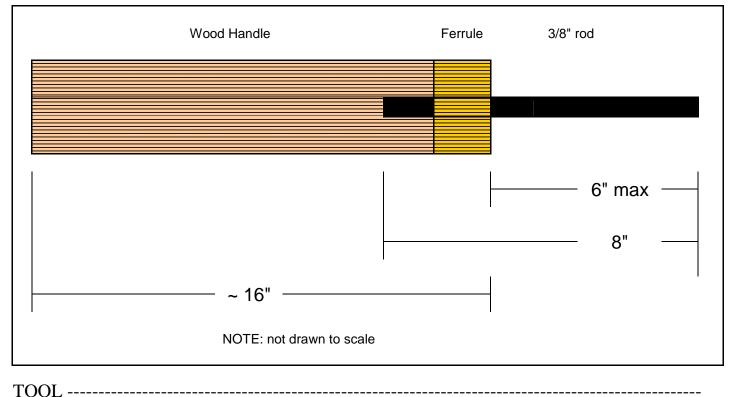
# ALLEN DRIVER'S STRAIGHT HOLLOWING TOOL

- Use dense sturdy wood (i.e. teak, pecan, maple, oak or fruit wood) •
- Drill a 25/64" hole (to allow for epoxy) 2" deep
- Turn handle to finished size of approximately  $1\frac{1}{2}$ " x 16" in a shape you like ٠
- Add a metal ferrule on tool end for added strength •
- Test fit rod into handle ٠
- Rod not to exceed 6" past the end of the handle ٠
- Epoxy rod into handle ٠



Materials needed:

- 3/8" Round Steel Rod (purchased at Home Depot @ \$6.60) •
- 8mm cutter (RCGT0803MO FX CU313 purchased at Carbide Depot @ \$6.15)
- Torx screw (TS-3.5-7-M1 purchased at Carbide Depot @ \$2.50)

Tools needed:

- Drill or drill press •
- Grinder
- Angle Grinder
- File
- 2.5mm drill bit
- Plug Tap for Torx screw (M3x0.5D33FL purchased at Carbide Depot)
- T8 Torx key (purchased at Harbor Freight in a set)



#### Step #1 – Rough shaping

- Cut 3/8" Mild Steel Rod into 8" length
- Grind a 3/8" slot to the half way point of the rod
  - Take time to make the surface as flat as possible
    - Fine tune with a file to increase flatness
- Place cutter on rod and mark position of hole
- Drill 2.5mm hole
- Tap hole for Torx screw
- TEST FIT the cutter using the Torx screw with a T8 Torx key
  - DO NOT USE TOOL UNTIL STEP #2 AND #3 ARE COMPETED
  - It is not recommended to use a Drill Chuck Handle with this tool as the tool will not be held in by the required 2" minimum
  - o A Hosaluk Handle Insert can be used if you desire to use a removable handle (available in the Woodturners Catalog)

### Step #2 – Finish shaping

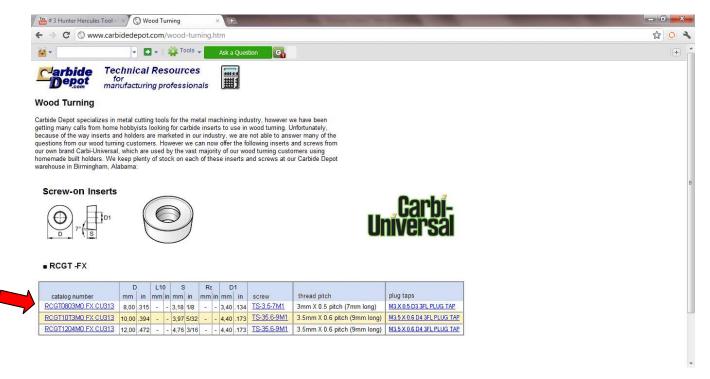
- See pictures below for tool end profiles
- With the cutter mounted on the tool, mark the area of the rod to be ground off by using a Sharpie pen
- Remove cutter and carefully grind rod to shape for the round cutter (DO NOT GRIND ROD WITH CUTTER ATTACHED)
- Remount as many times as necessary to ensure a good fit
- Using a file is very useful when making the final adjustments
- Be sure to grind an under cut on the rod so the tool will not rub keeping the cutter away from the turning wood

### Step #3 – Mounting tool on handle

- Test fit finished tool into handle and ensure the tool does not extend over 6" (adjust depth of hole as necessary)
- Epoxy tool into handle (see picture below)
- Cutter should be rotated regularly to allow for even wear
- Be sure to protect the cutter as it is very sharp but also very brittle and could be ruined if the tool is dropped or bumped against your other tools

## RESOURCES -----

Carbide Depot - <u>www.carbidedepot.com</u> - 800.786.6921



Hosaluk Handle Insert (HHI)

- 2011 Woodturners (800.551.8876) Spring/Summer Catalog on page 14 for \$19.99 each
- 3/8" HHI Item number 462-1138 1/2" HHI Item number 462-1112

PICTURES BELOW ILLUSTRATE THE FINISH GRIND NEEDED FOR THE TOOL *Do not grind with carbide cutter mounted* 

