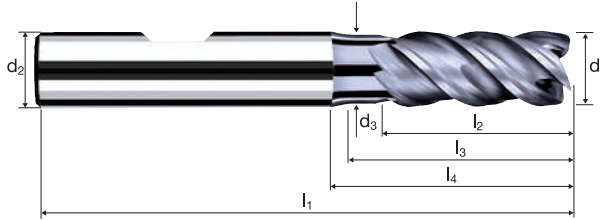
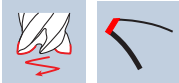
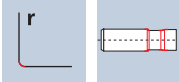


Square end mills NB-NVDS

Smooth-edged, normal version with short neck
High-performance penetration edge



HM
MG10 λ **45°**
 γ **0°**



Roughing HPC



Roughing HDC



Finishing

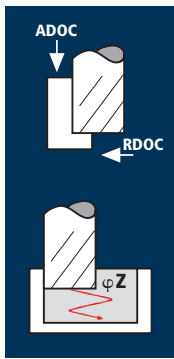


HRC < 24	HRC 24-34	HRC 34-42	HRC 42-48				Inox Stainless	Ti Titanium	Cast Iron Tool Steel Nickel Alloys
--------------------	---------------------	---------------------	---------------------	--	--	--	--------------------------	-----------------------	---

Order-N°	d_{1e8}	d_{2h5}	d_3	l_1	l_2	l_3	l_4	r	α	fl	POLYCHROM
P8200220	4	6	3.7	57	8	16.00	20.82	0.10	3.0°	◆ 4	●
P8200260	5	6	4.6	57	10	18.00	21.27	0.10	1.5°	◆ 4	●
P8200300	6	6	5.5	57	12	18.15	20.00	0.10	0.0°	◆ 4	●
P8200391	8	8	7.4	63	19	23.63	26.00	0.15	0.0°	◆ 4	●
P8200450	10	10	9.2	72	23	27.99	31.00	0.20	0.0°	◆ 4	●
P8200501	12	12	11.0	83	27	33.29	37.00	0.20	0.0°	◆ 4	●
P8200610	16	16	15.0	92	32	38.73	43.00	0.20	0.0°	◆ 4	●
P8200682	20	20	19.0	104	39	48.23	53.00	0.20	0.0°	◆ 4	●

VI

Application



Material

Steel
< 24 HRC

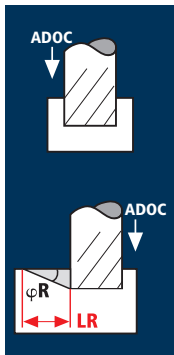
Steel
24 - 34 HRC

Cold work tool steel
(12% Cr),
high alloyed
[D2]

Stainless steel
[Cr-Ni/304]

d1 [mm]	fl	Speed [m/min]	FPT [mm]	ADOC [mm]	RDOC [mm]	RPM [min ⁻¹]	Feed/FeedZ [mm/min]	MRR [cm ³ /min]	φZ [°]	φA [°]
4	4	180	0.035	6.0	1.6	14325	2005	19.0	20°	see ToolExpert (www.fraisa.com)
5	4	180	0.040	7.5	2.0	11460	1835	27.5	20°	
6	4	180	0.050	9.0	2.4	9550	1910	41.5	20°	
8	4	180	0.060	12.0	3.2	7160	1720	66.0	20°	
10	4	180	0.075	15.0	4.0	5730	1720	103.0	20°	
12	4	180	0.085	18.0	4.8	4775	1625	140.5	20°	
16	4	180	0.095	24.0	6.4	3580	1360	209.0	20°	
20	4	180	0.110	30.0	8.0	2865	1260	302.5	20°	
4	4	150	0.030	6.0	1.6	11935	1430	13.5	18°	see ToolExpert (www.fraisa.com)
5	4	150	0.035	7.5	2.0	9550	1335	20.0	18°	
6	4	150	0.040	9.0	2.4	7960	1275	27.5	18°	
8	4	150	0.050	12.0	3.2	5970	1195	46.0	18°	
10	4	150	0.065	15.0	4.0	4775	1240	74.5	18°	
12	4	150	0.075	18.0	4.8	3980	1195	103.0	18°	
16	4	150	0.085	24.0	6.4	2985	1015	156.0	18°	
20	4	150	0.100	30.0	8.0	2385	955	229.0	18°	
4	4	70	0.030	6.0	1.6	5570	670	6.5	12°	see ToolExpert (www.fraisa.com)
5	4	70	0.035	7.5	2.0	4455	625	9.5	12°	
6	4	70	0.040	9.0	2.4	3715	595	13.0	12°	
8	4	70	0.050	12.0	3.2	2785	555	21.5	12°	
10	4	70	0.060	15.0	4.0	2230	535	32.0	12°	
12	4	70	0.075	18.0	4.8	1855	555	48.0	12°	
16	4	70	0.085	24.0	6.4	1395	475	73.0	12°	
20	4	70	0.095	30.0	8.0	1115	425	102.0	12°	
4	4	90	0.020	6.0	1.6	7160	575	5.5	12°	see ToolExpert (www.fraisa.com)
5	4	90	0.025	7.5	2.0	5730	575	8.5	12°	
6	4	90	0.030	9.0	2.4	4775	575	12.5	12°	
8	4	90	0.035	12.0	3.2	3580	500	19.0	12°	
10	4	90	0.045	15.0	4.0	2865	515	31.0	12°	
12	4	90	0.055	18.0	4.8	2385	525	45.5	12°	
16	4	90	0.065	24.0	6.4	1790	465	71.5	12°	
20	4	90	0.080	30.0	8.0	1430	460	110.5	12°	

