



Over Pressurisation Protection Unit.

Job no 2442628/R
Scotia Instrumentation Ltd.
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General description

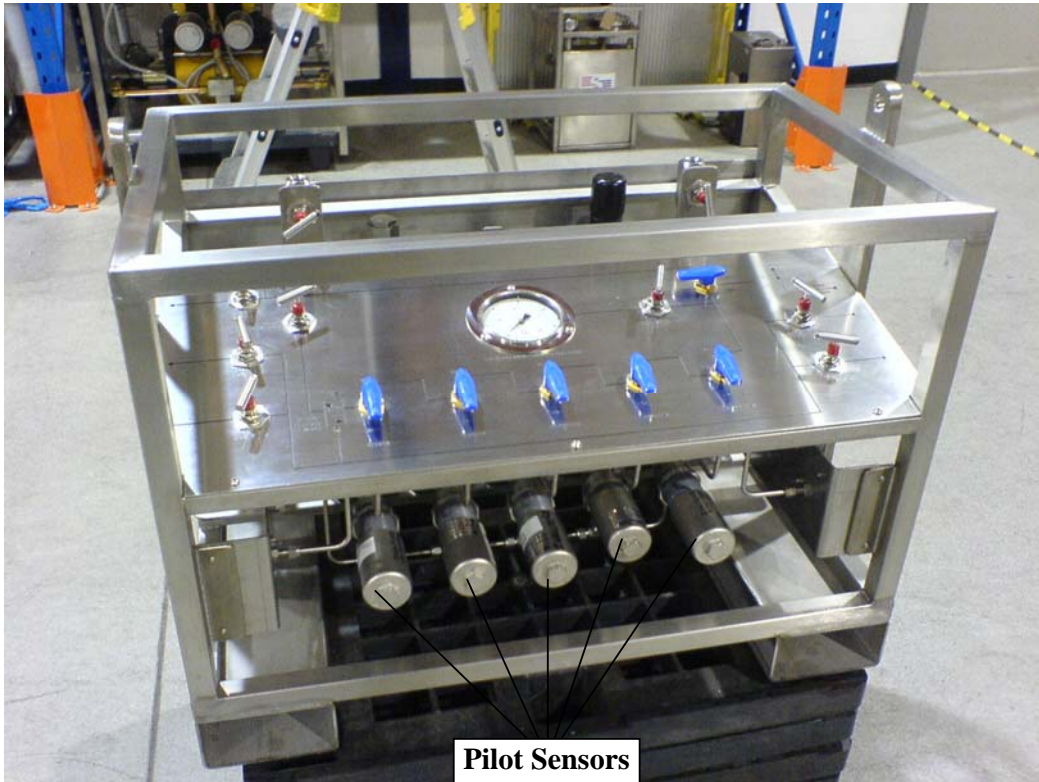
The Over Pressurisation Protection Unit has been designed to halt pumping or further rise in testing pressure at a pre determined value in order to protect plant and equipment which can be remote from the pump unit or source of pressure.

The pressure can be directly monitored by the operator via a 10” test gauge which is able to be fitted to the unit.

Five pilot operated, three port, two-position valves with manual adjustment are fitted to sense the system pressure and control the shutdown. They are configured normally open and mounted so that they are adjustable from the front of the panel.

These valves have overlapping ranges meaning the OPPU can be set to operate between 10 and 10,000 psi.

Stainless steel construction throughout, the dimensions are 890 mm wide, 510 mm deep and 700 mm high. Approximate weight is 95 kg



Connections

Inlet side.



**SENSING PORT
INLET**
Pressure from system
being protected

**SHUTDOWN
CONNECTION
FROM PUMP**

**CALIBRATION
PORT
INLET**
To supply external
pressure for calibrating
switching points

AIR SUPPLY
100 psi supply to operate
OPPU system

Outlet side.



