



VAPOR SATURATOR

Air enters through the Vapor Saturator. Prior to use, the bowl of the saturator is unscrewed from the cap and partially filled with water (see illustration). The bowl is then replaced. The purpose of the saturator is to completely saturate incoming air to the Volumetric Pressure Plate Extractor so that there will be no drying effect on the soil sample being tested, so that no errors will be introduced into the water volume measurement from this source. The Vapor Saturator is designed for operation at pressures up to 30 psi.

SETUP

Fill the vapor saturator with water as instructed in the figure at the left. Connect the air pressure hose from the manifold to the dry air inlet barbed hose fitting, opposite the pressure release valve. Then connect a short length of hose between the moist air outlet and the pressure inlet fitting on the extractor body.

OPERATION

Follow standard procedures for preparing soil samples for testing. To pressurize the extractor, close the pressure release valve at the saturator, and open the shut-off valve at the manifold. Use small increments (1-2 psi) to increase pressure. This will prevent water in the vapor saturator from vigorously bubbling and "blowing" into the extractor. Gradually increase pressure to the desired testing pressure; bubbling will be visible within the Vapor Saturator.

When equilibrium is reached, close the shut-off valve at the manifold, and relieve pressure within the extractor by opening the pressure release valve at the Vapor Saturator.