

KSEPW TYPE

Liquid Seal Type Emergency vent cover

INSTRUCTION MANUAL



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K.S.P.C

488-1 Wolha-ro, Tongjin-eup, Gimpo-si, Gyeonggi-Do, Korea

Tel : +82-31-998-3825~7

Fax: +82-31-998-3828

E-mail : kspc@kspc21.com

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Section 1. General Description

- 1-1 According to API 2000 code, the Emergency Pressure Relief Vent cover of Model KSEPW are Designed, manufactured and tested.
- 1-2 Model KSEPW, which is used for the protector of fluid storage tank, is composed of a body with the Function of emergency pressure relief.
- 1-3 This is the safe valve to protect the storage tank from the inflation(pressure) with the function to discharge Rapidly the overpressure developed during external fire around the storage tank or the Excessive fluid intake more than the capacity of pump planned.
- 1.4 Model, KSEWP IS designed to be Cushioned air seating, Teflon (FEP) seating diaphragm are Standard. It minimize sticking caused by resinous vapors and atmospheric moisture. The excessive pressure over 75% of set point builds up to 90% of set point, the Liquid catch up the Leakage. It is designed to be self closing under normal operation by Inside Guide and the restraining cable to connect the Cover A'ssy and Flanges and also serve a grounding cable (Figure 1).

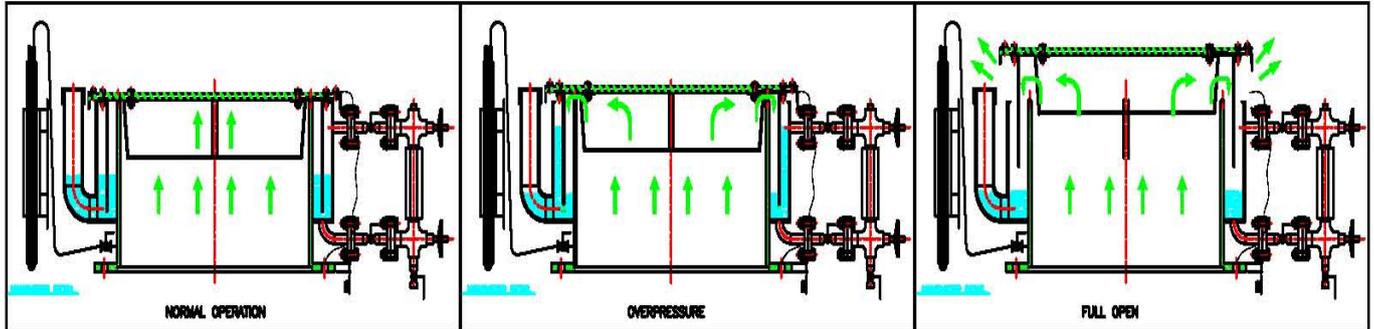


Figure 1.

Section 2. Installation

- 2-1 The Model, KSEPW is packed create to prevent damage during shipping.
Before installation, inspect the unit visually.
If any physical damage or internal contamination, the ERV should be disassembled, cleaned, and inspected
Before installation.
- 2-2 The Model , KSEPW shall be designed to be opened and settled by Weight disc (Cover) and should be
Installed vertical on Tank Nozzle.
- 2-3 When lifting , Eye nuts are provided on the Pallet assembly and the body has three lifting eyes that are
used to lift.
To avoid damage on flange surface, set the valve on a soft clean gasket material until it is ready to be installed.
Also handled carefully to ensure to protect damage of seat surface and Pallet assembly.(Figure 2).
- 2-4 Set the Vent body carefully on the nozzle, keep the gasket between the flanges.
Install with proper Bolt/Nut and studs and tighten nuts and hand tight.
Uneven nozzle on Storage tank makes leakage and recommended to use a full face gasket to avoid deflection
The body flange.
- 2-4 Make sure the flanges are not distorted and that gasket is evenly compressed.
- 2-5 the Model KSEPW type have independently pallet assembly and carefully seat the pallet assembly against
the body without any damaged on seat surface.

