

# Cylindrical end mills Cut-X V

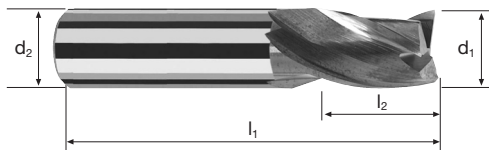
Smooth-edged, short-shank version



**HM**  $\lambda$  30°  
**MG10**  $\gamma$  12°

90°

Vario



Roughing

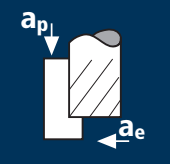















Finishing



<b>Rm</b> < 850	<b>Rm</b> 850-1100							<b>Aluminium</b>
								<b>Copper / CuZn Brass</b>
								<b>Gold</b>

Ø Code	d1 e8	d2 h6	l1	l2	$\alpha$	z	Example: Order-N°.	
							Coating	Article-N°.
							<b>15232</b>	<b>120</b>
<b>120</b>	1.5	6	38	3	11.5°	3	<input type="checkbox"/>	<b>15232</b>
<b>140</b>	2.0	6	38	3	11.0°	3		
<b>160</b>	2.5	6	38	3	10.0°	3		
<b>180</b>	3.0	6	38	4	8.0°	3		
<b>200</b>	3.5	6	38	4	7.0°	3		
<b>220</b>	4.0	6	38	5	5.5°	3		
<b>240</b>	4.5	6	38	5	4.5°	3		
<b>260</b>	5.0	6	38	6	3.0°	3		
<b>300</b>	6.0	6	38	7	0.0°	3		
<b>391</b>	8.0	8	41	9	0.0°	3		
<b>450</b>	10.0	10	48	11	0.0°	3		

Application	Material	d1 [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]
	Steel < 850 N/mm <sup>2</sup> 	2	3	60	0.005	2	0.2	9550	145
		3	3	60	0.010	3	0.3	6365	190
		4	3	60	0.015	4	0.4	4775	215
		5	3	60	0.015	5	0.5	3820	170
		6	3	60	0.020	6	0.6	3185	190
		8	3	60	0.025	8	0.8	2385	180
		10	3	60	0.035	10	1.0	1910	200
Short-chipping brass CuZn  	2	3	140	0.005	2	0.2	22280	335	
	3	3	140	0.010	3	0.3	14855	445	
	4	3	140	0.020	4	0.4	11140	670	
	5	3	140	0.020	5	0.5	8915	535	
	6	3	140	0.025	6	0.6	7425	555	
	8	3	140	0.030	8	0.8	5570	500	
	10	3	140	0.040	10	1.0	4455	535	
Gold  	2	3	160	0.005	2	0.2	25465	380	
	3	3	160	0.010	3	0.3	16975	510	
	4	3	160	0.020	4	0.4	12735	765	
	5	3	160	0.020	5	0.5	10185	610	
	6	3	160	0.025	6	0.6	8490	635	
	8	3	160	0.030	8	0.8	6365	575	
	10	3	160	0.040	10	1.0	5095	610	
Wrought aluminium alloys Si < 6% 	2	3	250	0.005	2	0.2	39790	595	
	3	3	250	0.010	3	0.3	26525	795	
	4	3	250	0.015	4	0.4	19895	895	
	5	3	250	0.020	5	0.5	15915	955	
	6	3	250	0.025	6	0.6	13265	995	
	8	3	250	0.030	8	0.8	9945	895	
	10	3	250	0.040	10	1.0	7960	955	

Application	Material	d1 [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>3</sup> /min]	
	Steel < 850 N/mm <sup>2</sup> 	2	3	45	0.005	1.0	2	7160	105	0.2	
		3	3	45	0.010	1.5	3	4775	145	0.7	
		4	3	45	0.010	2.0	4	3580	105	0.8	
		5	3	45	0.015	2.5	5	2865	130	1.6	
		6	3	45	0.015	3.0	6	2385	105	1.9	
		8	3	45	0.020	4.0	8	1790	105	3.4	
		10	3	45	0.030	5.0	10	1430	130	6.5	
		Short-chipping brass CuZn  	2	3	120	0.005	1.0	2	19100	285	0.6
			3	3	120	0.010	1.5	3	12735	380	1.7
			4	3	120	0.010	2.0	4	9550	285	2.3
5	3		120	0.015	2.5	5	7640	345	4.3		
6	3		120	0.015	3.0	6	6365	285	5.1		
8	3		120	0.025	4.0	8	4775	360	11.5		
10	3		120	0.035	5.0	10	3820	400	20.0		
Gold  	2		3	140	0.005	1.0	2	22280	335	0.7	
	3	3	140	0.010	1.5	3	14855	445	2.0		
	4	3	140	0.010	2.0	4	11140	335	2.7		
	5	3	140	0.015	2.5	5	8915	400	5.0		
	6	3	140	0.015	3.0	6	7425	335	6.0		
	8	3	140	0.025	4.0	8	5570	420	13.4		
	10	3	140	0.035	5.0	10	4455	470	23.5		
Wrought aluminium alloys Si < 6% 	2	3	200	0.005	1.0	2	31830	475	1.0		
	3	3	200	0.010	1.5	3	21220	635	2.9		
	4	3	200	0.010	2.0	4	15915	475	3.8		
	5	3	200	0.015	2.5	5	12735	575	7.2		
	6	3	200	0.015	3.0	6	10610	475	8.6		
	8	3	200	0.025	4.0	8	7960	595	19.0		
	10	3	200	0.035	5.0	10	6365	670	33.5		