3.00
1.30	1.30	3.90	38	3.00
1.40	1.40	4.20	38	3.00
1.50	1.50	4.50	38	3.00
1.60	1.60	4.80	38	3.00
1.70	1.70	5.10	38	3.00
1.80	1.80	5.40	38	3.00
1.90	1.90	5.70	38	3.00
2.00	2.00	6.00	38	3.00
2.10	2.10	6.30	38	3.00
2.20	2.20	6.60	38	3.00
2.30	2.30	6.90	38	3.00
2.40	2.40	7.20	38	3.00
2.50	2.50	7.50	38	3.00
2.60	2.60	7.80	38	3.00
2.70	2.70	8.10	38	3.00
2.80	2.80	8.40	38	3.00
2.90	2.90	8.70	38	3.00
3.00	3.00	9.00	38	3.00

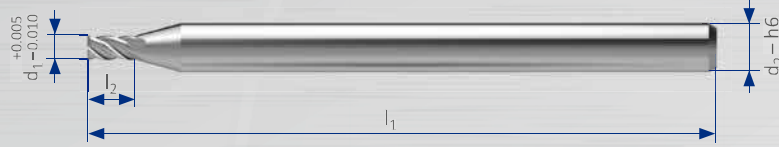
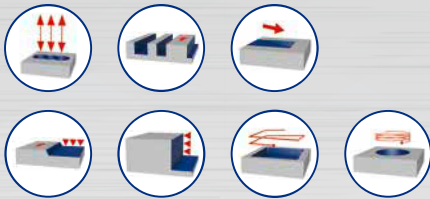
Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 74720

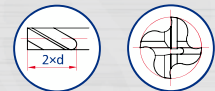
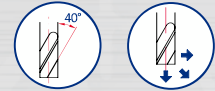
P1-3 M1,2

