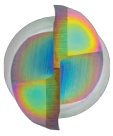
Cooling	
Tolerance	d04
Coating	AlphaSlide Rainbow

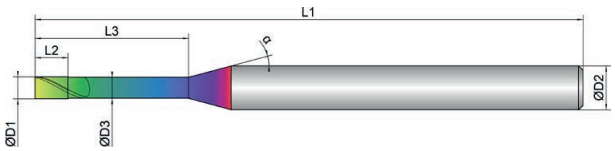
Strategy	HSC
Application	
Features	HA

Expert

- Optimized face geometry for excellent surfaces
- 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



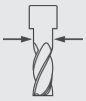
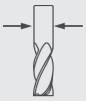
Roughing

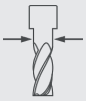
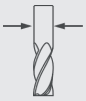
inappropriate — optimal

Finishing

inappropriate — optimal

EXN1-M15-0003	D1 mm ⌀	D3 mm ⌀	L2 mm	L3 mm	L1 mm	D2 mm ⌀	z #	°	α °
0,2X0,5	0.2	0.18	0.3	0.5	45.0	4.0	2	30	16
0,2X1	0.2	0.18	0.3	1.0	45.0	4.0	2	30	16
0,2X1,5	0.2	0.18	0.3	1.5	45.0	4.0	2	30	16
0,3X1	0.3	0.28	0.4	1.0	45.0	4.0	2	30	16
0,3X2	0.3	0.28	0.4	2.0	45.0	4.0	2	30	16
0,4X2	0.4	0.38	0.6	2.0	45.0	4.0	2	30	16
0,4X3	0.4	0.38	0.6	3.0	45.0	4.0	2	30	16
0,5X2	0.5	0.48	0.7	2.0	45.0	4.0	2	30	16
0,5X4	0.5	0.48	0.7	4.0	45.0	4.0	2	30	16
0,5X6	0.5	0.48	0.7	6.0	45.0	4.0	2	30	16
0,6X2	0.6	0.58	0.9	2.0	45.0	4.0	2	30	16
0,6X4	0.6	0.58	0.9	4.0	45.0	4.0	2	30	16
0,6X6	0.6	0.58	0.9	6.0	45.0	4.0	2	30	16
0,7X2	0.7	0.68	1.0	2.0	45.0	4.0	2	30	16

EXN1-M15-0003	D1  mm ø	D3  mm ø	L2  mm	L3  mm	L1  mm	D2  mm ø	z  #	° 	α  °
0,7X4	0.7	0.68	1.0	4.0	45.0	4.0	2	30	16
0,8X4	0.8	0.78	1.2	4.0	45.0	4.0	2	30	16
0,8X6	0.8	0.78	1.2	6.0	45.0	4.0	2	30	16
0,8X8	0.8	0.78	1.2	8.0	45.0	4.0	2	30	16
1X4	1.0	0.95	1.5	4.0	45.0	4.0	2	30	16
1X6	1.0	0.95	1.5	6.0	45.0	4.0	2	30	16
1X8	1.0	0.95	1.5	8.0	45.0	4.0	2	30	16
1X10	1.0	0.95	1.5	10.0	45.0	4.0	2	30	16
1X12	1.0	0.95	1.5	12.0	45.0	4.0	2	30	16
1X14	1.0	0.95	1.5	14.0	45.0	4.0	2	30	16
1X16	1.0	0.95	1.5	16.0	50.0	4.0	2	30	16
1X25	1.0	0.95	1.5	25.0	70.0	4.0	2	30	16
1,2X6	1.2	1.14	1.8	6.0	45.0	4.0	2	30	16
1,2X8	1.2	1.14	1.8	8.0	45.0	4.0	2	30	16
1,2X10	1.2	1.14	1.8	10.0	45.0	4.0	2	30	16
1,4X6	1.4	1.34	2.1	6.0	45.0	4.0	2	30	16
1,4X8	1.4	1.34	2.1	8.0	45.0	4.0	2	30	16
1,5X6	1.5	1.44	2.3	6.0	45.0	4.0	2	30	16
1,5X8	1.5	1.44	2.3	8.0	45.0	4.0	2	30	16
1,5X10	1.5	1.44	2.3	10.0	45.0	4.0	2	30	16
1,5X12	1.5	1.44	2.3	12.0	45.0	4.0	2	30	16
1,5X14	1.5	1.44	2.3	14.0	50.0	4.0	2	30	16
1,5X16	1.5	1.44	2.3	16.0	50.0	4.0	2	30	16
1,5X20	1.5	1.44	2.3	20.0	54.0	4.0	2	30	16
1,5X25	1.5	1.44	2.3	25.0	70.0	4.0	2	30	16

