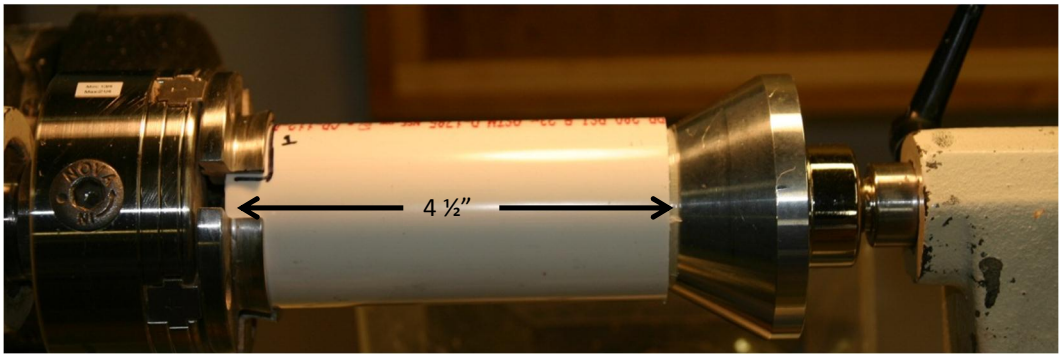
Egg Chuck

The egg chuck can be made either from **wood** or from **PCV pipe** as shown here.

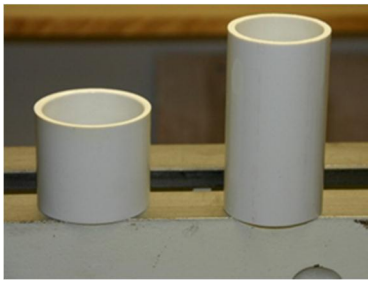
The instructions are basic and intended for amateurs like me. The chuck can be made larger or smaller by using different diameters of PCV pipe.

Feel free to experiment with or to alter any of these instructions.

Begin with a coupling for a 1 ½"PCV. Cut a piece of 1 ½" PCV pipe to a length of 4 ½".

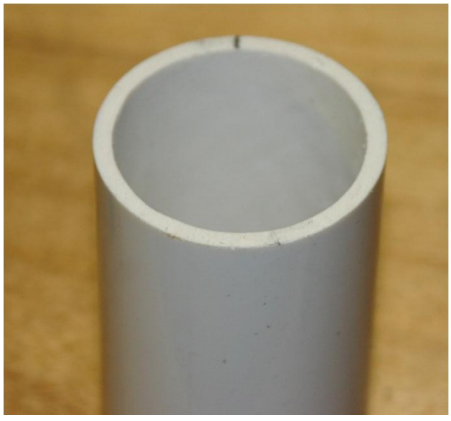


Mount the pipe in a chuck.
True the right end.
Reverse the pipe and true the other end.



Pipe and coupling.

Mark a pencil line on the rim of the 4 ½" section of pipe.



Compute the circumference of the pipe by using the following formula:

$$C = \pi * D$$

The outside diameter is 1 7/8”

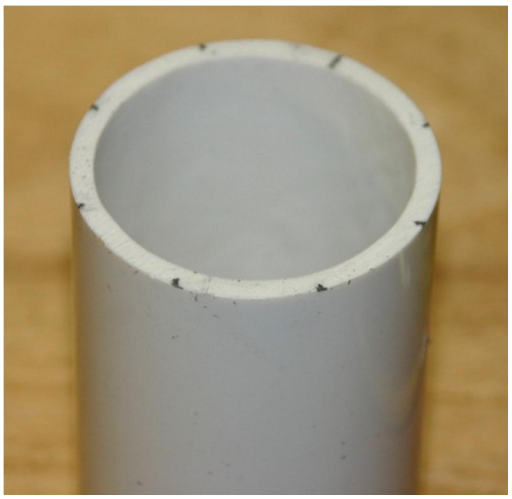
In this case: C=3.14*1.8750
C=5.8875

Divide this number by 8: 5.8875/ 8 = .7359 or, slightly less than ¾”

Some turners prefer to use a 2” PCV pipe. Since PCV pipe does not come in 1 ¾” width, it must be made from wood. Use the same instructions as you see here.

Set a pair of dividers at slightly less than ¾” and begin dividing the circumference along the ***EDGE*** of the rim into **8** parts. The dividers should land back on the pencil line. If not, adjust accordingly.