K1,2 N1-3

N5,6 S1



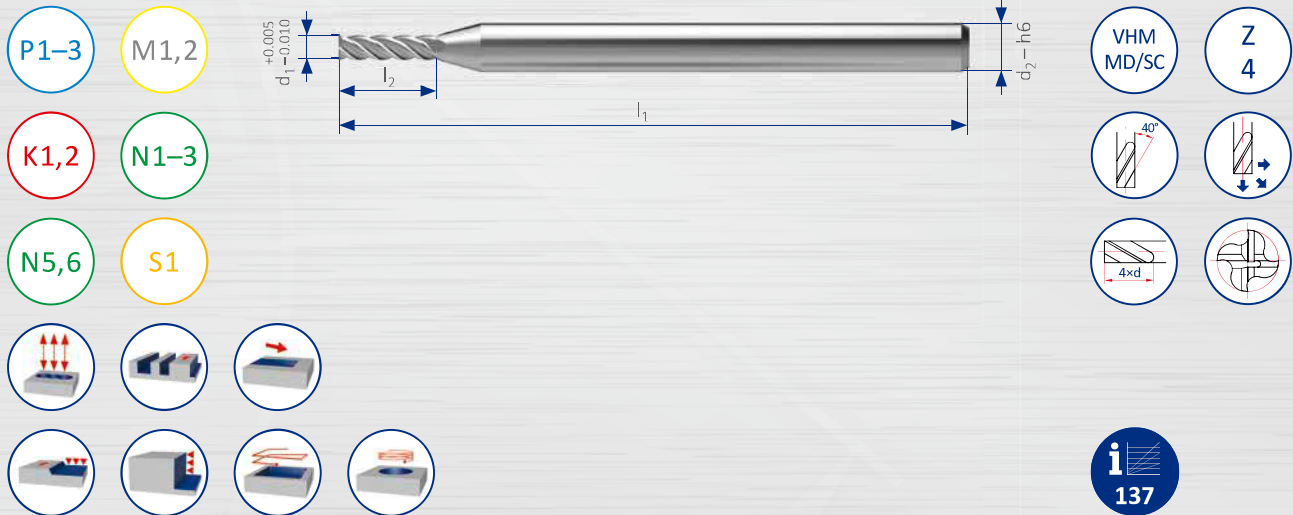
VHM MD/SC Z 4



d ₁ mm	l ₂ mm	l ₁ mm	d ₂ mm
0.30	0.60	39	3.00
0.40	0.80	39	3.00
0.50	1.00	39	3.00
0.60	1.20	39	3.00
0.70	1.40	39	3.00
0.80	1.60	39	3.00
0.90	1.80	39	3.00
1.00	2.00	39	3.00
1.10	2.20	39	3.00
1.20	2.40	39	3.00
1.30	2.60	39	3.00
1.40	2.80	39	3.00
1.50	3.00	39	3.00
1.60	3.20	39	3.00
1.70	3.40	39	3.00
1.80	3.60	39	3.00
1.90	3.80	39	3.00
2.00	4.00	39	3.00
2.10	4.20	39	3.00
2.20	4.40	39	3.00
2.30	4.60	39	3.00
2.40	4.80	39	3.00
2.50	5.00	39	3.00
2.60	5.20	39	3.00
2.70	5.40	39	3.00
2.80	5.60	39	3.00
2.90	5.80	39	3.00

Mikrofräser
Micro fraise
Micro fresa
Micro endmill

Art. 74740



d ₁	l ₂	l ₁	d ₂
mm	mm	mm	mm
0.40	1.60	39	3.00
0.50	2.00	39	3.00
0.60	2.40	39	3.00
0.70	2.80	39	3.00
0.80	3.20	39	3.00
0.90	3.60	39	3.00
1.00	4.00	39	3.00
1.10	4.40	39	3.00
1.20	4.80	39	3.00
1.30	5.20	39	3.00
1.40	5.60	39	3.00
1.50	6.00	39	3.00
1.60	6.40	39	3.00
1.70	6.80	39	3.00
1.80	7.20	39	3.00
1.90	7.60	39	3.00
2.00	8.00	39	3.00
2.10	8.40	39	3.00
2.20	8.80	39	3.00
2.30	9.20	39	3.00
2.40	9.60	39	3.00
2.50	10.00	39	3.00
2.60	10.40	39	3.00
2.70	10.80	39	3.00
2.80	11.20	39	3.00
2.90	11.60	39	3.00

Radiusfräser
Fraise hémisphérique
Fresa a raggio
Ball nose Endmill

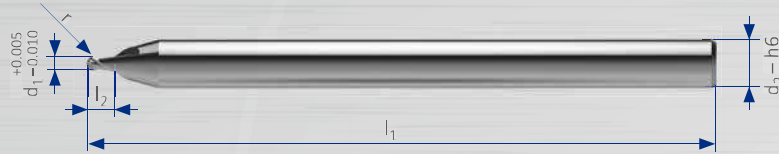
Art. 74075

P1-3 M1,2

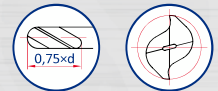
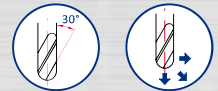
K1,2 N1-3

N5,6 S1

O1



VHM MD/SC Z 2



d ₁	r	l ₂	l ₁	d ₂
mm	mm	mm	mm	mm
0.20	0.10	0.15	39	3.00
0.30	0.15	0.20	39	3.00
0.40	0.20	0.30	39	3.00
0.50	0.25	0.37	39	3.00
0.60	0.30	0.45	39	3.00
0.80	0.40	0.60	39	3.00
1.00	0.50	0.75	39	3.00
1.20	0.60	0.90	39	3.00
1.50	0.75	1.15	39	3.00
1.80	0.90	1.35	39	3.00
2.00	1.00	1.50	39	3.00

