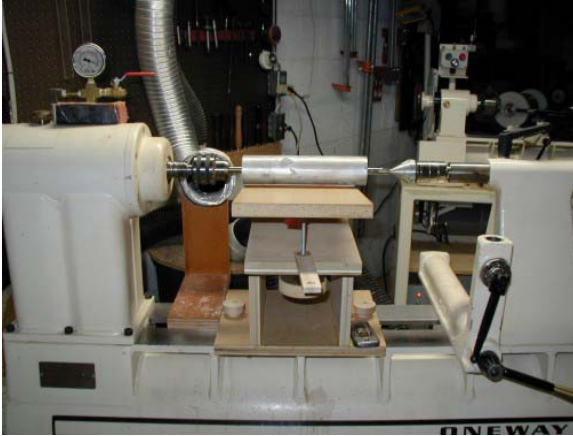


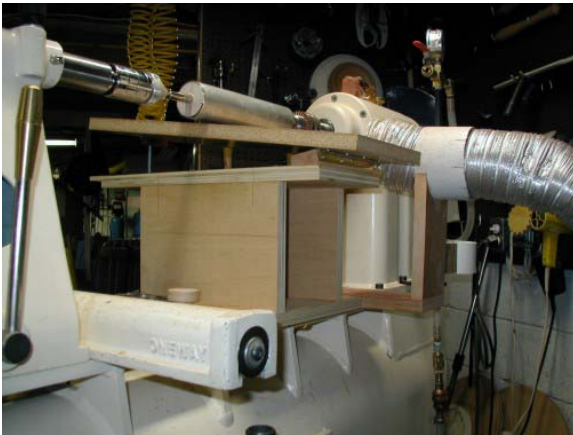
## Drum Sander For Dimensioning Wood Stock by William Smith

Note: Since preparing this article, I have upgraded the sander to use 3 inch diameter drums. If I made another I might try using Corian for the end blocks.

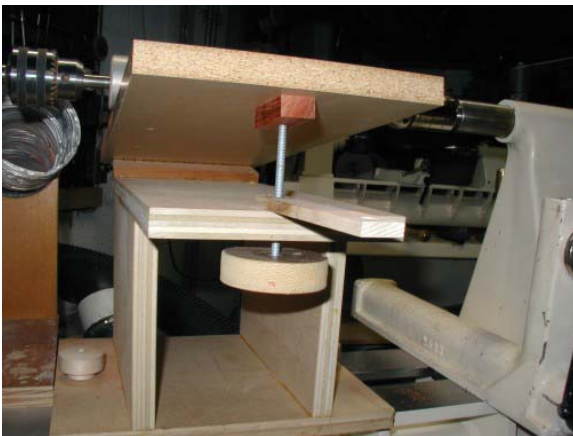


Overall view from the front. The drum is a 2 inch piece of aluminum tubing supported on mdf inserts on either end. The aluminum tubing has a  $\frac{1}{4}$ " wall thickness. The shaft is  $\frac{1}{2}$  inch steel that has a centered hole drilled on the right end to take the live center. A tight fit is all that is needed to hold the drum to the mdf end blocks and the mdf to the shaft. The hole for the live center was drilled on a machine lathe to insure it was centered. After mounting the drum on the endblocks

it was trued up on a machine lathe to insure it would run true. Note the dust extractor positioned just behind the drum. This is essential. You must use dust collection with any drum sander.

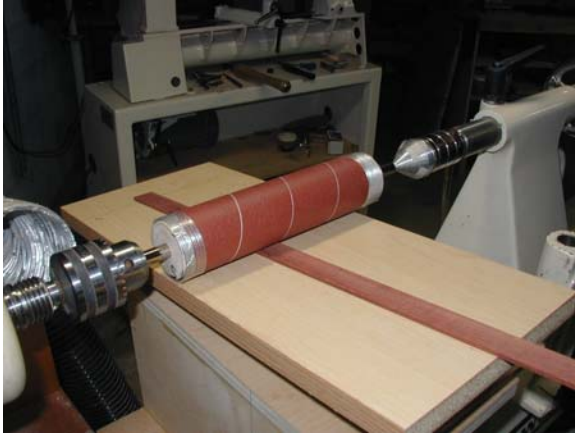


A view of the back side. I have used a piano hinge to attach the laminate covered mdf table to the base. The base is constructed from  $\frac{3}{4}$ " plywood and connects to the ways with clamps. A guide glued to the bottom of the base fits snugly between the ways to insure the table & base mounts true to the axis of the lathe.



Detail of the front. The table is adjusted with a  $\frac{1}{4}$  - 20 lead screw and a T-nut in the base. A knob was epoxied to the lead screw to make adjustments easier. Because of the geometry between the hinge, drum and lead screw, one full turn of the knob =  $.025$ " in thickness. The wood lever just above the table has a  $\frac{1}{4}$  - 20 nut epoxied into it. This is used to lock the lead screw so it does not turn during sanding operation.

Drum Sander For Dimensioning Wood Stock  
by William Smith



The sander with sand paper attached. Cut the paper so there is a 1/2" of drum showing on either side. Packing tape does an excellent job of holding the paper to the drum. On this one I made the drum about 10 inches long as I normally dimension very small strips. This is a relatively light duty sander. On woods that clog the sand paper I hold a cleaning stick on the top side of the drum to remove waste as it is cut. I also vary the speed based on the type of wood. I use slower speed for woods that have a high

resin content. I have 2 drums, one with 80 grit paper and the other with 150 grit. This allows me to quickly dimension my stock then switch drums to get a nice finish using the 150 grit drum. Switching drums takes just seconds.

**Note: The wood is fed against the rotation of the drum so the drum is trying to push the wood back at you.**

**If you feed the wood from the front of the lathe you MUST have the lathe running backward.**

**If you cannot run the lathe backward then you must feed the wood from the back of the lathe.**