

■ HARVI III • UJBE • Ball Nose • Unequal Flute Spacing • Roughing

Material Group	Side Milling (A)		KCSM15		Recommended feed per tooth (IPT = inch/th) for side milling (A).											
	A		Cutting Speed – vc SFM			frac. dec.	D1 – Diameter									
	ap	ae	min		max		1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	
P	0	Ap max	0.4 x D	490	–	660	IPT	.0009	.0014	.0018	.0023	.0027	.0034	.0039	.0044	.0049
	1	Ap max	0.4 x D	490	–	660	IPT	.0009	.0014	.0018	.0023	.0027	.0034	.0039	.0044	.0049
	2	Ap max	0.4 x D	460	–	620	IPT	.0009	.0014	.0018	.0023	.0027	.0034	.0039	.0044	.0049
	3	Ap max	0.4 x D	390	–	520	IPT	.0008	.0011	.0015	.0019	.0023	.0029	.0034	.0039	.0045
	4	Ap max	0.4 x D	300	–	490	IPT	.0007	.0010	.0014	.0017	.0020	.0026	.0030	.0034	.0039
	5	Ap max	0.4 x D	200	–	330	IPT	.0006	.0009	.0012	.0015	.0018	.0023	.0027	.0031	.0036
6	Ap max	0.4 x D	160	–	250	IPT	.0005	.0008	.0010	.0013	.0015	.0019	.0022	.0025	.0028	
M	1	Ap max	0.4 x D	300	–	380	IPT	.0008	.0011	.0015	.0019	.0023	.0029	.0034	.0039	.0045
	2	Ap max	0.4 x D	200	–	260	IPT	.0006	.0009	.0012	.0015	.0018	.0023	.0027	.0031	.0036
	3	Ap max	0.4 x D	200	–	230	IPT	.0005	.0008	.0010	.0013	.0015	.0019	.0022	.0025	.0028
S	1	Ap max	0.4 x D	160	–	300	IPT	.0008	.0011	.0015	.0019	.0023	.0029	.0034	.0039	.0045
	2	Ap max	0.4 x D	80	–	130	IPT	.0004	.0006	.0008	.0010	.0012	.0015	.0018	.0021	.0024
	3	Ap max	0.4 x D	80	–	130	IPT	.0004	.0006	.0008	.0010	.0012	.0015	.0018	.0021	.0024
	4	Ap max	0.4 x D	160	–	200	IPT	.0006	.0008	.0011	.0014	.0017	.0021	.0025	.0028	.0033
H	1	Ap max	0.4 x D	260	–	460	IPT	.0007	.0010	.0014	.0017	.0020	.0026	.0030	.0034	.0039

NOTE: Those guidelines may require variations to achieve optimum results.
 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 on >1/2" diameter.

■ HARVI™ III • UJBE • Ball Nose • Unequal Flute Spacing • Finishing

Material Group	Side Milling (A)		KCSM15		Recommended feed per tooth (IPT = inch/th) for side milling (A).											
	A		Cutting Speed – vc SFM			frac. dec.	D1 – Diameter									
	ap	ae	min		max		1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	
P	0	Ap max	.06 x D	940	–	1250	IPT	.0011	.0016	.0022	.0027	.0033	.0041	.0047	.0053	.0059
	1	Ap max	.06 x D	940	–	1250	IPT	.0011	.0016	.0022	.0027	.0033	.0041	.0047	.0053	.0059
	2	Ap max	.06 x D	870	–	1180	IPT	.0011	.0016	.0022	.0027	.0033	.0041	.0047	.0053	.0059
	3	Ap max	.06 x D	750	–	1000	IPT	.0009	.0014	.0018	.0023	.0027	.0035	.0041	.0046	.0054
	4	Ap max	.06 x D	560	–	940	IPT	.0008	.0012	.0016	.0020	.0025	.0031	.0036	.0040	.0046
	5	Ap max	.06 x D	370	–	620	IPT	.0007	.0011	.0015	.0018	.0022	.0028	.0033	.0037	.0043
6	Ap max	.06 x D	310	–	470	IPT	.0006	.0009	.0012	.0015	.0018	.0023	.0027	.0030	.0034	
M	1	Ap max	.06 x D	560	–	720	IPT	.0009	.0014	.0018	.0023	.0027	.0035	.0041	.0046	.0054
	2	Ap max	.06 x D	370	–	500	IPT	.0007	.0011	.0015	.0018	.0022	.0028	.0033	.0037	.0043
	3	Ap max	.06 x D	370	–	440	IPT	.0006	.0009	.0012	.0015	.0018	.0023	.0027	.0030	.0034
S	1	Ap max	.06 x D	310	–	560	IPT	.0009	.0014	.0018	.0023	.0027	.0035	.0041	.0046	.0054
	2	Ap max	.06 x D	160	–	250	IPT	.0005	.0007	.0010	.0012	.0015	.0018	.0022	.0025	.0029
	3	Ap max	.06 x D	160	–	250	IPT	.0005	.0007	.0010	.0012	.0015	.0018	.0022	.0025	.0029
	4	Ap max	.06 x D	310	–	370	IPT	.0007	.0010	.0013	.0017	.0020	.0026	.0030	.0034	.0040
H	1	Ap max	.06 x D	500	–	870	IPT	.0008	.0012	.0016	.0020	.0025	.0031	.0036	.0040	.0046

NOTE: Those guidelines may require variations to achieve optimum results.
 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 on >1/2" diameter.

High-Performance Solid Carbide End Mills