Radiusfräser
Fraise hémisphérique
Fresa a radio
Ball nose Endmill

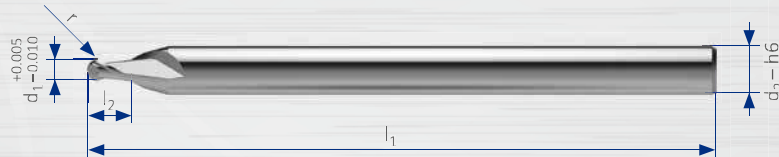
Art. 74150

P1-3 M1,2

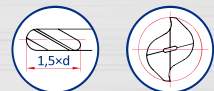
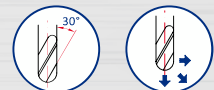
K1,2 N1-3

N5,6 S1

O1



VHM MD/SC Z 2



d ₁	r	l ₂	l ₁	d ₂
mm	mm	mm	mm	mm
0.20	0.100	0.30	39	3.00
0.25	0.125	0.35	39	3.00
0.30	0.150	0.45	39	3.00
0.40	0.200	0.60	39	3.00
0.50	0.250	0.75	39	3.00
0.60	0.300	0.90	39	3.00
0.70	0.350	1.05	39	3.00
0.80	0.400	1.20	39	3.00
0.90	0.450	1.35	39	3.00
1.00	0.500	1.50	39	3.00
1.10	0.550	1.65	39	3.00
1.20	0.600	1.80	39	3.00
1.30	0.650	1.95	39	3.00
1.40	0.700	2.10	39	3.00
1.50	0.750	2.25	39	3.00
1.60	0.800	2.40	39	3.00
1.80	0.900	2.70	39	3.00
2.00	1.000	3.00	39	3.00

Radiusfräser
Fraise hémisphérique
Fresa a raggio
Ball nose Endmill

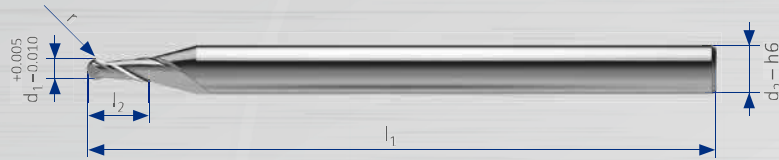
Art. 74300

P1-3 M1,2

K1,2 N1-3

N5,6 S1

O1



VHM
MD/SC

Z
2



d ₁	r	l ₂	l ₁	d ₂
mm	mm	mm	mm	mm
0.20	0.10	0.60	39	3.00
0.30	0.15	1.00	39	3.00
0.40	0.20	1.00	39	3.00
0.50	0.25	1.50	39	3.00
0.60	0.30	1.50	39	3.00
0.70	0.35	2.00	39	3.00
0.80	0.40	2.00	39	3.00
0.90	0.45	2.50	39	3.00
1.00	0.50	3.00	39	3.00
1.20	0.60	4.00	39	3.00
1.40	0.70	4.00	39	3.00
1.50	0.75	4.00	39	3.00
1.60	0.80	4.00	39	3.00
1.80	0.90	5.50	39	3.00
2.00	1.00	6.00	39	3.00
2.10	1.05	6.00	39	3.00
2.20	1.10	6.00	39	3.00
2.50	1.25	7.50	39	3.00
2.80	1.40	8.40	39	3.00

