

## Assembly of Variable Capacity Tank

There are six components of a floating lid: stainless steel lid, white plastic air valve, inflatable gasket, soft vinyl tubing, screw clamps and air pump. Assembly of the lid is very simple and is similar to installing a tube on a bike tire.

1. Install the inflatable gasket on the lid. Put the gasket stem through the small hole in the lid lip and stretch the gasket around the lid. The gasket will be very tight when first applied. This is normal and is particularly true for small diameter tanks. [The Desmopan gaskets that we sell are even tighter initially than the vinyl gaskets sold by most other suppliers. Desmopan stretches more than vinyl.] The gasket stretches upon inflation. To make assembly easier, simply attach the gasket to the pump and inflate/deflate once or twice before attaching the gasket to the lid.
2. Install the white plastic air valve.
3. Attach the air pump to the gasket using the vinyl tubing and screw clamps.
4. Inflate the gasket and check for leaks at the connections of tubing/gasket and tubing/pump. Use either soapy water (2 parts water/1 part dish soap) or immerse in water if possible.
5. The vast majority of leaks are at the connection of the vinyl tubing/gasket or pump/vinyl tubing. The leak can result from either under-tightening or over-tightening of the screw clamps. It is very rare for either the pump or the Desmopan gasket to be defective. It is advisable to annually cut the ends off the vinyl tubing or replace the vinyl tubing as it dries out and becomes less pliable.
6. Use Teflon tape to seal threaded connections (sample taps, thermowells, etc.)
7. Fill tank with water initially to ensure all connections are sealed.
8. Install floating lid. Simply float the lid on the wine (like a boat) and inflate with gasket to make the seal. Inflate only to make a seal and never exceed 0.8 bar. The green zone on the gauge is the maximum pressure zone. Typically 0.5 bar is sufficient but it will depend on the tank size. Over inflation can result in one of two problems. 1) Forcing wine up through the air valve and 2) lid slips up the side of the tank.

What to do if your gasket does not hold pressure.

Please note that we do not sell vinyl gaskets (since 2002) which are much more prone to leaks than the Desmopan gaskets. It is quite rare to have either a defective Desmopan gasket or air pump. Find the leak by using soapy water or by immersing the gasket in water. The vast majority of leaks are at the connection of the vinyl tubing to the gasket stem or to the pump. Check these carefully first. If necessary, check the pump by disconnecting it from the system, pump it up with your finger over the outlet, close valve, and immerse in water. Note that the gauge will fill with water first which causes bubbles--this is not a leak. Wait until the gauge is filled with water then inspect carefully the connection of the gauge to the pump housing. If this leaks, simply remove gauge and apply Teflon tap.

Pump Note: The pump valve has three positions. The best way to understand it is to simply experiment with it. Fully-closed seals off the gasket from the pump, except for the gauge .

Fully-open deflates the gasket. Partially-open is the position used to inflate the gasket.