

Installing the AXA Quick Change Tool Post

The $\underline{P/N}$ 2280 AXA quick change tool post (QCTP) is suitable for many lathes in the 8" (200 mm) to 12" (300 mm) swing range. For most lathes, some work is required to mount it.

There are several ways that tool posts mount on lathes. Several methods are described below. Read all the methods before choosing the one that is right for your lathe.

9x20 Lathes

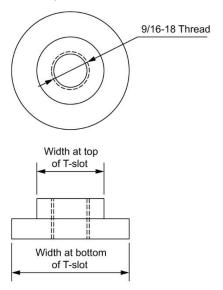
For 9x20 lathes, sold by Grizzly, Harbor Freight, and Jet, LittleMachineShop.com offers a mounting stud (P/N 3712) that makes the AXA QCTP a bolt-on accessory. This stud may also be useful on other lathes that have an M8 stud for tool post mounting as it screws over the existing M8 stud to enlarge it and make it taller.

T-slot Mounting

Most older lathes came with a lantern tool post. These almost universally are mounted over a T-slot. Several modern lathes also have a T-slot in the top of the compound for mounting a tool post. There are several options for creating a T-slot nut to mount the QCTP.

- The 2280 AXA Quick Change Tool Post Set includes a block of steel out of which you can make a T-slot nut to fit your lathe.
- You can drill and tap the existing T-slot nut to fit the AXA QCTP. The thread on the AXA QCTP sets sold by LittleMachineShop.com is 9/16"-18. See Tapping for the Stud below.

Using your lathe, you can make a T-slot nut like this:



We can't tell you the dimensions, except that the center hole must be tapped 9/16"-18 thread. Measure your T-slot and make it an easy fit.

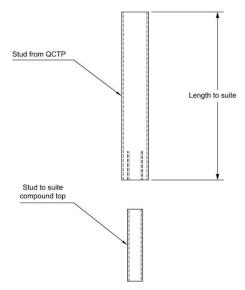
Boss Extending Above Compound Top

Some lathes have a boss that extends above the surface of the compound rest top and into the QCTP. In general, these bosses must be removed. Some courses of action include:

- Make a spacer to raise the tool post so it sets above the existing boss.
 This usually this places the QCTP too high to be useful.
- Cut the spacer down to about 0.125" and make a thin spacer to place the QCTP above the nub that's left.
- Mill the boss off entirely.

Small Tapped Hole Mounting

Some lathes have a threaded hole in the top of the compound rest for mounting the tool post. If this hole is significantly smaller than the stud furnished with the AXA QCTP, you can use the method shown here.

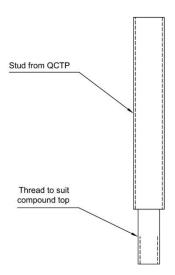


- 1. Shorten the existing stud to suit your lathe.
- 2. Tap the bottom of the stud to match the thread in your compound top.
- 3. Get a stud or long set screw to join the two.

Tapped Hole Mounting

If you lathe has a tapped hole in top of the compound rest that is too large to use the method above, you might be able to use one of these methods.

- Thread the existing hole to match the stud furnished with the AXA QCTP.
 The thread on the AXA QCTP sets sold by LittleMachineShop.com is
 9/16"-18. See Tapping for the Stud below.
- Modify the stud furnished with the AXA QCTP so the bottom end matches the tread that is in the compound rest top.



Stud Mounting

On lathes where the tool post is mounted on a stud that is pressed in from the bottom of the compound top, one of these solutions may suit.

- Make a new stud that has a bottom to fit your lathe and a top threaded for the AXA QCTP. The thread on the AXA QCTP sets sold by LittleMachineShop.com is 9/16"-18.
- Enlarge and thread the hole in the top of the compound to fit the AXA QCTP. The thread on the AXA QCTP sets sold by LittleMachineShop.com is 9/16"-18. See Tapping for the Stud below.

3-in-1 Machines

Combination lathe and milling machines, commonly called 3-in-1 machines have a special issue in that the tool post sits well above the compound rest. These machines require that you make a riser block that bolts to the compound and is threaded for the QCTP stud.

Tapping for the Stud

The thread on the AXA QCTP sets sold by LittleMachineShop.com is 9/16"-18. We sell a 9/16"-18 tap and the appropriate tab drill as P/N 3674

- 1. Take the compound rest top off your lathe.
- 2. Remove the existing stud.
- 3. Confirm that the existing hole in the compound top is 0.53" or less.
- 4. Using a drill press and a 17/32" drill, enlarge the hole.
- 5. Using a tap guide and a 9/16"-18 tap, thread the hole.