



■ HARVI III • UJDE • Unequal Flute Spacing • Roughing



Material Group												
	Side Milling (A)		KCSM15		Recommended feed per tooth (fz = mm/th) for side milling (A).							
	A		Cutting Speed – vc m/min		mm	D1 – Diameter						
	ap	ae	min	max		10,0	12,0	16,0	18,0	20,0	25,0	
P	4	Ap1 max	0,4 x D	90	150	fz	0,054	0,062	0,077	0,083	0,088	0,098
	5	Ap1 max	0,4 x D	60	100	fz	0,048	0,056	0,070	0,076	0,081	0,091
M	1	Ap1 max	0,4 x D	90	115	fz	0,061	0,070	0,087	0,095	0,101	0,114
	2	Ap1 max	0,4 x D	60	80	fz	0,048	0,056	0,070	0,076	0,081	0,091
	3	Ap1 max	0,4 x D	60	70	fz	0,040	0,047	0,057	0,061	0,065	0,071
S	1	Ap1 max	0,4 x D	50	90	fz	0,061	0,070	0,087	0,095	0,101	0,114
	2	Ap1 max	0,4 x D	25	40	fz	0,032	0,037	0,046	0,050	0,054	0,061
	3	Ap1 max	0,4 x D	25	40	fz	0,032	0,037	0,046	0,050	0,054	0,061
H	4	Ap1 max	0,4 x D	50	60	fz	0,045	0,052	0,064	0,069	0,074	0,084
	1	Ap1 max	0,4 x D	80	140	fz	0,054	0,062	0,077	0,083	0,088	0,098

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
Above parameters are based on ideal conditions. For smaller taper machining centres, please adjust parameters accordingly on >12mm diameter.

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High-Performance Solid Carbide End Mills

Material Group													
	Side Milling (A)		KCSM15		Recommended feed per tooth (fz = mm/th) for side milling (A).								
	A		Cutting Speed – vc m/min		mm	D1 – Diameter							
	ap	ae	min	max		10,0	12,0	14,0	16,0	18,0	20,0	25,0	
P	4	Ap1 max	0,06 x D	171	285	fz	0,065	0,075	0,084	0,092	0,099	0,106	0,117
	5	Ap1 max	0,06 x D	114	190	fz	0,058	0,067	0,076	0,084	0,091	0,097	0,109
M	1	Ap1 max	0,06 x D	171	218	fz	0,073	0,084	0,095	0,105	0,113	0,121	0,137
	2	Ap1 max	0,06 x D	114	152	fz	0,058	0,067	0,076	0,084	0,091	0,097	0,109
	3	Ap1 max	0,06 x D	114	133	fz	0,048	0,056	0,062	0,068	0,073	0,078	0,085
S	1	Ap1 max	0,06 x D	95	171	fz	0,073	0,084	0,095	0,105	0,113	0,121	0,137
	2	Ap1 max	0,06 x D	47,5	76	fz	0,038	0,045	0,050	0,056	0,060	0,065	0,074
	3	Ap1 max	0,06 x D	47,5	76	fz	0,038	0,045	0,050	0,056	0,060	0,065	0,074
H	4	Ap1 max	0,06 x D	95	152	fz	0,053	0,062	0,070	0,077	0,083	0,089	0,100
	1	Ap1 max	0,06 x D	152	266	fz	0,065	0,075	0,084	0,092	0,099	0,106	0,117
H	2	Ap1 max	0,06 x D	133	228	fz	0,048	0,056	0,062	0,068	0,073	0,078	0,085

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
Above parameters are based on ideal conditions. For smaller taper machining centres, please adjust parameters accordingly on >12mm diameter.

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	2	Ap max	0,4 x D	60	80	fz	0,048	0,056	0,070	0,076	0,081	0,091
	3	Ap max	0,4 x D	60	70	fz	0,040	0,047	0,057	0,061	0,065	0,071
S	1	Ap max	0,4 x D	50	90	fz	0,061	0,070	0,087	0,095	0,101	0,114
	2	Ap max	0,4 x D	25	40	fz	0,032	0,037	0,046	0,050	0,054	0,061
	3	Ap max	0,4 x D	25	40	fz	0,032	0,037	0,046	0,050	0,054	0,061
	4	Ap max	0,4 x D	50	60	fz	0,045	0,052	0,064	0,069	0,074	0,084
H	1	Ap max	0,4 x D	80	140	fz	0,054	0,062	0,077	0,083	0,088	0,098

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