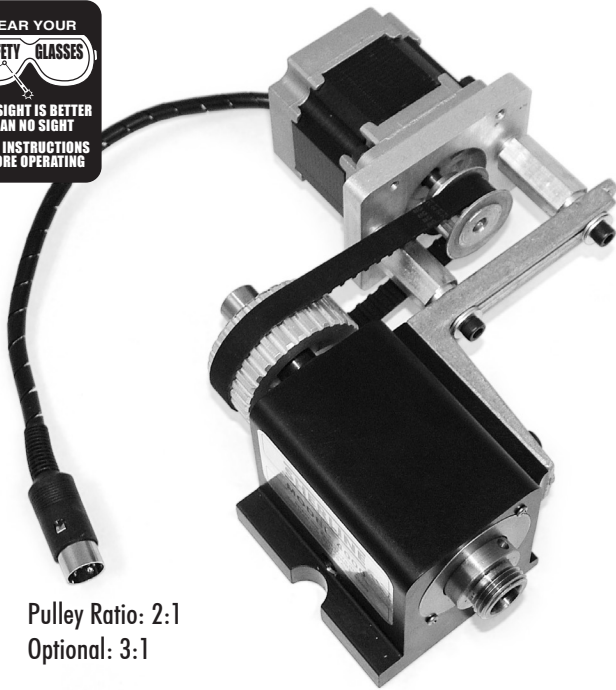


NOTE: Headstock and stepper motor shown here are not included with this kit.



Pulley Ratio: 2:1
Optional: 3:1

Ordering a lathe or mill without a DC motor

If you wish to order a Sherline lathe or mill that will be driven by this stepper motor kit rather than the standard DC motor, you can request that we delete the DC motor and speed control. The delete credit is currently -\$141.75 off the list price of the lathe or mill.

Headstock Stepper Motor Mounting Kit

P/N 6500

Certain jobs require the headstock to be rotated at a fixed and accurately controlled slow speed. Driving the spindle with a computer-controlled stepper motor is an excellent way to accomplish this. This setup replaces the standard Sherline 90 VDC motor and electronic speed control with a NEMA 23 stepper motor with toothed timing belt drive.

Included in the kit

The stepper motor drive kit includes a custom bracket that supports the stepper motor and the standoffs that attach to the headstock mounting bracket. Also included are a 15-tooth motor pulley, 30-tooth spindle pulley, toothed drive belt and mounting hardware. (Not included are the headstock (30100) and stepper motor (P/N 67127) that can be purchased separately. A 10-tooth drive pulley is also available by special order for a slower 3:1 drive ratio instead of the standard 2:1 ratio. Call for details.

Installing the stepper motor

The conventional installation is shown at the top of the page, and an alternate space-saving alternative is shown at the right. When using the alternative method the pulley is located near the outside end of the spindle shaft. Flats must be ground on the spindle shaft to accommodate the pulley set screws. If this is not done, galling of the spindle shaft by the set screw points can make the pulley difficult or impossible to remove from the shaft later on.

We also recommend that you consider providing some strain relief on the stepper motor cable. A good way to do that is to use only 3 of the 4 mounting bolts when attaching the stepper motor. Run a plastic tie-wrap through the 4th motor hole and secure the cable. This will keep any inadvertent pull on the motor cable from being transferred to the plug where it enters the motor. (Not shown.)



Figure 1—Alternate stepper location. By mounting the motor bracket in the opposite direction on the headstock, the motor will turn the spindle in the same direction as the stepper motor is turning. It also saves a little space if that is a consideration in your particular application.

The stepper motor can be driven with a computer using either a Sherline 8760 4-axis driver box or by a keypad controller from the Sherline 8700 CNC rotary indexer.

Thank you,
Sherline Products Inc.