Application



Material

Steel
< 24 HRC

Steel
24 - 34 HRC

Cold work tool steel
(12% Cr),
high alloyed
[D2]

Stainless steel
[Cr-Ni/304]

d1 [mm]	fl	Speed [m/min]	FPT [mm]	ADOC [mm]	RDOC [mm]	RPM [min ⁻¹]	Feed/FeedR [mm/min]	MRR [cm ³ /min]	φR [°]	LR [mm]
4	4	145	0.025	5.0	4	11540	1155	23.0	32°	8.0
5	4	145	0.030	6.3	5	9230	1110	34.5	32°	10.4
6	4	145	0.040	7.5	6	7695	1230	55.5	32°	12.0
8	4	145	0.045	10.0	8	5770	1040	83.0	32°	16.0
10	4	145	0.055	12.5	10	4615	1015	127.0	32°	20.0
12	4	145	0.065	15.0	12	3845	1000	180.0	32°	24.0
16	4	145	0.070	20.0	16	2885	810	259.0	32°	32.0
20	4	145	0.085	25.0	20	2310	785	392.5	32°	40.0
4	4	120	0.020	5.0	4	9550	765	15.5	29°	9.0
5	4	120	0.025	6.3	5	7640	765	24.0	29°	11.7
6	4	120	0.030	7.5	6	6365	765	34.5	29°	13.5
8	4	120	0.040	10.0	8	4775	765	61.0	29°	18.0
10	4	120	0.050	12.5	10	3820	765	95.5	29°	22.6
12	4	120	0.055	15.0	12	3185	700	126.0	29°	27.1
16	4	120	0.065	20.0	16	2385	620	198.5	29°	36.1
20	4	120	0.075	25.0	20	1910	575	287.5	29°	45.1
4	4	55	0.025	5.0	4	4375	440	9.0	19°	14.5
5	4	55	0.025	6.3	5	3500	350	11.0	19°	18.9
6	4	55	0.030	7.5	6	2920	350	16.0	19°	21.8
8	4	55	0.040	10.0	8	2190	350	28.0	19°	29.0
10	4	55	0.045	12.5	10	1750	315	39.5	19°	36.3
12	4	55	0.055	15.0	12	1460	320	57.5	19°	43.6
16	4	55	0.065	20.0	16	1095	285	91.0	19°	58.1
20	4	55	0.070	25.0	20	875	245	122.5	19°	72.6
4	4	70	0.015	5.0	4	5570	335	6.5	14°	20.1
5	4	70	0.020	6.3	5	4455	355	11.0	14°	26.1
6	4	70	0.025	7.5	6	3715	370	16.5	14°	30.1
8	4	70	0.025	10.0	8	2785	280	22.5	14°	40.1
10	4	70	0.035	12.5	10	2230	310	39.0	14°	50.1
12	4	70	0.040	15.0	12	1855	295	53.0	14°	60.2
16	4	70	0.050	20.0	16	1395	280	89.5	14°	80.2
20	4	70	0.060	25.0	20	1115	270	135.0	14°	100.3