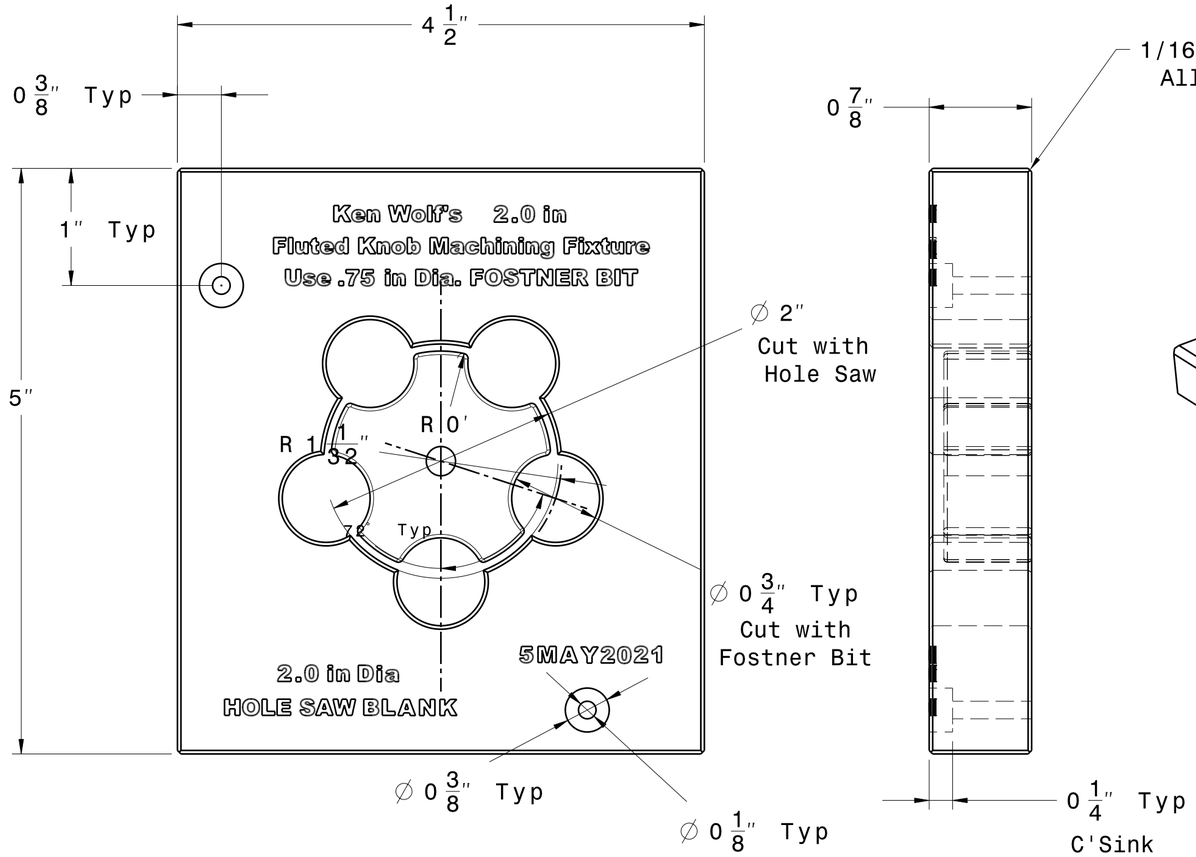
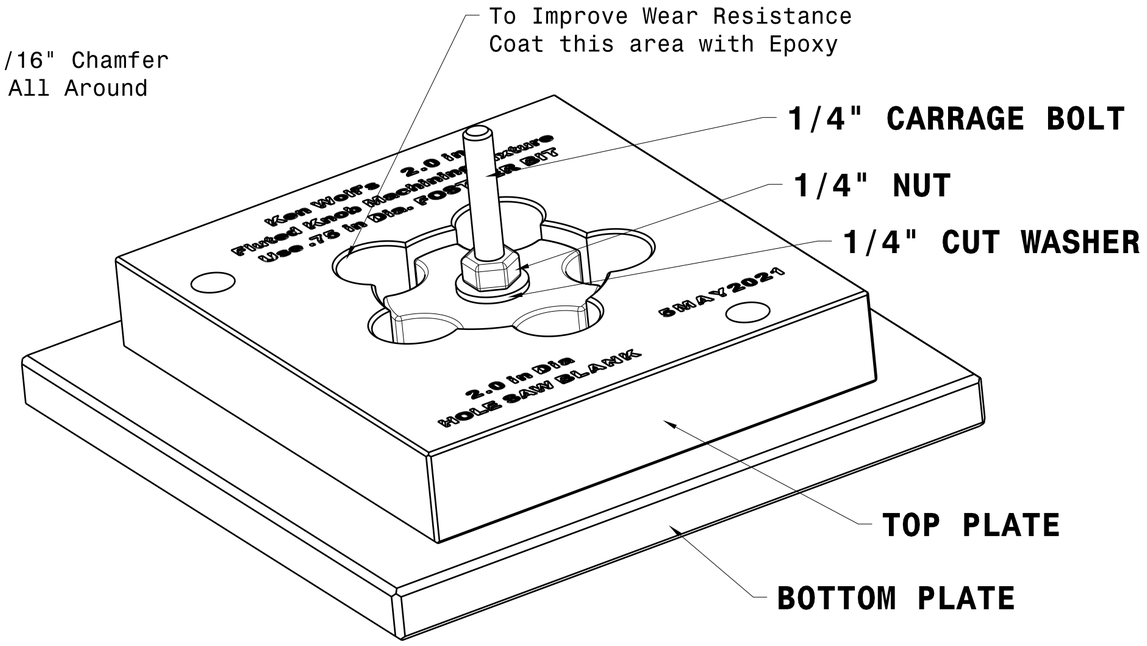
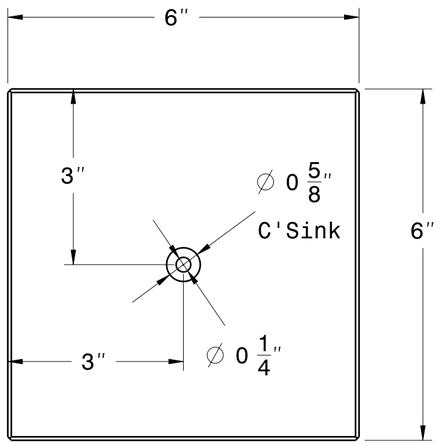


