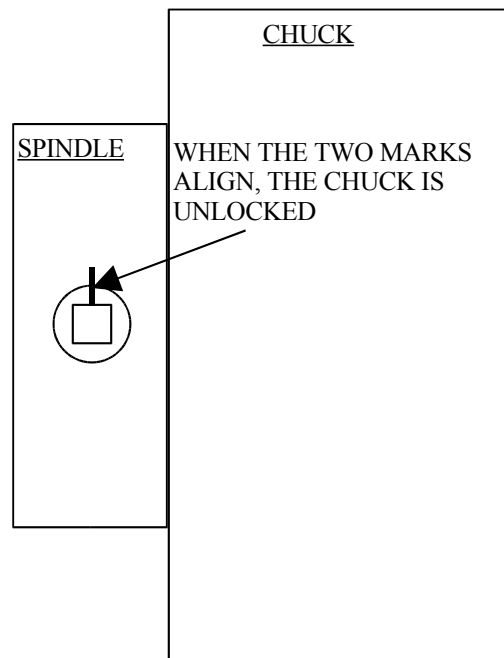


## ADJUSTING THE CHUCK MOUNTING STUDS ON THE GN1324 & GN1340

The D1-4 mounting system used on all Granite machines consists of three adjustable studs mounted on the chuck and three rotating cam locks on the spindle flange. This is a very fast and accurate method of chuck mounting; however, there are some adjustments to be made to insure optimum fit and accuracy.

### **REMOVING THE CHUCK**

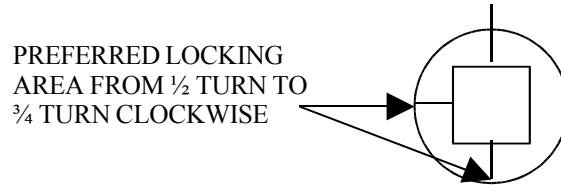
1. The first step in removing the chuck is to place a piece of wood on top of the machine bed underneath the chuck. This will protect the bed if the chuck accidentally slips out of your hand and falls onto the machine.
2. There is an alignment mark on each cam and on the spindle flange adjacent to each cam. Using the chuck key, turn the cam counter clockwise until the two marks align with each other as shown below.



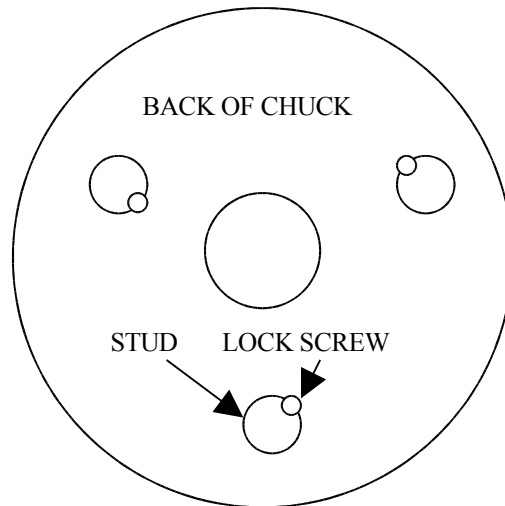
3. Position all three cams in the unlocked position, put your right hand under the chuck for support and tap the chuck with a block of wood to break it loose from the spindle.
4. Inspect the mating surfaces on the end of the spindle and the back of the chuck for burrs or foreign matter. Clean and deburr these areas as necessary.

### INSTALLING AND ADJUSTING THE CHUCK

1. Make sure that the cams are aligned in the unlocked position and slide the chuck onto the spindle.
2. Turn each cam **clockwise** to lock the chuck in place.
3. Each cam should turn between  $\frac{1}{2}$  and  $\frac{3}{4}$  of a turn to lock correctly. See the diagram below.



4. If the cam turns less than  $\frac{1}{2}$  of a turn, it will be necessary to remove the chuck and adjust the corresponding chuck stud.
5. Before removing the chuck, mark each location ON THE CHUCK that will need adjusting.
6. Remove the chuck and place it face down on a work surface.
7. There is a locking screw along side each chuck stud. Remove the locking screws for the studs that need adjusting.
8. Unscrew the studs 1 turn and install the locking screws.



9. Install the chuck and check the cam rotation. Repeat as necessary.

Since there are 3 stud and cam mounts on the chuck, there are 3 possible position that the chuck may be mounted. You will find that one of these positions will be slightly more accurate than the others. Try the chuck in all 3 possible positions. Once the most accurate position is determined, mark the chuck and spindle flange so that the chuck can be installed in the same position each time that it is mounted onto the machine. This is best done by putting a punch mark on the chuck and a corresponding mark on the spindle flange. This next step is only for the 3-jaw self centering chuck.

Mark each of the three jaws, and the slot it is in. Remove the jaws, and keeping them in the same order, reinsert them into the next slot over making sure the scroll plate engages the first thread on the first jaw. Try the jaws in all three positions; one should be more accurate than the other two.