

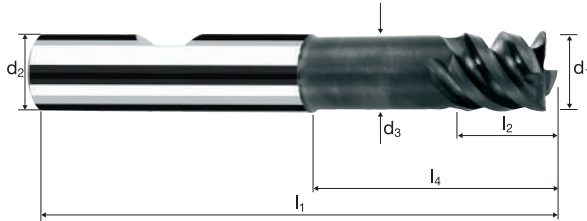
# Cylindrical end mills SX

Smooth-edged, normal version with neck



**HM**     $\lambda$  55°  
**MG10**    $\gamma$  15°

45°



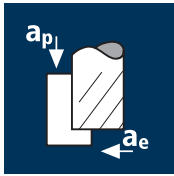
**Roughing**    **Finishing**



**Rm** < 850    **Rm** 850-1100    **Inox** Stainless    **Ti** Titanium    **Nickel-Alloys** Tool Steel

											<b>POLYCHROM</b>	
Example: Order-N°.											<b>P5318</b>	
											<b>P5218</b>	
$\emptyset$ Code	d <sub>1</sub> e8	d <sub>2</sub> h6	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	45°	$\alpha$	z		
<b>180</b>	3.00	6.00	2.80	57	4.00	14.00	20.63	0.10	4.5°	4	●	
<b>220</b>	4.00	6.00	3.70	57	5.00	16.00	20.95	0.10	3.0°	4	●	
<b>260</b>	5.00	6.00	4.60	57	6.00	18.00	21.27	0.15	1.5°	4	●	
<b>300</b>	6.00	6.00	5.50	57	7.00	19.34	20.00	0.15	0.0°	4	●	
<b>391</b>	8.00	8.00	7.40	63	9.00	25.29	26.00	0.15	0.0°	4	●	
<b>450</b>	10.00	10.00	9.20	72	11.00	30.20	31.00	0.20	0.0°	4	●	
<b>501</b>	12.00	12.00	11.00	83	13.00	36.13	37.00	0.20	0.0°	4	●	
<b>610</b>	16.00	16.00	15.00	92	17.00	42.13	43.00	0.20	0.0°	4	●	
<b>682</b>	20.00	20.00	19.00	104	21.00	52.13	53.00	0.20	0.0°	4	●	

## Application



## Material

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



Inox medium  
[Cr-Ni-Mo+/1.4539]  
Duplex steel  
[17-4 PH]



Inox difficile  
[Cr-Ni-Mo+/1.4529]  
Heat resistant steel  
[1.4841]



Nickel-based alloys  
precipitation hardened  
Rm > 1000 N/mm<sup>2</sup>  
[Inconel 718]



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Heat resistant steel  
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precipitation hardened  
Rm > 1000 N/mm<sup>2</sup>  
[Inconel 718]



