

Super Collet Tube Puller



Assembly & Operation Instructions

SAFETY & GENERAL INFORMATION

1. Please ensure everyone using this manual reads and understands the Safety Guidelines located in the technical manual.
2. Additional information is available in the technical manual.

⚠ DANGER

Under **no circumstances** should **anyone** be at the opposite end of the tube during operation. Potential for projectile that can result in serious injury or fatality. The Deflector Shield should be used at all times.



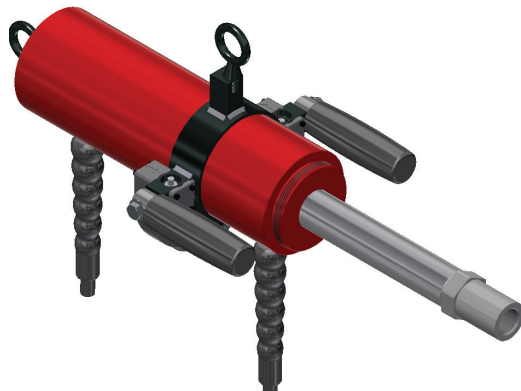
Deflector Shield

⚠ WARNING

When using electric tools, certain safety precautions are required to reduce the risk of electrical shock and personal injury. Always unplug your machine before performing any maintenance. Never disassemble the machine or try to do any wiring on the electrical system. Contact Elliott for all repairs.

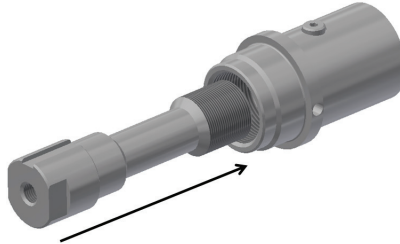
ASSEMBLY INSTRUCTIONS

1. Remove outer components by twisting nozzle adapter counter clockwise.



ASSEMBLY INSTRUCTIONS

2. Insert tie rod through collet adapter, lining up the slot in the tie rod with the set screw in the collet adapter.



3. Slide the compression spring over threaded end of the tie rod protruding from the adapter.

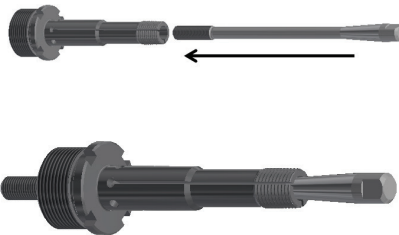


ASSEMBLY INSTRUCTIONS

4. Thread the tie rod into the adapter.



5. Insert the threaded end of the draw bar through the front of the collet. Will need to tap or drive the threads of draw bar through the collet.



ASSEMBLY INSTRUCTIONS

6. Thread the collet into the collet adapter. Do not thread the draw bar into the collet yet.

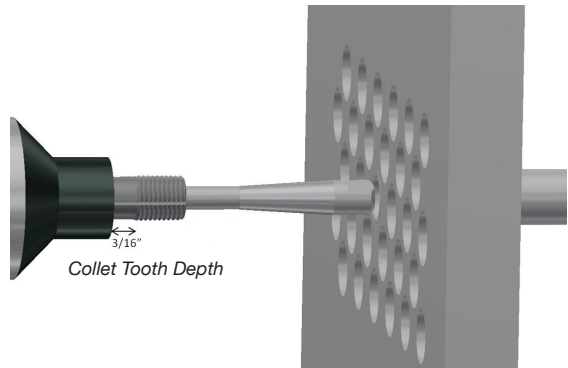
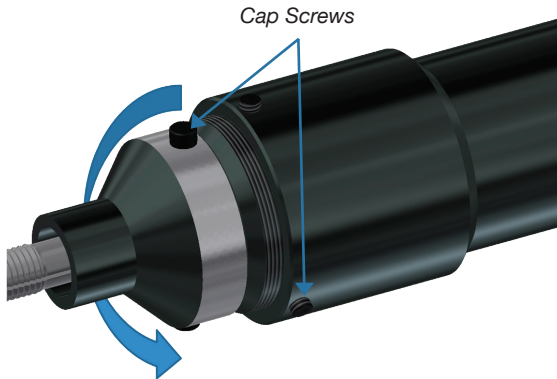