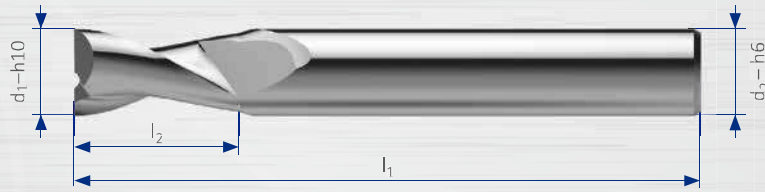
Fräser
Fraise
Fresa
Endmill

Art. 40000

P1,2

K1,2

N1-6



VHM
MD/SC

DIN
6528

Z
2



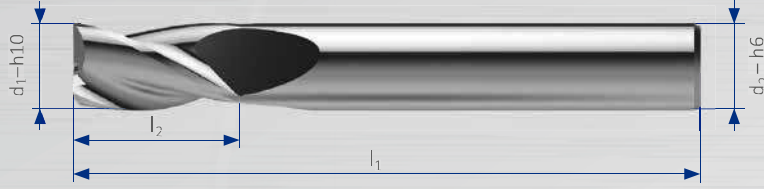
i
138

d ₁ mm	l ₂ mm	l ₁ mm	d ₂ mm
2.00	8.00	50	2.00
2.50	8.00	50	2.50
3.00	8.00	50	3.00
3.50	8.00	50	3.50
4.00	8.00	50	4.00
4.50	8.00	50	4.50
5.00	10.00	50	5.00
6.00	10.00	57	6.00
8.00	16.00	63	8.00
10.00	19.00	72	10.00
12.00	22.00	83	12.00

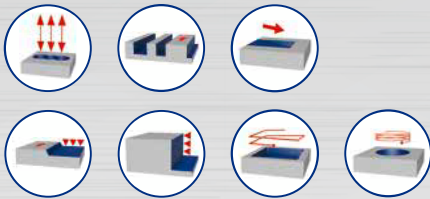
Fräser
Fraise
Fresa
Endmill

Art. 40002

P1-3
M1
K1,2



VHM
MD/SC
DIN
6528
Z
3
30°
↓ ↓
↑ ↑



i
138

d ₁ mm	l ₂ mm	l ₁ mm	d ₂ mm
2.00	8.00	50	2.00
2.50	8.00	50	2.50
3.00	8.00	50	3.00
3.50	8.00	50	3.50
4.00	8.00	50	4.00
4.50	8.00	50	4.50
5.00	10.00	50	5.00
6.00	10.00	57	6.00
8.00	16.00	63	8.00
10.00	19.00	72	10.00
12.00	22.00	83	12.00

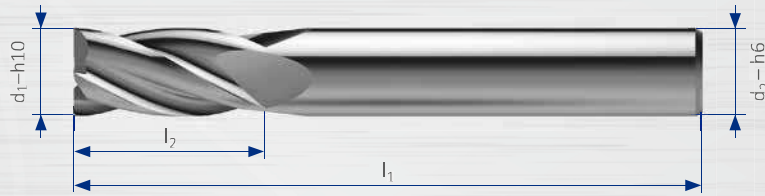
Fräser
Fraise
Fresa
Endmill

Art. 40004

P1-3

M1

K1,2



VHM
MD/SC

DIN
6528

Z
4

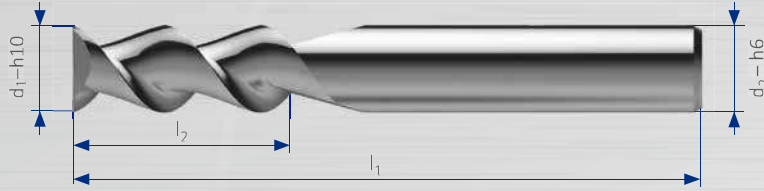


d ₁ mm	l ₂ mm	l ₁ mm	d ₂ mm
2.00	10.00	50	2.00
2.50	10.00	50	2.50
3.00	10.00	50	3.00
3.50	10.00	50	3.50
4.00	11.00	50	4.00
4.50	11.00	50	4.50
5.00	13.00	50	5.00
6.00	13.00	57	6.00
8.00	19.00	63	8.00
10.00	22.00	72	10.00
12.00	26.00	83	12.00

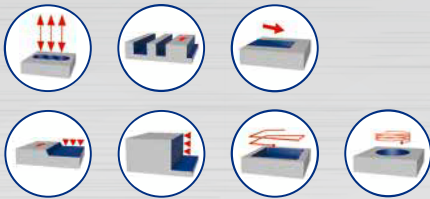
Fräser AC2
 Fraise AC2
 Fresa AC2
 Endmill AC2