**RELIEF VALVE
OUTLET**

Allows controlled venting
to safe area in case of noxious
substance being pumped

**CHART RECORDER
OUTLET**

Allows a permanent
record to be produced
via recording device

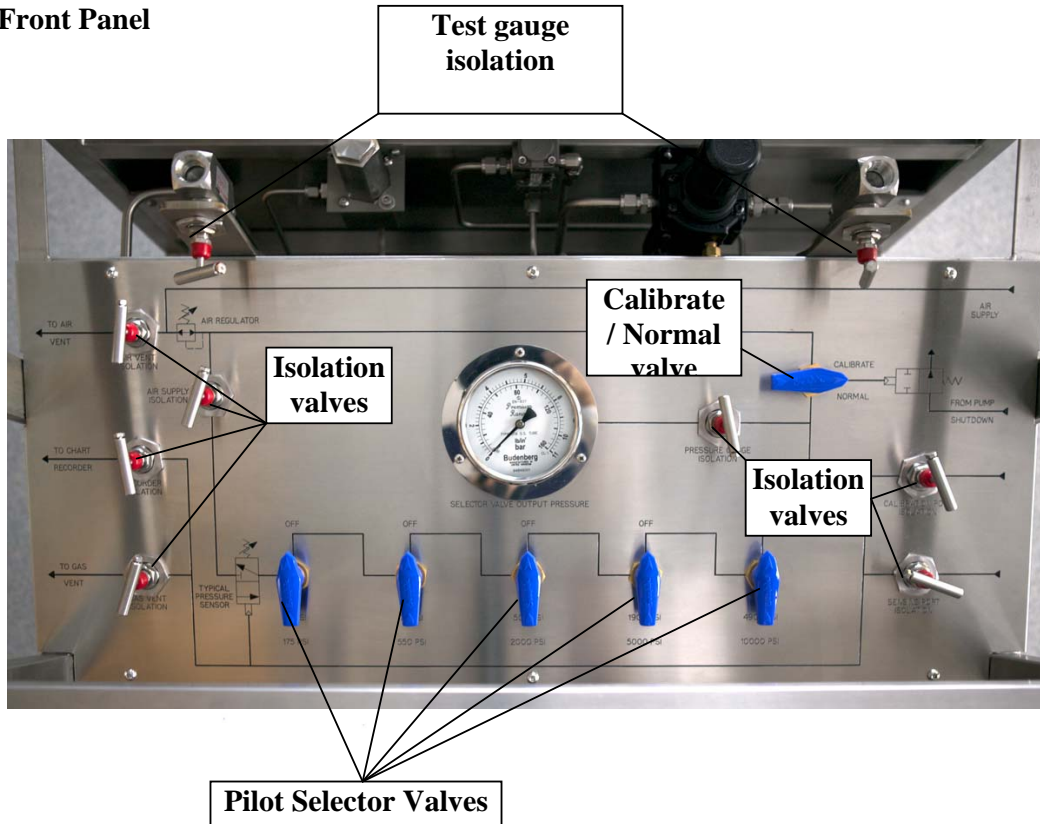
**AIR SUPPLY
VENT**

To vent OPPU and
supply lines from
compressor

VENT

Used to vent the system
being pressurised

Front Panel



Setting the Over Pressurisation Protection Unit

Close the isolation valves for the Sensing Port, Vent Ports and Chart Recorder port.

Connect suitable clean dry 100psi air supply to Air Inlet connection.

Connect a suitable Test Gauge to one of the vertical connection valves. Close the unused valve.

Connect a suitable pressure source to the Calibration Port Inlet.

Note: if water is the testing medium, Test Gauge isolation valves should be opened and any air trapped in the OPPU bled out.

Turn "Calibrate / Normal" valve to 'Calibrate' position (handle points to back of unit).

Select the Pilot Sensor appropriate for the Shut-Down Range and turn the Selector Valve to the 'ON' position. **Note: Only one Pilot sensor to be selected per test.**

Using the hex on the end of the Adjustment Cap on the selected Pilot Sensor, turn clockwise 2 turns.

Ensure that supplied Calibration Pressure is set at desired switching point, this will be indicated on the test gauge fitted earlier.

Slowly rotate the Adjustment cap on the selected Pilot Sensor clockwise until the pressure on the Selector Valve Gauge drops to atmospheric.

Close valve to isolate the Calibration Inlet Port.

Vent OPPU to atmospheric pressure by opening the Gas Vent Valve.

Turn "Calibrate / Normal" valve to 'Normal' position (handle points to front of unit).

Connect pump shutdown pressure line with suitable hose to the Shut Down Connection on the OPPU skid.

Connect system to be pressurised to the OPPU skid using suitable hose to Sensing Port Inlet.

Open the Sensing Port Isolation valve.

The Over Pressurisation Protection Unit is now ready for use.