

SHERLINE
PRODUCTS
INCORPORATED 1974

Split Column Base for Horizontal Milling Conversion

P/N 61050

Your Mill Column Options when Using the Horizontal Milling Conversion

The horizontal milling conversion (P/N 6100) allows you to orient your 5000- or 5400-series milling head horizontally to work on a part from the side or end. Remove the column including the column base from the mill base and mount it to the horizontal milling conversion base plate (see the P/N 6100 instructions for mounting options). When using a “tall” setup on your mill table, such as a rotary table or tilting angle table, you can use your standard mill column. However, if you need to be able to mill down close to the surface of the table, you will need to have a shorter column.

Ways to Obtain a Shorter Column

There are several ways to obtain and use a shorter column:

- 1. Purchase the additional parts separately**—You can keep your one-piece mill base for use in the vertical configuration and purchase one or both parts of the split base.
 - **P/N 61050:** The upper and lower halves together.
 - **P/N 61060:** The split column base top by itself. If you already have column base P/N 50050, you may just want to order the split column base top.
- 2. Order the Split Column base as part of your new mill (P/N 61050)**—If purchasing the 6100 conversion at the same time as you are purchasing a new 5000- or 5400-series mill, you can specify that you want the 61050 two-piece column option included with your mill instead of the standard one-piece base. There is a small extra charge for the split base. Call for pricing.
- 3. Have us modify your mill base for you (P/N 6101)**—If you do not have the capability or the desire to shorten your own base, you can return your Z-axis column to Sherline and we will cut and mill your base for you. This service is referred to as P/N 6101 (See Figure 1). Your column base is cut in two, machined flat, the clearance holes are extended through the 2" base portion and 1/4-20 holes are drilled and tapped into the upper portion of the column base. Your column is then re-attached and squared on a surface plate and the assembly is returned to you. (The longer screws needed

to attach the two-piece base to your mill when using it in the regular vertical configuration are included with the 6100 conversion package.)

- 4. Modify your column base yourself**—If you already have a 5000- or 5400-series mill and are purchasing the 6100 horizontal milling conversion as an accessory, you can use the instructions included here on page 2 to cut and mill your existing base yourself, making it into a two-piece base.

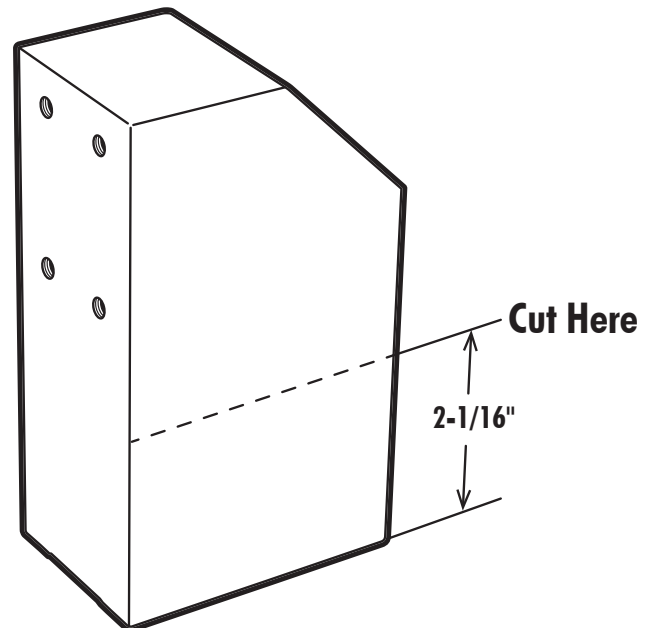


FIGURE 1—P/N 6101 consists of you returning your mill base and column (not shown) and we cut where shown, mill the surfaces flat, re-install and square your column, and return to you.

Split Column Base Parts List (P/N 61050)

NO. REQ.	PART NO.	DESCRIPTION
1	61060	Split column top
1	61070	Split column bottom
2	61130	1/4-20 x 3" SHCS

Modification to the Mill Column Base for Use with the Horizontal Milling Conversion P/N 6100

When using the Horizontal Milling Conversion, the column should be shortened by 2 inches to allow the headstock to be lowered below the top of the table. The drawings below show the operations necessary for you to accomplish this yourself. Longer attachment screws (included with P/N 6100) are required to reach through the 2" block and into the threaded portion of the upper block. The column may also be returned to the factory where these modifications will be done for you. Please call for pricing.

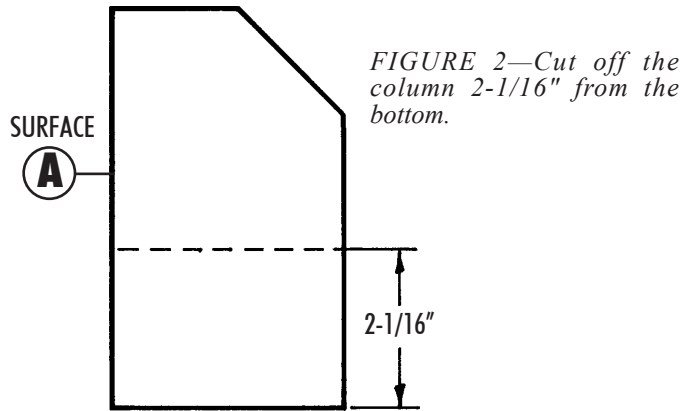


FIGURE 2—Cut off the column 2-1/16" from the bottom.

