

CW TIP 008 — Collet Holder on the Rotary Table/Roger Adams

A Tool Modification to Hold Collets on the Rotary Table What I envisaged was an adapter that would bolt onto, and exactly over the center of, the Sherline Rotary Table (#3700) and that would then enable the Sherline WW Collet Adapter (#2085) to be installed

in it. In my case, this would allow me to install any of the 64 WW collets I presently own on the mill and allow for much simplified and accurate milling of the brass or steel rod stock that I frequently need in my clock making hobby.



FIGURE 1—64 WW collets

To this end, I looked at what Sherline accessories I already had on hand, and found what I think is a simple yet effective way of achieving this. What I did was to take the top part of the Adjustable Tailstock Custom Tool Holder (#1203), and modified this slightly to enable its use on the rotary table. I drilled two clearance holes for 10/32" socket head screws on a 1-7/16" BCD (see Figure 2), these two opposite holes being offset 45° from the existing tapped holes. I cut the two socket head screws to a thread length of 3/8" and these are used with the standard T-nuts to lock it down to the face of the rotary table.



FIGURE 2—The red arrows show the two, newly drilled clearance holes in the modified tailstock holder.

I made a small centering device, which is simply a stepped piece of turned brass, the lower step being machined to 7/16" to fit in the center hole of the rotary table, and the upper step being machined to 5/8" diameter to fit in the Adjustable Tailstock Custom Tool Holder (see Figure 3).



FIGURE 3—The red arrow shows the machined centering device.

This is inserted into the center hole, the holder slipped over it, then the socket head screws tightened into the T-nuts (see Figures 4 and 5).



FIGURE 4—The centering device inserted into the rotary table center hole. T-nuts are in the grooves.



FIGURE 5—The holder mounted to the rotary table using the centering device.

Remove the centering device, insert the collet holder and tighten it in place with the socket head screw, and you're ready to use whatever collet you need.



FIGURE 6—The collet holder shown with a collet holding a small part. The red arrow indicates the socket head cap screw used to tighten the collet holder in place.

The rotary table can of course be installed on the tilting angle table to allow milling or drilling the side of whatever bar stock you're using in your collets.



FIGURE 7—The rotary table shown mounted on a tilting angle table (#3750).

Best Regards, Roger Adams