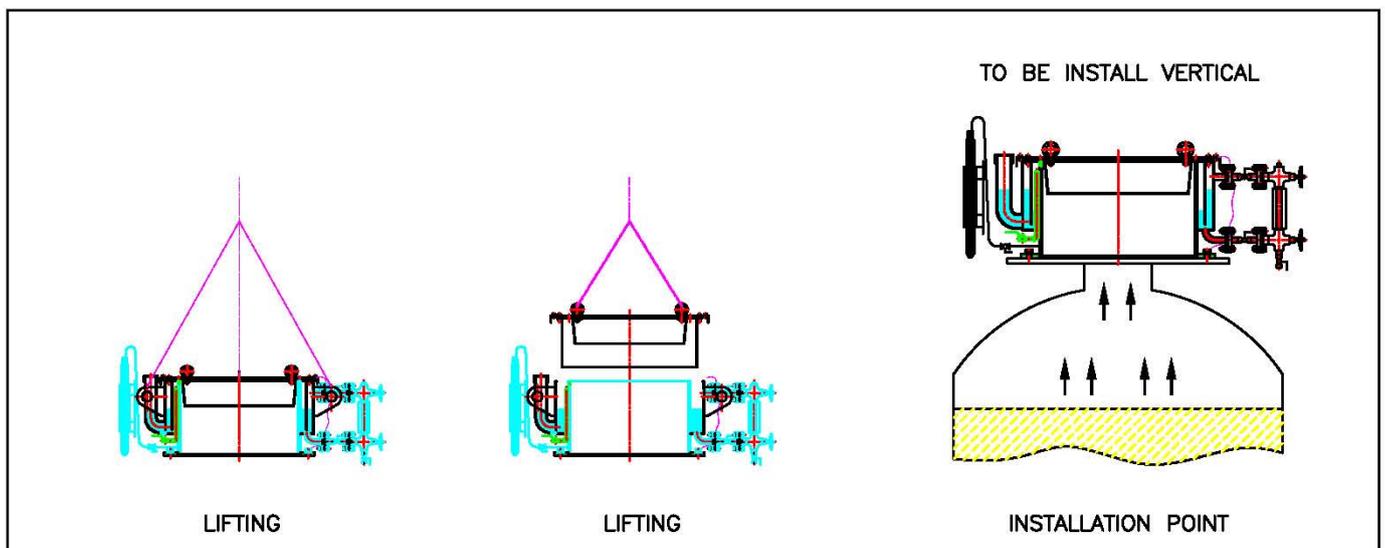


Figure 2.

Section 3. Operation

- 3-1 When the tank is loading phenomena and external fire and the pressure is above the setting (Operational Fixing pressure), the model KSEPW operate automatically to protect the storage tank from inflation (Figure 3).
- 3-2 The Model KSEPW is weight load type and provides pressure relief only.
- 3-2 Additionally, the KSEPW type shall be protected Leakage through Liquid(Silicon Oil) in case of damaged on seat or diaphragm after installation.

