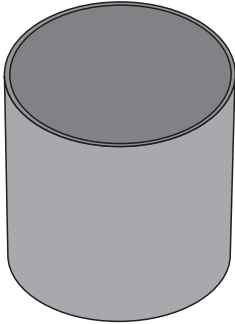




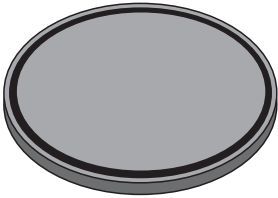
## A Vacuum Tank

This tank is designed for vacuuming resins into wood or extracting air from articles being embedded into resins. It is designed to be connected to the vacuum pump setup shown on [www.sawg.org.nz/sawg/wp-content/uploads/2014/01/Vacuum-Pump.pdf](http://www.sawg.org.nz/sawg/wp-content/uploads/2014/01/Vacuum-Pump.pdf)

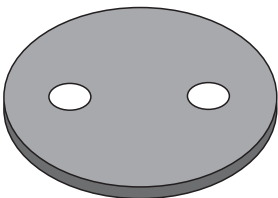
The size shown here is suitable for many projects. A larger size may require more robust components.



Start with a length of steel or plastic pipe about 250mm diameter and 300mm long. Steel should be at least 5mm thick and plastic 10mm thick. True up both ends of this pipe.



If you have steel pipe, weld a sheet of 8mm steel on for the bottom. A continuous weld around the circumference is needed. If you have plastic pipe, cut a sheet of 25mm ply, or thicker plain wood (not recommended as it may warp), for the bottom. Cut a groove to accept the length of pipe. Roughen the surface of the pipe that will be in this groove. For a plain wood base put flexible silicone sealant in the bottom of the entire groove and seat the length of pipe into it. Epoxy resin may be used in a plywood base. Give the wood or plywood base a very thorough coat of paint to stop air flow through it.

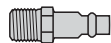
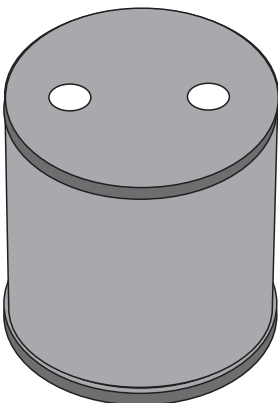


All lids are flat on the under side with a ring of rubber or thin closed cell foam where the lid will meet the sides of the chamber. It is desirable to have a top that you can see through to know what is happening inside the chamber. If you can get some very thick (20mm) glass for the entire top, this will work.

If the top is to be steel or wood cut two small viewing ports and cover them with plate glass. One port is to allow light into the chamber and the other is for the operator to see through.

For a steel chamber you can cut a round of 8mm steel.

For a plastic chamber cut a round of 25mm ply, or thicker plain wood (not recommended as it may warp). Give the wood or plywood top a very thorough coat of paint to stop air flow through it.



Add a connector for the hose from the vacuum pump. Regular compressed air fittings are recommended.

Some vacuum tank plans show a vacuum gauge on the tank. If the operator can see into the tank a gauge is not needed. If a vacuum chuck pump is used as recommended above then that will have a vacuum gauge.