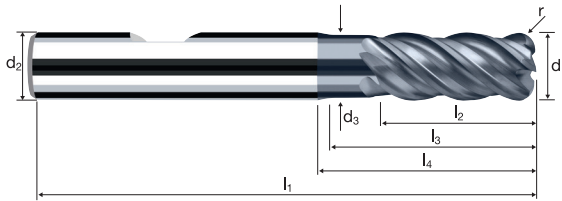
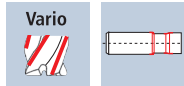


# Corner radius end mills E-Cut

Smooth-edged, normal version, short neck

Base-X  
**B**  
 $l_2 = 2.2 \times d_1$   
 $l_3 = 3.0 \times d_1$

**HM**  
**MG10**     $\lambda$  **43°**  
                   $\gamma$  **6°**



**new!**

Roughing HDC    Roughing HPC    Finishing

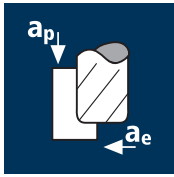
**ReTool®**

Rm < 850    Rm 850-1100    Rm 1100-1300    Rm 1300-1500    HRC 48-56    Inox Stainless    Ti Titanium    GG(G) Tool Steel

Ø Code	d1 e8	d2 h6	d3	l1	l2	l3	l4	r 0/+0.03	α	z	POLYCHROM	
											Order-N°	Article-N°
Example: Order-N° <b>P</b> Coating <b>P</b> Article-N° <b>8407</b> ø-Code <b>178</b>												
<b>178</b>	3.00	6.00	2.80	54	6.60	9.00	15.37	0.200	5.8°	4	●	<b>P8407</b>
<b>218</b>	4.00	6.00	3.70	54	9.00	12.00	16.82	0.200	3.9°	4	●	<b>P8307</b>
<b>258</b>	5.00	6.00	4.60	57	11.00	15.00	18.27	0.200	2.1°	4	●	
<b>297</b>	6.00	6.00	5.50	57	13.50	18.00	19.85	0.200	0.0°	4	●	
<b>385</b>	8.00	8.00	7.40	63	18.00	24.00	26.37	0.200	0.0°	4	●	
<b>445</b>	10.00	10.00	9.20	74	22.00	30.00	33.01	0.200	0.0°	4	●	
<b>496</b>	12.00	12.00	11.00	85	27.00	36.00	39.71	0.200	0.0°	4	●	
<b>180</b>	3.00	6.00	2.80	54	6.60	9.00	15.37	0.500	5.8°	4	●	
<b>220</b>	4.00	6.00	3.70	54	9.00	12.00	16.82	0.500	3.9°	4	●	
<b>260</b>	5.00	6.00	4.60	57	11.00	15.00	18.27	0.500	2.1°	4	●	
<b>300</b>	6.00	6.00	5.50	57	13.50	18.00	19.85	0.500	0.0°	4	●	
<b>388</b>	8.00	8.00	7.40	63	18.00	24.00	26.35	0.500	0.0°	4	●	
<b>448</b>	10.00	10.00	9.20	74	22.00	30.00	33.00	0.500	0.0°	4	●	
<b>498</b>	12.00	12.00	11.00	85	27.00	36.00	39.70	0.500	0.0°	4	●	
<b>301</b>	6.00	6.00	5.50	57	13.50	18.00	19.85	0.800	0.0°	4	●	
<b>389</b>	8.00	8.00	7.40	63	18.00	24.00	26.35	0.800	0.0°	4	●	
<b>449</b>	10.00	10.00	9.20	74	22.00	30.00	33.00	0.800	0.0°	4	●	
<b>499</b>	12.00	12.00	11.00	85	27.00	36.00	39.70	0.800	0.0°	4	●	

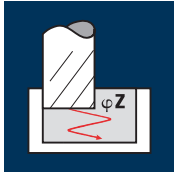
## Application

## Material



Steel  
< 850 N/mm<sup>2</sup>

d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]	φZ [°]
3.00	4	155	0.024	3.750	1.200	16445	1579	7.1	1.5°
4.00	4	155	0.034	5.000	1.600	12335	1678	13.4	1.5°
5.00	4	155	0.042	6.250	2.000	9870	1658	20.7	1.5°
6.00	4	155	0.045	9.000	2.400	8225	1481	32.0	1.5°
8.00	4	155	0.060	12.000	3.200	6165	1480	56.8	1.5°
10.00	4	155	0.075	15.000	4.000	4935	1481	88.8	1.5°
12.00	4	155	0.084	18.000	4.800	4110	1381	119.3	1.5°