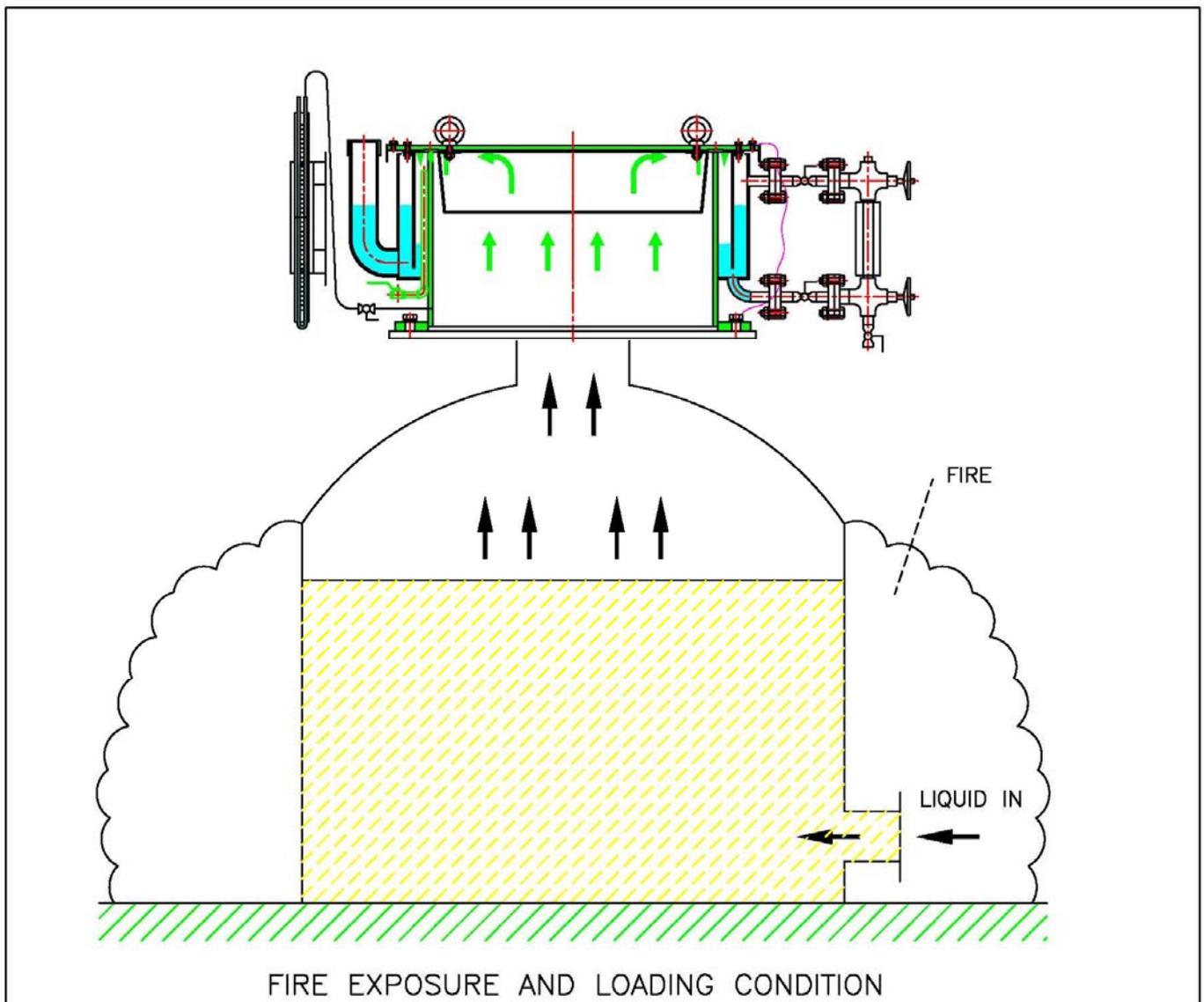


Figure 3.

Section 4. Maintenance

4-1 General

- 4-1-1 The Model, KSEPW do not require routine lubrication or adjustment, but should be checked periodically, At least twice a year.
- 4-1-2 The valve provide emergency protection, it do not need normally cycle in service but inspection seat Tightness should be done to ensure compliance with local regulation as needed. When inspection the diaphragms, disc and seat surface should be checked.

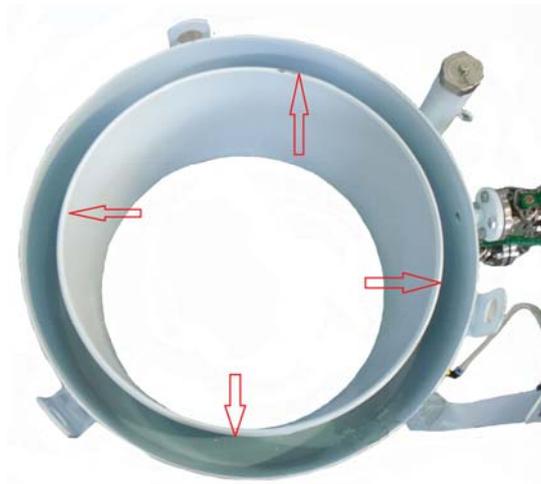


Photo 1 (Seat Surface)

- 4-1-3 To make correct Level of Silicon oil on body, should be released inside vapor through ball valve first.

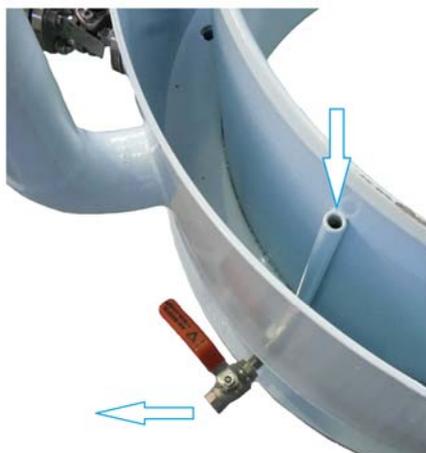


Photo 2 (Vapor Release V/V)

- 4-1-4 The Model KSEPW should be checked Silicon oil within 3 months after installation. Thereafter, it should be regularly checked and Oil Level in every 2 months at least (Photo 1). To be founded shortage, should be supplied Oil on proper Level as marked on Level Gauge (Photo 2).



Photo 3 (Oil Level Gauge)



Photo 4 (Oil Supply Cap)

- 4-1-5 When Silicon oil is contaminated visually, should be replace new Silicon oil.



Photo 5 (Oil Replacement V/V)

4-1-6 Always keep the record of maintenance performed.

CAUTION.

In case of remove the ERV from the tank for any reason, make sure all pressure has been released before the flange fasteners are loosened.