Top Plate Front view
Scale: 1:1

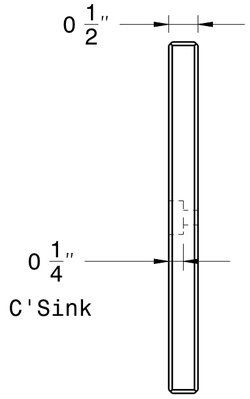
Top Plate Right view
Scale: 1:1



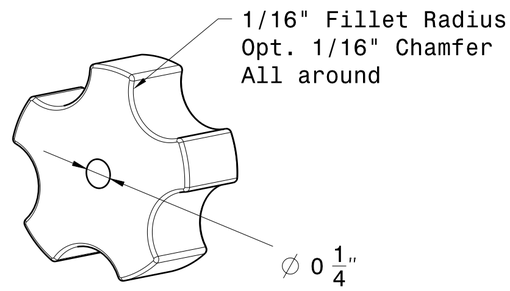
Assembly Isometric view
Scale: 1:1



Bottom Plate Front view
Scale: 1:2



Bottom Plate Right view
Scale: 1:2



Fluted Knob Blank Isometric view
Scale: 1:1

For fluted knob details, see:
Ken's 2" Fluted Knob drawing

MATERIAL LIST

Component Description	Number Req'd	Size	Material
Top Plate	1	5" x 4-1/2" x 7/8"	MDF
Bottom Plate	1	6" x 6" x 1/2"	Birch Ply
Fluted Knob Blank	1	2" Dia. x 3/4"	Pine
Carriage Bolt	1	1/4" x 2"	CRS
Nut	1	1/4"	CRS
Cut Washer	1	1/4"	CRS

This drawing is our property.
It can't be reproduced
or communicated without
our written agreement.

DRAWN BY D R McCagg	DATE 26FEB2021	
CHECKED BY XXX	DATE XXX	
DESIGNED BY D R McCagg	DATE 26FEB2021	

Ken Wolf Design

DRAWING TITLE: Ken's Fluted Knob Machining Fixture

SIZE	DRAWING NUMBER	REV
C	Kens_2in_Fluted_Knob_Fixture_5-5-21	B

SCALE	WEIGHT(kg)		SHEET
1:1	3.79		1/2

Fluted Knob
Recommended Machining Fixture Build Sequence and Knob Build Process

1. Cut top plate and bottom plate to dimensions shown.
2. Layout center of top plate and then the center of each of the 5 forstner bit 1” dia. holes.
3. Drill all 5 1” holes through the top plate.
4. If desired to maximize durability, wipe inside of each 1” hole with slower set epoxy (to allow it to soak into the walls before hardening).
5. Mount top plate to bottom plate with 2 screws centering the top plate.
6. Use 2-1/4” hole saw to remove center of top plate (using prior center mark).
7. Use 2-1/2” hole saw (with $\frac{1}{4}$” pilot bit) to cut number of knob blanks desired.
8. Mount blanks on a $\frac{1}{4}$” bolt in a drill press or on a lathe and smooth outside diameter to remove hole saw marks with a sandpaper block.
9. Temporarily remove top plate from base plate.
10. Use a spindle sander to uniformly sand projections on inside of top plate to snugly fit the sanded blanks from step 6.
11. Use the pilot bit hole in the bottom plate to locate a 2” long $\frac{1}{4}$ -20 carriage bolt in the bottom plate up through the top plate recessing the head flush to the bottom of the bottom plate.
12. Reinstall the top plate to the bottom plate in the original position.
13. Slide a blank onto the bolt into the top plate recess and tighten with a nut and washer.
14. Use a drill press with the 1” forstner bit (depth set to lightly touch the exposed part of the bottom plate) to drill each of the 5 holes. Align the bit in the top 1/8” of the top plate holes before turning on the drill press and drilling the hole.
15. Round over all edges of the knob with a 1/8” round over bit or a chamfer.
16. Enlarge the center hole to the recommended diameter for the $\frac{1}{4}$-20 brass threaded insert you select and install the insert. Use care to align the insert perpendicular to the knob face (using a headless bolt in a drill press with a nut & washer above the insert threaded on the end of the bolt is one effective method).
17. Enjoy using your fluted knob(s).

This drawing is our property.
It can't be reproduced
or communicated without
our written agreement.

DRAWN BY: D R McCagg	DATE: 26FEB2021	
CHECKED BY: XXX	DATE: XXX	
DESIGNED BY: D R McCagg	DATE: 26FEB2021	

Ken Wolf Design

DRAWING TITLE: Ken's Fluted Knob Machining Fixture

SIZE	DRAWING NUMBER	REV
C	Kens_Fluted_Knob_Fixture_2-26-21	B

SCALE	WEIGHT(kg)		SHEET
1:1	3.79		2/2