Steel  
850 - 1100 N/mm<sup>2</sup>

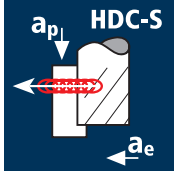
d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]	φZ [°]
3.00	4	135	0.022	3.750	1.200	14325	1261	5.7	2.0°
4.00	4	135	0.028	5.000	1.600	10745	1203	9.6	2.0°
5.00	4	135	0.037	6.250	2.000	8595	1272	15.9	2.0°
6.00	4	135	0.039	9.000	2.400	7160	1117	24.1	2.0°
8.00	4	135	0.052	12.000	3.200	5370	1117	42.9	2.0°
10.00	4	135	0.065	15.000	4.000	4295	1117	67.0	2.0°
12.00	4	135	0.078	18.000	4.800	3580	1117	96.5	2.0°

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

d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]	φZ [°]
3.00	4	90	0.014	3.750	1.200	9550	516	2.3	1.5°
4.00	4	90	0.018	5.000	1.600	7160	516	4.1	1.5°
5.00	4	90	0.023	6.250	2.000	5730	516	6.4	1.5°
6.00	4	90	0.027	9.000	2.400	4775	516	11.1	1.5°
8.00	4	90	0.036	12.000	3.200	3580	516	19.8	1.5°
10.00	4	90	0.045	15.000	4.000	2865	516	30.9	1.5°
12.00	4	90	0.054	18.000	4.800	2385	515	44.5	1.5°

## Application

## Material



Steel  
< 850 N/mm<sup>2</sup>

d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]
3.00	4	243	0.051	8.000	0.300	25785	5260	12.6
4.00	4	243	0.069	11.000	0.400	19335	5337	23.5
5.00	4	243	0.086	13.000	0.500	15470	5322	34.6
6.00	4	243	0.103	13.000	0.600	12890	5311	41.4
8.00	4	243	0.136	19.000	0.800	9670	5261	80.0
10.00	4	243	0.171	23.000	1.000	7735	5291	121.7
12.00	4	243	0.207	27.000	1.200	6445	5337	172.9

Steel  
850 - 1100 N/mm<sup>2</sup>

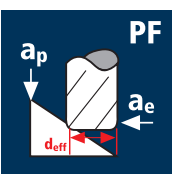
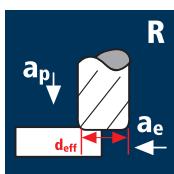
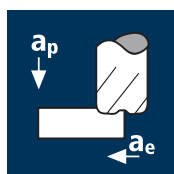
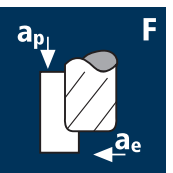
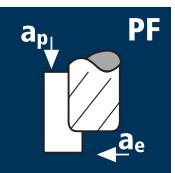
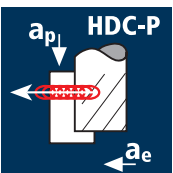
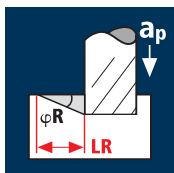
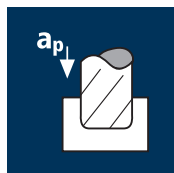
d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]
3.00	4	216	0.051	8.000	0.300	22920	4676	11.2
4.00	4	216	0.069	11.000	0.400	17190	4744	20.9
5.00	4	216	0.086	13.000	0.500	13750	4730	30.7
6.00	4	216	0.103	13.000	0.600	11460	4722	36.8
8.00	4	216	0.136	19.000	0.800	8595	4676	71.1
10.00	4	216	0.171	23.000	1.000	6875	4703	108.2
12.00	4	216	0.207	27.000	1.200	5730	4744	153.7

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

d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]
3.00	4	132	0.038	8.000	0.225	14005	2129	3.8
4.00	4	132	0.053	11.000	0.300	10505	2227	7.3
5.00	4	132	0.066	13.000	0.375	8405	2219	10.8
6.00	4	132	0.080	13.000	0.450	7005	2242	13.1
8.00	4	132	0.106	19.000	0.600	5250	2226	25.4
10.00	4	132	0.133	23.000	0.750	4200	2234	38.5
12.00	4	132	0.159	27.000	0.900	3500	2226	54.1



Precise cutting data for other applications and materials can be found in the cutting data software ToolExpert



# Corner radius end mills E-Cut

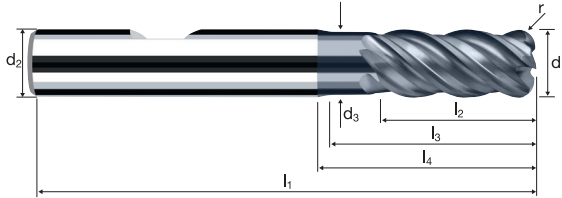
Smooth-edged, normal version, short neck