4-2 The Procedure Disassembly and Assembly (Figure 4)

- 4-2-1 Make sure above "Caution" before remove ERV from the Tank.
- 4-2-2 Using the eye Nut, No 5 lift vertically and elevate on the plate table so they aren't bent or damaged.
- 4-2-3 Use a spark free spanner to hold four bolt (No.3) from the bottom side.
Loosen the hex nuts and remove. Lift weather hood, counter weight, disc (= pallet) and diaphragms.
- 4-2-4 Prior to final assembly, verify that the seat surface is free of corrosion, damage.
The seat surface should be carefully cleaned.
If the Seat surface is damaged, it must be lapped using a perfectly flat ground metal disc or sand paper.
- 4-2-5 Also the Diaphragm, 2 layer (PTFE/FEP) of Teflon should be verify it damaged or not.
- 4-2-6 Reverse the steps of Disassembly.
- 4-2-7 Apply PTFE sealant tape between Disc (=Pallet), Counter weight, Inner Cover to protect Sealing.
- 4-2-7 The ERV should be tested on a pressure test stand to verify the setting and evaluate Seat tightness as noted Section 5, Shop testing.

● MODEL KSEPW DISASSEMBLY & ASSEMBLY

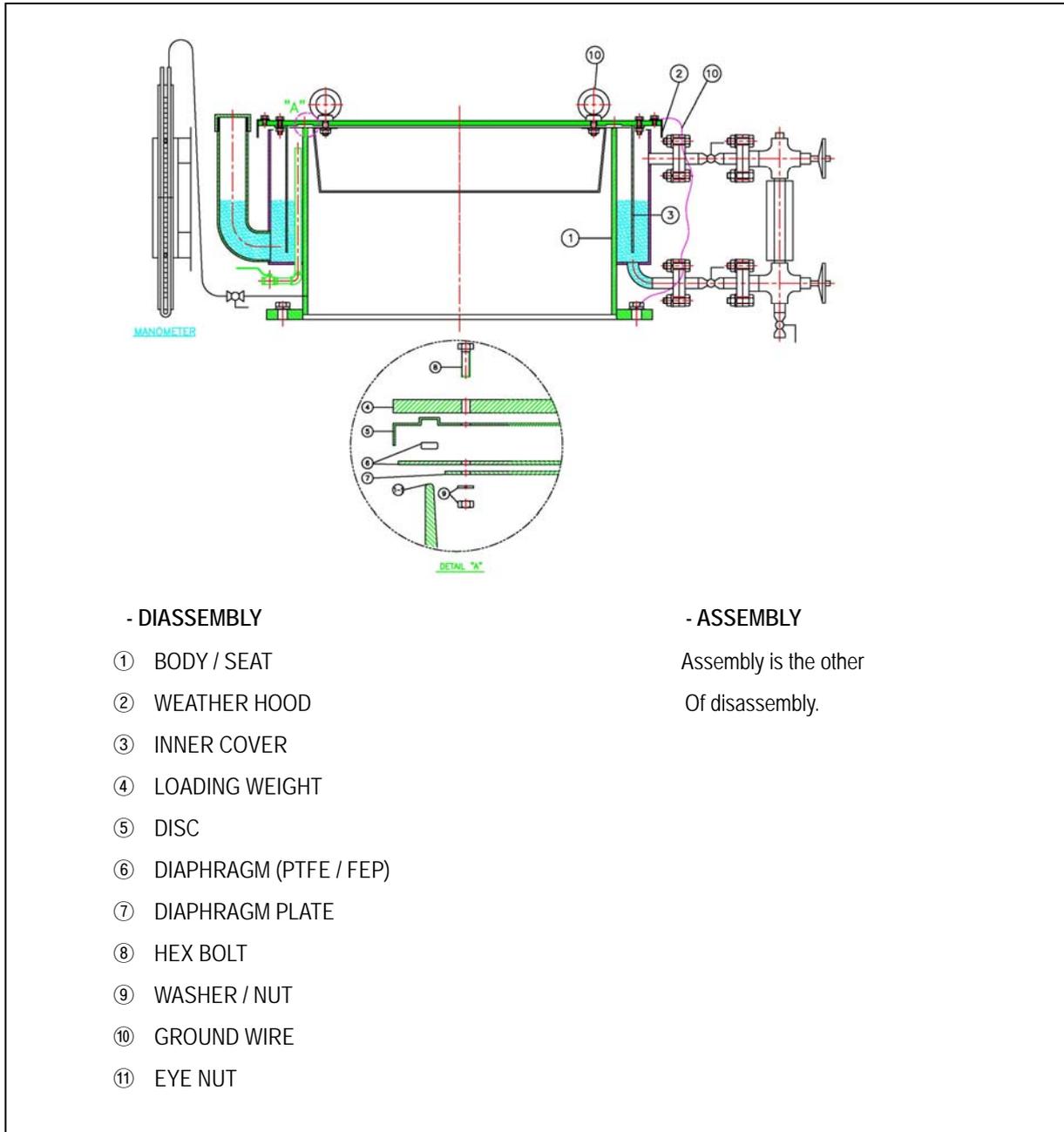


Figure 4.

