

**SHERLINE
PRODUCTS**
INCORPORATED 1974

Sherline Mill Way Covers

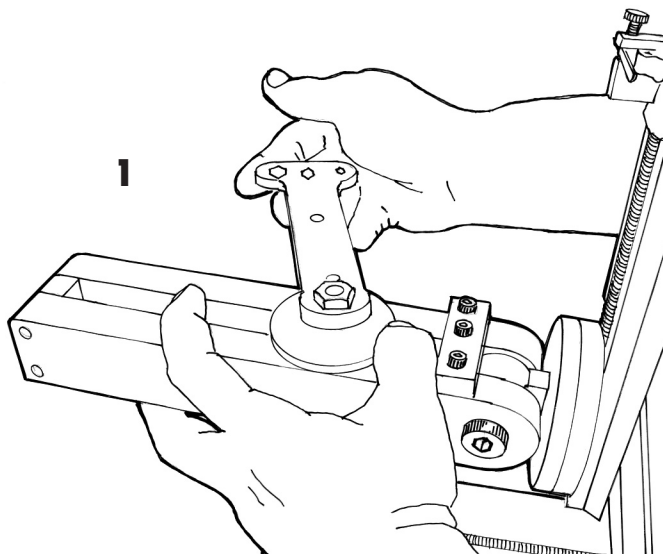
P/N 5090

Introduction

Over the years, and especially since the introduction of CNC to Sherline mills, many customers have asked for a way to keep chips off the Y-axis leadscrew. Last year we introduced a standard feature on all Sherline mills that incorporated a brass tube to cover the rear portion of the Y-axis leadscrew. Now we have invested in the tooling to create accordion-style way covers that protect both the front and rear portions of the Y-leadscrew—the only leadscrew that is exposed on Sherline mills, as the X leadscrew is under the table and the Z leadscrew is behind the column. Installation does not require any holes to be drilled. Just follow the step-by-step instructions below.

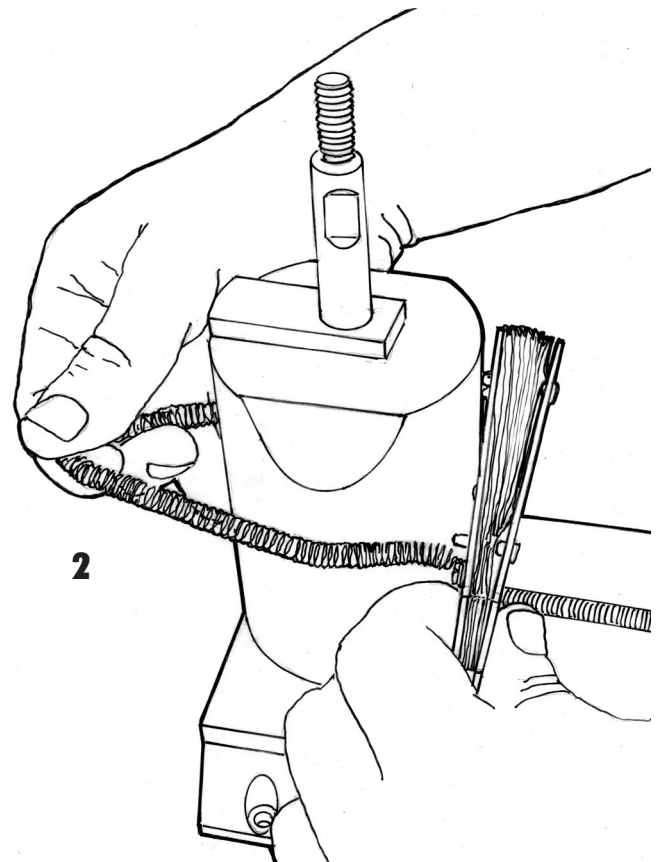
Installation—Series 2000 Mills

(Installation of the way covers is the same for the 5000-series and 2000-series mills except for the first few steps. If you are installing on a 5000/5400-series mill, skip ahead to that section beginning on the next page.)