Base-X  
**B**  
 $l_2 = 2.2 \times d_1$   
 $l_3 = 3.0 \times d_1$

**HM MG10**  $\lambda$  **43°**  
 $\gamma$  **6°**

**Vario**

**new!**



**Roughing HDC** **Roughing HPC** **Finishing**

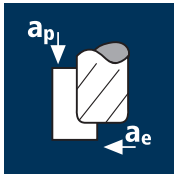
**ReTool®**

**Rm < 850** **Rm 850-1100** **Rm 1100-1300** **Rm 1300-1500** **HRC 48-56** **Inox Stainless** **Ti Titanium** **GG(G) Tool Steel**

Ø Code	d1 e8	d2 h6	d3	l1	l2	l3	l4	r 0/+0.03	α	z	POLYCHROM	
											Example: Order-N°	Coating
											<b>P8407</b>	
											<b>P8307</b>	
<b>302</b>	6.00	6.00	5.50	57	13.50	18.00	19.85	1.000	0.0°	4		●
<b>391</b>	8.00	8.00	7.40	63	18.00	24.00	26.35	1.000	0.0°	4		●
<b>450</b>	10.00	10.00	9.20	74	22.00	30.00	33.00	1.000	0.0°	4		●
<b>501</b>	12.00	12.00	11.00	85	27.00	36.00	39.70	1.000	0.0°	4		●
<b>608</b>	16.00	16.00	15.00	102	36.00	48.00	52.27	1.000	0.0°	4		●
<b>304</b>	6.00	6.00	5.50	57	13.50	18.00	19.85	1.500	0.0°	4		●
<b>393</b>	8.00	8.00	7.40	63	18.00	24.00	26.35	1.500	0.0°	4		●
<b>453</b>	10.00	10.00	9.20	74	22.00	30.00	33.00	1.500	0.0°	4		●
<b>503</b>	12.00	12.00	11.00	85	27.00	36.00	39.70	1.500	0.0°	4		●
<b>610</b>	16.00	16.00	15.00	102	36.00	48.00	52.25	1.500	0.0°	4		●
<b>306</b>	6.00	6.00	5.50	57	13.50	18.00	19.85	2.000	0.0°	4		●
<b>395</b>	8.00	8.00	7.40	63	18.00	24.00	26.35	2.000	0.0°	4		●
<b>455</b>	10.00	10.00	9.20	74	22.00	30.00	33.00	2.000	0.0°	4		●
<b>505</b>	12.00	12.00	11.00	85	27.00	36.00	39.70	2.000	0.0°	4		●
<b>611</b>	16.00	16.00	15.00	102	36.00	48.00	52.25	2.000	0.0°	4		●
<b>683</b>	20.00	20.00	19.00	115	44.00	60.00	64.77	2.000	0.0°	4		●
<b>457</b>	10.00	10.00	9.20	74	22.00	30.00	33.00	2.500	0.0°	4		●
<b>506</b>	12.00	12.00	11.00	85	27.00	36.00	39.70	2.500	0.0°	4		●
<b>612</b>	16.00	16.00	15.00	102	36.00	48.00	52.25	2.500	0.0°	4		●

## Application

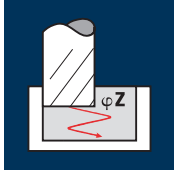
## Material



Steel  
< 850 N/mm<sup>2</sup>

**P**  
 **P**

d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]	φZ [°]
6.00	4	155	0.045	9.000	2.400	8225	1481	32.0	1.5°
8.00	4	155	0.060	12.000	3.200	6165	1480	56.8	1.5°
10.00	4	155	0.075	15.000	4.000	4935	1481	88.8	1.5°
12.00	4	155	0.084	18.000	4.800	4110	1381	119.3	1.5°
16.00	4	155	0.096	24.000	6.400	3085	1185	182.0	1.5°
20.00	4	155	0.110	30.000	8.000	2465	1085	260.3	1.5°



Steel  
850 - 1100 N/mm<sup>2</sup>

**P**  
 **P**

d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]	φZ [°]
6.00	4	135	0.039	9.000	2.400	7160	1117	24.1	2.0°
8.00	4	135	0.052	12.000	3.200	5370	1117	42.9	2.0°
10.00	4	135	0.065	15.000	4.000	4295	1117	67.0	2.0°
12.00	4	135	0.078	18.000	4.800	3580	1117	96.5	2.0°
16.00	4	135	0.088	24.000	6.400	2685	945	145.2	2.0°
20.00	4	135	0.100	30.000	8.000	2150	860	206.4	2.0°