EXN1-M15-0003	D1  mm ø	D3  mm ø	L2  mm	L3  mm	L1  mm	D2  mm ø	z  #	° 	α  °
1,6X6	1.6	1.51	2.4	6.0	45.0	4.0	2	30	16
1,6X10	1.6	1.51	2.4	10.0	45.0	4.0	2	30	16
1,8X6	1.8	1.71	2.7	6.0	45.0	4.0	2	30	16
1,8X8	1.8	1.71	2.7	8.0	45.0	4.0	2	30	16
1,8X10	1.8	1.71	2.7	10.0	45.0	4.0	2	30	16
2X6	2.0	1.91	3.0	6.0	45.0	4.0	2	30	16
2X8	2.0	1.91	3.0	8.0	45.0	4.0	2	30	16
2X10	2.0	1.91	3.0	10.0	45.0	4.0	2	30	16
2X12	2.0	1.91	3.0	12.0	45.0	4.0	2	30	16
2X14	2.0	1.91	3.0	14.0	50.0	4.0	2	30	16
2X16	2.0	1.91	3.0	16.0	50.0	4.0	2	30	16
2X20	2.0	1.91	3.0	20.0	54.0	4.0	2	30	16
2X25	2.0	1.91	3.0	25.0	60.0	4.0	2	30	16
2X30	2.0	1.91	3.0	30.0	70.0	4.0	2	30	16
2X35	2.0	1.91	3.0	35.0	80.0	4.0	2	30	16
2,5X8	2.5	2.41	3.7	8.0	45.0	4.0	2	30	16
2,5X12	2.5	2.41	3.7	12.0	45.0	4.0	2	30	16
2,5X16	2.5	2.41	3.7	16.0	50.0	4.0	2	30	16
2,5X20	2.5	2.41	3.7	20.0	54.0	4.0	2	30	16
2,5X25	2.5	2.41	3.7	25.0	60.0	4.0	2	30	16
2,5X30	2.5	2.41	3.7	30.0	70.0	4.0	2	30	16

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	Material	Strength (N/mm²)	Dimension	Ø0.2x0.5		Ø0.2x1.5		Ø0.3x1		Ø0.3x2		Ø0.4x2		Ø0.4x3	
			Infeed in mm	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.18xD	ae= 0.2xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.18xD	ae= 0.23xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.18xD	ae= 0.23xD ap= L2 max
			Application												
			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	0.008	0.012	0.007	0.011	0.012	0.016	0.011	0.015	0.012	0.016	0.011	0.015
1.2	Aluminium, alloyed	<600	480	0.008	0.012	0.007	0.011	0.012	0.016	0.011	0.015	0.012	0.016	0.011	0.015
2.1-2.3	Aluminium, casted	<600	450	0.007	0.011	0.006	0.01	0.011	0.015	0.01	0.014	0.011	0.015	0.01	0.014
3.1-3.3	Cooper, alloyed	<650	220	0.006	0.01	0.005	0.009	0.01	0.014	0.009	0.013	0.01	0.014	0.009	0.013
4.1	Magnesium, alloyed	<250	500	0.008	0.012	0.007	0.011	0.012	0.016	0.011	0.015	0.012	0.016	0.011	0.015
5.1	Thermoplastic	<100	400	0.007	0.011	0.006	0.01	0.011	0.015	0.01	0.014	0.011	0.015	0.01	0.014
5.2	Duroplastic	<150	350	0.006	0.01	0.005	0.009	0.01	0.014	0.009	0.013	0.01	0.014	0.009	0.013

	Material	Strength (N/mm²)	Dimension	Ø0.5x2		Ø0.5x6		Ø0.6x2		Ø0.6x6		Ø0.7x2		Ø0.7x4	
			Infeed in mm	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.1xD	ae= 0.12xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.1xD	ae= 0.12xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.18xD	ae= 0.23xD ap= L2 max
			Application												
			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	0.016	0.02	0.013	0.017	0.016	0.02	0.013	0.017	0.016	0.02	0.015	0.018
1.2	Aluminium, alloyed	<600	480	0.016	0.02	0.013	0.017	0.016	0.02	0.013	0.017	0.016	0.02	0.015	0.018
2.1-2.3	Aluminium, casted	<600	450	0.015	0.018	0.012	0.015	0.015	0.018	0.012	0.015	0.015	0.018	0.014	0.016
3.1-3.3	Cooper, alloyed	<650	220	0.014	0.016	0.011	0.013	0.014	0.016	0.011	0.013	0.014	0.016	0.013	0.014
4.1	Magnesium, alloyed	<250	500	0.016	0.02	0.013	0.017	0.016	0.02	0.013	0.017	0.016	0.02	0.015	0.018
5.1	Thermoplastic	<100	400	0.015	0.018	0.012	0.015	0.015	0.018	0.012	0.015	0.015	0.018	0.014	0.016
5.2	Duroplastic	<150	350	0.014	0.016	0.011	0.013	0.014	0.016	0.011	0.013	0.014	0.016	0.013	0.014