1. Remove the headstock/motor/speed control unit from the mill column saddle. Use an 11/16" or 17mm wrench or the largest size on the Sherline multi-wrench (P/N 3022—shown but not included) to remove the nut and

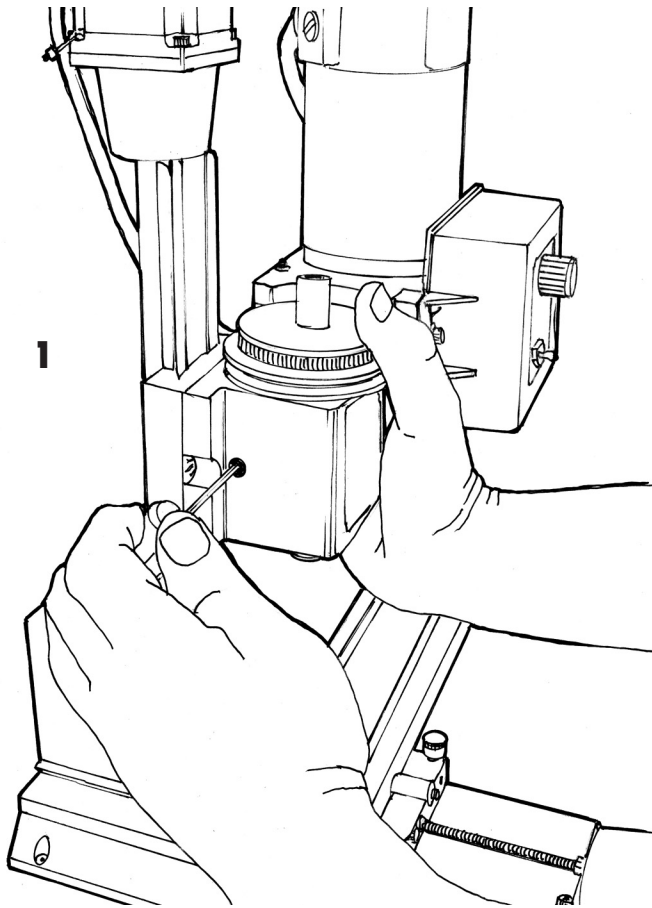
washer that secure the column ram to the column base. Then remove the ram and column and set it aside.



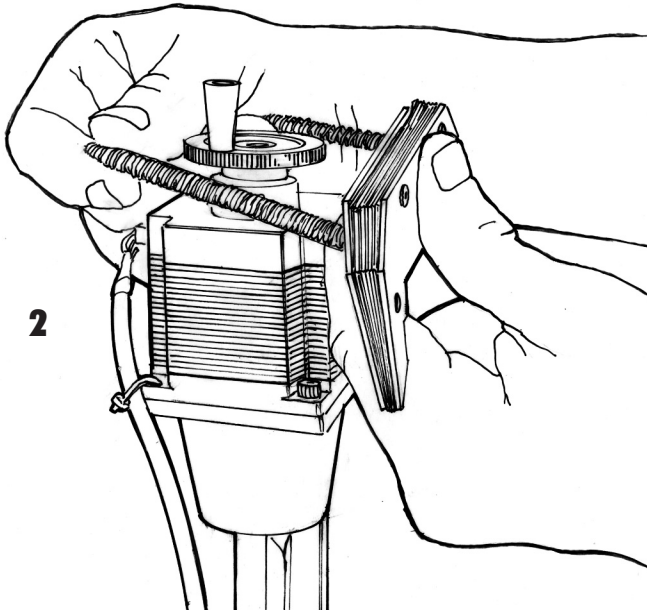
2. The rear way cover has a spring that is attached at both ends. Stretch the spring far enough that the way cover can be placed at the bottom of the column with the bottom of the way cover plates resting against the mill base. Release the spring to hold the way cover against the column.

(The rest of the steps are the same as in the following section starting with step 4.)