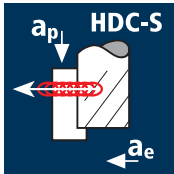
Inox normal  
[Cr-Ni/1.4301]  
[Cr-Ni-Mo/1.4571]

**P**

d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]	φZ [°]
6.00	4	90	0.027	9.000	2.400	4775	516	11.1	1.5°
8.00	4	90	0.036	12.000	3.200	3580	516	19.8	1.5°
10.00	4	90	0.045	15.000	4.000	2865	516	30.9	1.5°
12.00	4	90	0.054	18.000	4.800	2385	515	44.5	1.5°
16.00	4	90	0.056	24.000	6.400	1790	401	61.6	1.5°
20.00	4	90	0.070	30.000	8.000	1430	400	96.1	1.5°

## Application

## Material



Steel  
< 850 N/mm<sup>2</sup>

**P**  
 **P**

d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]
6.00	4	243	0.103	13.000	0.600	12890	5311	41.4
8.00	4	243	0.136	19.000	0.800	9670	5261	80.0
10.00	4	243	0.171	23.000	1.000	7735	5291	121.7
12.00	4	243	0.207	27.000	1.200	6445	5337	172.9
16.00	4	243	0.228	32.000	1.600	4835	4410	225.8
20.00	4	243	0.286	40.000	2.000	3865	4422	353.7

Steel  
850 - 1100 N/mm<sup>2</sup>

**P**  
 **P**

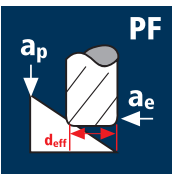
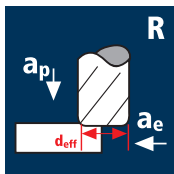
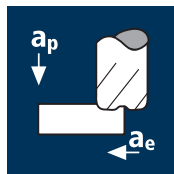
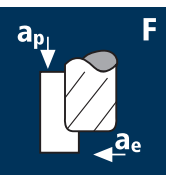
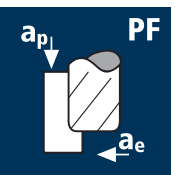
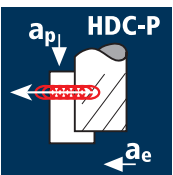
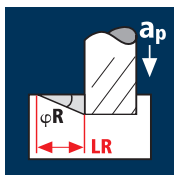
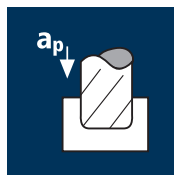
d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]
6.00	4	216	0.103	13.000	0.600	11460	4722	36.8
8.00	4	216	0.136	19.000	0.800	8595	4676	71.1
10.00	4	216	0.171	23.000	1.000	6875	4703	108.2
12.00	4	216	0.207	27.000	1.200	5730	4744	153.7
16.00	4	216	0.228	32.000	1.600	4295	3917	200.6
20.00	4	216	0.286	40.000	2.000	3440	3935	314.8

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

**P**

d <sub>1</sub> [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>f</sub> [mm/min]	Q [cm <sup>2</sup> /min]
6.00	4	132	0.080	13.000	0.450	7005	2242	13.1
8.00	4	132	0.106	19.000	0.600	5250	2226	25.4
10.00	4	132	0.133	23.000	0.750	4200	2234	38.5
12.00	4	132	0.159	27.000	0.900	3500	2226	54.1
16.00	4	132	0.173	32.000	1.200	2625	1817	69.8
20.00	4	132	0.222	40.000	1.500	2100	1865	111.9

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# Corner radius end mills E-Cut

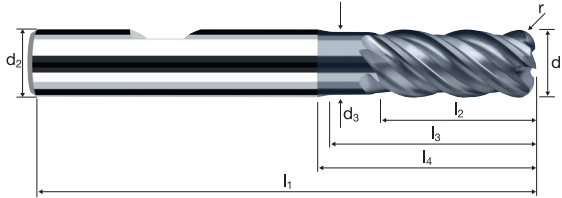
Smooth-edged, normal version, short neck

Base-X  
**B**  
 $l_2 = 2.2 \times d_1$   
 $l_3 = 3.0 \times d_1$

**HM MG10**  $\lambda$  43°  $\gamma$  6°

**Vario**

new!



