

A list of things to do before putting the cnc machine into production

1. Un-wrap the machine. Make sure to visually check out the machine, look for damages. Notify any physical damages A.S.A.P. to your selling dealer. Touch-up paint is usually inside the Toolbox, use it as needed.

2. Every CNC Bed Mill machine that ships out from ATRUMP Machinery will have an iron bar that locks onto the counter balance at the back of the machine and a wood block between the spindle and worktable. The reason for this is to prevent the counter balance from swinging during transportation of the machine. Before you can operate the machine, the first thing you should do is to remove the iron bar from the counter balance and the wood block between the spindle and worktable. Please do the following to remove the iron bar. (You need two people to do this job.) On top of the machine (on top of the Z-axis ball screw) you should find a Nut (please refer to picture).



Person A should be on top of the machine and use a socket wrench to turn the nut in such a way the Z-axis is moving upward. Person A should move the Z-axis up until person B, who is on the ground, is able to remove the block between the spindle and worktable. Person B might have to force the block out as there is limited room to raise the head up. **PERSON A SHOULD STILL HOLD ON TO THE SOCKET WRENCH, KEEPING THE Z-AXIS AT THE SAME POSITION.** Person B should now go to the back of the machine and first unscrew the screw on the iron bar. Person A should now let Z-axis come down **SLOWLY** until person B is able to remove the iron bar from the counter balance. (Person B should constantly try to pull the iron bar out).



3. How to install the Centroid CNC console and keyboard tray.

Depending upon the style of the machine, sometimes Atrump would separate the CNC console from the machine due to transportation purpose. If after unwrapping the machine, you happened to find your machine and the CNC console separated, here is how to install the CNC console back to your machine:

- a. Take off the black cover at the back of the CNC console.
- b. There should be several cables, fiber optic cables and wires wrapped together where the CNC console should be. Unwrap these cables and make them pass through the circular hole on top of the CNC console.



- c. Attach the CNC console onto the machine.

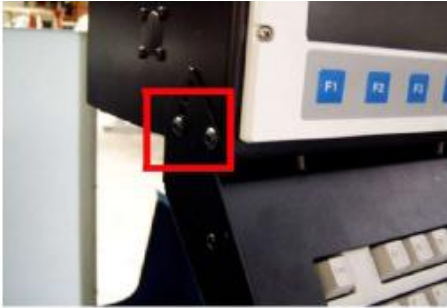
NOTE: the CNC console can only rotate certain angles on the machine, so first adjust the position of the CNC console and then tighten it up to the machine.



- d. Make the connector of the Keyboard cable pass through the little circular hole at the bottom of the CNC console. Then connect the purple color Keyboard cable connector to the CNC console.



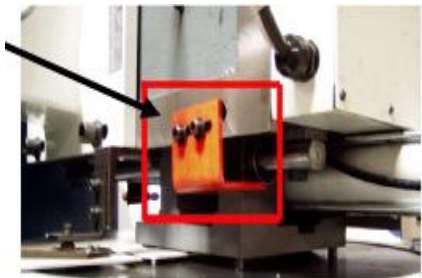
e. Tighten the Keyboard-tray onto the CNC console. There should be 2 screws on each side of the tray, screw them onto the CNC console.



f. Connect the wires and cables to the CNC console. You should find several fiber optic cables and two sets of power cables, and depending upon different models of the CNC control, you might also have several cables with 9-pin connectors. You should find them labeled clearly on the fiber optic cables and the cables with 9-pin connectors, plug them as labeled to the CNC console. For the two sets of power cables, you should find 2 sets of connectors inside the CNC console and since the connectors can only plug-in one way, you cannot go wrong with the power cable connections. ALTERNATIVELY, to double-check all the connections, you can follow the wiring diagram on the schematic to connect the cables and wires to the CNC console. You can find the console wiring diagram by looking up the Index table located at the left hand bottom corner of the schematic. After you have connected all the wires and cables, put the cover back to the CNC console.

Note: Be careful when you are plugging-in or unplugging the fiber optic cables. They are not as strong as regular wires.

4. For ATC machines with carousel style: To prevent damage to the carousel during transportation, Atrump Machinery will put a holder behind the carousel. **Before running the machine, you have to take out the holder.** The carousel holder is either a metal plate or a string tightened up to the carousel.



5. Purchase the correct tooling. Our B3VC/FC utilize N.S.T. # 30 tooling (National Standard Taper). You may wish to purchase your keyboard, for the M-15-10 CNC Console. Please purchase one that is PC Computer compatible, with the small type, round connector.

6. Check the input power that will be use for the machine. Power requirements for our machine are:

- For M400S control, single phase (1 Φ) 110 volts for the CNC Console and three phase (3 Φ) or optional single phase (1 Φ) 220 volts for the spindle motor and coolant pump.
- For M400 control, three phase (3 Φ) 220 volts for the spindle motor, CNC Console and coolant pump.
- Optional three phase (3 Φ) 440 volts for the spindle motor and coolant pump.

7. Before powering on the machine, open the electrical enclosure box, and check all wires and components. Make sure all components and wires are tight and not loose. Vibration from the truck, in the shipping of the mill, from Pomona, CA. to your location, might cause this problem.

8. Power on. Use the control panel, press the green cycle start button twice. This will send the machine to its "home" position. After the machine has homed itself, jog all keys, and make sure they work. Please check X + and -, Y + and - & Z + and -. Also, check the coolant and spindle. Make sure the keyboard is working at this time also. Note: for ATC machines, check the carousel rotation direction. By pressing Tool Index + or Tool Index -, would the carousel rotate in the correct direction? If the carousel is rotating in the opposite direction, please turn off the main power and switch any two power lines that go into the machine.

9. Leveling the machine. Precisely level the machine on a solid foundation. Precise leveling of the mill, is important to the finish of the product and the tolerances of the mill. NOTE: for full-enclosure machines first do the casting leveling, later on you can do the frame leveling for adjusting the sliding door.

10. It is recommended that customers should load the “Warm-up” program and run the program for 15 minutes everyday before actually cutting anything. The program was written in the way that would help the machine to “get ready” for production. And it will help to increase the life of the machine. To load the program after homed the machine, from the control’s main screen page, press F2 (LOAD), then find and high-light the program “Warm-up”, and then press F10 (Accept).

11. Adjusting the Air Pressure

This is important especially for the ATC machines.

For every machine that ships out from Atrump Machinery, the Air Pressure would have already been adjusted. However if you feel the need to increase the air pressure that goes into the machine, you can **PULL the KNOB** and turn to adjust the setting. For larger machines, Atrump will **STRONGLY** advise the customers to use an **AIR HOSE of the size 3/8" or 1/2"**.



12. You are now ready to run your CNC Machine. Please watch the video (that is supplied with the machine). Follow the example in the video, as your first part. You may wish to watch the video first, and not do any set-up / training until finished. Then re-watch the video, while doing the programming on the mill. This hand on experience, should get you up and running faster, with more accuracy.

13. Call Atrump Machinery @ 1-877-4-ATRUMP (428-7867) or Centroid @ 814-353-9290 (technical support line) for help. Call the dealer you purchased the machine through first, as they need to know what is going on, and are ALWAYS your fastest and first-line of problem / question solver.

14. For the auto lube-pump, we recommend you to use HANGSTEFER's way oil # 2.