

# TEE TIME GOLF PEN

## Kit Features

- Easy to Turn with Straight Tubes
- Minimal Parts--easy to assemble
- Available in multiple finishes
- Overall Length: 5-25/32"

## Required Accessories

- 7mm Pen Mandrel
- Drill Bit: #PK-38BP for Wood, #PKEXEC-38 for Plastic
- Bushing Set(2pc): #PKBASKETBU
- 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 3-5/16"L

## Preparing the Blank:

- Prior to cutting and gluing, always verify tube length is correct (see parts diagram on back page)
- 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 while twisting 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 PK-TRIM38 or 3/8" barrel 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.



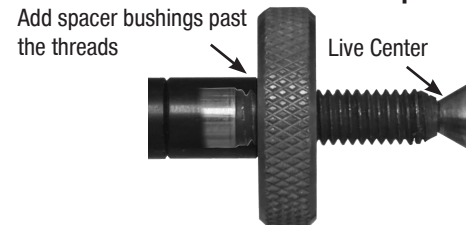
## DIAGRAM B / TURNING THE BLANK



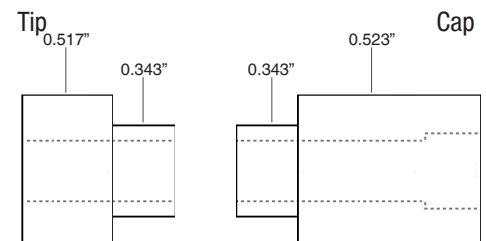
## Turning the Blank:

- 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 diameters. 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.

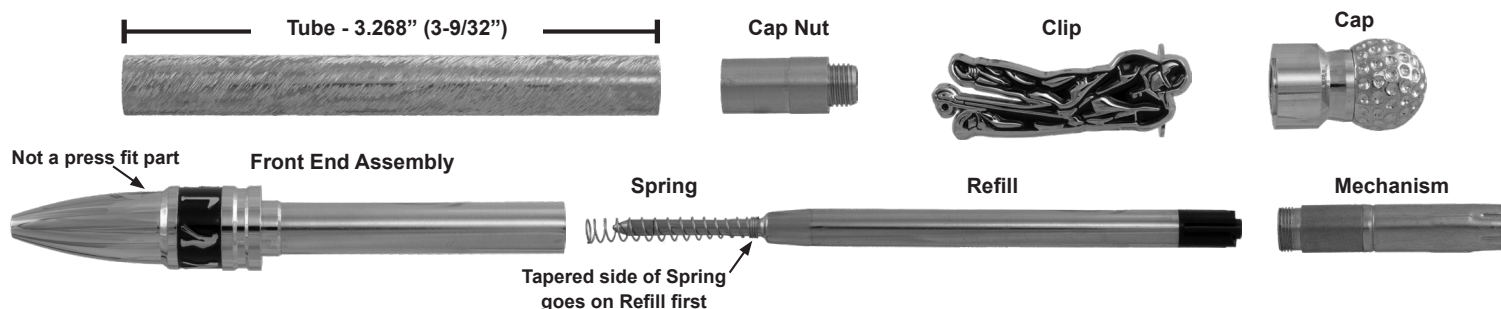
## Knurled Nut Setup



## Diagram C / Bushing #PKBASKETBU



## Diagram D / Parts Layout



## Assembly:

- To Press the cap nut flush without damage, use the back end of the Cap Bushing (Diagram E). There is a recess in the bushing which will fit over the threads. **Warning: Do not install the Cap on the Cap Nut and use it to press, it could damage the Cap design.**
- Using the Cap Bushing as shown in Diagram E, press Cap Nut, reduced diameter first, into upper, larger diameter end of Barrel until the Bushing is flush against the upper end of the Barrel.
- Mount the clip over the Cap Nut threads.
- Thread the Cap onto the Cap Nut, over the Clip. There is a small rim at the bottom of the Cap that will center the clip.
- Make sure Spring is on Refill in correct orientation as shown. The smaller diameter side should be put on the Refill Shaft first, gripping it.
- Slide Refill into Front End Assembly. Note: Front End Assembly is not a pressed part, it has to be able to spin freely in the tube.
- Thread Mechanism into Front End Assembly, over the back of the Refill. Test extension and retraction by twisting the Mechanism.
- Push the Front End Assembly, back end first, into the open end of Barrel until it is fully inserted into the cap nut.
- To Extend and retract Refill, twist the Front End and Barrel back and forth.
- To Change Refill, unscrew the Front End Assembly from the Mechanism. Remember to switch Spring to new Refill.

## Diagram E

Use Cap Bushing to install Cap Nut.