	Material	Strength (N/mm²)	Dimension	Ø0.8x4		Ø0.8x8		Ø1x4		Ø1x25		Ø1.2x6		Ø1.2x10	
			Infeed in mm	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.16xD	ae= 0.2xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.02xD	ae= 0.025xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.16xD	ae= 0.2xD ap= L2 max
			Application												
			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	0.018	0.022	0.016	0.02	0.025	0.03	0.015	0.02	0.025	0.03	0.023	0.028
1.2	Aluminium, alloyed	<600	480	0.018	0.022	0.016	0.02	0.025	0.03	0.015	0.02	0.025	0.03	0.023	0.028
2.1-2.3	Aluminium, casted	<600	450	0.016	0.02	0.014	0.018	0.022	0.027	0.013	0.018	0.022	0.027	0.02	0.025
3.1-3.3	Cooper, alloyed	<650	220	0.014	0.018	0.012	0.016	0.019	0.024	0.011	0.016	0.019	0.024	0.017	0.022
4.1	Magnesium, alloyed	<250	500	0.018	0.022	0.016	0.02	0.025	0.03	0.015	0.02	0.025	0.03	0.023	0.028
5.1	Thermoplastic	<100	400	0.016	0.02	0.014	0.018	0.022	0.027	0.013	0.018	0.022	0.027	0.02	0.025
5.2	Duroplastic	<150	350	0.014	0.018	0.012	0.016	0.019	0.024	0.011	0.016	0.019	0.024	0.017	0.022

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.

			Dimension	Ø 1.4x6		Ø 1.4x8		Ø 1.5x6		Ø 1.5x25		Ø 1.6x6		Ø 1.6x10	
			Infeed in mm	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.18xD	ae= 0.23xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.03xD	ae= 0.04xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.18xD	ae= 0.23xD ap= L2 max
			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	0.024	0.028	0.025	0.03	0.018	0.023	0.03	0.035	0.028	0.033
1.2	Aluminium, alloyed	<600	480	0.025	0.03	0.024	0.028	0.025	0.03	0.018	0.023	0.03	0.035	0.028	0.033
2.1-2.3	Aluminium, casted	<600	450	0.022	0.027	0.021	0.025	0.022	0.027	0.015	0.02	0.027	0.031	0.025	0.03
3.1-3.3	Cooper, alloyed	<650	220	0.019	0.024	0.018	0.022	0.019	0.024	0.012	0.017	0.024	0.027	0.022	0.027
4.1	Magnesium, alloyed	<250	500	0.025	0.03	0.024	0.028	0.025	0.03	0.018	0.023	0.03	0.035	0.028	0.033
5.1	Thermoplastic	<100	400	0.022	0.027	0.021	0.025	0.022	0.027	0.015	0.02	0.027	0.031	0.025	0.03
5.2	Duroplastic	<150	350	0.019	0.024	0.018	0.022	0.019	0.024	0.012	0.017	0.024	0.027	0.022	0.027

			Dimension	Ø 1.8x6		Ø 1.8x10		Ø 2x6		Ø 2x35		Ø 2.5x8		Ø 2.5x30	
			Infeed in mm	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.18xD	ae= 0.23xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.02xD	ae= 0.025xD ap= L2 max	ae= 1xD ap= 0.2xD	ae= 0.25xD ap= L2 max	ae= 1xD ap= 0.06xD	ae= 0.08xD ap= L2 max
			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	0.028	0.033	0.03	0.035	0.018	0.023	0.035	0.04	0.023	0.028
1.2	Aluminium, alloyed	<600	480	0.03	0.035	0.028	0.033	0.03	0.035	0.018	0.023	0.035	0.04	0.023	0.028
2.1-2.3	Aluminium, casted	<600	450	0.027	0.031	0.025	0.03	0.027	0.031	0.015	0.02	0.03	0.035	0.02	0.025
3.1-3.3	Cooper, alloyed	<650	220	0.024	0.027	0.022	0.027	0.024	0.027	0.012	0.017	0.025	0.03	0.017	0.022
4.1	Magnesium, alloyed	<250	500	0.03	0.035	0.028	0.033	0.03	0.035	0.018	0.023	0.035	0.04	0.023	0.028
5.1	Thermoplastic	<100	400	0.027	0.031	0.025	0.03	0.027	0.031	0.015	0.02	0.03	0.035	0.02	0.025
5.2	Duroplastic	<150	350	0.024	0.027	0.022	0.027	0.024	0.027	0.012	0.017	0.025	0.03	0.017	0.022

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.

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