# GARRTOOL Milling Guide for V4 End Mills in Titanium, Inconel, and Stainless 

## Fractional

|  | Titanium Alloys | Nickel or Cobalt-based Material | Stainless <br> (400 Series, pH Series) | Carbon Steel |  | Profiling Side Cutting | Slotting Pocket Milling |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SFM $=100-200$ | SFM $=50-100$ | SFM $=100-225$ | SFM $=250-400$ | Axial (ap) | 1xD | 100\% of Dia. |
| DIAMETER | CPT (Fz) | CPT (Fz) | CPT (Fz) | CPT (Fz) | Radial (ae) | 100\% of Dia. | 1xD |
| .1575"-.2755" | .0004"-.0008" | .0003"-.0006" | .0005"-.0010" | .0008" - .0020" |  |  |  |
| . $27566^{\prime \prime}$ - 3124 " | .0005" - .0010" | .0004" - .0008" | .0007" - .0012" | .0010" - .0020" |  |  |  |
| . 3125 " - .3749" | .0007" - .0012" | .0005"- .0010" | .0008" - .0015" | .0015" - .0025" |  |  |  |
| . 3750 "-.4999" | .0008" - .0015" | .0007" - .0012" | .0010" - .0018" | .0020" - .0030" |  |  |  |
| .5000"-.6249" | .0010" - .0018" | .0008"-.0015" | .0012"-.0020" | .0020" - .0025" |  |  |  |
| .6250" - .7499" | .0012" - .0020" | .0010"-.0018" | .0015" - .0022" | .0025" - .0030" |  |  |  |
| .7500"-.8749" | .0015" - .0022" | .0012"-.0020" | .0018" - .0025" | .0030" - .0035" |  |  |  |
| .8750"-1.000" | .0018" - .0025" | .0015"-.0022" | .0022"-.0030" | .0035" - .0040" |  |  |  |


|  | Titanium Alloys | Nickel or Cobalt-based Material | Stainless <br> (400 Series, pH Series) | Carbon Steel |
| :---: | :---: | :---: | :---: | :---: |
|  | SFM $=150-250$ | SFM $=60-125$ | SFM $=150-300$ | SFM $=300-500$ |
| DIAMETER | CPT (Fz) | CPT (Fz) | CPT (Fz) | CPT (Fz) |
| .1575" - .2755" | .0008" - .0011" | .0004"-.0008" | .0008" - .0012" | .0010" - .0025" |
| . 2756 " - .3124" | .0010" - .0015" | .0005" - .0010" | .0010"-.0018" | .0015"-.0030" |
| . 3125 " - .3749" | .0012"-.0018" | .0007" - .0012" | .0012" - .0020" | .0020" - .0035" |
| . 3750 " - .4999" | .0012"-.0021" | .0008" - .0015" | .0015" - .0022" | .0025" - .0040" |
| .5000" - .6249" | .0015" - .0025" | .0010" - .0018" | .0018" - .0030" | .0030" - .0035" |
| .6250" - .7499" | .0018" - .0030" | .0012" - .0020" | .0020" - .0033" | .0035" - .0040" |
| .7500" - .8749" | .0020" - .0032" | .0015"-.0022" | .0023" - .0037" | .0040" - .0045" |
| .8750"-1.000" | .0025" - .0035" | .0018" - .0025" | .0027" - .0040" | .0045" - .0050" |



NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.

