

**TEST BENCH FOR CONTROL VALVES**





### 3 Nos. Air regulators



#### *Specifications*

Pressure Gauge port Size	1/8"
Max.Supply Pressure	15 bar (225 psi)
Set Pressure	refer product nameplate
Installation	Any Position
Medium	Compressed Air – Filtered
Ambient/media temperature	5 Deg c- 60 Deg C (41- 140 Deg F)

Operation manual and maintenance manual as per attached.

### 1 No. Filter regulator Combination-Lubricator



#### *Specifications*

Max.Supply Pressure	10 bar (140 psi)
Installation	Vertical
Recommend Oil	ISO VG-32/ Mobil DTE Light
Medium	Compressed Air – Filtered
Ambient/media temperature	5 Deg c- 60 Deg C (41- 140 Deg F)
Bowl Material	Polycarbonate

Operation manual and maintenance manual as per attached.

### **3 nos. Mercury Pumps**

#### *Specifications:*

Suitable to Pressure Class 150 to 2500.

Operation manual and maintenance manual as per attached.

### **1 Nos. Air Compressor**



#### *Specifications:*

Size :457 x 960 mm

Shell Thickness : 4 mm

Dished End Thickness : 4 mm

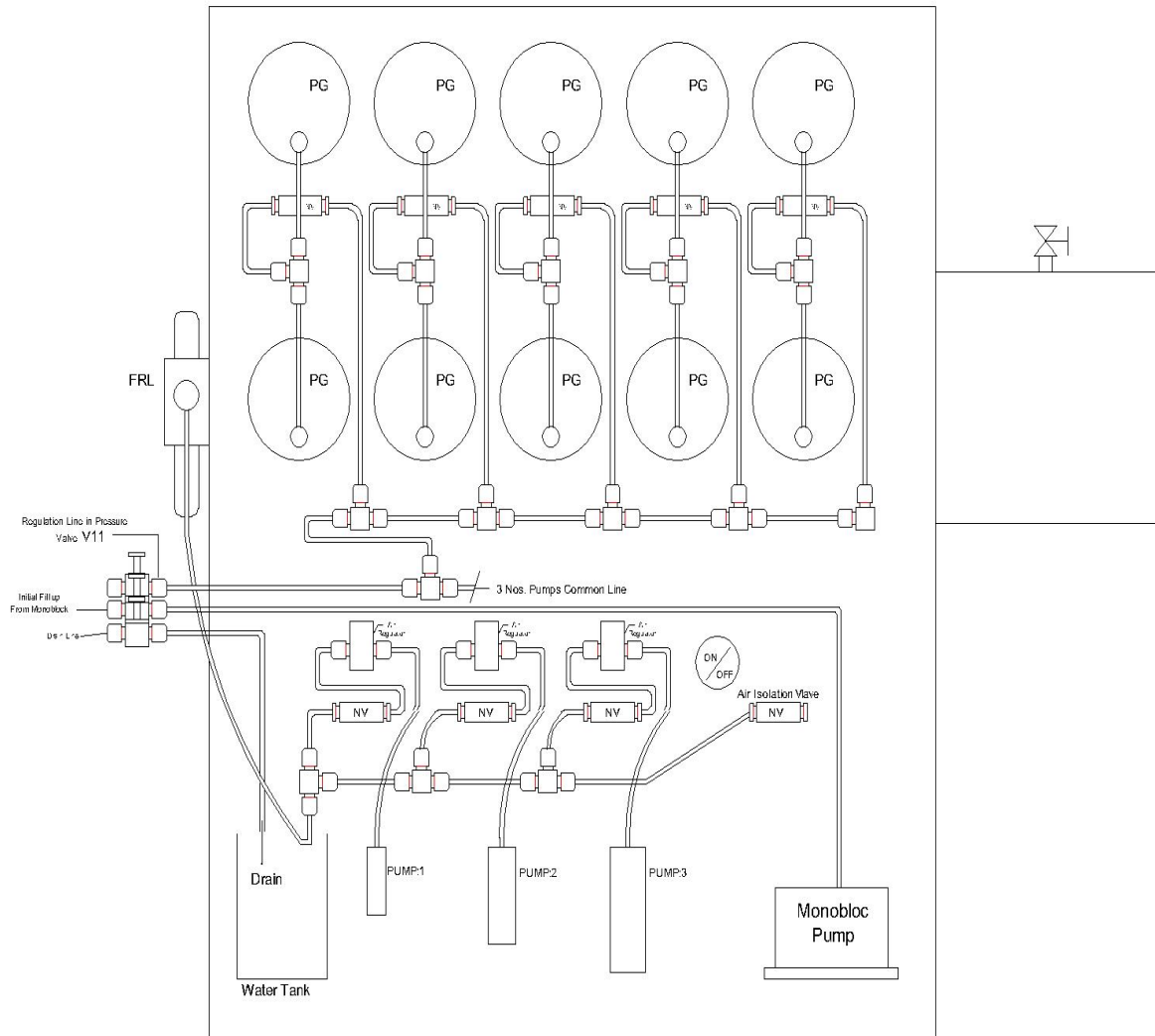
Working Pressure : 175 PSIG

Designed Pressure : 192 PSI

Hydraulic Test Pressure : 290 PSIG

Operation manual and maintenance manual as per attached.

# Line Diagram for Tubing of Panel



## 2) Operation panel for Control Valves



### Specifications:

Panel Input : 220 V, AC  
5 Amp.

Phase : Single Phase

Pressure : 7 Kg/cm<sup>2</sup>

Signal Input : 4-20 mA & 0.2-1 Kg

This Panel Possesses

Top cover is Free from Panel for the Maintenance.

1 No. Air regulator (0-10 kg/cm<sup>2</sup>)

1 No. 4-20 mA Source 10 V DC

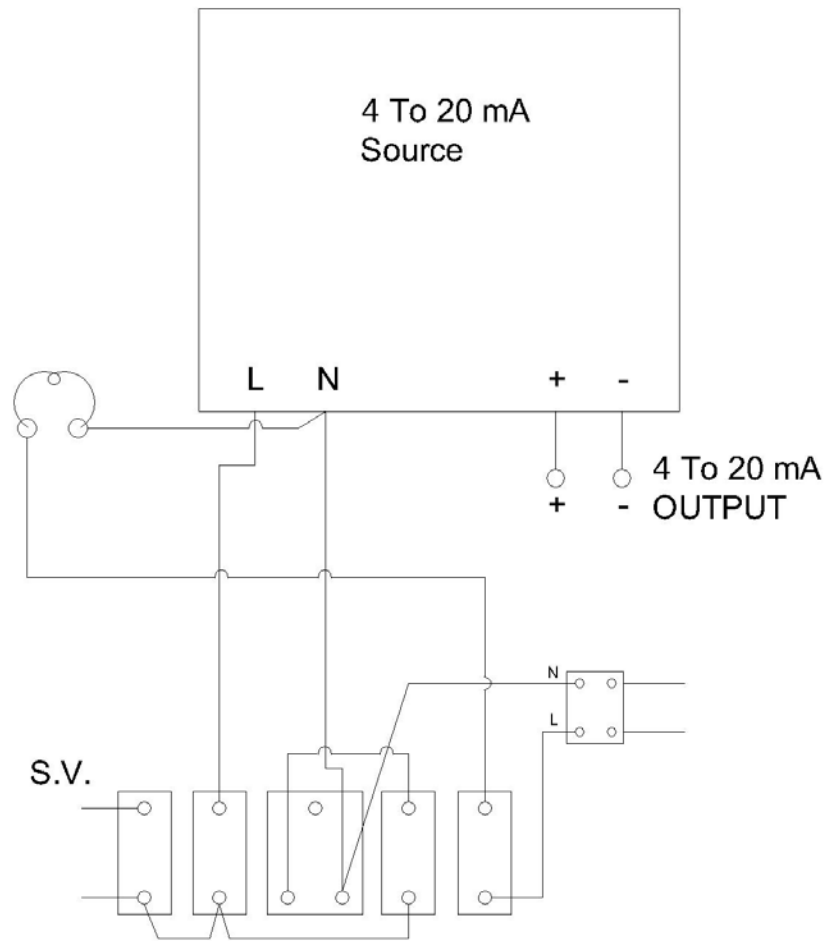
1 No. Solenoid Valve 5/2(4 way)

