

# GARR TOOL Drilling Guide for Aluminum Series 3-Flute Drills

|              |                    |          | CHIPLOAD PER TOOTH (Fz) |                 |                 |                 |                 |                 |                 |
|--------------|--------------------|----------|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| ISO Material | Type               | SFM (Vc) | 3/16"                   | 1/4"            | 5/16"           | 3/8"            | 1/2"            | 5/8"            |                 |
| <b>N</b>     | <b>NON-FERROUS</b> |          |                         |                 |                 |                 |                 |                 |                 |
|              | Aluminum Alloy     | 6061     | 450 - 650               | .0020" - .0040" | .0025" - .0050" | .0035" - .0060" | .0045" - .0070" | .0055" - .0080" | .0065" - .0100" |
|              | Cast Aluminum      | 380      | 300 - 500               | .0015" - .0030" | .0020" - .0040" | .0030" - .0050" | .0030" - .0060" | .0035" - .0070" | .0040" - .0080" |
|              | Magnesium          |          | 250 - 500               | .0015" - .0030" | .0020" - .0040" | .0030" - .0050" | .0030" - .0060" | .0035" - .0070" | .0040" - .0080" |
|              | Copper & Brass     |          | 250 - 400               | .0010" - .0025" | .0020" - .0030" | .0020" - .0030" | .0020" - .0040" | .0030" - .0050" | .0030" - .0060" |
|              | Titanium           | 6Al-4V   | 100 - 300               | .0010" - .0020" | .0020" - .0030" | .0020" - .0030" | .0020" - .0040" | .0030" - .0050" | .0030" - .0060" |

|              |                    |             | CHIPLOAD PER TOOTH (Fz) |             |             |             |             |             |             |
|--------------|--------------------|-------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| ISO Material | Type               | M/Min. (Vc) | 4.0mm                   | 6.0mm       | 8.0mm       | 10.0mm      | 12.0mm      | 16.0mm      |             |
| <b>N</b>     | <b>NON-FERROUS</b> |             |                         |             |             |             |             |             |             |
|              | Aluminum Alloy     | 6061        | 140 - 200               | .050 - .100 | .065 - .125 | .090 - .150 | .115 - .175 | .150 - .200 | .165 - .250 |
|              | Cast Aluminum      | 380         | 90 - 150                | .038 - .075 | .050 - .100 | .075 - .125 | .075 - .150 | .090 - .175 | .100 - .200 |
|              | Magnesium          |             | 75 - 150                | .038 - .075 | .050 - .100 | .075 - .125 | .075 - .150 | .090 - .175 | .100 - .200 |
|              | Copper, Brass      |             | 75 - 120                | .025 - .060 | .050 - .075 | .050 - .075 | .050 - .100 | .075 - .125 | .075 - .150 |
|              | Titanium           | 6Al-4V      | 30 - 90                 | .025 - .050 | .050 - .075 | .050 - .075 | .050 - .100 | .075 - .125 | .075 - .150 |



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