Art. 47000

N1-3 O1



VHM MD/SC Z 2

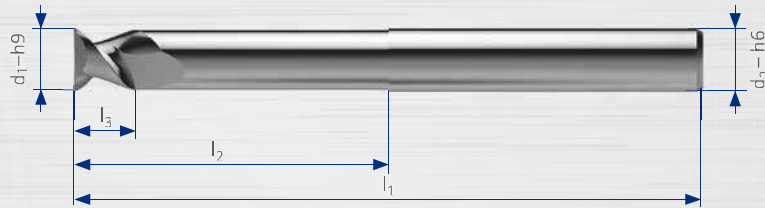


d_1 mm	l_2 mm	l_1 mm	d_2 mm
3.00	12.00	50	3.00
4.00	15.00	50	4.00
5.00	20.00	50	5.00
6.00	20.00	57	6.00
8.00	20.00	63	8.00
10.00	25.00	72	10.00
12.00	25.00	83	12.00
14.00	30.00	90	14.00
16.00	30.00	92	16.00
20.00	38.00	104	20.00

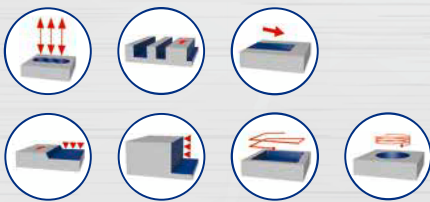
Fräser ACL2
 Fraise ACL2
 Fresa ACL2
 Endmill ACL2

Art. 47500

N1-3 O1



VHM MD/SC Z 2



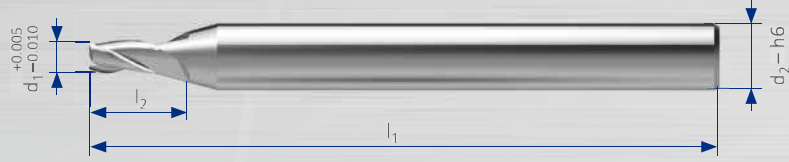
i 139

d_1	l_2	l_3	l_1	d_2
mm	mm	mm	mm	mm
6.00	50.00	6.00	100	6.00
8.00	50.00	8.00	100	8.00
10.00	50.00	10.00	100	10.00
12.00	50.00	12.00	100	12.00
16.00	75.00	16.00	125	16.00
20.00	75.00	20.00	125	20.00

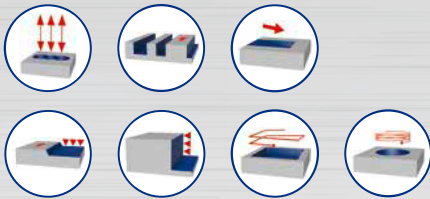
Fräser
 Fraise
 Fresa
 Endmill

Art. 76300

P1-3
 M1
 K1,2



VHM
 MD/SC
 Z
 3
 30°
 i
 140

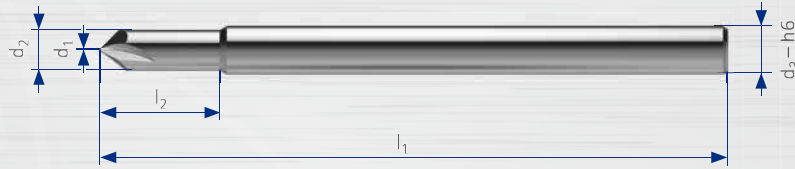


d ₁ mm	l ₂ mm	l ₁ mm	d ₂ mm
1.50	6.00	57	6.00
2.00	6.00	57	6.00
2.50	6.00	57	6.00
3.00	7.00	57	6.00
3.50	7.00	57	6.00
4.00	8.00	57	6.00
4.50	8.00	57	6.00
5.00	10.00	57	6.00
5.50	10.00	57	6.00
6.00	10.00	57	6.00