7. Replace the outer components by threading the nozzle adapter back onto the cylinder.



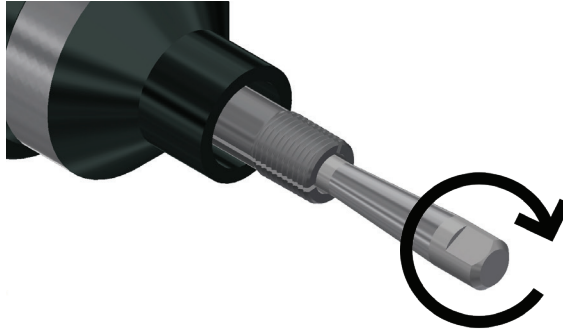
ASSEMBLY INSTRUCTIONS

8. Place the nose piece over the nose piece adapter.
 - a.) Rotate the nose piece and nose piece adapter to set the collet tooth depth in front of any tube sheet grooves. In general, this should be set to $3/16$ ".
9. Install and tighten the cap screws into the nose piece and through the holes in the nose piece adapter.



ASSEMBLY INSTRUCTIONS

10. Thread the draw bar into the tie rod just enough that the collet begins to expand during the stroke.



11. Adjust the expansion by threading the draw bar into the tie rod further. Adjust until the collet expands just enough to engage in and remove the tube stub.

NOTE: Over expanding the collet into the tube by way of threading the draw bar too far into the tie rod for the specific tube will result in excess load or pressure to be applied to the neck of the draw bar. This may result in catastrophic failure of the draw bar and as such, create a projectile in the form of the draw bar end. (See safety guidelines for proper use.)

OPERATION INSTRUCTIONS

1. Secure Collet Style Stub Puller to a counter balance, for either horizontal or vertical operation.
2. Attach the Deflector Shield to the back end of the tube sheet as appropriate. This will absorb the energy of a projectile in the case of a broken drawbar.



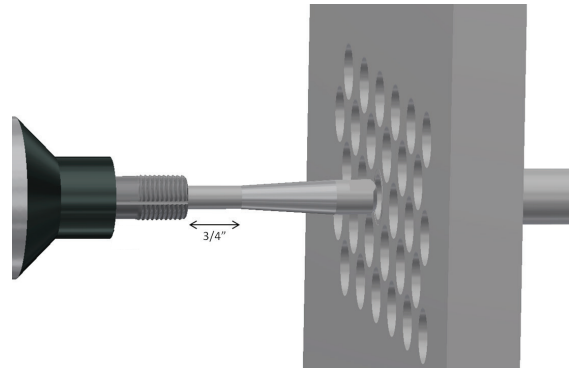
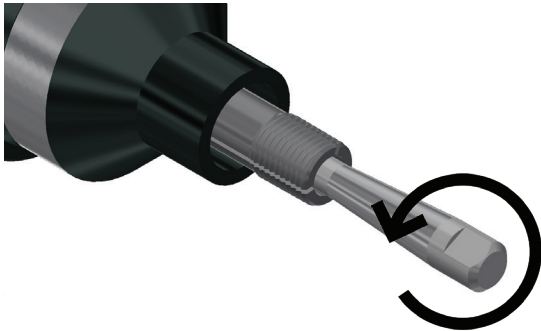
Deflector Shield