d1 [mm]	z	v <sub>c</sub> [m/min]	f <sub>s</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>r</sub> [mm/min]	Q [cm <sup>3</sup> /min]
3.00	4	80	0.010	3.000	1.200	8490	340	1.2
4.00	4	80	0.015	4.000	1.600	6365	380	2.4
5.00	4	80	0.020	5.000	2.000	5095	405	4.1
6.00	4	80	0.030	6.000	2.400	4245	510	7.3
8.00	4	80	0.040	8.000	3.200	3185	510	13.0
10.00	4	80	0.055	10.000	4.000	2545	560	22.4
12.00	4	80	0.065	12.000	4.800	2120	550	31.8
16.00	4	80	0.085	16.000	4.000	1590	540	34.6
20.00	4	80	0.090	20.000	5.000	1275	460	45.8
3.00	4	40	0.010	3.000	1.200	4245	170	0.6
4.00	4	40	0.015	4.000	1.600	3185	190	1.2
5.00	4	40	0.020	5.000	2.000	2545	205	2.0
6.00	4	40	0.030	6.000	2.400	2120	255	3.7
8.00	4	40	0.040	8.000	3.200	1590	255	6.5
10.00	4	40	0.055	10.000	4.000	1275	280	11.2
12.00	4	40	0.065	12.000	4.800	1060	275	15.9
16.00	4	40	0.085	16.000	4.000	795	270	17.3
20.00	4	40	0.090	20.000	5.000	635	230	22.9
3.00	4	25	0.015	3.000	1.200	2655	160	0.6
4.00	4	25	0.020	4.000	1.600	1990	160	1.0
5.00	4	25	0.025	5.000	2.000	1590	160	1.6
6.00	4	25	0.030	6.000	2.400	1325	160	2.3
8.00	4	25	0.035	8.000	3.200	995	140	3.6
10.00	4	25	0.045	10.000	4.000	795	145	5.7
12.00	4	25	0.050	12.000	4.800	665	135	7.6
16.00	4	25	0.065	16.000	4.000	495	130	8.3
20.00	4	25	0.085	20.000	5.000	400	135	13.5
3.00	4	15	0.015	3.000	1.200	1590	95	0.3
4.00	4	15	0.020	4.000	1.600	1195	95	0.6
5.00	4	15	0.025	5.000	2.000	955	95	1.0
6.00	4	15	0.030	6.000	2.400	795	95	1.4
8.00	4	15	0.035	8.000	3.200	595	85	2.1
10.00	4	15	0.045	10.000	4.000	475	85	3.4
12.00	4	15	0.050	12.000	4.800	400	80	4.6
16.00	4	15	0.065	16.000	4.000	300	80	5.0
20.00	4	15	0.085	20.000	5.000	240	80	8.1
3.00	4	60	0.010	2.250	3.000	6365	255	1.7
4.00	4	60	0.015	3.000	4.000	4775	285	3.4
5.00	4	60	0.020	3.750	5.000	3820	305	5.7
6.00	4	60	0.030	4.500	6.000	3185	380	10.3
8.00	4	60	0.040	6.000	8.000	2385	380	18.3
10.00	4	60	0.055	7.500	10.000	1910	420	31.5
12.00	4	60	0.055	9.000	12.000	1590	350	37.8
16.00	4	60	0.085	8.000	16.000	1195	405	51.9
20.00	4	60	0.105	10.000	20.000	955	400	80.2
3.00	4	30	0.010	2.250	3.000	3185	125	0.9
4.00	4	30	0.015	3.000	4.000	2385	145	1.7
5.00	4	30	0.020	3.750	5.000	1910	155	2.9
6.00	4	30	0.030	4.500	6.000	1590	190	5.2
8.00	4	30	0.040	6.000	8.000	1195	190	9.2
10.00	4	30	0.055	7.500	10.000	955	210	15.8
12.00	4	30	0.065	9.000	12.000	795	205	22.3
16.00	4	30	0.085	8.000	16.000	595	205	26.0
20.00	4	30	0.105	10.000	20.000	475	200	40.1
3.00	4	20	0.015	2.250	3.000	2120	125	0.9
4.00	4	20	0.020	3.000	4.000	1590	125	1.5
5.00	4	20	0.025	3.750	5.000	1275	125	2.4
6.00	4	20	0.030	4.500	6.000	1060	125	3.4
8.00	4	20	0.035	6.000	8.000	795	110	5.3
10.00	4	20	0.045	7.500	10.000	635	115	8.6
12.00	4	20	0.050	9.000	12.000	530	105	11.5
16.00	4	20	0.070	8.000	16.000	400	110	14.3
20.00	4	20	0.090	10.000	20.000	320	115	22.9
3.00	4	10	0.015	2.250	3.000	1060	65	0.4
4.00	4	10	0.020	3.000	4.000	795	65	0.8
5.00	4	10	0.025	3.750	5.000	635	65	1.2
6.00	4	10	0.030	4.500	6.000	530	65	1.7
8.00	4	10	0.035	6.000	8.000	400	55	2.7
10.00	4	10	0.045	7.500	10.000	320	55	4.3
12.00	4	10	0.050	9.000	12.000	265	55	5.7
16.00	4	10	0.070	8.000	16.000	200	55	7.1
20.00	4	10	0.090	10.000	20.000	160	55	11.5