

## Milling Collets

**Collet Sets P/N 3060 (Inch), P/N 3090 (Metric)  
End Mill Holders, P/N 3079 (3/8"), 3078 (10mm),  
6079 (1/4"), 6080 (3/16")**

The milling collets (P/N 3060) used with the Sherline vertical mill or vertical milling column are designed to be used with the Morse #1 taper common to all headstock spindles manufactured by Sherline. The collets are held into the spindle with a drawbolt. The set includes 3 collets and a drawbolt with collar.

These collets have a shallow angle that gives them high clamping pressure making them ideal for holding cutters. The shallow angle makes the collet "stick" after the collet drawbolt is loosened. Back the bolt off a few turns (do not disengage completely) and lightly tap the head of the bolt with a hammer or mallet until the collet can be easily removed.

Milling Collets are available in the following sizes:

- P/N 3087 3/32" Mill Collet
- P/N 3089 5/32" Mill Collet
- P/N 3091 7/32" Mill Collet
- P/N 3092 3.0mm Mill Collet\*
- P/N 3093 4.0mm Mill Collet\*
- P/N 3094 6.0mm Mill Collet\*
- P/N 3095 1/8" Mill Collet\*\*
- P/N 3096 3/16" Mill Collet\*\*
- P/N 3097 1/4" Mill Collet\*\*

\*Included with set P/N 3090

\*\*Included with set P/N 3060

### End Mill Holders

Because the hole through the spindle is only a little over 3/8" (10mm), a collet that would accept a 3/8" shank end mill is impossible to make. End mills with 3/8" shank are very common and in many cases cost less than the miniature series. They are available in many sizes and shapes. To take advantage of this fact, Sherline offers the 3/8" end mill holder (P/N 3079). (See Figure 1.) Metric versions of the 3/8" end mill holder are also available in sizes 10mm (P/N 3078), 8mm (P/N 3077) and 6mm (P/N 3076).

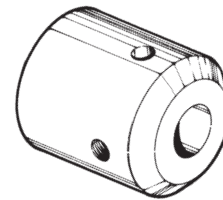


FIGURE 1— End Mill Holder.

The end mill holder is manufactured on a modern CNC lathe allowing the internal 3/4-16 thread to be single pointed. Without unchucking the part the 3/8" hole can be accurately bored in the same setup. This fact allows us to have the end mill run very accurately even though it is held on a threaded surface. Also available are 5/16" bore (P/N 3075), 1/4" bore (P/N 6079), 3/16" bore (P/N 6080) and 1/8" bore (P/N 6081) holders in this same style.

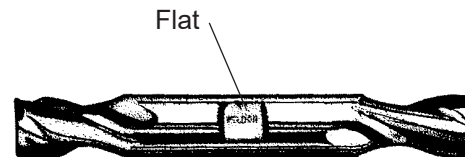


FIGURE 2— Flat area for set screw on commercial end mills.

The end mills are secured using a set screw that tightens against the flat ground on the shanks of all commercial end mills. (See Figure 2.) Another advantage is 3/8" end mills are available with cutters on each end of the shank creating further savings.

Note that the larger size of the standard 10-32 set screw was inappropriate for the 6081 1/8" holder, so two 4-40 set screws were used to spread the load so each one doesn't have to be tightened as much. Tighten each of the two screws equally.

Thank you,  
Sherline Products Inc.