Corner radius end mills XSpeed-H

Tolerance r 0/+0.015, 4.5xd

HM XA

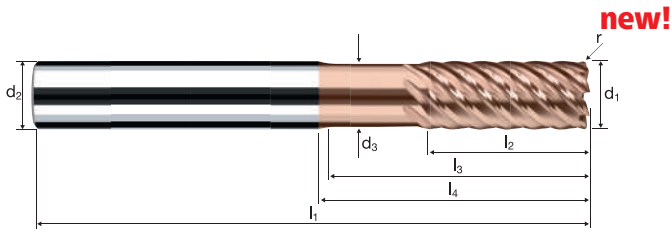
λ 45°
γ -10°

h4

d1

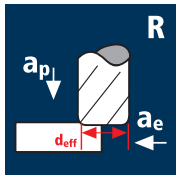
r

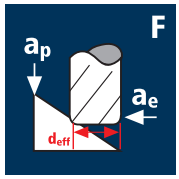
F



HRC 48-56 | HRC 56-60 | HRC > 60 | HSS

											DURO-Si
Example: **Order-N°**			Coating **H**	Article-N°. **7212**	ø-Code **138**						**H7212**
Ø Code	d_1 0/-0.01	d_2 h4	d_3	l_1	l_2	l_3	l_4	r 0/+0.015	α	z	
138	2.00	6.00	1.90	61	5.00	9.00	17.31	0.200	6.8°	6	●
178	3.00	6.00	2.80	61	8.00	13.50	20.13	0.200	4.5°	6	●
218	4.00	6.00	3.70	66	11.00	18.00	22.95	0.200	2.7°	6	●
258	5.00	6.00	4.60	66	13.00	22.50	25.77	0.200	1.3°	6	●
297	6.00	6.00	5.50	69	13.00	30.34	31.00	0.200	0.0°	8	●
385	8.00	8.00	7.40	80	19.00	39.29	40.00	0.200	0.0°	8	●
445	10.00	10.00	9.20	90	22.00	47.20	48.00	0.200	0.0°	8	●
496	12.00	12.00	11.00	105	26.00	54.13	55.00	0.200	0.0°	8	●
140	2.00	6.00	1.90	61	5.00	9.00	17.31	0.500	6.8°	6	●
180	3.00	6.00	2.80	61	8.00	13.50	20.13	0.500	4.5°	6	●
220	4.00	6.00	3.70	66	11.00	18.00	22.95	0.500	2.7°	6	●
260	5.00	6.00	4.60	66	13.00	22.50	25.77	0.500	1.3°	6	●
300	6.00	6.00	5.50	69	13.00	30.34	31.00	0.500	0.0°	8	●
388	8.00	8.00	7.40	80	19.00	39.29	40.00	0.500	0.0°	8	●
448	10.00	10.00	9.20	90	22.00	47.20	48.00	0.500	0.0°	8	●
498	12.00	12.00	11.00	105	26.00	54.13	55.00	0.500	0.0°	8	●

