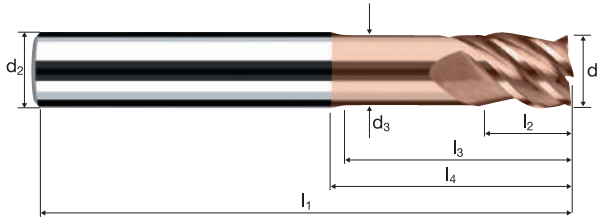


# Cylindrical end mills NX

Face finishing, normal version, neck



HM XA	$\lambda$ 45° $\gamma$ 10°
G 2.5	

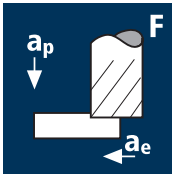


Roughing	Finishing

		Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium Copper
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Ø Code	d <sub>1</sub> e8	d <sub>2</sub> h5	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	45° <sub>theo.</sub>	α	z	DURO-Si	
											Example: Order-N°.	Coating H
180	3.00	6.00	2.80	57	4.00	14.00	20.37	0.10	4.5°	4		●
220	4.00	6.00	3.70	57	5.00	16.00	20.82	0.10	3.0°	4		●
260	5.00	6.00	4.60	57	6.00	18.00	21.27	0.10	1.5°	4		●
300	6.00	6.00	5.50	57	7.00	18.15	20.00	0.10	0.0°	4		●
391	8.00	8.00	7.40	63	9.00	23.63	26.00	0.15	0.0°	4		●
450	10.00	10.00	9.20	72	11.00	27.99	31.00	0.15	0.0°	4		●
501	12.00	12.00	11.00	83	13.00	33.29	37.00	0.20	0.0°	4		●
610	16.00	16.00	15.00	92	17.00	38.73	43.00	0.20	0.0°	4		●

## Application



## Material

Hardened tool steel  
42 - 48 HRC



d1 [mm]	z	v <sub>c</sub> [m/min]	f <sub>f</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>r</sub> [mm/min]
3.00	4	180	0.005	0.050	1.800	19100	380
4.00	4	180	0.006	0.050	2.400	14325	345
5.00	4	180	0.007	0.075	3.000	11460	320
6.00	4	180	0.008	0.075	3.600	9550	305
8.00	4	180	0.009	0.100	4.800	7160	260
10.00	4	180	0.010	0.100	6.000	5730	230
12.00	4	180	0.011	0.150	7.200	4775	210
16.00	4	180	0.013	0.150	9.600	3580	185

Hardened tool steel  
48 - 52 HRC



3.00	4	180	0.005	0.050	1.800	19100	380
4.00	4	180	0.006	0.050	2.400	14325	345
5.00	4	180	0.007	0.075	3.000	11460	320
6.00	4	180	0.008	0.075	3.600	9550	305
8.00	4	180	0.009	0.100	4.800	7160	260
10.00	4	180	0.010	0.100	6.000	5730	230
12.00	4	180	0.011	0.150	7.200	4775	210
16.00	4	180	0.013	0.150	9.600	3580	185

Hardened tool steel  
52 - 56 HRC



3.00	4	160	0.005	0.050	1.800	16975	340
4.00	4	160	0.006	0.050	2.400	12730	305
5.00	4	160	0.007	0.075	3.000	10185	285
6.00	4	160	0.008	0.075	3.600	8490	270
8.00	4	160	0.009	0.100	4.800	6365	230
10.00	4	160	0.010	0.100	6.000	5095	205
12.00	4	160	0.011	0.150	7.200	4245	185
16.00	4	160	0.013	0.150	9.600	3185	165

Titanium alloys  
> 300 HB  
[Ti6Al4V]



3.00	4	125	0.005	0.050	1.800	13265	265
4.00	4	125	0.006	0.050	2.400	9945	240
5.00	4	125	0.007	0.075	3.000	7960	225
6.00	4	125	0.008	0.075	3.600	6630	210
8.00	4	125	0.009	0.100	4.800	4975	180
10.00	4	125	0.010	0.100	6.000	3980	160
12.00	4	125	0.011	0.150	7.200	3315	145
16.00	4	125	0.013	0.150	9.600	2485	130

Inox normal  
[Cr-Ni/1.4301]  
[Cr-Ni-Mo/1.4571]



3.00	4	250	0.005	0.050	1.800	26525	530
4.00	4	250	0.006	0.050	2.400	19895	475
5.00	4	250	0.007	0.075	3.000	15915	445
6.00	4	250	0.008	0.075	3.600	13265	425
8.00	4	250	0.009	0.100	4.800	9945	360
10.00	4	250	0.010	0.100	6.000	7960	320
12.00	4	250	0.011	0.150	7.200	6630	290
16.00	4	250	0.013	0.150	9.600	4975	260

Wrought aluminium  
Construction aluminium



3.00	4	280	0.006	0.050	1.800	29710	715
4.00	4	370	0.007	0.050	2.400	29445	825
5.00	4	400	0.008	0.075	3.250	25465	815
6.00	4	400	0.010	0.075	3.900	21220	850
8.00	4	450	0.012	0.100	5.600	17905	860
10.00	4	450	0.015	0.100	7.000	14325	860
12.00	4	500	0.018	0.150	8.400	13265	955
16.00	4	500	0.020	0.150	11.200	9945	795