

Speeds and Feeds for High Frequency Spindle

This is a guide for cutting materials using the High Frequency Spindle. Use your own experience to refine the values given below. The ART Path program also provides tool path templates for various material types to help you get started.

*Notes: The **acceleration rate** used is normal. The **pass type** used is basic except for the last 1/4" aluminum entry which is basic with finish. The type of aluminum used is 6061-T6. When cutting metal, always use the **Mist Coolant Option**. To order new tools, use the following part numbers: 1/8-1/4 is P50525B; 1/8-1/2 is P50522B; 1/4-1/2 is P50527B; 1/4-3/4 is P50524B.*

Material	Tool dia-lgth	Depth per pass	Feed rate (IPM)	Plunge (IPM)	RPM
3/16" cast acrylic	1/8-1/4	.188	150	60	19,000
3/16" cast acrylic	1/4-1/2	.188	190	60	19,000
1/4" PVC	1/8-1/4	.250	270	80	19,000
1/4" PVC	1/4-1/2	.250	350	80	19,000
1/2" Gatorfoam®	1/8-1/2	.500	450	100	20,000
1/2" Gatorfoam	1/4-1/2	.500	500	100	20,000
1/2" Signfoam™	1/8-1/2	.500	350	80	20,000
1/2" Signfoam	1/4-1/2	.500	470	100	20,000
3/4" Signfoam	1/4-3/4	.750	440	100	19,000
1/2" MDF	1/8-1/2	.250	170	50	19,000
1/2" MDF	1/4-1/2	.250	200	60	19,000
3/4" MDF	1/4-3/4	.375	170	60	19,000
3/4" hardwood	1/4-3/4	.375	160	50	19,000
1/8" aluminum	1/8-1/4	.125	40	20	19,000
1/8" aluminum	1/4-1/2	.125	50	20	19,000
1/4" aluminum	1/4-1/2	.250	35	15	19,000
1/4" aluminum	1/4-1/2	.125 per pass .050 x.015 finish pass	40 60	20 40	19,000

Speeds and Feeds for Standard Router Motor

This is a guide for cutting materials using the Standard Router Motor. Use your own experience to refine the values given below. The ART Path program also provides tool path templates for various material types to help you get started.

*Notes: The **acceleration rate** used is normal. The **pass type** used is basic except for the last 1/4" aluminum entry which is basic with finish. The type of aluminum used is 6061-T6. When cutting metal, always use the **Mist Coolant Option**. To order new tools, use the following part numbers: 1/8-1/4 is P50525B; 1/8-1/2 is P50522B; 1/4-1/2 is P50527B; 1/4-3/4 is P50524B.*

Material	Tool dia-lgth	Depth per pass	Feed rate (IPM)	Plunge (IPM)	RPM
3/16" cast acrylic	1/8-1/4	.188	150	60	19,000
3/16" cast acrylic	1/4-1/2	.188	190	60	19,000
1/4" PVC	1/8-1/4	.250	270	80	19,000
1/4" PVC	1/4-1/2	.250	350	80	19,000
1/2" Gatorfoam®	1/8-1/2	.500	450	100	20,000
1/2" Gatorfoam	1/4-1/2	.500	500	100	20,000
1/2" Signfoam™	1/8-1/2	.500	350	80	20,000
1/2" Signfoam	1/4-1/2	.500	470	100	20,000
3/4" Signfoam	1/4-3/4	.750	440	100	19,000
1/2" MDF	1/8-1/2	.250	140	50	19,000
1/2" MDF	1/4-1/2	.250	180	50	19,000
3/4" MDF	1/4-3/4	.375	140	50	19,000
3/4" hardwood	1/4-3/4	.375	130	40	19,000
1/8" aluminum	1/8-1/4	.125	30	15	21,000
1/8" aluminum	1/4-1/2	.125	40	15	21,000
1/4" aluminum	1/4-1/2	.250	20	15	21,000
1/4" aluminum	1/4-1/2	.125 per pass .050 x.015 finish pass	30 50	15 30	21,000

