## **#PKHKKXX**

### **PSI Woodworking Products**

# **BOLT ACTION HOBBY KNIFE**

#### **Kit Features**

- Easy to Turn with Straight Tube
- Minimal Parts--easy to assemble
- Available in multiple finishes
- Overall Length: 5-21/32"
- Uses EXCEL #20065 replacement blades
- Bolt action knife extension makes for a safe blade storage

#### **Required Accessories**

- 7mm Pen Mandrel
- Drill Bit: #PK-38BP for Wood, #PKEXEC-38 for Plastic
- Bushing Set(2pc): #PKKNBU
- 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 2-13/16"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 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" 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.



#### **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.

**Knurled Nut Setup** 

Add spacer bushings past the threads











Assembly:

- Note position of Index Slot on the tip of the Bolt Shaft. When Thumb Knob is fully back, slot should line up with clip. The Slot will correspond to the opposite side of the blade edge. Proper positioning will make sure that when knife is in use, Clip and Knob will be away from the hand. If Slot is facing away from Clip, unthread Thumb Knob and turn Bolt Shaft until Slot faces the Clip and re-thread Knob.
- Press Tip Collar into open end of Barrel. It is very Important that Tip Collar be pressed first!
- Slide Thumb Knob Forward and into locking position before pressing. *This is very important*.
- Slide Back End Assembly into remaining open end of Barrel. *Make Sure that Bolt Shaft is inside the Tip Collar before pressing*. Failure to do this may lead to breakage of the thumb knob. Finish pressing Back End Assembly into Barrel.
- Make sure Thumb Knob is retracted all the way back.
- Carefully insert Blade into opening in Tip Collar. Pull knob forward and lock into side channel. Turn Indexing Tab until lines up and seats inside of the Index Slot–remember that Slot should be lined up with Clip. You can use foam or cardboard over blade to rotate into position and help reduce possible injury.
- Slide Spring over Blade.
- Thread Tip over Spring and Blade onto Tip Collar. Be very careful that blade is retracted to prevent potential injury while attaching tip.
- To extend Blade, slide Knob forward and into side channel to lock. To retract, slide Knob out of side channel and allow to slide back.

# \*NOTE: To assure blade is seated properly, extend blade and carefully turn it until the indexing tab is secure inside of index slot.

- When replacing blade, be very careful when unthreading the tip. Spring is very strong and losing grip can cause tip and spring to fly away and get lost.
- Always handle old and replacement blade with care, a dulled razor edge can still be quite sharp and can still cause injury.

