

**SHERLINE
PRODUCTS**
INCORPORATED 1974

WW COLLETS AND SETS

Collets provide a quick, easy method of mounting cylindrical parts or bar stock in a lathe with a great deal of centering accuracy. A drawbar which passes through the headstock and threads into the back side of the collet is used to draw the collet tightly into the appropriate adapter. (See Figure 1.) The adapter causes the jaws of the collet to close down, gripping the part to be machined. Sherline collet adapter and drawbar (P/N 1161) holds collets with a shaft diameter of .312" to .313". Since many collets are available with shafts of .315" (8mm) diameter, Sherline now also offers an adapter for that size as well. (P/N 1156)

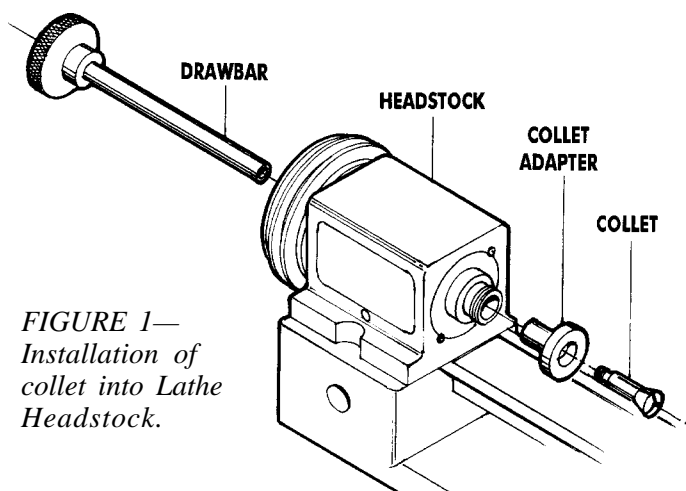


FIGURE 1—
*Installation of
collet into Lathe
Headstock.*

WW collets differ from milling collets (P/N 3060) in that WW collets have a hole completely through the collet and drawbar. This is so long material can be passed through the headstock and the appropriate portion machined. The maximum diameter material that can pass through the WW collet is 3/16" for American size collets and 4.5mm for metric size collets. WW collets in larger sizes are sometimes referred to as "pot collet". (See Figure 5.)

Collet accuracy may be improved by taking a light cut across the entrance angle of the collet adapter with the headstock set at 20° using a boring tool as shown in figure 2. (Refer also to the instruction manual on "taper turning and boring".) In most cases, however, collets are accurate enough and do not require this truing operation.

Note also that the collets available from Sherline are accurate yet economically priced. Should extreme accuracy beyond the tolerances of these collets be required, even

more accurate collets are available from other sources and cost from \$40 to \$80 each.

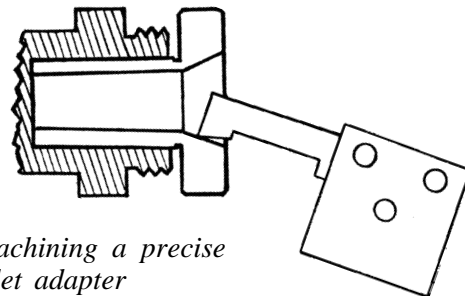


FIGURE 2—*Machining a precise
angle on a collet adapter*

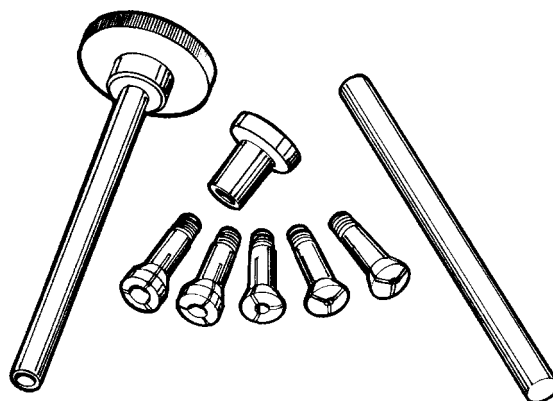


FIGURE 3—*Collet Set with five collets, drawbar, adapter and knockout bar (P/N 1160, American—P/N 1178, Metric). See next page for collet sizes included with each set. A special short drawbar is available for use with the P/N 3200 indexing attachment as P/N 1168. A short drawbolt for the P/N 2045 index block set is available as P/N 11681.*