Application	Material	d_1 [mm]	z	v_c [m/min]	f_z [mm]	a_p [mm]	a_e [mm]	d_{eff} [mm]	n [min⁻¹]	v_f [mm/min]	r [mm]
	Hardened tool steel 56 - 60 HRC	2.00	6	54	0.014	0.200	1.200	1.80	9549	802	0.50
		3.00	6	54	0.021	0.250	1.800	2.87	5989	755	0.50
		4.00	6	54	0.028	0.250	2.400	3.87	4442	746	0.50
		5.00	6	54	0.035	0.250	3.000	4.87	3530	741	0.50
		6.00	8	54	0.042	0.200	3.600	5.80	2964	996	0.50
		8.00	8	54	0.056	0.200	4.800	7.80	2204	987	0.50
		10.00	8	54	0.070	0.200	6.000	9.80	1754	982	0.50
		12.00	8	54	0.084	0.200	7.200	11.80	1457	979	0.50
	Hardened tool steel > 60 HRC	2.00	6	45	0.007	0.200	1.200	1.80	7958	334	0.50
		3.00	6	45	0.011	0.250	1.800	2.87	4991	314	0.50
		4.00	6	45	0.014	0.250	2.400	3.87	3701	311	0.50
		5.00	6	45	0.018	0.250	3.000	4.87	2941	309	0.50
		6.00	8	45	0.021	0.200	3.600	5.80	2470	415	0.50
		8.00	8	45	0.028	0.200	4.800	7.80	1836	411	0.50
		10.00	8	45	0.035	0.200	6.000	9.80	1462	409	0.50
		12.00	8	45	0.042	0.200	7.200	11.80	1214	408	0.50
	High speed steel, hardened 64 - 70 HRC	2.00	6	16	0.004	0.200	1.200	1.80	2829	68	0.50
		3.00	6	16	0.006	0.250	1.800	2.87	1775	64	0.50
		4.00	6	16	0.008	0.250	2.400	3.87	1316	63	0.50
		5.00	6	16	0.010	0.250	3.000	4.87	1046	63	0.50
		6.00	8	16	0.012	0.200	3.600	5.80	878	84	0.50
		8.00	8	16	0.016	0.200	4.800	7.80	653	84	0.50
		10.00	8	16	0.020	0.200	6.000	9.80	520	83	0.50
		12.00	8	16	0.024	0.200	7.200	11.80	432	83	0.50

Application	Material	d_1 [mm]	z	v_c [m/min]	f_z [mm]	a_p [mm]	a_e [mm]	d_{eff} [mm]	n [min⁻¹]	v_f [mm/min]	β [°]
	Hardened tool steel 56 - 60 HRC	2.00	6	160	0.020	0.090	0.030	1.98	25722	3087	45°
		3.00	6	160	0.028	0.090	0.030	2.98	17090	2871	45°
		4.00	6	160	0.035	0.090	0.050	3.98	12796	2687	45°
		5.00	6	160	0.041	0.090	0.050	4.98	10227	2516	45°
		6.00	8	160	0.042	0.090	0.075	5.98	8517	2862	45°
		8.00	8	160	0.048	0.090	0.075	7.98	6382	2451	45°
		10.00	8	160	0.050	0.090	0.100	9.98	5103	2041	45°
		12.00	8	160	0.048	0.090	0.100	11.98	4251	1632	45°
	Hardened tool steel > 60 HRC	2.00	6	110	0.020	0.090	0.030	1.98	17684	2122	45°
		3.00	6	110	0.028	0.090	0.030	2.98	11750	1974	45°
		4.00	6	110	0.035	0.090	0.050	3.98	8798	1848	45°
		5.00	6	110	0.041	0.090	0.050	4.98	7031	1730	45°
		6.00	8	110	0.042	0.090	0.075	5.98	5855	1967	45°
		8.00	8	110	0.048	0.090	0.075	7.98	4388	1685	45°
		10.00	8	110	0.050	0.090	0.100	9.98	3508	1403	45°
		12.00	8	110	0.048	0.090	0.100	11.98	2923	1122	45°
	High speed steel, hardened 64 - 70 HRC	2.00	6	70	0.020	0.090	0.030	1.98	11253	1350	45°
		3.00	6	70	0.028	0.090	0.030	2.98	7477	1256	45°
		4.00	6	70	0.035	0.090	0.050	3.98	5598	1176	45°
		5.00	6	70	0.041	0.090	0.050	4.98	4474	1101	45°
		6.00	8	70	0.042	0.090	0.075	5.98	3726	1252	45°
		8.00	8	70	0.048	0.090	0.075	7.98	2792	1072	45°
		10.00	8	70	0.050	0.090	0.100	9.98	2233	893	45°
		12.00	8	70	0.048	0.090	0.100	11.98	1860	714	45°

Precise cutting data for other applications and materials can be found in the cutting data software **ToolExpert 2.0**