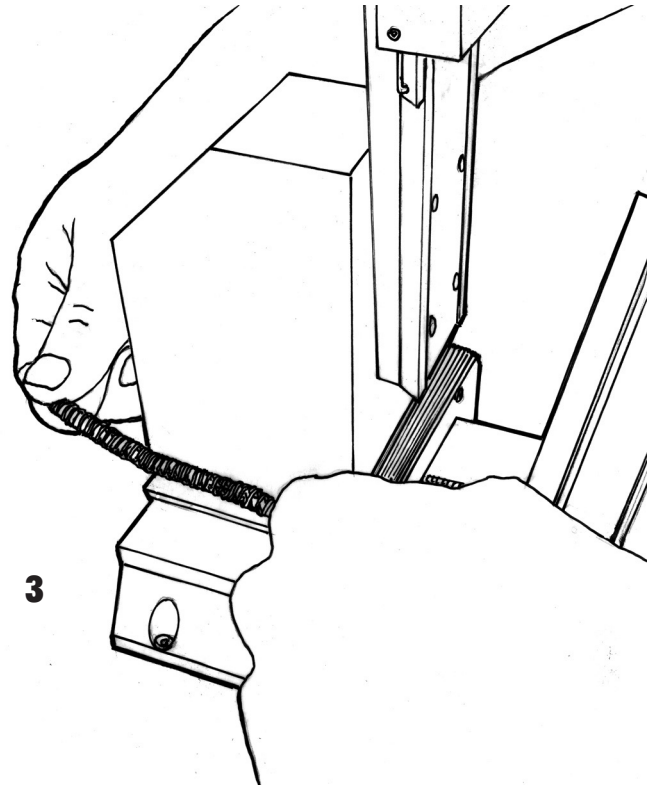
Installation—Series 5000/5400 Mills



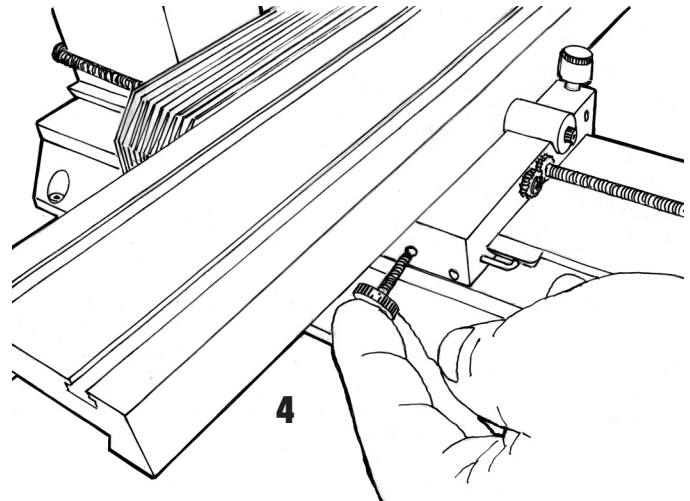
1. Remove headstock from mill column.



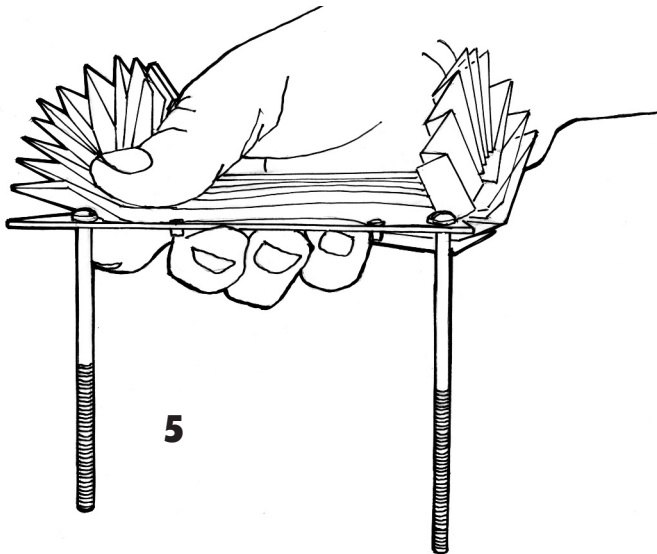
2. Locate rear accordion cover with spring already attached at both ends. Stretch the spring far enough to slip it over the top of the column.



