

“Big Grabber” Closed End Mandrel System

This system is designed to allow a woodturner to turn blanks with a turned end, meaning that they do not have a through hole normally required for turning most projects. This allows the woodturner to have freedom to create turnings never before possible.

Designed for tubes larger than 10.5mm

If you purchased a closed end Rollerball or Fountain pen kit - detailed instructions are included to make that kit



“Big Grabber” Mandrel

accessories (purchased separately)

(* = Accessory included with “Big Grabber” Mandrel System)

End Bushings

25/64” end bushing	#PKMBL2564
15/32” end bushing	#PKMBL1532
31/64” end bushing	#PKMBL3164
33/64” end bushing	#PKMBL3364
10.5mm end bushing	#PKMBL105
12.5mm end bushing	#PKMBL125
9/16” end bushing	#PKMBL916
10.5mm countersink bushing	#PKMBLCBU

“Big Grabber” 12” of bladder hose

for 25/64” & 10.5mm pen tubes	#PKMBLT105
for 15/32” pen tubes	#PKMBLT1532
for 31/64” & 12.5mm pen tubes	#PKMBLT125
for 33/64” pen tubes	#PKMBLT3364
for 9/16” pen tubes	#PKMBLT916

Fig A - Components:



Components of “Big Grabber System”

Included components are shown in Fig A - end bushings and hose bladder is also available for other tube sizes as shown in Fig B.

Blue Bladder hose fits 10.5mm tubes



Clear Bladder hose fits 12.5mm tubes



Black Bladder hose fits 9/16” tubes

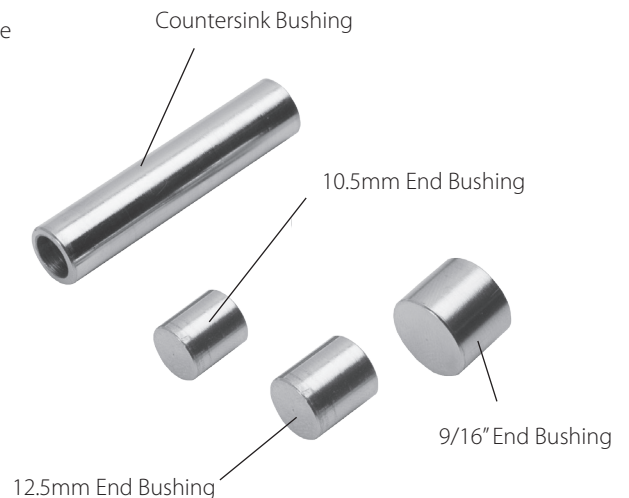
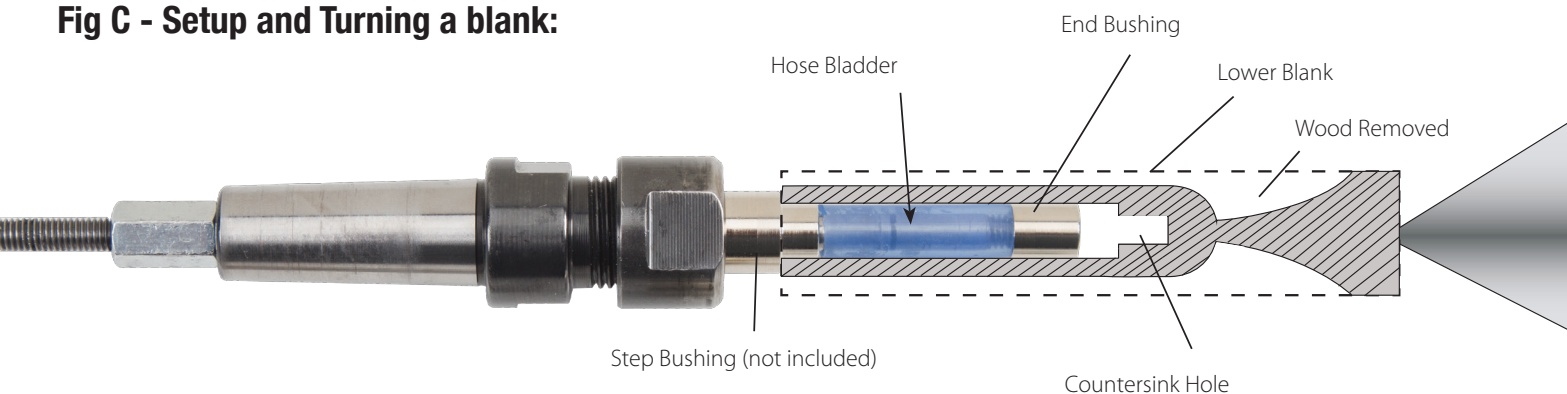


Fig C - Setup and Turning a blank:

Mount the "Big Grabber" in your headstock. Slide the kits step bushing onto the mandrel shaft up to the collet. Cut a piece of clear hose about 1" long, Slide it onto the shaft up to the step bushing. Thread the appropriate shaft. Pull the mandrel shaft through the rear of the morse taper until the assembly bottoms on the collet.

Tighten the long tightening nut to draw in the end bushing so the hose bladder expands inside the pen tube until the barrel assembly is secured and cannot turn on the shaft. Now lock the mandrel shaft in place by tightening the mandrel collet and lock nut.

Turning The Blank

- Support the cap blank with a live tailstock center. Use traditional turning tools to turn the wood down; to the upper step of the step bushing at the open tube end and to the diameter of the sizing washer at the cap end.
- Part off the cap as shown, remove the Live center, sand the cap round. Sand and finish the assembly as usual using graduated grits and a finish of your choice.
- Remove the live center then part off the tube as shown, sand the end round. Sand and finish the assembly as usual using graduated grits and a finish of your choice.

Using the Countersink Bushing: use to accept a rollerball refill in a Rollerball pen

Drop the 7mm countersink bushing into the lower barrel until it bottoms. With a 7mm drill bit, drill down through the barrel, through the bushing to create a countersunk hole about to accept the refill spring.

Blank Preparation and Mounting

- 1) Measure and note the length of the tube.
- 2) Drill a hole in the blank a little deeper than the length of the tube. Allow enough extra depth for trimming plus approximately 1/8". Do not drill through the blank. Leave sufficient room to part and turn a round end on the blank (at least 1").
- 3) Note the depth of the hole in the blank. You will need this measurement later.
- 4) Rough up the outside of the tube using a course sandpaper.
- 5) Glue the tube into the blank using CA, epoxy or poly glue. Allow time for the glue to dry.
- 6) Trim the end of the blank using a barrel trimmer. If the tube is shorter than the barrel trimmer pilot shaft, it will be necessary to adjust the position of the cutter on the shaft so the pilot does not bottom out.
- 7) Slide the barrel over the end bushing, over the hose bladder and onto the step bushing.