

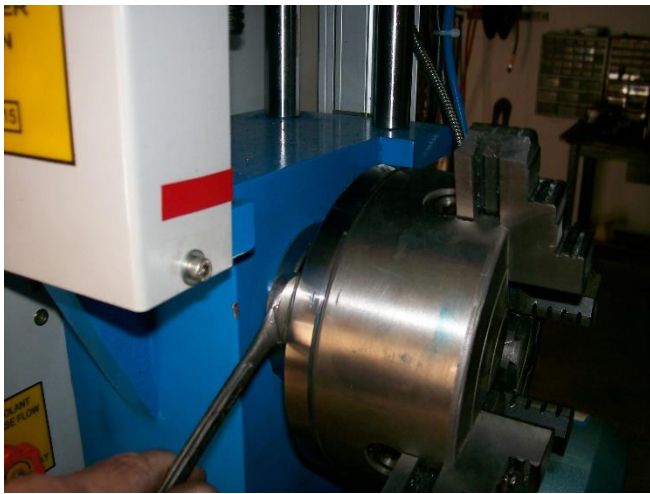
4 JAW CHUCK INSTALLATION FOR 2015-2016 MILL TURN

There are 2 styles of 6" 4 jaw chucks coming from China. One style has a large recess in the back with 4 tapped holes around the outer diameter. The other style has a small recess nearer to the center of the chuck and 4 holes drilled through the chuck body intended to thread into the spindle face. Both chucks can be mounted on the Mill Turn.

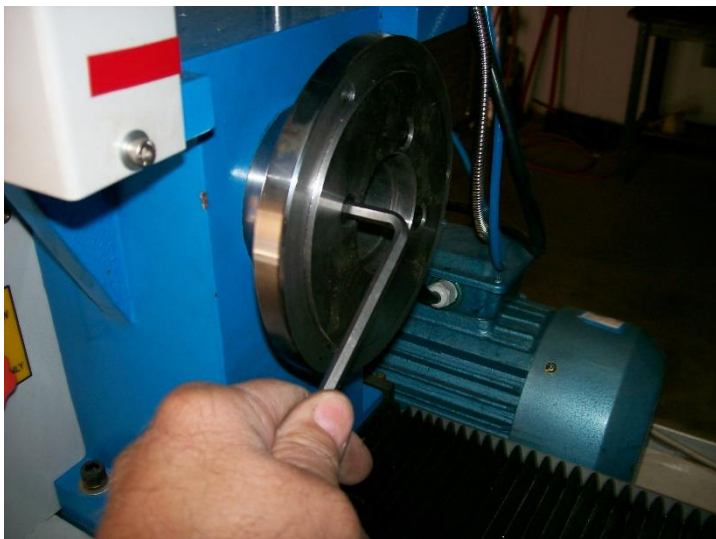
NOTE: Beginning in 2017 the 4 jaw chuck has the same bolt pattern as the 3 jaw, so no adaptation is necessary.

ADAPTING THE CHUCKS WITH LARGE RECESS AND TAPPED HOLES

1. Remove your 3 jaw chuck by loosening the 3 bolts threaded in from the back of the chuck.



2. You will see that the mill turn has a face plate that is bolted to the spindle with 4 allen bolts- remove the bolts and the face plate.



3. Place the face plate over the rear of the 4 jaw chuck. You will see that the recess is a fit to the shoulder on the faceplate. You will also note that the hole circle for the 4 jaw chuck is slightly wider than the holes in the face plate so that a bolt will not quite go through and thread into a hole.

4. Choose any one of the 3 holes in the faceplate and mark it with a punch for future reference.



5. Drill that 1 hole out to about 11 MM or 7/16". Now place the face plate back over the chuck and thread a bolt through the hole and into the chuck. PLEASE NOTE- the oversize hole is not an issue, because the chuck is indexed by the shoulder and recess- the bolts are only there to hold it in place.

6. Make a corresponding punch mark on the chuck for future reference.



7. Using a transfer punch, punch mark through the other 2 holes in the faceplate into the back of the 4 jaw chuck.

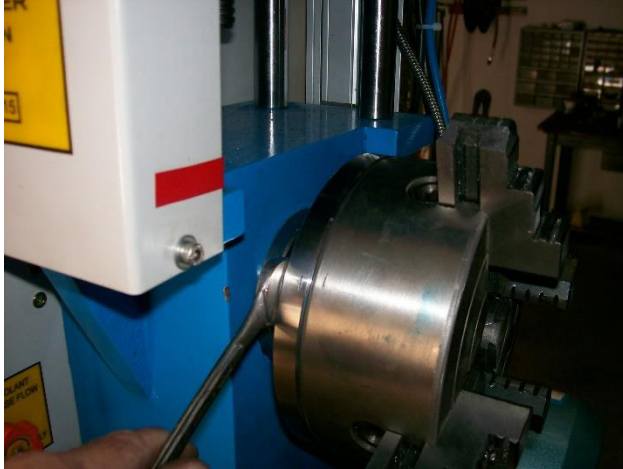


8. Drill these 2 holes with a 7MM or 9/32" drill and then tap them to 8MM X 1.25 threads.



9. Replace the face plate on the spindle.

10. Now by aligning your 2 punch marked holes, you can bolt the chuck to the spindle using the 3 holes already in your face plate, and it will be easy to swap back and forth with your 3 jaw chuck.



ADAPTING CHUCKS WITH SMALL RECESS AND THROUGH DRILLED HOLES.

1. Remove the 3 jaw chuck as in the prior instructions.

2. Now you will see that you have a recess in the face plate as well as a recess in the 4 jaw chuck. These dimensions are generally 65 MM in the chuck and 56 MM in the faceplate. However always measure to be sure.

3. What you will need to do is machine a bushing with the 65 MM OD to fit into the chuck and a 56 MM OD to fit the faceplate and that will center your chuck on the spindle.

4. Once you have found your stock, machine the bushing to fit the dimensions of your chuck and faceplate and remember to leave a 1.5" hole through the center to match the spindle bore. You should make the bushing such that it is a light press fit into the chuck and an easy slip fit into the faceplate. In this way, the bushing will always stay with the chuck when removed and not interfere with replacing the 3 jaw. (Bushing in picture was cut from an old gear, hence the serrated edges.)



5. Once your bushing is done and fitted, place the chuck onto the faceplate and rotate it until you have unused material under each of the 4 mounting holes. Using a transfer punch , punch mark through the 4 holes into the faceplate.
6. Drill the 4 holes to 9 MM and tap them to 10 MM X 1.5 threads to match the bolts included with the chuck.
7. Bolt the chuck to the faceplate and check if the bolts are too long and protrude from the other side- if yes, cut them to length.
8. Replace the faceplate on the machine, and you can now switch from 4 jaw to 3 jaw in minutes.