CARBA-TEC® Woodturning Projects

TYCOON Roller Ball and Fountain Pen Kits

KIT FEATURES

- Heavy plating with epoxy coating.
- A streamlined modern pen style, with elegant trim pieces.
- Premium pen refill—#PK10-RPR
- Closed dimensions; 5-1/4", with cap posted; 6-1/4"
- · Refillable Ink Reservoir

REQUIRED ACCESSORIES

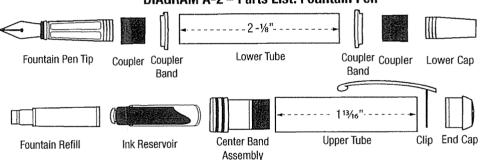
- 7mm pen mandrel
- #PKTYBU-3-piece Bushing set
- #PK2564-25/64" Drill Bit
- #PK1532-15/32" Drill Bit
- #PKTYBTS-2-piece Barrel Trimmer Sleeve Set
- #PKTRIMKIT-Universal Barrel Trimmer
- 2-part epoxy glue or insta-cure glue (cyano-acrylate).

DIAGRAM A-1 - Parts List: Roller Ball Pen 2-1/8"--Lower Tube Coupler Coupler Coupler Coupler Lower Cap Roller Ball Tip Band Band Roller Ball Refill Refill Spring 113/16" Center Band Upper Tube Clip End Cap Assembly

PREPARING THE BLANKS:

- Prepare a master blank of at least 5/8" square. Cut two blanks to the length of each tube. (Add 1/16" for trimming) Mark the center of each blank.
- Upper Blank (shorter tube)—drill a 15/32" hole through the blank
- Lower Blank (longer tube)—drill a 25/64" hole through. NOTE: Sand the tubes using 220-grit abrasive for better adhesion.

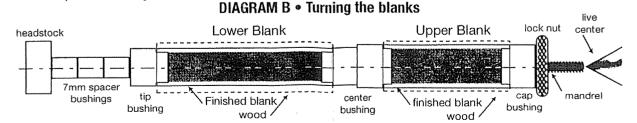
DIAGRAM A-2 - Parts List: Fountain Pen



- Glue each tube in the proper blank. Spread the glue over each tube. Insert the tube into the blank with a twisting motion to spread the glue evenly inside. Center each tube lengthwise inside the blank.
- When glue dries; square the ends of each blank. Using a barrel trimmer with adapter sleeves #PKTYBU. Mount the proper sleeve (large diameter for the short tube, smaller diameter for the longer tube) over the 7mm shank. Trim the blank down flush with the brass tube.

TURNING THE BLANKS:

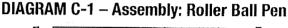
- Mount spacer bushings on the mandrel. Place the tip bushing on the mandrel. Slide the lower blank on and follow with the center bushing, shorter diameter first. Slide the upper blank (shorter) on next. Finally, slide the cap bushing (wider diameter) wide end in last. Mount spacer bushings to fill the space to the threads on the mandrel. Screw on the lock nut hand tight. Bring the tailstock in snug to the mandrel. Lock in place. Do not over-tighten the lock nut; it may damage the mandrel.
- Turn the blanks down close to the bushings. Follow with abrasive until the tube diameters are flush with the bushings. Finish with your choice of polish.



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ASSEMBLY:

- NOTE: Line up the components according to DIAGRAM C-1 (Roller Ball Pen) or DIAGRAM C-2 (Fountain Pen). To avoid damage to components when assembling pen use vise with covered jaws or PSI #PENPRESS3.
- · Slide the coupler band, narrow end first over the extension of the coupler. Press this assembly into the lower barrel. Repeat for both ends of the barrel.
- Thread the lower cap on the top coupler.
- Press the center band assembly into the upper (shorter) tube.
- Insert the clip onto the end cap. Press this assembly into the opposite end of the barrel.



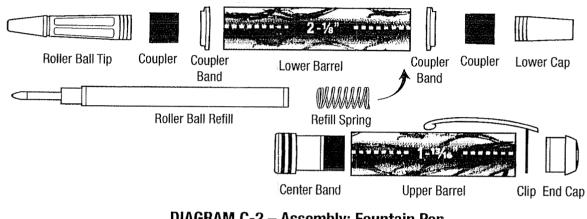
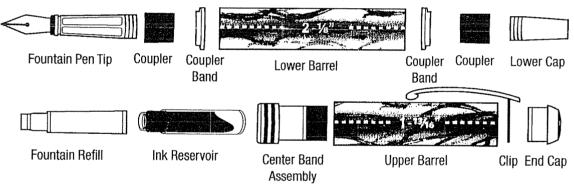


DIAGRAM C-2 – Assembly: Fountain Pen



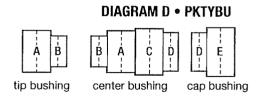
ROLLER BALL

- Drop the refill spring, wide diameter first into the opening at the coupler.
- Remove the protective sleeve off the refill and insert wide end in first into the same opening.
- Thread the roller ball tip over the threaded coupler

FOUNTAIN PEN TIP

- Affix the ink reservoir, narrow end first into the back of the pen nib. Push in to break the seal (or use PSI refillable reservoirs #PKPUMP5), then press lightly the tip to advance the ink forward.
- Thread the fountain tip assembly over the threaded coupler

BUSHINGS



A .480"

B .357"

C .534"

D .428" E.562"