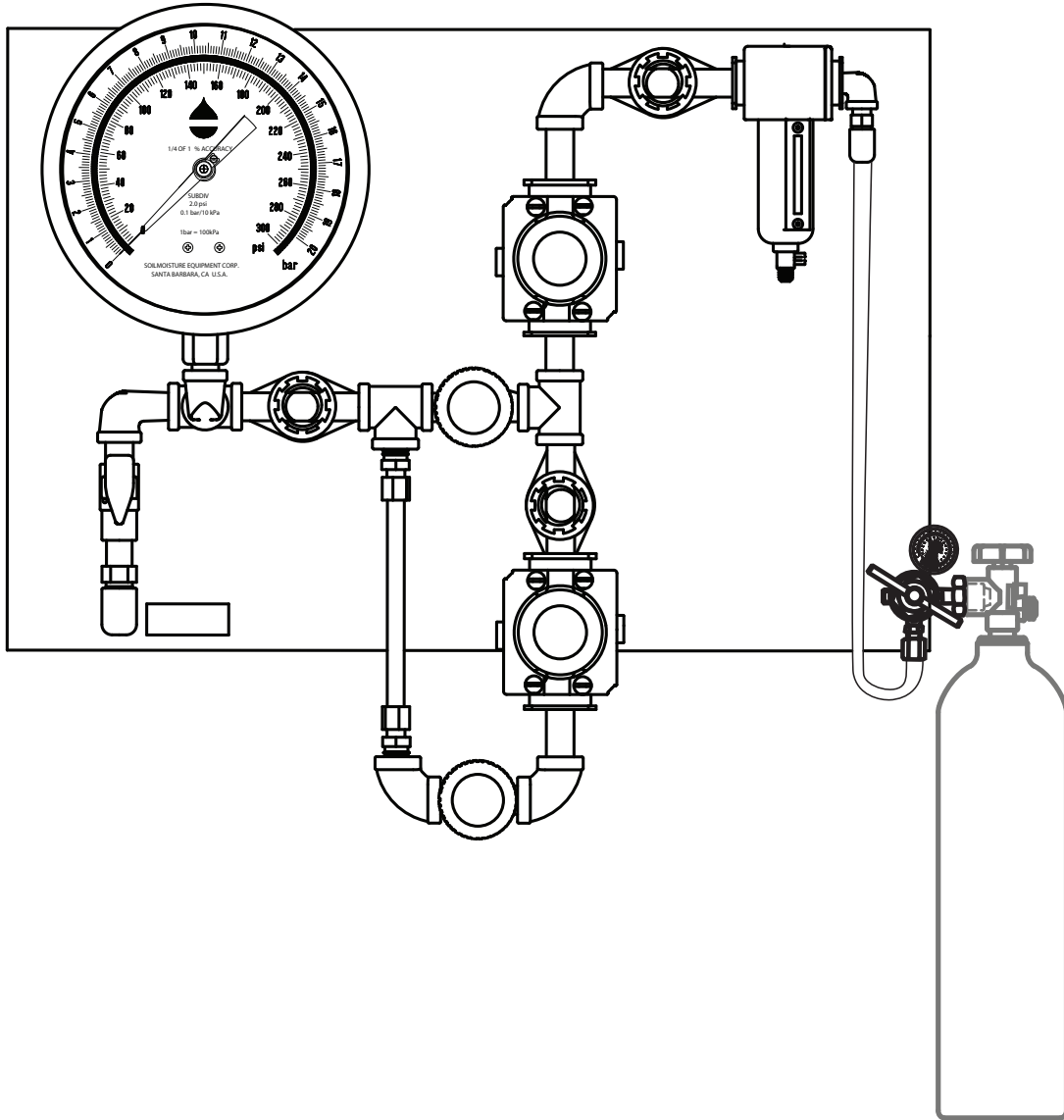


# 0750G2

# OPERATING INSTRUCTIONS

0750G2 Manifold

May 2008



*Fig. 1 0750G2 Manifold with optional air tank*

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The 0750G2 Manifold Is supplied completely assembled and tested and ready for mounting on the laboratory wall. The Cat. No. 510B15 Regulator which couples directly to the nitrogen or air tank Is packed separately. The 3/4" thick plywood base which supports the various other components can be drilled at any convenient location for mounting with

wood screws or bolts to the laboratory wall. Normally the tank of compressed nitrogen or air is set adjacent to the laboratory bench and the pressure control manifold.

