## Speeds & Feeds - Broaching Tools - Hexagon

All posted speed and feed parameters are suggested starting values that may be increased given optimal setup conditions. If you require additional information, Micro100 has a team of technical experts available to assist you through even the most challenging applications. Please contact us at 800-421-8065 or micro100tech@harveyperformance.com.

Setup & Use:

1. Accurately measure the Broach dimensions and program those values into the machine tool parameter.
2. Ensure tool is oriented in the 12 o'clock position to allow chips to fall away from the groove.
3. For Hexagon Broaches, recommended pre-drill size is 1.035x larger than desired feature size.
4. Before running a first pass, perform a visual check to verify tool path by positioning the tool at the start of the first stroke and programming a stop.
5. Ensure tool is removed radially from the groove before retracting after each pass.
6. Fully remove broach from the hole during the return stroke.
7. Rotate workpiece 60° and repeat for remaining corners
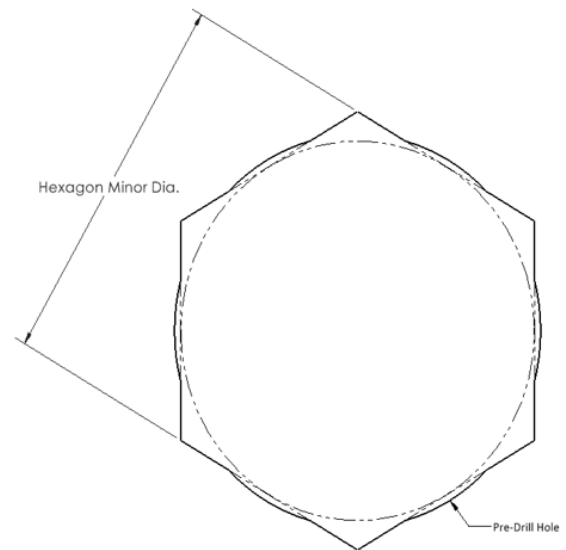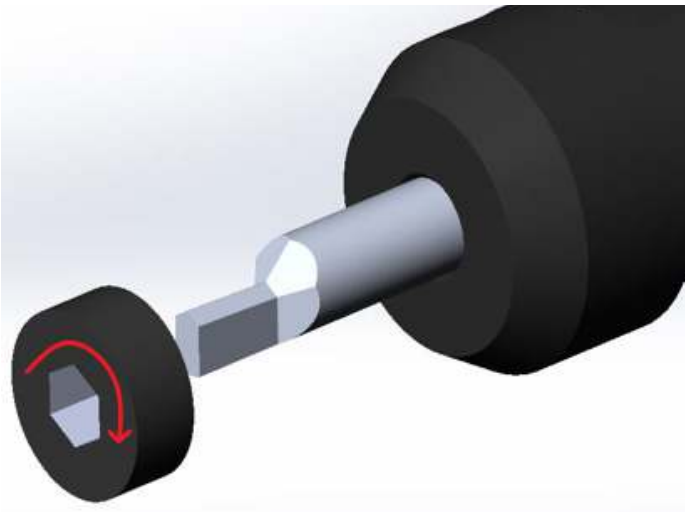
Product notes:

- Feed Rate and Depth of Cut per Pass are determined by the Tensile Strength of the Workpiece material.
- Ensure your machine has a mechanical spindle lock to improve accuracy and quality of finished broach feature.
- When possible, utilizing coolant can encourage chip evacuation, increase tool life, and improve surface finish.
- In applications with a blind hole, creating a relief groove or cross hole at the bottom of the broach profile is required to allow for chip evacuation.

	Workpiece Tensile Strength (psi)									
	40000	55000	70000	85000	100000	115000	130000	145000	160000	175000
Depth of Cut per Pass (in)	0.0041	0.0032	0.0030	0.0028	0.0026	0.0024	0.0022	0.0020	0.0018	0.0016
Feed Rate (in/min)	410	320	300	280	260	240	220	200	180	160

WARNING: Cutting tools may shatter under improper use. Government regulations require use of safety glasses and other appropriate safety equipment in the vicinity of use.