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			Dimension	Ø 1.5x4			Ø 1.5x30			Ø 1.8x8			Ø 1.8x20		
			Infeed in mm	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 0.1xD ae= 0.1xD	ae= 1xD ap= 0.02xD	ae= 0.03xD ap= L2 max	ae= 0.01xD ae= 0.01xD	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 0.1xD ae= 0.1xD	ae= 1xD ap= 0.1xD	ae= 0.13xD ap= L2 max	ae= 0.05xD ae= 0.05xD
			Application												
	Material	Strength (N/mm²)	Feed (mm/Z)	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz
N			Vc (m/min)												
1.1	Aluminium, alloyed	<500	500	0.025	0.03	0.035	0.015	0.02	0.025	0.03	0.035	0.04	0.025	0.03	0.035
1.2	Aluminium, alloyed	<600	480	0.025	0.03	0.035	0.015	0.02	0.025	0.03	0.035	0.04	0.025	0.03	0.035
2.1-2.3	Aluminium, casted	<600	450	0.022	0.027	0.032	0.013	0.017	0.022	0.027	0.031	0.035	0.022	0.026	0.03
3.1-3.3	Cooper, alloyed	<650	220	0.019	0.024	0.029	0.011	0.014	0.019	0.024	0.027	0.03	0.019	0.022	0.025
4.1	Magnesium, alloyed	<250	500	0.025	0.03	0.035	0.015	0.02	0.025	0.03	0.035	0.04	0.025	0.03	0.035
5.1	Thermoplastic	<100	400	0.022	0.027	0.032	0.013	0.017	0.022	0.027	0.031	0.035	0.022	0.026	0.03
5.2	Duroplastic	<150	350	0.019	0.024	0.029	0.011	0.014	0.019	0.024	0.027	0.03	0.019	0.022	0.025

			Dimension	Ø 2x4			Ø 2x40			Ø 2.5x12			Ø 2.5x30		
			Infeed in mm	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 0.1xD ae= 0.1xD	ae= 1xD ap= 0.01xD	ae= 0.015xD ap= L2 max	ae= 0.01xD ae= 0.01xD	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 0.1xD ae= 0.1xD	ae= 1xD ap= 0.07xD	ae= 0.09xD ap= L2 max	ae= 0.04xD ae= 0.04xD
			Application												
	Material	Strength (N/mm²)	Feed (mm/Z)	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz
N			Vc (m/min)												
1.1	Aluminium, alloyed	<500	500	0.03	0.035	0.04	0.02	0.025	0.03	0.03	0.035	0.04	0.025	0.03	0.035
1.2	Aluminium, alloyed	<600	480	0.03	0.035	0.04	0.02	0.025	0.03	0.03	0.035	0.04	0.025	0.03	0.035
2.1-2.3	Aluminium, casted	<600	450	0.027	0.031	0.035	0.017	0.021	0.025	0.027	0.031	0.035	0.022	0.026	0.03
3.1-3.3	Cooper, alloyed	<650	220	0.024	0.027	0.03	0.014	0.017	0.02	0.024	0.027	0.03	0.019	0.022	0.025
4.1	Magnesium, alloyed	<250	500	0.03	0.035	0.04	0.02	0.025	0.03	0.03	0.035	0.04	0.025	0.03	0.035
5.1	Thermoplastic	<100	400	0.027	0.031	0.035	0.017	0.021	0.025	0.027	0.031	0.035	0.022	0.026	0.03
5.2	Duroplastic	<150	350	0.024	0.027	0.03	0.014	0.017	0.02	0.024	0.027	0.03	0.019	0.022	0.025

			Dimension	Ø 3x6			Ø 3x45		
			Infeed in mm	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 0.1xD ae= 0.1xD	ae= 1xD ap= 0.04xD	ae= 0.05xD ap= L2 max	ae= 0.02xD ae= 0.02xD
			Application						
	Material	Strength (N/mm²)	Feed (mm/Z)	fz	fz	fz	fz	fz	fz
N			Vc (m/min)						
1.1	Aluminium, alloyed	<500	500	0.033	0.038	0.043	0.025	0.03	0.035
1.2	Aluminium, alloyed	<600	480	0.033	0.038	0.043	0.025	0.03	0.035
2.1-2.3	Aluminium, casted	<600	450	0.03	0.034	0.038	0.022	0.026	0.03
3.1-3.3	Cooper, alloyed	<650	220	0.027	0.03	0.033	0.019	0.022	0.025
4.1	Magnesium, alloyed	<250	500	0.033	0.038	0.043	0.025	0.03	0.035
5.1	Thermoplastic	<100	400	0.03	0.034	0.038	0.022	0.026	0.03
5.2	Duroplastic	<150	350	0.027	0.03	0.033	0.019	0.022	0.025

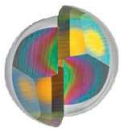
NOTE | Values in the table are the shortest and the longest overhang length (L3) of each dimension; please calculate fz, ap and ae depending on the given values.
ae/ap(max) = 0.5x corner radius!