The 0750G2 Manifold is for operation of the 1500F1 15 Bar Ceramic Plate Extractor. It can also provide well regulated pressure in the range from 0 to 250 psi for other applications. The attached engineering drawing shows a typical laboratory setup for this manifold and points out the various operating parts.

After mounting the manifold board to the laboratory wall the Cat. No. 510B15 Regulator is coupled to the water pumped nitrogen or air tank. The coupler fitting Is designated as CGA 580 and is the standard for water pumped nitrogen or air tanks i nth i s country. A co i of 1/4" copper tubing is supplied with the Cat. No. 510B15 Regulator and this tubing is used to make connection between the output of the regulator and the other portion of the manifold mounted on the laboratory wall The 1091 Connecting Hose Is used to make connection between the Cat.

1500F1 15 Bar Ceramic Plate Extractor and the outlet fitting on the manifold.

The thread size of this connecting hose is 9/16-18. Pressure seal at the hose connection is made when the round "nose" of the brass stem inside the hose nut Is pressed against the recessed conical surface of the output valve on the manifold. This is a metal-to-metal seal and is very effective. The screw threads on the fitting and hose nut only serve as a means of holding the parts in contact. The threads themselves do not make a seal. Only a small amount of torque is required and should be used In connecting this hose.

In setting extraction pressures in the range from 125 to 225 psi, Valve "A", reference the attached engineering drawing, is opened and Valve "B" is closed. All pressure regulation is done with the one Cat. No. 510B15 Regulator. The regulator is turned clockwise for high pressure values and the pressure is read directly on the test gauge. For low extraction pressure in the range from 0 to 125 psi Valve "A" is closed and Valve "B" is opened. The high pressure regulator, Cat. No. 510B15, is then set for a pressure value in excess of 125 psi, usually In the range of 125 to 150 psi. This high pressure regulator then supplies pressure to the Cat. No. 11-002-013 low pressure regulator. This low pressure regulator is then set for the extraction pressure desired and the pressure Is read out on the test gauge.

This system for low pressure regulation Is known as "double regulation" and Is frequently used to provide very accurate control of pressure. AI I regulators reflect in their output pressure variations present In the pressure from the sources of supply. By placing two regulators in series, such as mentioned above, variations In the output pressure from the first regulator are considerably reduced by the second regulator so that the output pressure from the second regulator is very constant with source pressure variations reduced in the ratio of 1:100 or more.

At the end of a run when it is desired to exhaust air from the extractor, Valve "A" should be closed, if it is not already closed, Valve "B" should be opened, If it is not already open, then the Cat. No. 11-002-013 Regulator should be closed by turning the handle in a counterclockwise direction.

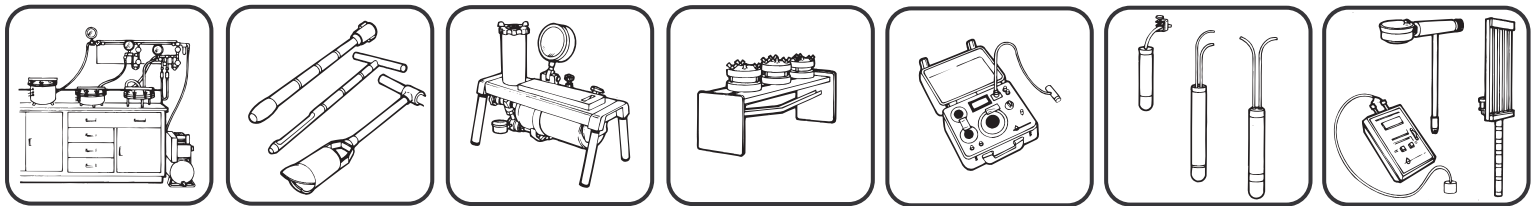


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As this is done, the air from the extractor will exhaust through the regulator. This is a feature of “relieving type” regulators and it eliminates the necessity of having a separate exhaust valve. On a relieving type regulator, any pressure on the output side of the regulator which is in excess of the pressure value set by the regulator will automatically exhaust through the regulator mechanism.

**THE 0750G2 MANIFOLD, INCORPORATES:**

- (1) 0767P0300G1 Regulator (0-300 psi)
  - (2) 0766P0150 Regulator (0-150 psi)
  - (3) 0780P0300 0-300 psi Test Gauge
- All necessary valves and fittings



With dealers throughout the world, you have convenience of purchase and assurance of after-sales service.

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