

# PV VALVE TEST KIT MANUAL

### INSTRUCTION MANUAL

Manual No. : OSPLPVT / 01-2018, Rev 00 1st March, 2018

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#### 1. FUNCTIONAL DESCRIPTION

#### 1.1. General

The purpose of this Test Kit is to test Pressure / Vacuum valves as to setting on both pressure and vacuum side.

#### 1.1.1 Lifting of valves to be tested

Always lift valve safely as this might damage the valves and cause malfunction of the valve. Use a round sling made from fabric intended for the load of the valve in question.

Never use wire of chain

#### ALWAYS MAKE SURE THAT CORRECT LIFTING APPLIANCE TO BE USED TO LIFT THE VALVES AS PER WEIGHT OF THE VALVE.

#### 1.1.2 Installation of Test Kit

We recommend to install the Test Kit in rooms below deck such as Engine Room Work Shop or similar. This Test Kit can be used on deck also.

#### 1.1.3 Air supply

Only compressed air supply to be connected: Max. inlet pressure: 6 - 10 bar Use only dry and clean Air (free from oil vapours).

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#### 1.2. Design

The Test Kit is made from steel tubing and plates, which is coated in order to withstand corrosion. This Test Kit is designed for Pressure/vacuum valves with pipe size of 2 inch to 8 inch.

The safety is ensured by providing Relief valve.

#### 1.3. Test Kit Arrangement

The Test Kit Ship consists of the following components:

- 1 Foundation and Air Reservoir
- 2 Compressed Air Inlet Valve A
- 3 Control Panel
- 4 Pressure/Vacuum Gauge
- 5 Relief Valve
- 6 Drain Plug
- 7 Valve B
- 8 Valve C
- 9. Down Holders (4 Pieces)
- 10. Outlet Plate
- 11. Pressure regulating valve regulator





#### 1.4. Maintenance

The Test Kit does not require any special maintenance however we recommend the following in order to ensure correct readings during testing:

- Keep all threads on handles well lubricated.
- Ensure plastic hose to be without any damages and leaks.
- To drain off all water if the compressed air is not completely dry.
- Replace rubber gasket if it worn to ensure proper sealing during testing.
- Ensure that Relief valve is working.

#### 2. TESTING INSTRUCTIONS

#### 2.1. Fitting of P/V Valve

Check/clean connection flange on the PRES-VAC P/V, which is to be tested, before fitting it onto the outlet plate using the four down holders.

## 2.2. Instructions for Pressure testing/ setting of PV <u>Valve</u>

1. Connect ship's service air supply to the inlet of Pressure Regulating valve & adjust Pr. Regulating V/V outlet Pressure to 6 Kg/cm2 (MAX).



- 2. Mount High velocity venting valve to be set on the adapters provided which are to be fixed on the top face of test kit.
- 3. Keep drain plug closed during testing/setting the pressure.
- 4. After the air supply is started, Valve A (inlet Valve) to be fully opened and Valve B & C to be kept on pressure side.
- 5. Check the reading on the pressure gauge at which pressure side of PV Valve Lifts & record this reading. Compare this reading with actual setting reading of PV Valve.

#### 2.3. Instructions for Vacuum Testing/Setting of PV Valve

- 1. Connect ship's service air supply to the inlet of Pressure Regulating valve & adjust Pr. Regulating V/V outlet Pressure to 2.5 Kg/cm2.
- 2. Mount High velocity venting valve to be set on the adapters provided which are to be fixed on the top face of test kit.
- 3. Keep Drain plug closed during testing/setting the pressure.
- 4. After the air supply is started, Valve A (inlet Valve) to be fully opened and Valve B & C to be kept on Vacuum side.

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Check the reading on the pressure gauge at which vacuum side of PV Valve Lifts & record this reading. Compare th

#### 3. TROUBLE SHOOTING

Please note that this trouble shooting is only applicable for the Test Kit, and not for the P/V valve.

Please see Instruction manual for the P/V valve in question.

#### 3.1. Trouble Shooting List

Problem	Cause	Remedy
Water in air	The compressed air contains too much water	Drain Test Kit Air Reservoir using the drainplug Check ship's air treatment system for defects or drain ship reservoir
Nopressure	No pressure hose connected	Connect pressure hose from ship air pressure system
	No pressure in ship air pressure system	Check ship air pressure system