

# RASP GRATER KIT

## Kit Features

- Easy to Turn Closed End with Bushing using the Handle Anything System
- Minimal Parts--easy to assemble
- Stainless Steel for safe food contact
- Protective Cover included

## Required Accessories

- Items marked with \* come included in #PKHABS Bottle Stopper Set.
- Handle Anything Chuck: #PKHA01\*
- 3/8" x 16tpi Mandrel: #PKHA02\*
- Bottle Stopper Inserts: #BSERT\*
- Drill Bit: #PKDB12\*
- Bushing Set(2pc): #BS11GSBU (use smaller one only)
- Live Tailstock
- 2 part Epoxy (CA is not recommended)
- Blank Minimum Size: 1" x 1" x 5"L



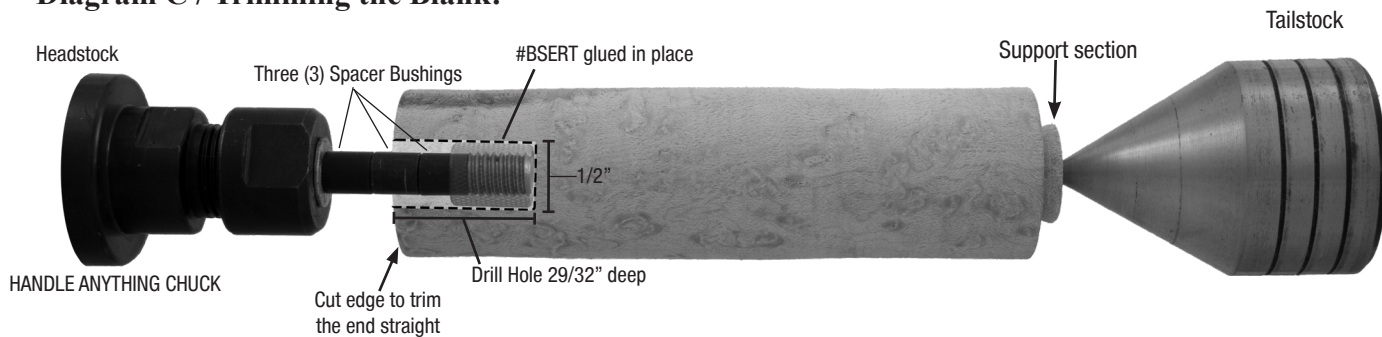
## Preparing the Blank:

- It is highly recommended to read and understand the instructions fully before cutting or turning this project.
- Blanks should be long enough to feel comfortable as a handle. 5" minimum length is recommended. 1/4" to 1/2" will be needed for support section.
- Drill 1/2" hole 29/32" deep in one end of blank.
- Mix a small amount of epoxy. Smooth epoxy into hole so hole is coated in a thin layer. Spread a light amount onto Insert. Smooth so epoxy is pushed into the knurling. Push insert into hole until it bottoms out and allow glue to cure. A 3/8" bolt is helpful here as an insertion tool.

## Diagram B / Parts Layout



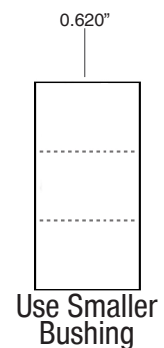
## Diagram C / Trimming the Blank:



- Slide three standard bushings (PKM-BUSH3) as spacers onto the back of the 3/8" Mandrel Rod. (See Diagram B).
- Thread the blank onto Mandrel until tight. Slide Mandrel into Chuck.
- Bring Tailstock up to the blank and advanced tailstock point into end of blank.
- NOTE: Do not try to bend the blank to force the tailstock to a pre-marked center, it will cause the final piece to be off. Allow the Tailstock to naturally penetrate at the center of rotation on the mounted blank.
- Tighten the collet using 7/8" wrenches and re-adjust Tailstock.
- Rough turn blank. Reduce the last 1/4 inch of length as a support section.
- Use a parting tool or skew to trim the Headstock end of the blank so it is 90° to the side of the blank. Only remove enough material to make sure edge is trimmed and straight. Do not remove too much or you might reduce the depth of the hole too much.
- Loosen Collet and remove Mandrel Rod.
- Slide the three standard bushings off.

**Diagram D / Turning the Blank:**

- Mount the bushing and blank according to Diagram C. To ensure tightness, thread the Blank onto the Mandrel but not completely. Leave Chuck Collet slightly loose.
- Slide the Tailstock up and return point to the same spot in the support section.
- Lock Tailstock and hand tighten the quill adjustment to make sure all parts are firmly against the Chuck. Tighten Collet with 7/8" wrenches and turn handle to fully tighten against bushing.
- Using sharp tools, turn the blank down close to the bushing diameter. Turn the barrel straight or to a profile of your choice. Do not part off the Support section until almost all finishing is done.
- Sand the blank down to be flush with the bushing, gradually increasing sandpaper grits.
- Carefully part off the support section, either with a parting tool for skew.
- Note that once Tailstock support is gone, it is not advisable to place too much sideways pressure. Sanding and finishing should be done with less pushing and more gripping pressure.
- Sand the end of the Barrel, increasing grits and moving up handle with higher grits to blend in.
- Finish the barrel using your choice of polish. Keep in mind that food related items are subject to washing. Finishes should be able to survive hand washing. #LBUFFOIL is an example of a finish meant to be used on items subject to these conditions.
- Allow sufficient time for the polish to cure—refer to polish manufacturer's instructions.

**Diagram E/ Bushing #BS11GSBU****Assembly:**

- Thread Coupler securely into Handle.
- Thread Rasp into other side of Coupler. You may wish to use a threadlock on the threads so they are more secure.
- Do not place in dishwasher as this may dull the sharpness of the rasp and destroy the finish of the handle.
- Use Protective Cover when storing to preserve blade sharpness and prevent accidental injury.