

SUPERIOR CARBIDE

CUTTING TOOLS ~ PARTS & ACCESSORIES ~ SERVICE

ROUTER BIT SPEED CALCULATIONS

FORMULA

**RPM x # Flutes x Chip Load
= FEED RATE (IPM)**

Example

**PSU-625 Bit
55,000(RPM) x 1 (flute) x .008
= 440 Inches/Min**

CONVERSIONS

**Inches/Sec
= Feed Rate (IPM) x .016**

**MM/Sec
= Feed Rate (IPM) x .423**

**1/16" = 1.6mm
1/8" = 3.2mm
1/4" = 6.5mm
1/2" = 12.8mm
3/4" = 19mm
1" = 25.4mm**

TIPS

- ~ Use the shortest cutting length bit that your material will allow
- ~ For fastest cutting, use the largest cutting diameter possible. Only use a smaller cutting diameter if you need finer detail.
- ~ If you experience chip re-weld or melting, increase feed rate or reduce spindle RPM's
- ~ In harder materials start with "low" chipload, in softer materials use the "high" chipload
- ~ For best chip evacuation use an up-cut spiral bit, unless you experience chipping on material surface

NAME	# FLUTES	MAX RPM	CHIPLOAD RANGE	
			LOW	HIGH
MSU-308	1	60,000	.003	0.005
MSU-308C	1	60,000	.003	0.005
MSU-408	1	60,000	.004	0.006
MSU-408C	1	60,000	.004	0.006
MSU-508	1	55,000	.005	0.007
MSU-508C	1	55,000	.005	0.007
MSU-608	1	55,000	.006	0.008
MSU-608C	1	55,000	.006	0.008
PSD-208	1	60,000	.003	0.005
PSD-208C	1	60,000	.003	0.005
PSD-312	1	60,000	.004	0.006
PSD-312C	1	60,000	.004	0.006
PSD-418	1	60,000	.005	0.007
PSD-418C	1	60,000	.005	0.007
PSD-520	1	55,000	.006	0.008
PSD-520C	1	55,000	.006	0.008
PSD-625	1	55,000	.008	0.012
PSD-625C	1	55,000	.008	0.012
PSD-638	1	40,000	.008	0.010
PSU-208	1	60,000	.003	0.005
PSU-208C	1	60,000	.003	0.005
PSU-312	1	60,000	.004	0.006
PSU-312C	1	60,000	.004	0.006
PSU-314	1	60,000	.004	0.006
PSU-418	1	60,000	.005	0.007
PSU-418C	1	60,000	.005	0.007
PSU-520	1	55,000	.006	0.008
PSU-520C	1	55,000	.006	0.008
PSU-612	1	55,000	.008	0.012
PSU-620	1	55,000	.008	0.012
PSU-625	1	55,000	.008	0.012
PSU-625C	1	55,000	.008	0.012
PSU-638	1	40,000	.008	0.010
WDD-416	2	60,000	.005	0.007
WDD-625	2	60,000	.007	0.009
WDU-416	2	60,000	.005	0.007
WDU-520	2	60,000	.006	0.008
WDU-625	2	60,000	.007	0.009
XDD-625	2	60,000	.007	0.009
XDS-418	2	60,000	.005	0.007
XDS-520	2	60,000	.006	0.008
XDS-625	2	60,000	.007	0.009
XDU-420	2	60,000	.005	0.007
XDU-520	2	60,000	.006	0.008
XDU-625	2	60,000	.007	0.009
ZSU-312	1	60,000	.003	0.006
ZSU-412	1	60,000	.004	0.007

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