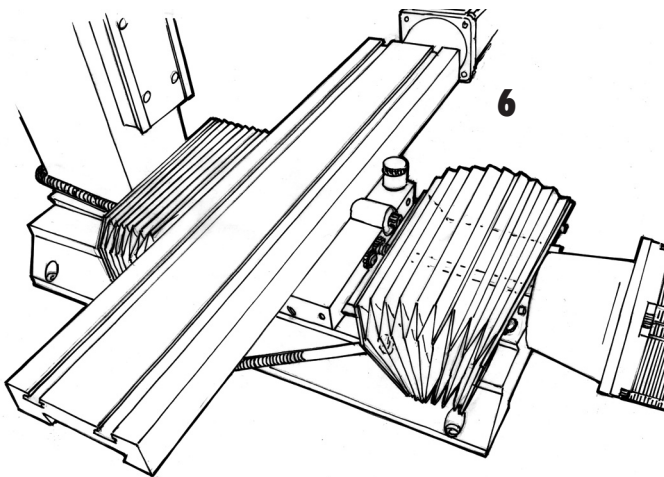
3. Slide the way cover all the way down to the mill base. Release the spring so the cover is held against the column base.



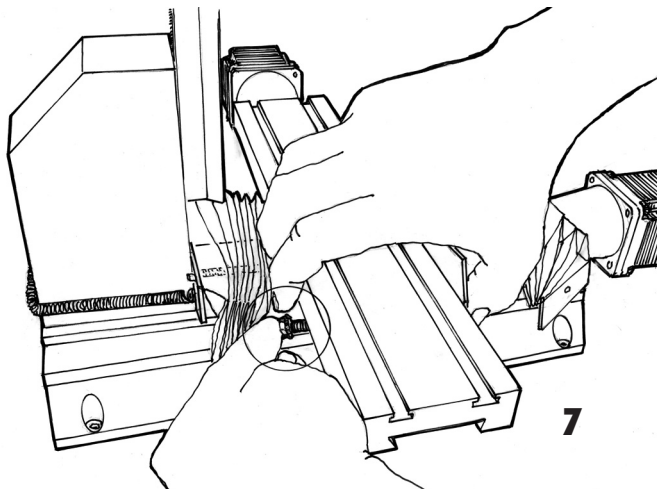
4. Remove the knurled thumbscrew that locks the mill saddle in place and set it aside.



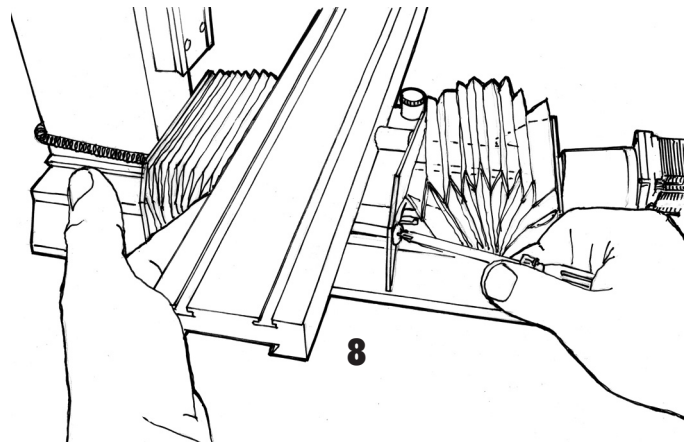
5. Install both long screws through the holes in the front accordion cover as shown.



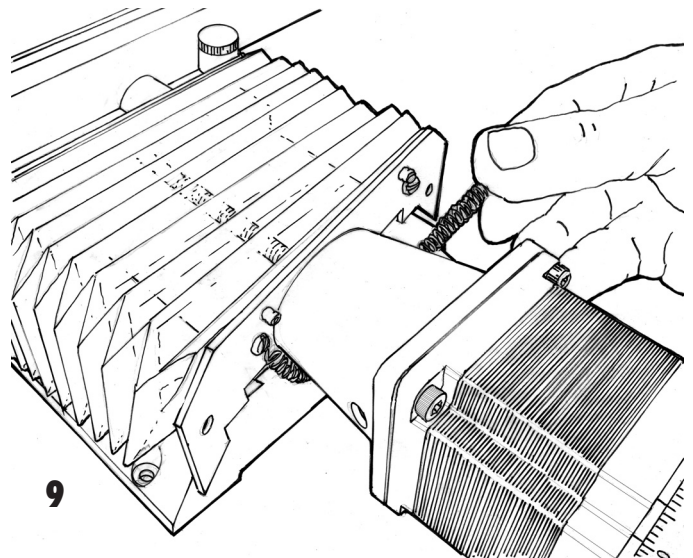
6. After removing the 10-32 SHCS in the front left corner of the mill base that acts as a saddle stop screw, set the front way cover on the mill base with the long screws extending under the mill table. (**NOTE:** Later model way covers have a cutout to clear the stop screw, making it unnecessary to remove the screw.)