Cooling	
Tolerance	d04
Coating	AlphaSlide Rainbow

Strategy	HSC
Application	
Features	HA

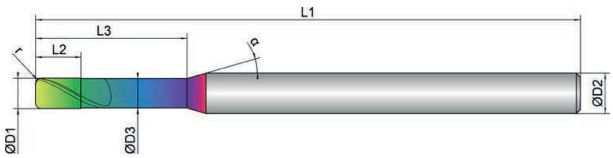
Expert

- Optimized face geometry for excellent surfaces and highest dimensional accuracy
- Defined microbevel for support and stabilization
- Polished chip space for ideal chip evacuation



- Multipass milling of 3D contours

- Tolerance D1: -0.001/-0.006 mm
- Tolerance D3: 0/-0.02 mm
- Radius tolerance r: 0/-0.003 mm (measured from 0-90°)



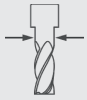
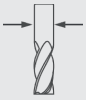
Roughing

inappropriate — optimal

Finishing

inappropriate — optimal

EXN1-M16-0183	D1 mm ø	D3 mm ø	L2 mm	L3 mm	L1 mm	D2 mm ø	z #	r mm	°	α °
1,5X4	1.5	1.44	1.5	4.0	50.0	4.0	2	0.50	30	16
1,5X6	1.5	1.44	1.5	6.0	50.0	4.0	2	0.50	30	16
1,5X8	1.5	1.44	1.5	8.0	50.0	4.0	2	0.50	30	16
1,5X10	1.5	1.44	1.5	10.0	50.0	4.0	2	0.50	30	16
1,5X12	1.5	1.44	1.5	12.0	54.0	4.0	2	0.50	30	16
1,5X15	1.5	1.44	1.5	15.0	54.0	4.0	2	0.50	30	16
1,5X20	1.5	1.44	1.5	20.0	60.0	4.0	2	0.50	30	16
1,5X25	1.5	1.44	1.5	25.0	60.0	4.0	2	0.50	30	16
1,5X30	1.5	1.44	1.5	30.0	70.0	4.0	2	0.50	30	16
1,8X8	1.8	1.74	1.8	8.0	50.0	4.0	2	0.50	30	16
1,8X10	1.8	1.74	1.8	10.0	50.0	4.0	2	0.50	30	16
1,8X15	1.8	1.74	1.8	15.0	50.0	4.0	2	0.50	30	16
1,8X20	1.8	1.74	1.8	20.0	54.0	4.0	2	0.50	30	16

EXN1-M16-0183	D1  mm ⌀	D3  mm ⌀	L2  mm	L3  mm	L1  mm	D2  mm ⌀	z  #	r  mm	° 	α  °
2X4	2.0	1.91	2.0	4.0	50.0	4.0	2	0.50	30	16
2X6	2.0	1.91	2.0	6.0	50.0	4.0	2	0.50	30	16
2X8	2.0	1.91	2.0	8.0	50.0	4.0	2	0.50	30	16
2X10	2.0	1.91	2.0	10.0	50.0	4.0	2	0.50	30	16
2X12	2.0	1.91	2.0	12.0	54.0	4.0	2	0.50	30	16
2X15	2.0	1.91	2.0	15.0	54.0	4.0	2	0.50	30	16
2X20	2.0	1.91	2.0	20.0	60.0	4.0	2	0.50	30	16
2X25	2.0	1.91	2.0	25.0	70.0	4.0	2	0.50	30	16
2X30	2.0	1.91	2.0	30.0	70.0	4.0	2	0.50	30	16
2X35	2.0	1.91	2.0	35.0	80.0	4.0	2	0.50	30	16
2X40	2.0	1.91	2.0	40.0	80.0	4.0	2	0.50	30	16
2,5X12	2.5	2.41	2.5	12.0	54.0	4.0	2	0.50	30	16
2,5X15	2.5	2.41	2.5	15.0	54.0	4.0	2	0.50	30	16
2,5X20	2.5	2.41	2.5	20.0	54.0	4.0	2	0.50	30	16
2,5X25	2.5	2.41	2.5	25.0	60.0	4.0	2	0.50	30	16
2,5X30	2.5	2.41	2.5	30.0	70.0	4.0	2	0.50	30	16
3X6	3.0	2.91	4.5	6.0	50.0	4.0	2	0.50	30	16
3X8	3.0	2.91	4.5	8.0	50.0	4.0	2	0.50	30	16
3X10	3.0	2.91	4.5	10.0	50.0	4.0	2	0.50	30	16
3X12	3.0	2.91	4.5	12.0	50.0	4.0	2	0.50	30	16
3X15	3.0	2.91	4.5	15.0	54.0	4.0	2	0.50	30	16
3X20	3.0	2.91	4.5	20.0	54.0	4.0	2	0.50	30	16
3X25	3.0	2.91	4.5	25.0	60.0	4.0	2	0.50	30	16
3X30	3.0	2.91	4.5	30.0	70.0	4.0	2	0.50	30	16
3X35	3.0	2.91	4.5	35.0	80.0	4.0	2	0.50	30	16
3X40	3.0	2.91	4.5	40.0	80.0	4.0	2	0.50	30	16
3X45	3.0	2.91	4.5	45.0	90.0	4.0	2	0.50	30	16