Modification to the Column Saddle on Older Machines

Sherline mills manufactured since 1993 have two perpendicular slots milled for the alignment key to facilitate mounting the headstock in either vertical or horizontal alignment. Older machines have only the vertical key slot. The drawing in Figure 4 shows the dimensions of the additional slot so you can machine it into your saddle.

The newer column saddles also have a laser engraved angle scale imprinted on them. This makes it easier to reference approximate angles for rotating the headstock for angle milling. If you wish to purchase a new mill column saddle rather than modify your old one, order part number 45040. As an alternative, your old saddle can be returned to Sherline to have us cut the additional slot. Call for price.

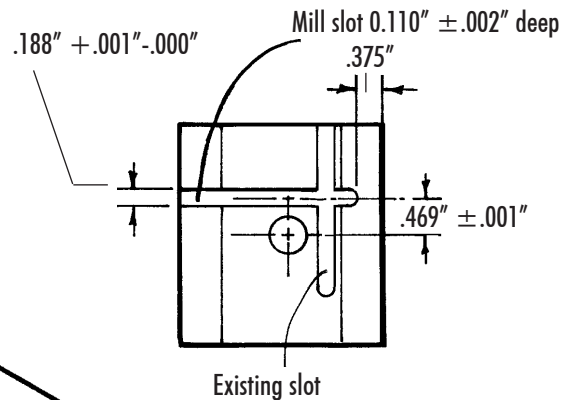


FIGURE 4—Milling a second keyway slot in the mill saddle on machines made prior to 1993.

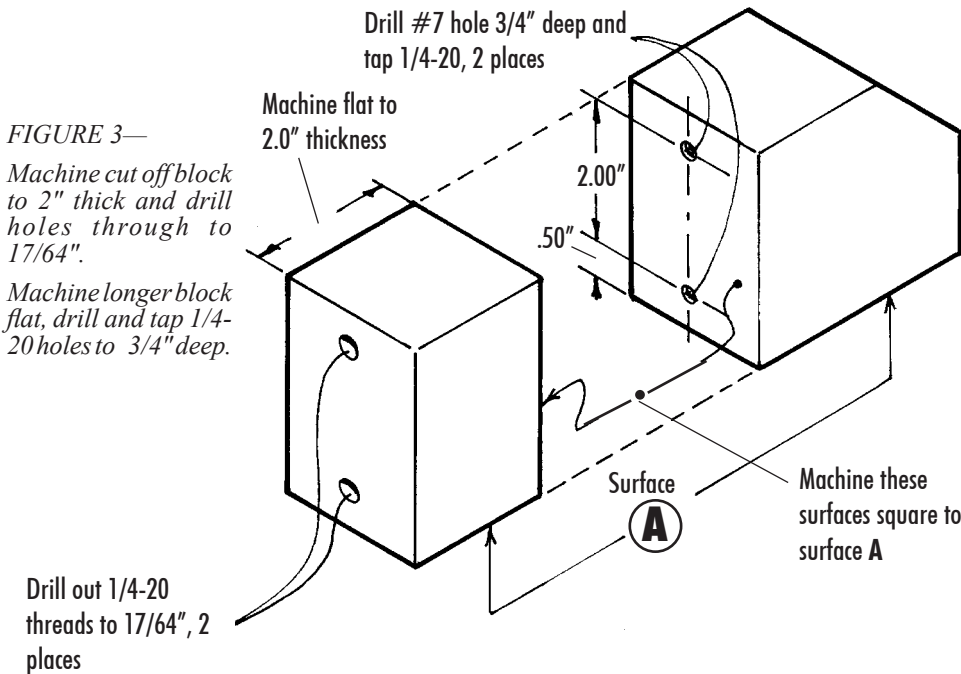


FIGURE 3—
Machine cut off block to 2" thick and drill holes through to 17/64".
Machine longer block flat, drill and tap 1/4-20 holes to 3/4" deep.

NOTE: For use in normal milling, the two parts of the milling column can be taped back together with black electrical tape to keep them in register. (The bolts hold the parts together, the tape is just to keep them located for easier mounting.)

NOTE: When the mill column is reattached to the shortened column base it must be realigned to assure it is square to the base. The four bolts will get it close to square, but not perfect. If your mill column is returned to us along with your column base for modification, we do this procedure for you when re-installing the column. If you are modifying the base yourself, refer to the instructions on squaring up your mill in the *Assembly and Instruction Guide* that came with your mill.