Roughing HDC    Roughing HPC    Finishing

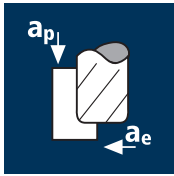
ReTool®

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G) Tool Steel
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Ø 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>	r 0/+0.03	α	z	POLYCHROM		
											Example: Order-N°	Coating	Article-N°
											<b>P</b>	<b>8407</b>	<b>508</b>
<b>508</b>	12.00	12.00	11.00	85	27.00	36.00	39.70	4.000	0.0°	4		●	
<b>614</b>	16.00	16.00	15.00	102	36.00	48.00	52.25	4.000	0.0°	4		●	
<b>686</b>	20.00	20.00	19.00	115	44.00	60.00	64.75	4.000	0.0°	4		●	

## Application

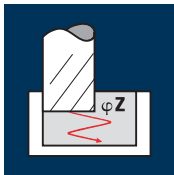
## Material



Steel  
< 850 N/mm<sup>2</sup>



$d_1$ [mm]	$z$	$v_c$ [m/min]	$f_z$ [mm]	$a_p$ [mm]	$a_e$ [mm]	$n$ [min <sup>-1</sup> ]	$v_f$ [mm/min]	$Q$ [cm <sup>3</sup> /min]	$\varphi Z$ [°]
12.00	4	155	0.084	18.000	4.800	4110	1381	119.3	1.5°
16.00	4	155	0.096	24.000	6.400	3085	1185	182.0	1.5°
20.00	4	155	0.110	30.000	8.000	2465	1085	260.3	1.5°



Steel  
850 - 1100 N/mm<sup>2</sup>



$d_1$ [mm]	$z$	$v_c$ [m/min]	$f_z$ [mm]	$a_p$ [mm]	$a_e$ [mm]	$n$ [min <sup>-1</sup> ]	$v_f$ [mm/min]	$Q$ [cm <sup>3</sup> /min]	$\varphi Z$ [°]
12.00	4	135	0.078	18.000	4.800	3580	1117	96.5	2.0°
16.00	4	135	0.088	24.000	6.400	2685	945	145.2	2.0°
20.00	4	135	0.100	30.000	8.000	2150	860	206.4	2.0°

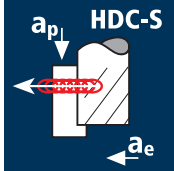
Inox normal  
[Cr-Ni/1.4301]  
[Cr-Ni-Mo/1.4571]



$d_1$ [mm]	$z$	$v_c$ [m/min]	$f_z$ [mm]	$a_p$ [mm]	$a_e$ [mm]	$n$ [min <sup>-1</sup> ]	$v_f$ [mm/min]	$Q$ [cm <sup>3</sup> /min]	$\varphi Z$ [°]
12.00	4	90	0.054	18.000	4.800	2385	515	44.5	1.5°
16.00	4	90	0.056	24.000	6.400	1790	401	61.6	1.5°
20.00	4	90	0.070	30.000	8.000	1430	400	96.1	1.5°

## Application

## Material



Steel  
< 850 N/mm<sup>2</sup>



$d_1$ [mm]	$z$	$v_c$ [m/min]	$f_z$ [mm]	$a_p$ [mm]	$a_e$ [mm]	$n$ [min <sup>-1</sup> ]	$v_f$ [mm/min]	$Q$ [cm <sup>3</sup> /min]
12.00	4	243	0.207	27.000	1.200	6445	5337	172.9
16.00	4	243	0.228	32.000	1.600	4835	4410	225.8
20.00	4	243	0.286	40.000	2.000	3865	4422	353.7

Steel  
850 - 1100 N/mm<sup>2</sup>



$d_1$ [mm]	$z$	$v_c$ [m/min]	$f_z$ [mm]	$a_p$ [mm]	$a_e$ [mm]	$n$ [min <sup>-1</sup> ]	$v_f$ [mm/min]	$Q$ [cm <sup>3</sup> /min]
12.00	4	216	0.207	27.000	1.200	5730	4744	153.7
16.00	4	216	0.228	32.000	1.600	4295	3917	200.6
20.00	4	216	0.286	40.000	2.000	3440	3935	314.8

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



$d_1$ [mm]	$z$	$v_c$ [m/min]	$f_z$ [mm]	$a_p$ [mm]	$a_e$ [mm]	$n$ [min <sup>-1</sup> ]	$v_f$ [mm/min]	$Q$ [cm <sup>3</sup> /min]
12.00	4	132	0.159	27.000	0.900	3500	2226	54.1
16.00	4	132	0.173	32.000	1.200	2625	1817	69.8
20.00	4	132	0.222	40.000	1.500	2100	1865	111.9



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