Mark a pencil line on the edge of the ***rim*** at each division.

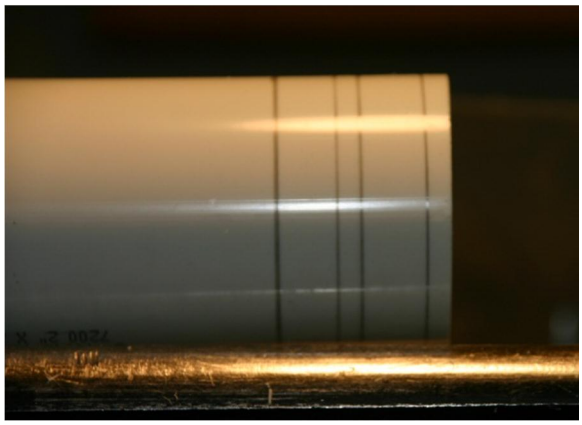


OR

Use the index on your lathe.

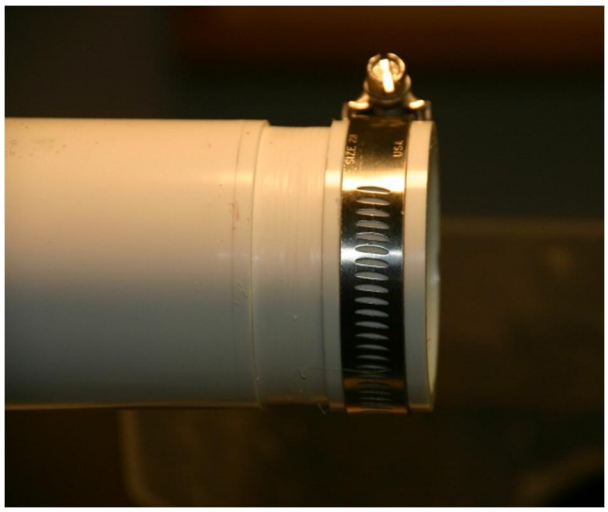
Mount the pipe back onto the chuck.
From the right end, mark the following lines:

3/16 ½ 3/16 ½

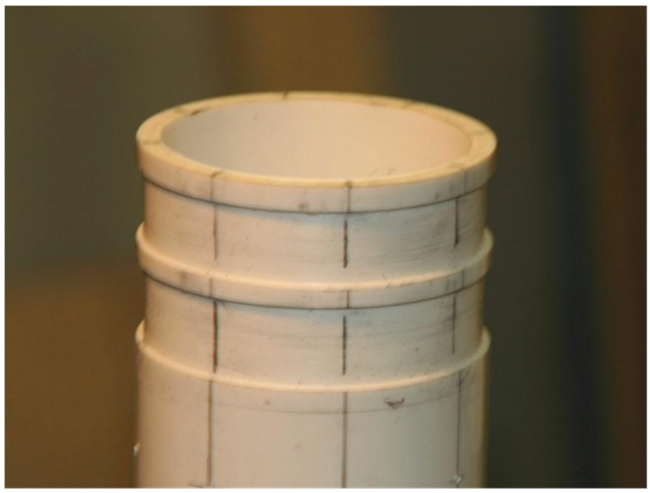


Use a parting tool to cut recesses that will fit the clamps. Make them uniform in depth.

Test fit the clamps.



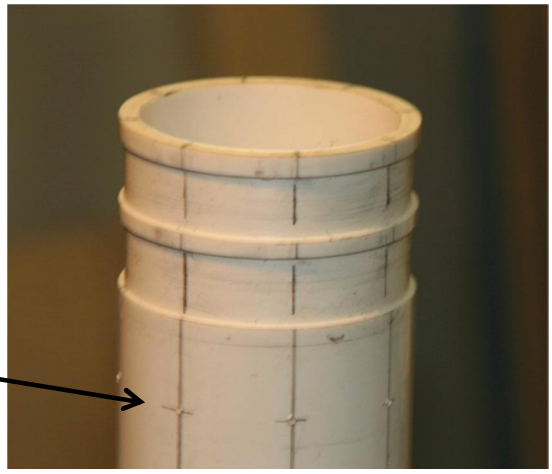
Transfer the markings from the top to the side of the cylinder.



Mark a point 5/8” down from the last groove.

