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Dimension		Ø 0.1x0.3	Ø 0.1x1	Ø 0.2x0.5	Ø 0.2x3	Ø 0.3x0.5	Ø 0.3x6	Ø 0.4x1	Ø 0.4x8	Ø 0.5x1	Ø 0.5x8
Infeed in mm		ae=0.1xD ap=0.1xD	ae=0.05xD ap=0.05xD	ae=0.1xD ap=0.1xD	ae=0.02xD ap=0.02xD	ae=0.1xD ap=0.1xD	ae=0.01xD ap=0.01xD	ae=0.1xD ap=0.1xD	ae=0.01xD ap=0.01xD	ae=0.1xD ap=0.1xD	ae=0.015xD ap=0.015xD
Application											
Material	**Strength (N/mm²)**	Feed (mm/Z) fz	fz	fz	fz	fz	fz	fz	fz	fz	fz
N		Vc (m/min)									
1.1 Aluminium, alloyed	<500	500	0.012	0.007	0.014	0.008	0.014	0.008	0.018	0.009	0.016	0.012
1.2 Aluminium, alloyed	<600	480	0.012	0.007	0.014	0.008	0.014	0.008	0.018	0.009	0.016	0.012
2.1-2.3 Aluminium, casted	<600	450	0.011	0.006	0.013	0.007	0.013	0.007	0.017	0.008	0.015	0.011
3.1-3.3 Cooper, alloyed	<650	220	0.01	0.005	0.012	0.006	0.012	0.006	0.016	0.007	0.014	0.01
4.1 Magnesium, alloyed	<250	500	0.012	0.007	0.014	0.008	0.014	0.008	0.018	0.009	0.016	0.012
5.1 Thermoplastic	<100	400	0.011	0.006	0.013	0.007	0.013	0.007	0.017	0.008	0.015	0.011
5.2 Duroplastic	<150	350	0.01	0.005	0.012	0.006	0.012	0.006	0.016	0.007	0.014	0.01

Dimension	Ø 0.6x2	Ø 0.6x8	Ø 0.8x2	Ø 0.8x8	Ø 1x2	Ø 1x12	Ø 1.2x3	Ø 1.2x20	Ø 1.5x3	Ø 1.5x12
Infeed in mm	ae=0.1xD ap=0.1xD	ae=0.025xD ap=0.025xD	ae=0.1xD ap=0.1xD	ae=0.05xD ap=0.05xD	ae=0.1xD ap=0.1xD	ae=0.03xD ap=0.03xD	ae=0.1xD ap=0.1xD	ae=0.015xD ap=0.015xD	ae=0.1xD ap=0.1xD	ae=0.07xD ap=0.07xD
Application										
Feed (mm/Z)	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz
N Vc (m/min)										
1.1 Aluminium, alloyed <500 — 500	0.022	0.017	0.022	0.017	0.035	0.028	0.035	0.025	0.035	0.03
1.2 Aluminium, alloyed <600 — 480	0.022	0.017	0.022	0.017	0.035	0.028	0.035	0.025	0.035	0.03
2.1-2.3 Aluminium, casted <600 — 450	0.021	0.016	0.021	0.016	0.032	0.026	0.032	0.023	0.032	0.027
3.1-3.3 Cooper, alloyed <650 — 220	0.02	0.015	0.02	0.015	0.029	0.024	0.029	0.021	0.029	0.024
4.1 Magnesium, alloyed <250 — 500	0.022	0.017	0.022	0.017	0.035	0.028	0.035	0.025	0.035	0.03
5.1 Thermoplastic <100 — 400	0.021	0.016	0.021	0.016	0.032	0.026	0.032	0.023	0.032	0.027
5.2 Duroplastic <150 — 350	0.02	0.015	0.02	0.015	0.029	0.024	0.029	0.021	0.029	0.024

| Dimension	Ø 1.8x8	Ø 1.8x12	Ø 2x4	Ø 2x12	Ø 3x6	Ø 3x12
Infeed in mm	ae=0.1xD ap=0.1xD	ae=0.09xD ap=0.09xD	ae=0.1xD ap=0.1xD	ae=0.09xD ap=0.09xD	ae=0.1xD ap=0.1xD	ae=0.1xD ap=0.1xD
Application						
Feed (mm/Z)	fz	fz	fz	fz	fz	fz
N Vc (m/min)						
1.1 Aluminium, alloyed <500 — 500	0.04	0.035	0.04	0.035	0.043	0.04
1.2 Aluminium, alloyed <600 — 480	0.04	0.035	0.04	0.035	0.043	0.04
2.1-2.3 Aluminium, casted <600 — 450	0.035	0.032	0.035	0.032	0.038	0.035
3.1-3.3 Cooper, alloyed <650 — 220	0.03	0.029	0.03	0.029	0.033	0.03
4.1 Magnesium, alloyed <250 — 500	0.04	0.035	0.04	0.035	0.043	0.04
5.1 Thermoplastic <100 — 400	0.035	0.032	0.035	0.032	0.038	0.035
5.2 Duroplastic <150 — 350	0.03	0.029	0.03	0.029	0.033	0.03

NOTE | Values in the table are the shortest and the longest overhang length (L3) of each dimension; please calculate fz, ap and ae depending on the given values.

|		
Cooling		
Tolerance	d04	
Coating	AlphaSlide Rainbow	

Strategy	HSC
Application	
Features	HA

Expert

- Optimized face geometry for excellent surfaces and highest dimensional accuracy
- Defined microbevel for support and stabilization
- Polished chip space for ideal chip evacuation
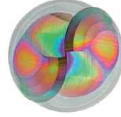
- Tolerance D1: -0.001/-0.006 mm
- Tolerance D3: 0/-0.02 mm
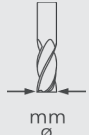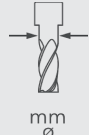- Radius tolerance r: 0/-0.003 mm (measured from 0-90°)

Roughing

inappropriate — optimal

Finishing

inappropriate — optimal
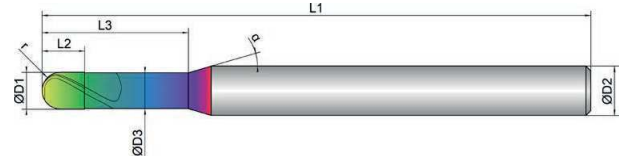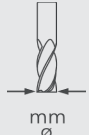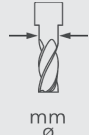
EXN1-M17-0003	D1 mm ø	D3 mm ø	L2 mm	L3 mm	L1 mm	D2 mm ø	z #	r mm	r °	α °
0,1X0,3	0.1	0.08	0.1	0.3	45.0	4.0	2	0.05	30	16
0,1X0,5	0.1	0.08	0.1	0.5	45.0	4.0	2	0.05	30	16
0,1X1	0.1	0.08	0.1	1.0	45.0	4.0	2	0.05	30	16
0,2X0,5	0.2	0.17	0.2	0.5	45.0	4.0	2	0.10	30	16
0,2X1	0.2	0.17	0.2	1.0	45.0	4.0	2	0.10	30	16
0,2X2	0.2	0.17	0.2	2.0	45.0	4.0	2	0.10	30	16
0,2X3	0.2	0.17	0.2	3.0	45.0	4.0	2	0.10	30	16
0,3X0,5	0.3	0.27	0.2	0.5	45.0	4.0	2	0.15	30	16
0,3X1	0.3	0.27	0.2	1.0	45.0	4.0	2	0.15	30	16
0,3X2	0.3	0.27	0.2	2.0	45.0	4.0	2	0.15	30	16
0,3X3	0.3	0.27	0.2	3.0	45.0	4.0	2	0.15	30	16
0,3X4	0.3	0.27	0.2	4.0	45.0	4.0	2	0.15	30	16
0,3X6	0.3	0.27	0.2	6.0	45.0	4.0	2	0.15	30	16
0,4X1	0.4	0.37	0.3	1.0	45.0	4.0	2	0.20	30	16
0,4X2	0.4	0.37	0.3	2.0	45.0	4.0	2	0.20	30	16

