

# SOCCER TWIST PEN

## Kit Features

- Easy to Turn with Single Straight Tube
- Minimal Parts--easy to assemble
- Available in multiple finishes
- Overall Length: 5-15/32"

## Required Accessories

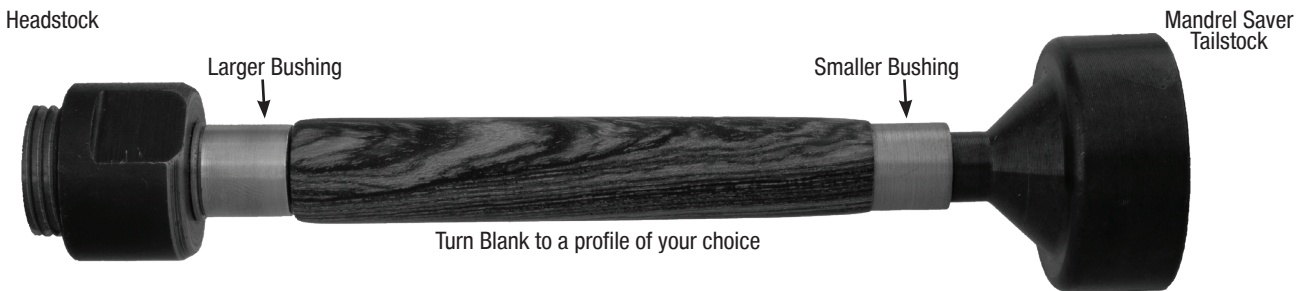
- 7mm Pen Mandrel
- Drill Bit: #PK-38BP for Wood, #PKEXEC-38 for Plastic
- Bushing Set(2pc): #PKSCERBU
- Barrel Trimming: #PKTRIM38 or 3/8" sleeve from #PKTRIMSET with squaring jig on disc sander
- Live Tailstock or Mandrel Saver
- 2 part Epoxy or Thick CA (Cyanoacrylate) Glue
- Pen Blank Minimum Size: 3/4" x 3/4" x 3-1/4"L

## Preparing the Blank:

- Cut blank to the length of the tube, adding 1/16" for squaring off.
- Drill 3/8" hole lengthwise through the blank.
- Spread glue over tube, insert the tube into the blank with a twisting motion to spread the glue evenly inside.
- Center the tube lengthwise inside the blank.
- When the glue is dry, square the ends of the blanks, making sure the trimmed ends are 90° to the tube. Use #PKTRIM38 or 3/8" trimming Sleeve with a pen blank squaring jig on a disc sander. Take the excess material down flush to the ends of the tubes. Do not trim past the end of the tube since this may interfere with assembly and the operation of the mechanism. Use a barrel trimmer to clean the inside of the tube.



## DIAGRAM B / TURNING THE BLANK



## Turning the Blank:

- Mount the bushings and blanks according to diagram B.
- When using Mandrel Saver, there is no need for extra spacer bushings or the knurled nut. Slide and lock tailstock directly against bushings and tighten quill until blank and bushings are secure.
- To use Knurled Nut Setup (right), add spacer bushings until past the threads on the end of the Mandrel Shaft.
- Thread on the Knurled Nut and hand tighten to hold all components in place.
- Slide the Tailstock up snugly against the Mandrel shaft, inserting the live center point into the Mandrel dimple.
- Lock Tailstock and hand tighten the quill adjustment with wheel to steady the mandrel. Do not over-tighten, it could damage mandrel shaft.
- Using sharp tools, turn the blank down close to the bushing diameter. Turn the barrel straight or to a profile of your choice.
- Sand the blank down to be flush with the bushings, gradually increasing sandpaper grits.
- Finish the barrel using your choice of polish. Allow sufficient time for the polish to cure—refer to polish manufacturer's instructions.

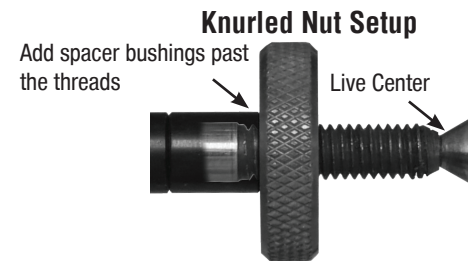
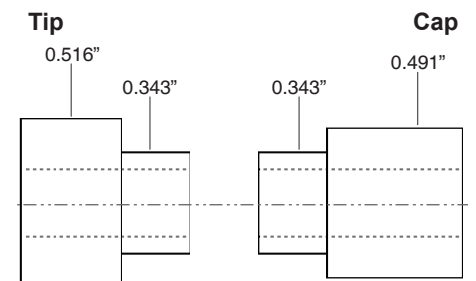
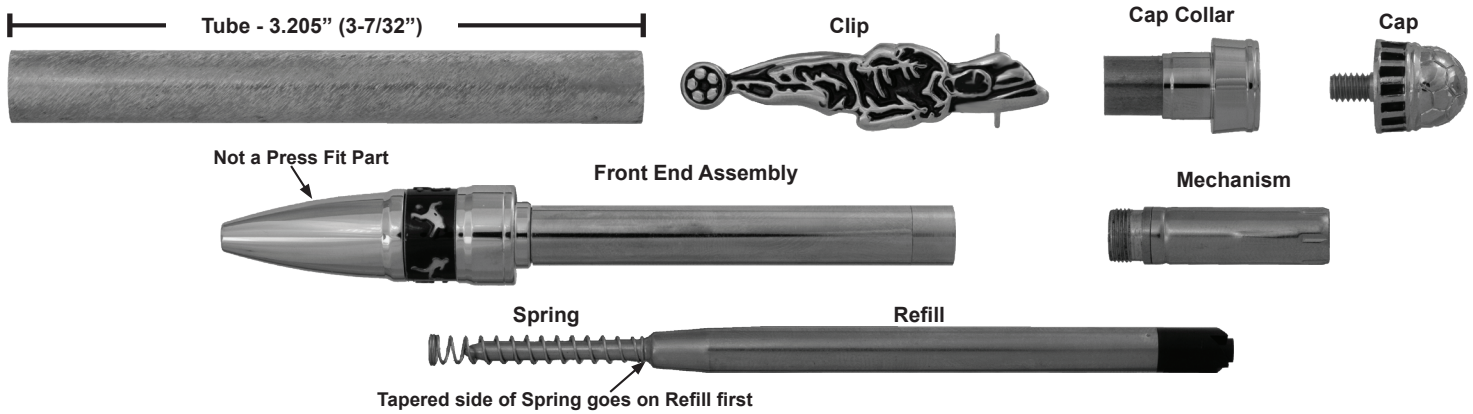


Diagram C / Bushing #PKSCERBU



## Diagram D / Parts Layout

**Assembly:**

- Press Cap Collar, without Cap attached, through the Clip and into upper, smaller diameter end of Barrel.
- Thread Cap into Cap Collar.
- Make sure spring is on Refill shaft tapered side first. Spring should grip the Refill shaft.
- Slide Refill into the back of the Front End Assembly.
- Thread Mechanism into the back of Front End Assembly over the Refill. Test by twisting the mechanism.
- Push Front End Assembly, mechanism side first, into the open end of the Barrel. Front End Assembly is not a press fit; it is held in place by the friction hold of the Mechanism inside the Cap Collar.
- To extend and retract the refill, twist the tip and barrel back and forth.
- To change refill, unscrew Front End Assembly from the Mechanism. Remember to switch Spring to new Refill.