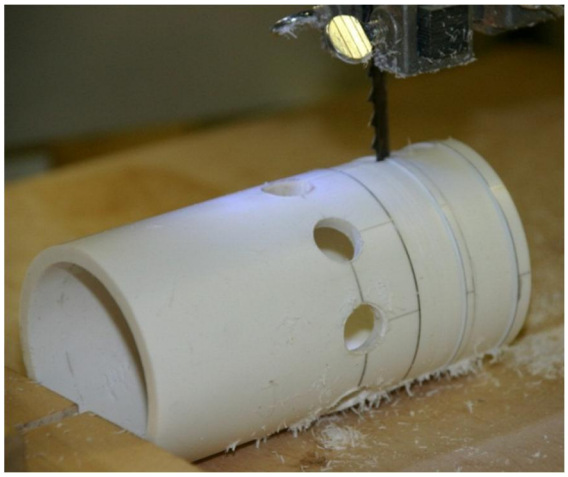
Do this to all eight lines.

Use a scratch awl to dimple where the lines intersect.

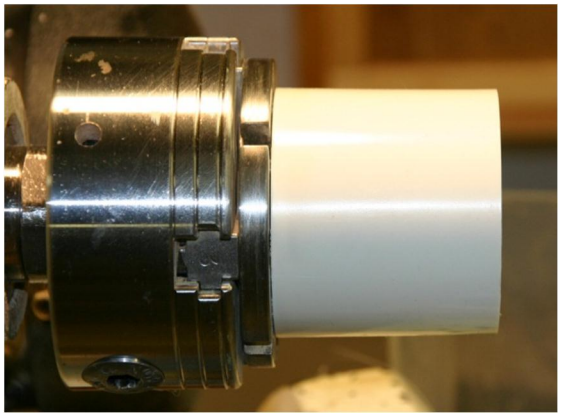


Using a ½” brad point bit, drill **four** holes **all the way through the pipe at each intersection**.

On the band saw, cut along the previously drawn lines. It’s OK if you’re a little bit off center. Just make sure that you cut into the holes.

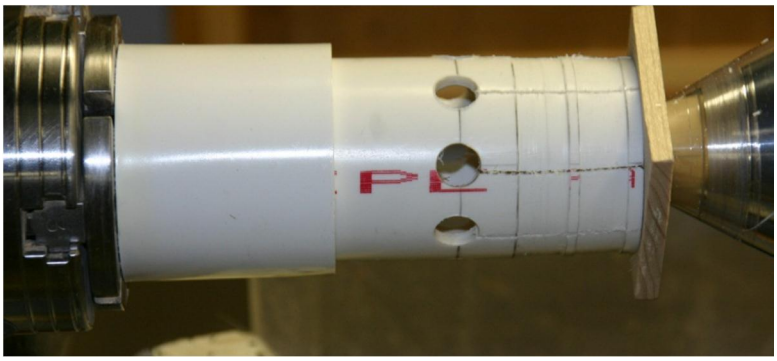


Mount the coupling on the lathe and make sure that it runs true.



Seat the chuck into the coupling. Use a block of wood on the tailstock and slowly push the chuck into the coupling.

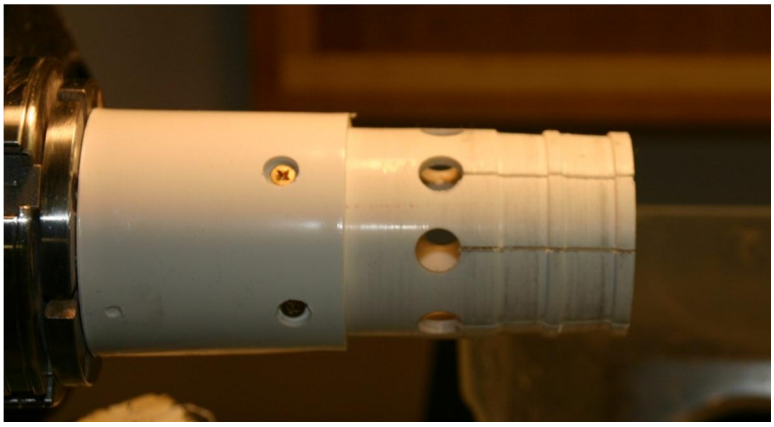
Make sure that it runs true.



At this point, you can do one of three things:

- Add CA glue to the inside.
- Use PCV glue.
- Add screws.

I prefer to add screws and to recess them.



When you are finished, it should look similar to this: