



The Lever Collet Closer is designed to accept Sherline WW collets. Up to 3/16" diameter material can be passed through the collet. Collets go from .3mm or 1/64" to 8.0mm or 5/16". Pot Chucks are available for larger parts.

**SHERLINE
PRODUCTS**
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Lever Collet Closer

P/N 1150

(Shown without motor and speed control)

Introduction

When we decided to make a lever collet closer for the Sherline lathe, we wanted to design another quality Sherline accessory that would increase the capability of our machine and enhance its performance. We wanted a design that would be streamlined, compact, balanced, durable and easy to install. We chose a design that incorporated an internal locking and tensioning mechanism. We chose this design over the standard external "cam to rocker arm" design for a couple reasons. First of all, we didn't want any additional external parts that could cause an unbalanced or dangerous situation. Secondly, we wanted our collet closer to be easy to use with the fewest possible moving parts.

The Sherline collet closer's locking mechanism is inside the cam and is actuated by pushing the handle away from the rear of the headstock. To unlock you pull the lever forward. The tension mechanism is a ball detent that rides on a knurled wheel. As you turn the drawbar knob to tighten the collet, the ball moves to the next knurled tooth, giving a positive feel and holding it in place.

In order to make our collet closer durable, we made all of the wear parts out of hardened A2 tool steel and 1144 Stress-proof steel along with hardened dowel pins in the pivot joints.

Last of all, we wanted our collet closer to be easy to mount to any Sherline lathe. This collet closer base is easily mounted to the end of the existing leadscrew support below the rear of the headstock with two 10-32 socket head cap screws. The spindle mounting sleeve is attached to the rear of the spindle shaft with a single 4-40 socket head cap screw.

The lever operated collet closer makes production work and collet work easier and faster. You can run stock that is 3/16" (4.76mm) diameter and smaller through the headstock. You can hold larger parts (without through feeding) in one of our larger WW Collets, or in one of our WW Collet Pot Chucks (P/N's 2100-2105).

We believe that you will find this collet closer to be a nice addition to your Sherline lathe. We have been using it on the Sherline CNC Lathe in our shop to machine second operations on several of the parts that we use in this collet

closer and have been very pleased with its performance.

Installation

Tapping the spindle shaft hole—There is a small hole in the rear portion of the spindle shaft that extends past the 2-position pulley to the operator's left on the lathe. If you have installed a P/N 3100 threading attachment on your lathe in the past, that hole is already tapped 4-40, and you will need to remove the small screw that is in the hole. If the hole is not yet threaded, we have included a small 4-40 self-tapping screw. Thread this screw into the hole with a screwdriver and it will cut 4-40 threads about 80% deep for you. When done, remove the screw and thread the 4-40 socket head cap screw (SHCS) included with the kit into this hole to do the final cutting of the thread, then remove it for installation of the collet closer. (You can also use a 4-40 tap if you have one, but using the self-tapping screw will probably give a tighter fit that assures the SHCS will not come loose.)

Installing the collet closer base—Loosen the two 10-32 screws in the collet closer base. (See Figure 2 on next page for location.) After inserting the collet drawbar tube (P/N 11510) into the rear of the headstock spindle shaft, slide the collet closer base onto the rear of the leadscrew support that extends from the lower left end of the lathe base. Push the base of the collet closer up tight against the lathe base. Tighten the two 10-32 screws using the 5/32" hex key provided with your collet closer to secure it to the collar.

Attaching the collet closer body—The spindle mount sleeve (P/N 11512) has a hole that will align with the 4-40 tapped hole in the spindle shaft. Install the 4-40 SHCS included with your kit to secure this sleeve in place. A small 5/32" hex key is provided to fit this screw. **NOTE: Do not overtighten this screw or you will strip out the threads in the spindle.**

(See Figure 2 on next page for location.)

After making sure the spindle nose is clean and free from chips, clean and then insert the #1 Morse tapered WW collet adapter into the spindle nose. Note the position of the pin inside the adapter. This pin registers on the collet's keyway to keep it from rotating in the adapter