| Tool No. | Angle $a^{\circ}$ | Flutes | RPM | Hardwood |  |  | Softwood |  |  | Plywood/Chipboard |  |  | MDF |  |  | Plastic |  |  | Foam |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Feed Rate * IPM | $\begin{aligned} & \text { Chip Load } \\ & \text { Per Tooth } \end{aligned}$ | Ramp Down | Feed Rate * IPM | Chip Load <br> Per Tooth | Ramp Down | Feed Rate * IPM | Chip Load <br> Per Tooth | Ramp Down | Feed Rate * IPM | $\begin{aligned} & \text { Chip Load } \\ & \text { Per Tooth } \end{aligned}$ | Ramp Down | Feed Rate * IPM | Chip Load Per Tooth | Ramp Down | Feed Rate * IPM | Chip Load Per Tooth | Ramp Down |
| RC-1040 | $40^{\circ}$ | 1 | 18,000 | 40 " | .0024" | 20 | $40 "$ | .0024" | 201 | 40 | .0024" | $20 "$ | 90" | .0047" | 45" | 40" | .0024" | 20" | 90" | .0047" | 45" |
| RC-1041 | $40^{\circ}$ | 1 | 18,000 | 40" | .0024" | 201 | 40" | .0024" | 201 | 40" | .0024" | 201 | 90" | .0047" | 45" | 40" | .0024" | 20" | 90" | .0047" | 45" |
| RC-1045 | $45^{\circ}$ | 1 | 18,000 | $40{ }^{\prime \prime}$ | .0024" | 201 | 40 | .0024" | $20 "$ | $40^{\prime \prime}$ | .0024" | 201 | 90" | .0047" | 45" | 40" | .0024" | $20 "$ | 90" | .0047" | 45" |
| RC-1145 | $45^{\circ}$ | 1 | 18,000 | 40 | .0024" | 201 | 40 " | .0024" | 201 | $40{ }^{\prime \prime}$ | .0024" | 20 | 90" | .0047" | 45" | 40 | .0024" | $20 "$ | 90" | .0047" | 45" |
| RC-1049 | $45^{\circ}$ | 1 | 18,000 | 40" | .0024" | 201 | 40" | .0024" | 20" | $40^{\prime \prime}$ | .0024" | $20 "$ | 90" | .0047" | $45{ }^{\prime \prime}$ | $40^{\prime \prime}$ | .0024" | 20" | 90" | .0047" | $45{ }^{\prime \prime}$ |
| RC-1031 | $45^{\circ}$ | 1 | 18,000 | 40" | .0024" | 201 | 40" | .0024" | 201 | 40 " | .0024" | 201 | 80" | .0047" | 40" | 40" | .0024" | 201 | 80" | .0047" | 40" |
| RC-1047 | $46^{\circ}$ | 1 | 18,000 | 40" | .0024" | $20 "$ | 40" | .0024" | 20" | 40" | .0024" | 20" | 90" | .0047" | 45" | 40" | .0024" | 20" | 90" | .0047" | 45" |
| RC-1046 | $50^{\circ}$ | 1 | 18,000 | 40" | .0024" | $20 "$ | 40" | .0024" | 20" | 40" | .0024" | $20 "$ | 90" | .0047" | 45" | 40" | .0024" | 20" | 90" | .0047" | $45^{\prime \prime}$ |
| RC-1147 | $60^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20" | 40" | .0024" | 20" | 90" | .0047" | $45^{\prime \prime}$ | 40" | .0024" | 20" | 90" | .0047" | $45^{\prime \prime}$ |
| RC-1108 | $60^{\circ}$ | 1 | 18,000 | 40" | .0024" | 201 | 40" | .0024" | 20" | 40" | .0024" | 201 | 90" | .0047" | 45" | 40" | .0024" | 201 | 90" | .0047" | $45^{\prime \prime}$ |
| RC-1149 | $60^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20" | 40" | .0024" | 20" | 90" | .0047" | 45" | 40" | .0024" | 20" | 90" | .0047" | 45" |
| RC-1148/-M | $60^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20 | 40" | .0024" | 20 | 40" | .0024" | 201 | 90" | .0047" | 45" | 40" | .0024" | 20 | 90" | .0047" | 45" |
| RC-1048 | $70^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20" | 40" | .0024" | 201 | 90" | .0047" | 45" | 40" | .0024" | $20 "$ | 90" | .0047" | 45" |
| RC-1072 | $72^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20" | 40" | .0024" | 201 | 90" | .0047" | 45" | 40" | .0024" | 20 | 90" | .0047" | 45" |
| RC-1141 | $90^{\circ}$ | 1 | 18,000 | $40 "$ | .0024" | 201 | 40" | .0024" | $20 "$ | $40^{\prime \prime}$ | .0024" | 20" | 90" | .0047" | $45^{\prime \prime}$ | 40" | .0024" | 20" | 90" | .0047" | $45^{\prime \prime}$ |
| RC-1102 | $90^{\circ}$ | 1 | 18,000 | 40" | .0024" | $20 "$ | 40" | .0024" | 20 | 40" | .0024" | 201 | 90" | .0047" | 45" | 40" | .0024" | 20 | 90" | .0047" | 45" |