Deflector Shield

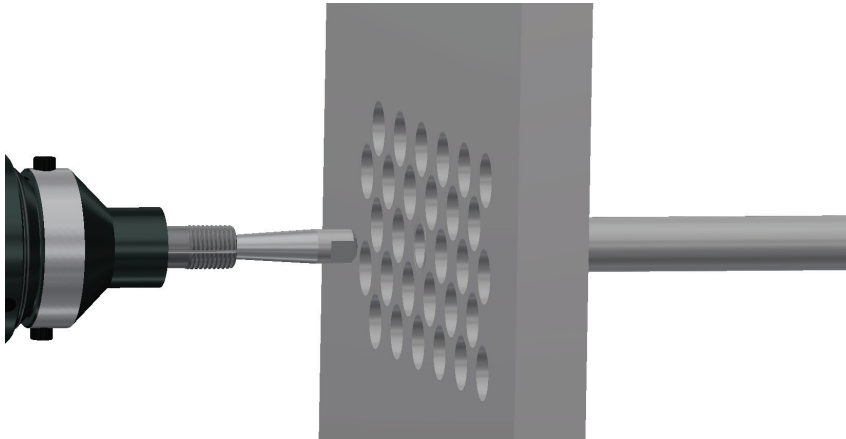
OPERATION INSTRUCTIONS

3. Unscrew the draw bar so that there is approximately 3/4" of the straight portion of the bar appearing between the base of the draw bar cone and the front of the collets.



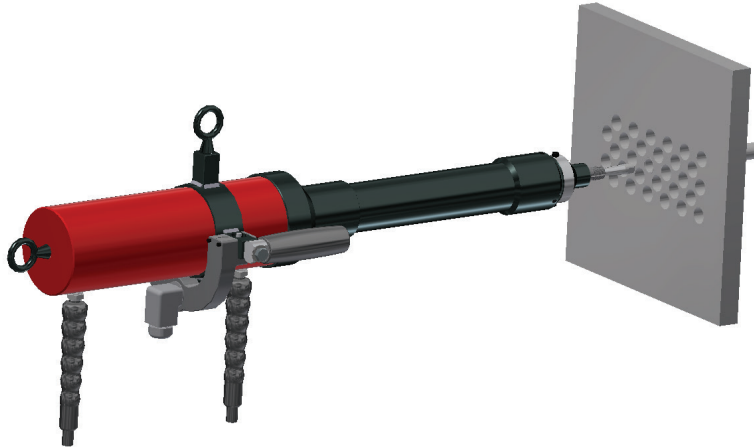
OPERATION INSTRUCTIONS

4. Insert the collet into one of the tubes to be pulled and press the retract button to cycle the puller. If tube does not engage, tighten the draw bar 1 to 2 turns and repeat the operation. Repeat this sequence until the collets finally grab the inside of the tube. The collet will probably slide, or “broach”, the tube I.D. on the last pull.



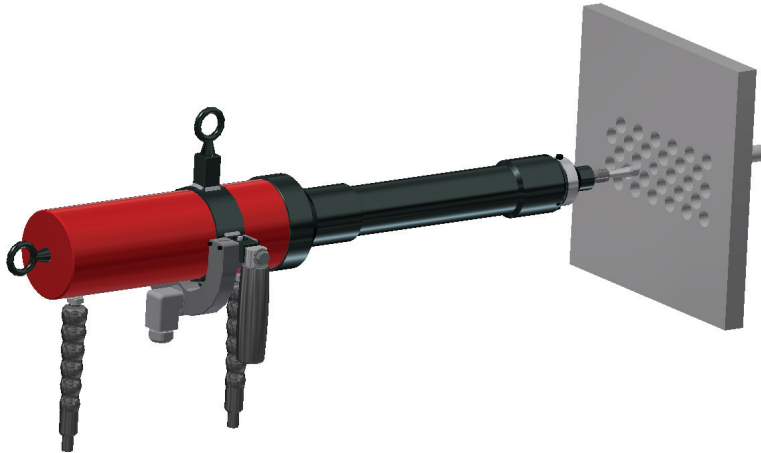
OPERATION INSTRUCTIONS

5. Tighten the draw bar 0.5 - 1.0 turns for a final adjustment. You are now ready to pull tubes. Note: If an oversized tube is encountered, the draw bar can be temporarily tightened and then returned to the original setting.