Entgratfräser
 Fraise à angler
 Fresa a smusso
 Chamfering tool

Art. 73000

- P1-3
- M1,2
- K1,2
- N1-5
- N7,8
- S1



- VHM
MD/SC
- Z
3/4
-
-



d_1	d_2	l_2	l_1	d_3	z
mm	mm	mm	mm	mm	
0.10	0.50	3.00	39	3.00	3
0.10	1.00	3.00	39	3.00	3
0.10	1.50	4.50	39	3.00	3
0.10	2.00	6.00	39	3.00	3
0.10	2.50	7.50	39	3.00	3
0.10	3.00	7.50	39	3.00	3
0.70	6.00		50	6.00	4
1.20	8.00		60	8.00	4

Entgratfräser Lollipop
 Fraise à angler Lollipop
 Fresa a smusso Lollipop
 Chamfering tool Lollipop

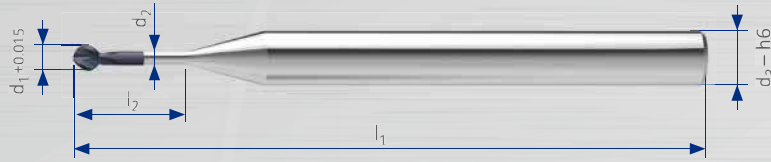
Art. 43400

P1-3 M1,2

K1,2 N1-8

S1,2 H1,2

O1



VHM
MD/SC

AlTiCrN+S

Z
3



d ₁	d ₂	l ₂	l ₁	d ₃
mm	mm	mm	mm	mm
1.00	0.60	4.00	60	4.00
1.50	0.90	6.00	60	4.00
2.00	1.20	8.00	60	4.00
2.50	1.35	10.00	70	6.00
3.00	1.50	12.00	70	6.00
4.00	2.00	16.00	70	6.00
5.00	2.50	20.00	80	8.00
6.00	3.00	24.00	80	8.00

Einzahnfräser
Fraise 1 dent
Fresa 1 dente
Endmill 1 tooth

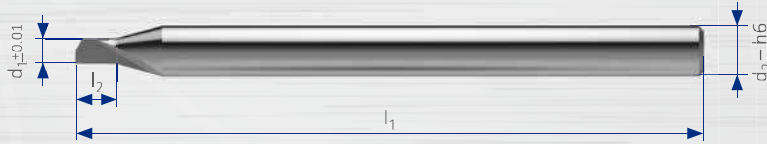
Art. 71330

P1,2 M1,2

K1,2 N2,3

N5,7,8 S1

O1



VHM
MD/SC

Z
1



d ₁ mm	l ₂ mm	l ₁ mm	d ₂ mm
0.20	0.40	39	3.00
0.30	0.60	39	3.00
0.40	0.80	39	3.00
0.50	1.00	39	3.00
0.60	1.20	39	3.00
0.70	1.40	39	3.00
0.80	1.60	39	3.00
0.90	1.80	39	3.00
1.00	2.00	39	3.00
1.10	2.20	39	3.00
1.20	2.40	39	3.00
1.30	2.60	39	3.00
1.40	2.80	39	3.00
1.50	3.00	39	3.00
1.60	3.20	39	3.00
1.70	3.40	39	3.00
1.80	3.60	39	3.00
1.90	3.80	39	3.00
2.00	4.00	39	3.00
2.10	4.20	39	3.00
2.20	4.40	39	3.00
2.30	4.60	39	3.00
2.40	4.80	39	3.00
2.50	5.00	39	3.00
2.60	5.20	39	3.00
2.70	5.40	39	3.00
2.80	5.60	39	3.00
2.90	5.80	39	3.00
3.00	6.00	40	4.00