EXN1-M17-0003	D1 mm ø	D3 mm ø	L2 mm	L3 mm	L1 mm	D2 mm ø	z #	r mm	°	°
0,4X3	0.4	0.37	0.3	3.0	45.0	4.0	2	0.20	30	16
0,4X4	0.4	0.37	0.3	4.0	45.0	4.0	2	0.20	30	16
0,4X6	0.4	0.37	0.3	6.0	45.0	4.0	2	0.20	30	16
0,4X8	0.4	0.37	0.3	8.0	45.0	4.0	2	0.20	30	16
0,5X1	0.5	0.47	0.4	1.0	45.0	4.0	2	0.25	30	16
0,5X1,5	0.5	0.47	0.4	1.5	45.0	4.0	2	0.25	30	16
0,5X2	0.5	0.47	0.4	2.0	45.0	4.0	2	0.25	30	16
0,5X3	0.5	0.47	0.4	3.0	45.0	4.0	2	0.25	30	16
0,5X4	0.5	0.47	0.4	4.0	45.0	4.0	2	0.25	30	16
0,5X6	0.5	0.47	0.4	6.0	45.0	4.0	2	0.25	30	16
0,5X8	0.5	0.47	0.4	8.0	45.0	4.0	2	0.25	30	16
0,6X2	0.6	0.57	0.5	2.0	45.0	4.0	2	0.30	30	16
0,6X3	0.6	0.57	0.5	3.0	45.0	4.0	2	0.30	30	16
0,6X4	0.6	0.57	0.5	4.0	45.0	4.0	2	0.30	30	16
0,6X6	0.6	0.57	0.5	6.0	45.0	4.0	2	0.30	30	16
0,6X8	0.6	0.57	0.5	8.0	45.0	4.0	2	0.30	30	16
0,8X2	0.8	0.77	0.6	2.0	45.0	4.0	2	0.40	30	16
0,8X3	0.8	0.77	0.6	3.0	45.0	4.0	2	0.40	30	16
0,8X4	0.8	0.77	0.6	4.0	45.0	4.0	2	0.40	30	16
0,8X6	0.8	0.77	0.6	6.0	45.0	4.0	2	0.40	30	16
0,8X8	0.8	0.77	0.6	8.0	45.0	4.0	2	0.40	30	16
1X2	1.0	0.96	0.8	2.0	45.0	4.0	2	0.50	30	16
1X3	1.0	0.96	0.8	3.0	45.0	4.0	2	0.50	30	16
1X4	1.0	0.96	0.8	4.0	45.0	4.0	2	0.50	30	16
1X5	1.0	0.96	0.8	5.0	45.0	4.0	2	0.50	30	16
1X6	1.0	0.96	0.8	6.0	45.0	4.0	2	0.50	30	16
1X8	1.0	0.96	0.8	8.0	45.0	4.0	2	0.50	30	16

EXN1-M17-0003	D1 mm ø	D3 mm ø	L2 mm	L3 mm	L1 mm	D2 mm ø	z #	r mm	°	α °
1X10	1.0	0.96	0.8	10.0	50.0	4.0	2	0.50	30	16
1X12	1.0	0.96	0.8	12.0	50.0	4.0	2	0.50	30	16
1,2X3	1.2	1.16	1.0	3.0	45.0	4.0	2	0.60	30	16
1,2X4	1.2	1.16	1.0	4.0	45.0	4.0	2	0.60	30	16
1,2X6	1.2	1.16	1.0	6.0	45.0	4.0	2	0.60	30	16
1,2X8	1.2	1.16	1.0	8.0	45.0	4.0	2	0.60	30	16
1,2X10	1.2	1.16	1.0	10.0	45.0	4.0	2	0.60	30	16
1,2X12	1.2	1.16	1.0	12.0	50.0	4.0	2	0.60	30	16
1,2X20	1.2	1.16	1.0	20.0	54.0	4.0	2	0.60	30	16
1,5X3	1.5	1.44	1.2	3.0	45.0	4.0	2	0.75	30	16
1,5X4	1.5	1.44	1.2	4.0	45.0	4.0	2	0.75	30	16
1,5X6	1.5	1.44	1.2	6.0	45.0	4.0	2	0.75	30	16
1,5X8	1.5	1.44	1.2	8.0	45.0	4.0	2	0.75	30	16
1,5X10	1.5	1.44	1.2	10.0	45.0	4.0	2	0.75	30	16
1,5X12	1.5	1.44	1.2	12.0	50.0	4.0	2	0.75	30	16
1,8X8	1.8	1.74	1.4	8.0	45.0	4.0	2	0.90	30	16
1,8X10	1.8	1.74	1.4	10.0	45.0	4.0	2	0.90	30	16
1,8X12	1.8	1.74	1.4	12.0	50.0	4.0	2	0.90	30	16
2X4	2.0	1.94	1.6	4.0	45.0	4.0	2	1.00	30	16
2X6	2.0	1.94	1.6	6.0	45.0	4.0	2	1.00	30	16
2X8	2.0	1.94	1.6	8.0	45.0	4.0	2	1.00	30	16
2X10	2.0	1.94	1.6	10.0	45.0	4.0	2	1.00	30	16
2X12	2.0	1.94	1.6	12.0	45.0	4.0	2	1.00	30	16
3X6	3.0	2.92	3.5	6.0	45.0	4.0	2	1.50	30	16
3X8	3.0	2.92	3.5	8.0	45.0	4.0	2	1.50	30	16
3X10	3.0	2.92	3.5	10.0	45.0	4.0	2	1.50	30	16
3X12	3.0	2.92	3.5	12.0	45.0	4.0	2	1.50	30	16