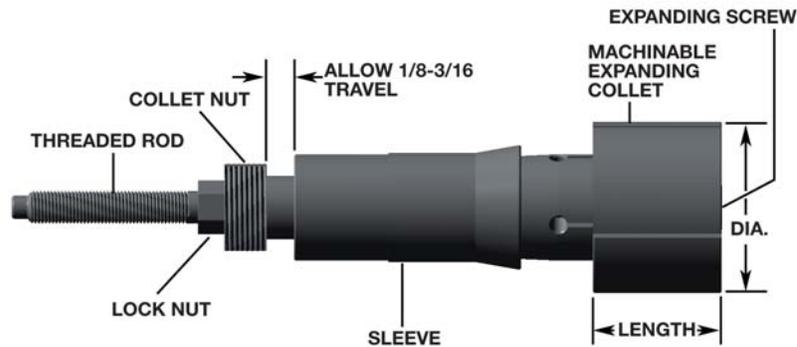


# INSTRUCTION SHEET

## FOR *ROVI* INTERNAL EXPANDING COLLETS



1. Clean expanding collet taper and inside taper of sleeve, then drive collet securely into sleeve. It is important that the expanding collet should seat firmly into the sleeve so that when a part is put on the collet and the unit expanded, tension will not move the collet further into the sleeve, as then you would lose concentricity.
2. Insert rod assembly through rear of sleeve into collet.
3. Insert expanding screw through front of collet into rod assembly and bottom screw into threaded rod. Hand tighten only until step # 5.
4. Loosen lock nut and adjust collet nut so rod assembly will travel approximately 1/8" to 3/16". On CNC Lathes with hydraulic closers you may need to increase travel to more than 3/16", depending upon the amount of stroke on your draw tube.
5. Tighten lock nut and tighten expanding screw securely so neither will loosen itself. **Be sure to tighten lock nut first then the expanding screw.**
6. On manual machines insert assembled unit into machine and seat collet into spindle, adjust collet closer until collet expands slightly, between .002" - .005" depending on how much the inside diameter of part varies.
7. Machining collet on CNC machines. There are several different methods to use when machining collets to desired size as described below. Please note that it is very **important to seat** collet into spindle prior to machining. Expand collet between .002"-.005" depending on how much the inside diameter of part varies.
  - A) Insert assembled collet into spindle and seat collet. Seat collet by putting ring or hose clamp over rough diameter, and activate draw tube. Remove expanding screw completely from collet. Take an extra expanding screw and cut off about .250" of thread. Insert shortened screw into collet and manually expand collet to desired size for machining. **Having a shorter screw will allow you to manually expand the collet without the screw bottoming out in to the rod.** Once machined, replace screw with original expanding screw and tighten securely into rod. Collet is now ready for use.
  - B) Insert assembled collet into spindle. If collet permits, turn a groove into face of collet, and insert turning ring (which we can provide) into groove. Seat collet by expanding on turning ring. At this point collet should be expanded between .002"-.005". Machine collet to desired size. Remove turning-ring. Expanding collet is now ready for use.
  - C) Insert assembled collet into spindle. Seat collet by putting ring or hose clamp over rough diameter, and activate draw tube. Bring draw tube to the forward position, and back out expanding screw so that only a few threads are engaged in the rod assembly. Expanding screw should be sticking out from face of collet at least a 1/2". Drop hydraulic pressure on collet closer so that the draw tube moves very slowly. Activate collet closer to draw back. **Depending on the stroke on of the draw tube on your machine, the expanding screw should not engage into the taper of the collet. If expanding screw should engage into taper, abort this procedure.** Manually screw expanding collet screw into collet so that you obtain between .002"-.005" of expansion. Machine collet to desired size. Bring collet closer to the forward position and screw expanding screw securely back into collet. Collet is now ready for use.
  - D) Insert assembled collet into spindle. Obtain a ring that will fit over diameter of collet in use. Ring should be no bigger than .005" over diameter of collet. Expand Collet on ring, and machine to desired size. Collet is now ready for use.

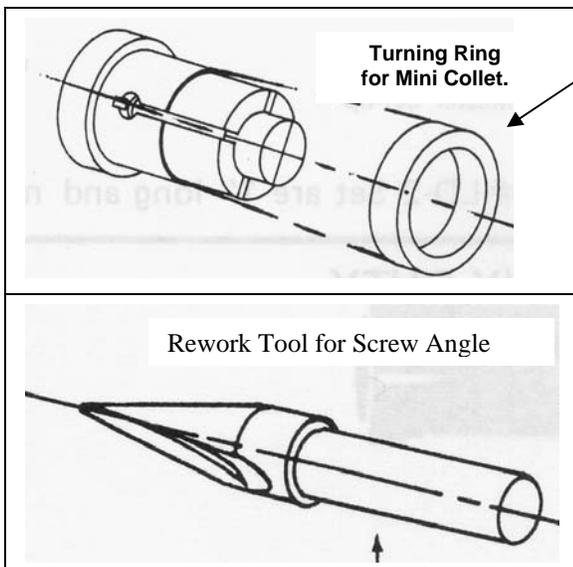
**OVER →**

**Please note that these are only a few suggestions. Do not be afraid to use your own method.**

Each expanding collet can be completely consumed in diameter, as well as in length. When a step in the collet is no longer desired, the face of the collet may be machined flush and a new taper for the expanding screw put into the front of the collet. The screw angle is 30° included (15° on the side). By loosening the lock nut and bringing the threaded rod backward through the collet nut, the length of travel of the rod assembly can be readjusted, and the unit will be ready for further use.

When disassembling the unit, loosen the expanding screw entirely, so it will come out of the front of the expanding collet. The rear of the rod assembly will then also come out. To separate sleeve and collet, insert a snug fitting metal rod into rear of sleeve and strike with a hard hammer. Collet should come out readily. Should collet be very tight, we suggest using the Rovi Separator.

If expanding screw should stick in the taper of the collet, use a **Molly-dee spray lubricant**.



### Collet Separator

**Rovi 5C Collet Separator Parts**

Cover Plate  
1/4-28 Allen Bolts  
Hardened Sleeve Plate  
Drive Plug

**Rovi 5C Collet Separator In Use**

Cover Plate  
Drive Plug  
Sleeve  
Hardened Sleeve Plate  
Expanding Collet

**Rovi Collet Separator includes the following parts:**

- 1 - Cover Plate
- 1 - 3/4 Drive Plug for SL4-5C Sleeve
- 1 - 9/16 Drive Plug for SL2-5C Sleeve
- 1 - Hardened Sleeve Plate
- 2 - 1/4 -28 Allen Bolts

\* Rovi Collet Separator is only to be used with our 5C sleeves (SL2-5C and SL4-5C).

**Collet Separator for 16C and 3J Collets Now Available**