



## **SHERLINE End Mill Holders**

**P/N 3079 (3/8" End Mill Holder)**

**P/N 3075 (5/16" End Mill Holder)**

**P/N 3076 (6.0 mm End Mill Holder)**

**P/N 3077 (8.0 mm End Mill Holder)**

**P/N 3078 (10.0 mm End Mill Holder)**

**P/N 6079 (1/4" End Mill Holder)**

**P/N 6080 (3/16" End Mill Holder)**

**P/N 6081 (1/8" End Mill Holder)**

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### **End Mill Holders for the Sherline Mill**

Most of the work accomplished on the Sherline milling machine can be accomplished with one of the miniature series cutters. These cutters have standard shank diameters of 3/16" (4.8 mm) or 1/4" (6.4 mm) and are normally held using Sherline's [Milling Collets, P/N 3060](#). However, there may be times when you will want to use a standard end mill with a 3/8" (9.5 mm) diameter shank. These cutters are more readily available than the miniature series of cutters and are actually less expensive in many cases. Also, special purpose cutters such as those designed for cutting key slots, dovetails and corner radii usually have 3/8" diameter shanks. The Sherline 3/8" end mill holder will increase the versatility of your milling machine

by enabling you to hold these popular cutters. (CAUTION! Always consider the power and size limitations of your equipment when using larger size cutters. You may want to reduce cutter speed.)



*FIGURE1--The flat area on a commercial double-ended end mill is for the set screw on the end mill holder to tighten against.*

In addition to the 3/8" holder, this same type of end mill holder is now also available to hold 5/16" (P/N 3075), 1/4" (P/N 6079), 3/16" (P/N 6080) and 1/8" (P/N 6081) end mills. The advantage of this type of holder is that it allows you to use smaller size double ended mills or tools with longer shanks which could not be held in a milling collet. An end mill holder is a better choice compared to a collet for holding end mills because 1) An end mill can spin in a collet during heavy cuts while the set screw against a flat on the end mill prevents this with an end mill holder and 2) The end mill is supported over a longer distance in an end mill holder than in a collet. We actually decided to produce this type of holder in the smaller sizes after many requests from Sherline users who simply prefer its ease of use even when using regular miniature end mills.

For those who use metric size cutting tools, the 10.0 mm (P/N 3078) is the most common size, but we also offer 6.0 mm (P/N 3076) and 8.0 mm (P/N 3077) sizes.

One of our Sherline machinists also pointed out that these holders make an excellent "quick-change" tool system for milling. Keep your favorite cutters chucked up in their own holders and simply swap holders to change tools. Since they just screw onto the spindle thread, changeover is a quick operation.

## **Maintenance**

When the end mill holder is not in use, make sure it is treated with a light surface coat of oil to prevent rust. If the end mill holder does rust, it can be cleaned using a ScotchBrite® or similar abrasive pad. Store wrapped in the original waxed paper if possible.

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### **A Note About the Cost of These End Mill Holders**

Because the part is small and appears simple, its cost of \$30.00 may cause some to question our pricing. The reason we must charge so much is because of the processes necessary to make the part. In order to provide the accuracy needed in a part of this type, the threaded hole and the end mill hole must be absolutely concentric. To accomplish this, approximately 10 boring, threading and drilling operations must be done on a very precise computer controlled lathe. To maintain concentricity, the threads cannot be tapped, but must be single pointed, which allows the part to run very accurately even though it is held on a threaded surface. The result is a strong, easy to use and highly accurate part where nothing less will do. Over the years we have put a lot of thought into keeping costs down and have found many places we

could economize without sacrificing the accuracy of the product, but this was not one of them. To make this part using cheaper methods would reduce its usability and value to zero. If you want to use 3/8" (or other size) end mills, double ended cutters, or special cutters with the ease and accuracy of this system, you will find the cost of this part is money well spent in time saved.