

BENCHMAN[®]

Machining Center

Addendum: ATC Preparation



LIGHT MACHINES

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Addendum - ATC Preparation

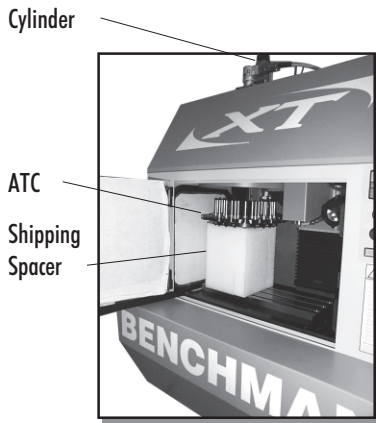
This addendum to the BENCHMAN®-XT Machining Center User's Guide contains information that became available after the User's Guide was printed. Please keep this addendum with your User's Guide.

Contents

Installation of the Piston for the Automatic Tool Changer.....	1
Preparing the Automatic Tool Changer for Shipping.....	2

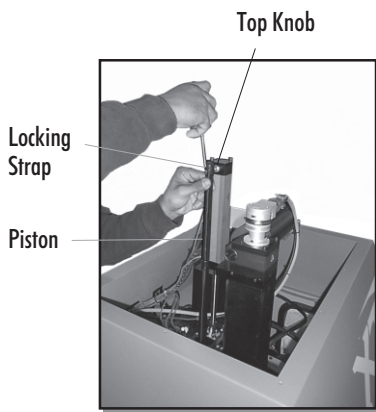
Installation of the Piston for the Automatic Tool Changer

When you receive your BENCHMAN®-XT, the Automatic Tool Changer (ATC) will be resting on a styrofoam shipping spacer. A black piston about 0.5 in. (13 mm) in diameter and 18 in. (4.6 cm) long will be packed in the machine as well.



CAUTION!

Installing the piston is a two-person job. The ATC, which weighs over 50 lbs. (23 kg), needs to be lifted and held in place while the piston is installed. Read these instructions carefully before you attempt to install the piston.



1. On the top of the XT, note the square grey cylinder that sticks up higher than any other part. On the side of the cylinder, note two ball-shaped knobs on the top and bottom. The piston attaches to these knobs.
2. **The orientation of the piston is important.** The thicker diameter end of the piston attaches to the top knob, and the thinner end attaches to the bottom.
3. Using a small flat-head screw driver, gently push out the straps at the ends of the piston. This will open the mounting holes in the piston wide enough to fit over the knobs.
4. From the inside of the BENCHMAN®-XT, push the ATC up as high as it will go. From the top of the XT, install the thicker end of the piston to the top cylinder knob, and push in the locking strap on the piston. Do the same to install the bottom of the piston. The ATC is now self-supporting.

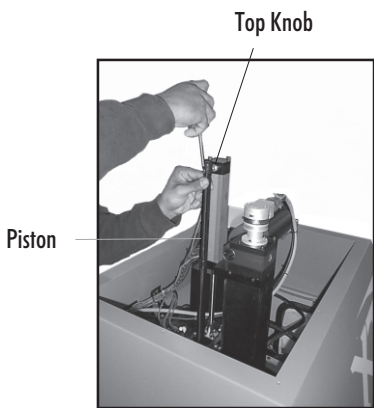
5. To remove the styrofoam spacer: loosen the bolt in the top center of the spacer using a 11/16" hex socket wrench. Remove bolt, styrofoam spacer, and the T-nut in cross-slide.

The ATC is now ready for use. Keep the styrofoam spacer, bolt, and T-nut. If your BENCHMAN®-XT needs to be returned for any reason, see the following section on how to prepare the ATC for shipping.

Preparing the Automatic Tool Changer (ATC) for Shipping

If you have to return your BENCHMAN®-XT for any reason, you need to re-install the styrofoam shipping spacer and remove the piston to protect the Automatic Tool Changer (ATC) from damage during shipping.

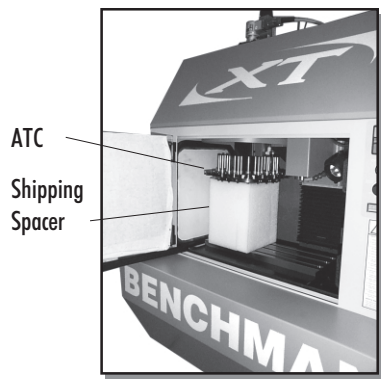
1. With the BENCHMAN®-XT Machining Center powered on, use the ATC control screen in the control program to move the ATC all the way up and to the left of the spindle. See page E-34 of the User's Guide for more information on moving the ATC.
2. Using the jog controls, move the cross slide all the way to the left (negative X direction) and center it in the Y direction under the ATC. See page E-9 of the User's Guide for more information on using the jog controls.
3. ***Exit the control program, turn off the computer and machine, and unplug the power cords.***
4. Put the T-nut in the cross-slide, and place the styrofoam shipping spacer directly under the ATC platter (carousel). Tighten the bolt in the center of the spacer into the T-nut using a 11/16" hex socket wrench.



CAUTION!

Removing the piston from the ATC is a two-person job. The ATC, which weighs over 50 lbs. (23 kg), needs to be held in place while the piston is removed. Please read these instructions carefully before proceeding.

5. One person will need to support the ATC from the inside of the machine while the other removes the piston.
6. **From the top of the XT:** Use a small flat-head screwdriver to push out the locking strap on the bottom of the piston. Pull the piston off the bottom cylinder knob.



7. **From inside the XT:** Ease the ATC down onto the styrofoam spacer, and check to make sure it is centered firmly on the spacer.
From the top of the XT: Remove the piston from the top knob on the cylinder.

The ATC is now ready for shipping.