

Aluminum Milling Tests

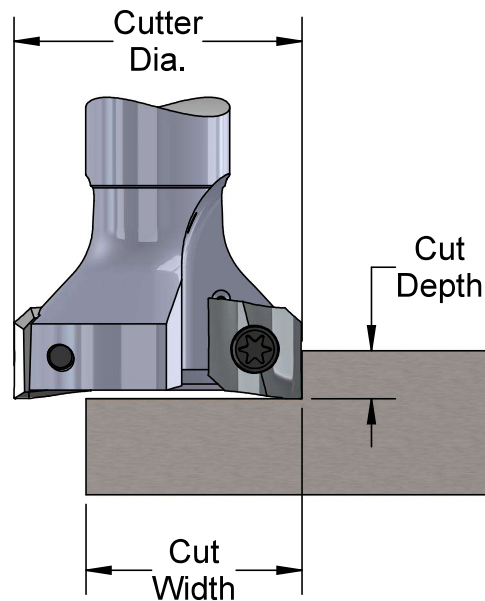
Faster CIM metal removal rates in aluminum depend more on IPM feed rates, horsepower and the cutter geometry than RPM.

You'll get higher CIM with smaller cutters, (assuming you're rough milling with cutters about one inch in diameter and larger). On tests 5, 6 and 8, with full diameter cuts, the one inch gets 46 CIM, the 1-1/4 gets 42 CIM and the two inch gets 37 CIM.

You'll get higher CIM with a cut width that is about 3/4 of the cutter diameter than with a full diameter cut width, (a long accepted machinist's rule).

Compare Tests 1 versus 3 and 6 versus 7.

You can get the same CIM with fewer flutes, plus reduced insert costs; see Test 8.



See inside back cover for SH750 along with back cover for all shank style Shear-Hogs.

Test No.	Cutter	Cutter Dia.	RPM	Cut Width	Cut Depth	IPM Feed	No. Flutes	IPT Chip	CIM
1.	SH750	.750	7500	.750	.375	150	1	.020	42
2.	*below	.750	7500	.750	.375	130	2	.008	36
3.	SH750	.750	7500	.600	.250	315	1	.042	46
4.	*below	.750	7500	.600	.250	275	2	.018	41
5.	SH100	1.0	6500	1.0	.125	370	1	.057	46
6.	SH125	1.25	6500	1.25	.125	275	2	.027	42
7.	SH125	1.25	6500	1.0	.250	375	2	.037	47
8.	SH200	2.0	6500	2.0	.250	75	2 & 3	.006/.004	37

* A major brand solid carbide, 2 flute end mill, with High Rake for aluminum.

All tests were run on a recent model Haas VF1 based on the highest Inches Per Minute possible with the load meter showing 100%. Haas estimates 7.5 actual spindle HP at 6500 RPM.



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