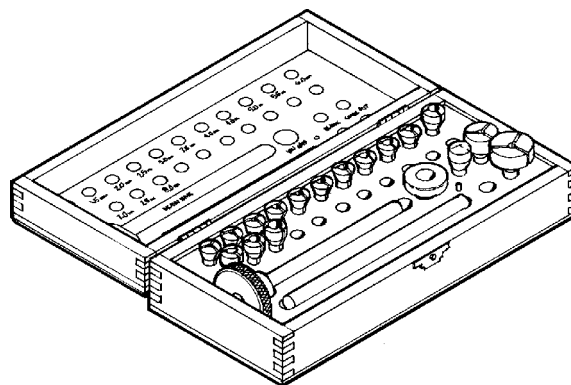


FIGURE 4—*Deluxe Collet Set in Wooden Box (P/N 1162, American—P/N 1179, Metric).*

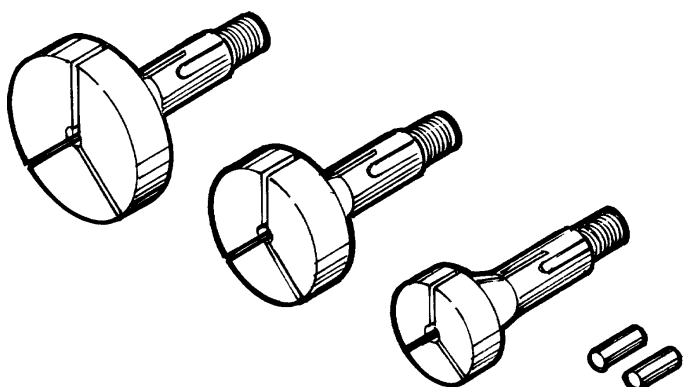


FIGURE 5—"Pot" or "step" collets and dowel pins, 1-1/4" (P/N 2102), 1" (P/N 2101) and 3/4" (P/N 2100).

POT OR STEP COLLETS

Pot collets are designed to hold larger and odd shaped pieces. The collets are split and have a 1/8" hole through. It is your job to bore them to fit your application. This is accomplished by tightening the collet in the lathe on the 1/8" pin supplied and boring the collet to the size needed. The depth of the bore shouldn't exceed .200" (5 mm). The diameter shouldn't exceed .625" (16 mm) on the 3/4", .875" (22 mm) on the 1" or 1.125" (29 mm) for the 1-1/4" pot collets.

These pot collets are now also available with 10mm "D" shanks for use in watchmaker's lathes. (P/N 2103-05)

NOTE: Pot Collets are designed to hold material only on the face end, not through the collet.

WW COLLETS—AVAILABLE SIZES

WW collets are now available from Sherline in inch sizes from 1/64" to 5/16" by 64ths and from 0.3 mm to 8.0 mm by 0.1 mm increments. The part number system has been updated to make it easier to order the collet size you want. All inch collets begin with the numbers 1160. The final two digits denote the size in 64ths of an inch. For example, 116001 would indicate a 1/64" collet, and 116012 would indicate a 3/16" collet ($12/64 = 3/16$).

Metric WW collets all begin with the number 1178, and the final two digits indicate the size in tenths of a millimeter. For example, 117803 would indicate a 0.3 mm collet while 117819 would indicate a 1.9 mm collet.

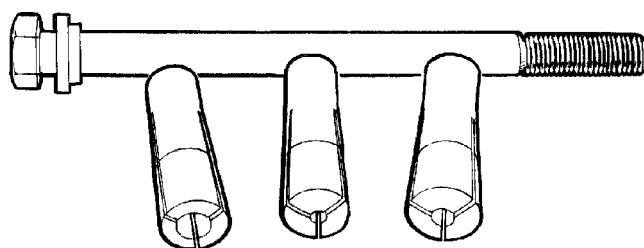
Special order collets

Special size collets can be ordered within the range of .050" to .320". Call Sherline for prices.

PLEASE ALLOW 3 WEEKS DELIVERY FOR SPECIAL ORDER COLLETS.

Collet blanks (P/N 116000) are also available. These can be machined to any custom size you desire for special projects.

MILLING COLLETS



Sherline milling collets are designed to be used with Morse #1 internal taper that is standard on the spindle of both the Sherline lathe and mill. Because of the shallow angle of the Morse #1 taper when the drawbolt is tightened, greater clamping force can be applied when compared to the clamping pressure of WW collets; therefore, we recommend the use of these milling collets for holding miniature size end mills, #1 and smaller center drills (1/8" shank, and assorted other small cutters. (The metric set includes 3mm, 4mm and 6mm collets.)

Milling collets are available in sizes from 3/32" to 1/4" by 32nds and in 3 mm, 4 mm and 6 mm sizes.