Using a Pressure Chamber To Create Bubble-Free Castings

CAUTION: EXPLOSION RISK

Maximum working pressure is 80 psi (5.5 bar). Do not exceed. The safety relief valve is designed to protect the tank against excessive pressure. DO NOT attempt to make any adjustments to this valve. If the valve begins to vent air pressure, reduce the setting on the inlet regulator. DO NOT alter the tank in any way by welding, drilling or machining as this may weaken the structure of the tank. Be sure the tank pressure is completely relieved before attempting to remove the tank cover. Shut off the main air supply to the tank and vent the pressure using the tank vent valve located on the tank cover.

Using the Pressure Chamber on Wheels in a Vertical Position



Unpack the pressure pot, the wheel assemblies and the bracket hardware.



Place the lid on the pressure chamber and tighten the wing nuts.



Attach the four wheel assemblies and secure tightly with a wrench.



Be sure to secure the lid properly by tightening the wing nuts in tandem diagonally for best results.



Pressure chamber is fully assembled and ready to go.



Place a filled mold inside the pressure chamber



Attach an air supply hose. The regulator is preset at recommended 60 psi.





Flip the air control valve lever from the down position to the up position to release the air flow into the pressure chamber. Air will flow at 60 psi.



While the pressure pot's limit is 80 psi, it's not recommended to exceed 60 psi.



When the demold time is up, remove the mold from the pressure chamber.



Close the air control valve by placing the valve in the down position.



The result is a bubble-free casting that is identical to the original model.



The air hose can then be removed and the chamber will retain its pressure.



Keep the material under pressure for a duration at least equal to its demold time. Then release the air pressure valve.

Using the Pressure Chamber on Its Side in a Horizontal Position



Unpack the pressure chamber and all its contents.



The pot is in working position and almost ready for pressure casting.



Position the lid on the pressure chamber.



Use the enclosed hardware to attach the two brackets to the chamber.



Make sure the chamber is level from front to back.



Use your body to hold the lid in place as you tighten the wing nuts.



The chamber should be positioned so it extends slightly out over the table edge.



Place a board to use as a level surface inside the pressure chamber.



Attach a pressure hose and **follow steps 9 through 13 on the previous page.**



Use the self-starting screws to secure the chanber to the table top.



Place the resin-filled mold inside the pressure pot on the level board.

Caution: Although the pressure chamber is rated at 80 psi, it is not necessary to exceed 60 psi when casting. The air pressure valve is preset to 60 psi. Read and observe all safety precautions.

