## C․․․․ Programming and Changing Blades

## Cutting Data

| Material | Hardness BHN | Feed (per blade) <br> IPR <br> $\mathrm{mm} / \mathrm{rev}$ | HSS-E <br> Coated <br> SFM <br> MPM | Carbide <br> Coated <br> SFM <br> MPM |
| :---: | :---: | :---: | :---: | :---: |
| Carbon Steels | 100-250 | $\begin{aligned} & .001-.002 \\ & .0025-.05 \end{aligned}$ | $\begin{array}{r} 15-80 \\ 5-24 \end{array}$ | $\begin{gathered} \hline 60-120^{*} \\ 18-36 \end{gathered}$ |
| Free Machining Alloy | 125-340 | $\begin{aligned} & .001-.002 \\ & 0.025-.05 \end{aligned}$ | $\begin{array}{r} 30-80 \\ 9-24 \end{array}$ | $\begin{gathered} 80-150^{*} \\ 24-45 \end{gathered}$ |
| High Alloy Steel | 250-350 | $\begin{aligned} & .001-.002 \\ & .0025-.05 \end{aligned}$ | $\begin{array}{r} 15-80 \\ 5-24 \end{array}$ | $\begin{gathered} 60-120^{*} \\ 18-36 \end{gathered}$ |
| Stainless Steel | 140-250 | $\begin{aligned} & .001-.002 \\ & .0025-.05 \end{aligned}$ | $\begin{array}{r} 20-50 \\ 6-15 \end{array}$ | $\begin{array}{r} \hline 40-90^{*} \\ 12-26 \end{array}$ |
| Ductile/Grey Cast Iron | 150-330 | $\begin{aligned} & .001-.002 \\ & .0025-.05 \end{aligned}$ | $\begin{gathered} 30-100 \\ 9-30 \end{gathered}$ | $\begin{gathered} 100-250 \\ 30-75 \end{gathered}$ |
| Aluminum | 30-180 | $\begin{aligned} & .001-.002 \\ & .0025-.05 \end{aligned}$ | $\begin{gathered} 80-230 \\ 24-70 \end{gathered}$ | $\begin{gathered} \hline 200-600 \\ 60-220 \end{gathered}$ |
| Titanium |  | $\begin{aligned} & .001-.002 \\ & .0025-.05 \end{aligned}$ | $\begin{array}{r} 15-45 \\ 5-13 \end{array}$ | $\begin{gathered} 20-80 \\ 6-24 \end{gathered}$ |
| Copper Alloy | 80-200 | $\begin{aligned} & .001-.002 \\ & .0025-.05 \end{aligned}$ | $\begin{gathered} 80-200 \\ 24-60 \end{gathered}$ | $\begin{gathered} 130-320 \\ 40-100 \end{gathered}$ |

*Optional geometry available on request; HSS-E is recommended.

IMPORTANT: Power feed control is recommended to prevent over-feeding, which can damage the blades. Shims can be added behind the cutting blades to increase front clearance, which will change the cutting geometry to . 005 thickness and enable you to tune the tool to different materials. Shims must be placed between blade and tool body. Use the single-blade design only with the power feed, along with a stable spindle and rigid set-up.

NOTE: All listed cutting data are standard values only. In case of hard-to-machine materials or uneven surfaces, we recommend applying cutting speeds that are at the lower end of the range.

## Replacing GH-K Blades

1. Unscrew the screw for each blade that attaches it to the tool body.
2. Place the new blade on the tool body and insert the screw. Repeat for each blade.
NOTE: Be sure to replace the entire set of blades and not just one single blade as they come in sets.

Calculation Reference



|  | $Z$ |  |
| :--- | :--- | :--- |
| $60^{\circ}$ | 1 | .577 |
| $82^{\circ}$ | 1 | .869 |
| $90^{\circ}$ | 1 | 1.00 |
| $100^{\circ}$ | 1 | 1.191 |