7. Align the first long screw with the hole in the front of the rear way cover and push it through. Install the locking nut onto the screw and tighten in only finger tight at this time. Then do the same to the other long screw and nut.

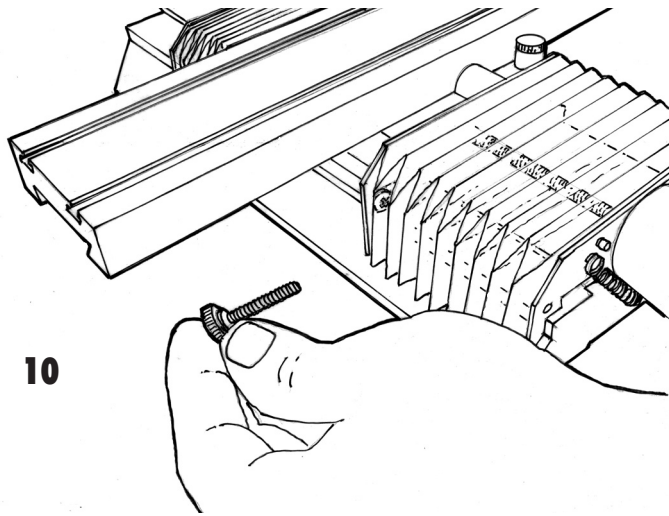


8. Using a short Phillips head screwdriver, tighten the two long screws with just enough tension to hold the plates in place. Do not overtighten!



9. Loosen the left-hand screw in the front way cover and attach one end of the spring that is packaged in the parts bag. Stretch it under the CNC stepper motor mount (or handwheel thrust collar on a manual machine) and slip the loop on the end of the other spring over the screw in the front plate and tighten the screw.

ASSEMBLY NOTE: When mounting the Y-axis cover on newer Sherline Mills, the oiler body may interfere with the flush mounting of the front mill saddle mounting plate. If this is the case, use a 9/16" wrench and unscrew the oiler slightly until one of the hex corners is pointing straight out towards the front of the mill. This will provide the necessary clearance.



10. Replace the mill saddle lock thumbscrew with the longer one supplied with the way cover kit. Re-install the motor/speed control unit onto the mill saddle. This completes the installation.

Thank you,
Sherline Products Inc.

CAUTION

1. The way cover was designed to help prevent chip buildup around the leadscrews. However, no one has invented a way cover yet that is 100% efficient at eliminating chips from the covered areas. Even on the industrial size machines in our shop, the way covers are not 100% effective. Chips will find a way in. Because of this, the accordion-style way cover is made of clear plastic, so that the home machinist can monitor to see if any chips are making their way past the way cover. Periodic cleaning and maintenance will be necessary to clear the few chips that may find their way onto the leadscrew.
2. The way covers will not work if you have done any customization to the mill base ways, such as adding sensors. They cannot slide over any impedance that you may have added.

Parts List

PART NO.	QTY.	DESCRIPTION
31090	4	#6 x 3/16" Pan Head Type F self-threading screws
50901	1	Way Cover Rear Mounting Plate
50902	1	Way Cover Rear Saddle Mounting Plate
50903	1	Way Cover Front Saddle Mounting Plate
50904	1	Way Cover Front Mounting Plate
50905	2	Polypropylene Folded Accordion Way Covers
50906	1	Way Cover Front Spring
50907	1	Way Cover Rear Spring
50908	2	10-32 x 4" Pan Head Phillips Screw
50909	2	10-32 Nut with Star Washer
50912	1	Extra Long Saddle Lock Thumbscrew

Replacement Plastic Way Covers

Replacement plastic accordion way covers are available separately as P/N 50913. As originally provided by the factory, they are attached to the mounting plates with 1/8" blind rivets. To replace the covers you will need to drill out the rivets. They can be replaced with more rivets if you have a rivet tool. If not, you can replace them with small bolts, nuts, and washers.