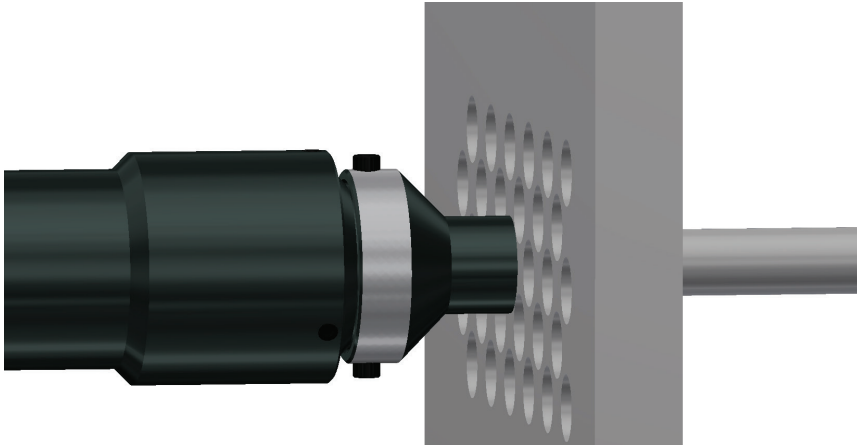
OPERATION INSTRUCTIONS

6. If needed, the handles can be adjusted in 90° increments to fit working conditions. To adjust, loosen handle hex bolt and adjust handle and retighten hex bolt.



OPERATION INSTRUCTIONS

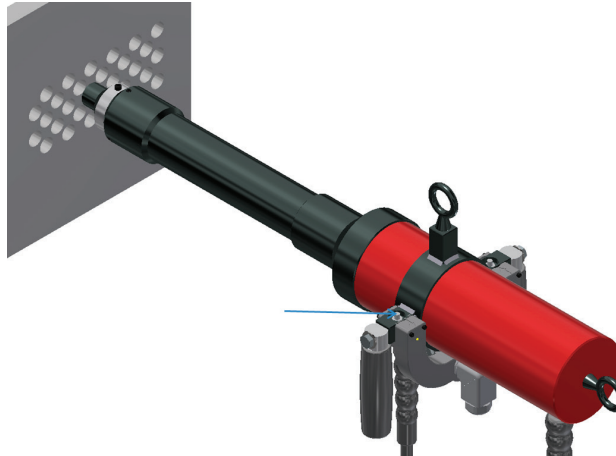
7. Insert the collet into tube until nosepiece is positioned against the tube sheet.



OPERATION INSTRUCTIONS

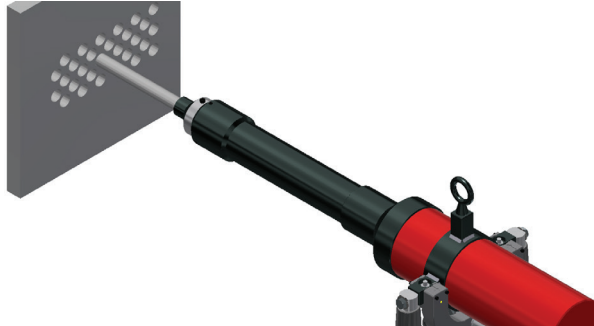
8. To pull tube:

- b.) Tap retract button to straighten collet unit inside of tube and to align puller with tube sheet. Now the collet has proper contact with the tube I.D.



OPERATION INSTRUCTIONS

- c.) Press and hold retract button to initiate full stroke of the puller and continue to extract the tube. The tube should now be extracted 6”.



- d.) If it is necessary to extract further, re-engage draw bar into tube and repeat (1) and (2). This should have extracted the tube approximately one additional inch.
9. Once the tube joint has passed through the tube sheet, remove the puller by pressing the extend button until the collet and draw bar are fully protruded, and pull the tube by hand until the tube is completely extracted from the vessel.



Contact Us

Elliott Tool offers a complete line of precision tube tools to meet your needs. Contact us or your local support.

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