

■ HARVI III™ • UJDE • Unequal Flute Spacing

Material Group													
	Side Milling (A)		KCSM15			Recommended feed per tooth (IPT = inch/th) for side milling (A).							
	A		Cutting Speed – vc SFM			D1 – Diameter							
	ap	ae	min		max	frac. dec.	1/2	5/8	3/4	1	1 1/4	1 1/2	
P	4	Ap max	0.4 x D	300	–	490	IPT	.0026	.0030	.0033	.0039	.0043	.0046
	5	Ap max	0.4 x D	200	–	330	IPT	.0023	.0027	.0030	.0036	.0041	.0045
M	1	Ap max	0.4 x D	300	–	380	IPT	.0029	.0034	.0038	.0046	.0051	.0056
	2	Ap max	0.4 x D	200	–	260	IPT	.0023	.0027	.0030	.0036	.0041	.0045
S	3	Ap max	0.4 x D	200	–	230	IPT	.0019	.0022	.0024	.0028	.0031	.0033
	1	Ap max	0.4 x D	160	–	300	IPT	.0029	.0034	.0038	.0046	.0051	.0056
	2	Ap max	0.4 x D	160	–	300	IPT	.0029	.0034	.0038	.0046	.0051	.0056
	3	Ap max	0.4 x D	80	–	130	IPT	.0016	.0018	.0020	.0025	.0028	.0031
H	4	Ap max	0.4 x D	150	–	200	IPT	.0022	.0025	.0028	.0033	.0037	.0041
	1	Ap max	0.4 x D	260	–	460	IPT	.0026	.0030	.0033	.0039	.0043	.0046

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 centers, please adjust parameters accordingly.



■ Adjustment factor table for feed and speed calculation

	Ae/D	0.50%	1.00%	1.60%	2.00%	4.00%	5.00%	8.00%	10.00%	20.00%	30.00%
Speed factor	Kv	2.9	2.85	2.8	2	1.5	1.45	1.4	1.35	1.25	1.2
Feed factor	KFz	2.8	2.6	2.5	2.4	2.3	2.2	2	1.7	1.25	1.02

To calculate application specific cutting data, please use above KV coefficient for adaptation of cutting speed and KFz for feed respectively.
Vc new = Vc * Kv
Fz new = IPT * KFz

Calculation example:

Application: D = 1 inch; S4 material group; Ae 0,02 inch
Cutting data recommendation: 150 SFM; fz = 0.0033 IPT
Adjustment coefficients: Ae = 0,02 = inch equals 2,00%; Kv = 2; KFz = 2.4

Final cutting data recommendation:

Vc new = 150 SFM * 2 = 300 SFM
Fz new = .0033 IPT * 2.4 = .0079 IPT