| RC-1142 A | $90^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20" | 40" | .0024" | 201 | 90" | .0047" | 45" | 40" | .0024" | $20 "$ | 90" | .0047" | 45" |
| RC-1030 | $90^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20" | 40" | .0024" | 201 | 80" | .0047" | $40 "$ | 40" | .0024" | 201 | 80" | .0047" | $40 "$ |
| RC-1034 | $90^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20 | 40 | .0024" | 201 | 80" | .0047" | 40" | $40{ }^{\prime \prime}$ | .0024" | 201 | 80" | .0047" | 40" |
| RC-1100 | $91^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20" | 40" | .0024" | 20" | 90" | .0047" | $45^{\prime \prime}$ | 40" | .0024" | 20" | 90" | .0047" | 45" |
| RC-1140 | $91^{\circ}$ | 1 | 18,000 | $40^{\prime \prime}$ | .0024" | 201 | $40^{\prime \prime}$ | .0024" | 201 | 40" | .0024" | 201 | 90" | .0047" | $45^{\prime \prime}$ | 40" | .0024" | 201 | 90" | .0047" | $45^{\prime \prime}$ |
| RC-1028 | $91^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20" | 40" | .0024" | 20" | 80" | .0047" | 40" | 40" | .0024" | 20" | 80" | .0047" | 40" |
| RC-1103 | $100^{\circ}$ | 1 | 18,000 | 40" | .0024" | 20" | 40" | .0024" | 20" | $40^{\prime \prime}$ | .0024" | $20 "$ | 90" | .0047" | $45^{\prime \prime}$ | $40 "$ | .0024" | $20^{\prime \prime}$ | 90" | .0047" | $45^{\prime \prime}$ |
| RC-1105 | $110^{\circ}$ | 1 | 18,000 | $40 "$ | .0024" | 20" | 40" | .0024" | $20 "$ | $40 "$ | .0024" | $20^{\prime \prime}$ | 90" | .0047" | $45^{\prime \prime}$ | $40 "$ | .0024" | $20^{\prime \prime}$ | $90 "$ | .0047" | $45^{\prime \prime}$ |
| RC-1146 | $120^{\circ}$ | 1 | 14,000 | 90" | .0024" | 90" | 90" | .0024" | 90" | 90" | .0024" | 90" | 180" | .0048" | 180" | 90" | .0024" | 90" | 180" | .0048" | 180" |
| RC-1104 | $120^{\circ}$ | 2 | 18,000 | 90" | .0024" | $45^{\prime \prime}$ | 90" | .0024" | $45^{\prime \prime}$ | 90" | .0024" | $45^{\prime \prime}$ | 180" | .0048" | 90" | 90" | .0024" | 45" | 180" | .0048" | 90" |
| RC-1029 | $120^{\circ}$ | 2 | 15,000 | 70" | .0024" | $35 "$ | 70" | .0024" | 35" | 70" | .0024" | 35" | 150" | .0047" | 75" | 70" | .0024" | 35" | 140" | .0047" | 70" |
| RC-1107 | $130^{\circ}$ | 2 | 18,000 | 90" | .0024" | 45" | 90" | .0024" | $45^{\prime \prime}$ | 90" | .0024" | 45" | 180" | .0048" | 90" | 90" | .0024" | 45" | 180" | .0048" | 90" |
| RC-1110 | $140^{\circ}$ | 2 | 18,000 | 90" | .0024" | 45" | 90" | .0024" | $45^{\prime \prime}$ | 90" | .0024" | $45^{\prime \prime}$ | 180" | .0048" | 90" | 90" | .0024" | $45^{\prime \prime}$ | 180" | .0048" | 90" |
| RC-1111 | $140^{\circ}$ | 2 | 16,000 | 80" | .0024" | 40" | 80" | .0024" | 40" | 80" | .0024" | 40" | 160" | .0048" | 80" | 80" | .0024" | 40" | 160" | .0048" | 80" |
| RC-1101 | $150^{\circ}$ | 1 | 14,000 | 90" | .0024" | 90" | 90" | .0024" | 90" | 90" | .0024" | 90" | 180" | .0048" | 180" | 90" | .0024" | 90" | 180" | .0048" | 180" |
| RC-1106 | $150^{\circ}$ | 2 | 18,000 | 90" | .0024" | 45" | 90" | .0024" | 45" | 90" | .0024" | 45" | 180" | .0048" | 90" | 90" | .0024" | 45" | 180" | .0048" | 90" |
| RC-1109 | $160^{\circ}$ | 2 | 18,000 | 90" | .0024" | 45" | 90" | .0024" | 45" | 90" | .0024" | 45" | 180" | .0048" | 90" | 90" | .0024" | 45" | 180" | .0048" | 90" |

* IPM: Inches Per Minute Simple Machining Calculations: To find SFM: $0.262 \times$ diameter of tool x RPM $\quad$ To find Chip Load: Feed Rate IPM / (RPM x \# of Flutes) To find RPM: (SFM x 3.82) / diameter of tool To find Feed Rate IPM: RPM x \# of flutes x chip load To find Ramp Down: Feed Rate IPM / \# of Flutes)
A Attention: Item \#RC-1142, when using on small, hobby type CNC machines, set RPM to 12,000 RPM with 30\% slower feed rate.