2 Type 1/4" BSP(F) Connections to connect the Tested Control valve  
With NO (Normally Open) and NC (Normally Closed).

1 No. Ball valve for Inlet of Air in the Panel.

**By This panel any kind of Control valve can be Operated.**

**Circuit Diagram For Maintanance**



## **Procedure to check the Valve.**

Below Procedure determines how to check Valves in against Pressure class.  
It also determines steps According to Valves Code. i.e. V1,V12 Etc.  
All these Procedure steps also looks on the top Desk of the Test Batch.

For below any Pressure Class test, Before Start the panel by ON/OFF Switch.

### **HYDRO TEST FOR # 150**

- 1) Ensure all the valves in closed condition
- 2) Open valve V12 & start monoblock by electrical switch button.
- 3) After water filling close the valve V12 & open the valve V11.
- 4) Open the gauge isolation valve V2 & open valve V6 for pump isolation regulator.
- 5) After completion required cycle time, drain the pressure by opening V13 valve, & close pump isolation by closing V6 valve, & close gauge isolation valve V2.

### **HYDRO TEST FOR #300**

- 1) Ensure all the valves are in closed condition.
- 2) Open valve V12 & start monoblock by electrical switch button.
- 3) Close the valve V12 & Open the valve V11.
- 4) Open the gauge isolation valve V3 & open valve V6 for pump isolation & regulate air regulator for #300 & set required pressure.
- 5) After completion required cycle time drain the pressure by opening V13 valve & close pump isolation by closing V6 valve & close gauge isolation valve V3.

### **HYDRO TEST FOR #600**

- 1) Ensure all the valves are in closed condition.
- 2) Open the valve V12 & start monoblock by electrical switch button.
- 3) Close the valve V12 & open the valve V11.
- 4) Open the gauge isolation valve V3 & open valve V7 for pump isolation & regulate air regulator for #600 & set required pressure.
- 5) After completion required cycle time drain the pressure by opening V13 valve & close pump isolation by closing V7 valve close gauge isolation valve V3.

### **HYDRO TEST FOR #800 & 900**

- 1) Ensure all the valves are in closed condition.
- 2) Open valve V12 & start monoblock by electrical switch button.
- 3) Close the valve V12 & open the valve V11.
- 4) Open the gauge isolation valve V4 open valve V7 for pump isolation & regulate air regulator for # 600, 800 & 900 & set required pressure.
- 5) After completion required cycle time drain the pressure by opening V13 & close pump isolation by closing V7 valve & close gauge isolation valve V4.



### **HYDRO TEST FOR # 1500& 2500**

- 1) Ensure all the valve are in closed condition.
- 2) Open the valve V12 start monoblock by electrical switch button.
- 3) Close valve V12 & open valve V11.
- 4) Open the gauge isolation valve V5 & open valve V8 for pump isolation & regulate air regulator for #1500 & 2500 & set required pressure.
- 5) after completion of required cycle time drain the pressure by opening V13 valve & close pump isolation by closing v8 valve & close gauge isolation valve V5.

### **AIR TEST**

- 1) Ensure all valves are in closed condition.
- 2) Open air isolation valve V9 & open V11 valve for air isolation in valves. & open V1 valve for gauge isolation.
- 3) after required cycle time & required pressure drain the air pressure by opening V13 valve & close V9 valve gauge isolation valve V1.

### **NITROGEN TEST**

- 1) Ensure all valves are in closed condition.
- 2) Open nitrogen isolation valve V10 & pen V11 valve nitrogen isolation in valves & open V1 valve for gauge isolation.
- 3) After required cycle time & required pressure drain the nitrogen pressure by opening V13 valve & close V10 valve & gauge isolation valve V1.