Section 5. SHOP / JOB SITE TESTING

5-1 According to the " SET PRESSURE VERIFIATION" the API 2000 code, all products should be taken The setting test before shipping (Figure 6) or after Maintenance (Figure 5).

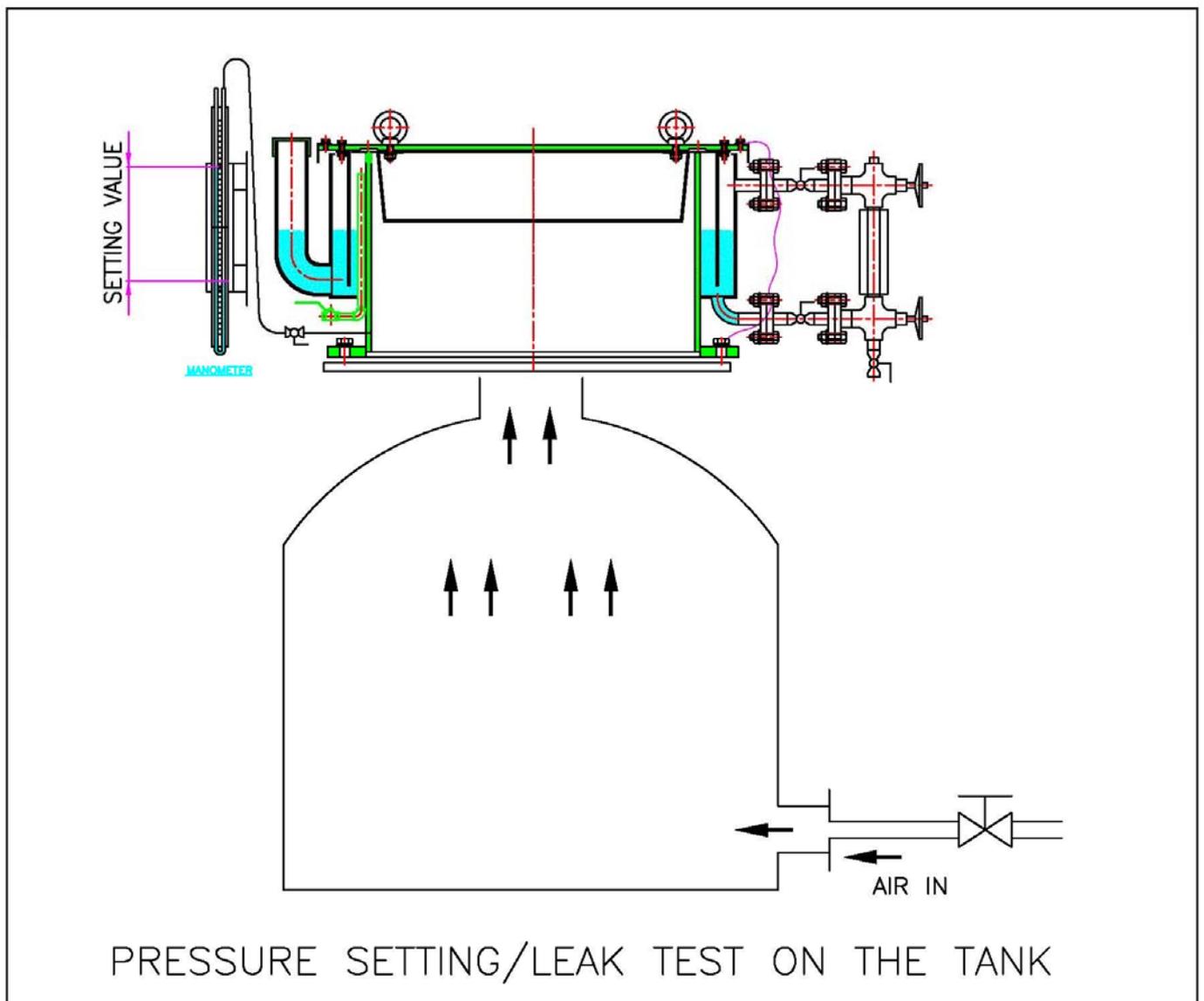


Figure 5.

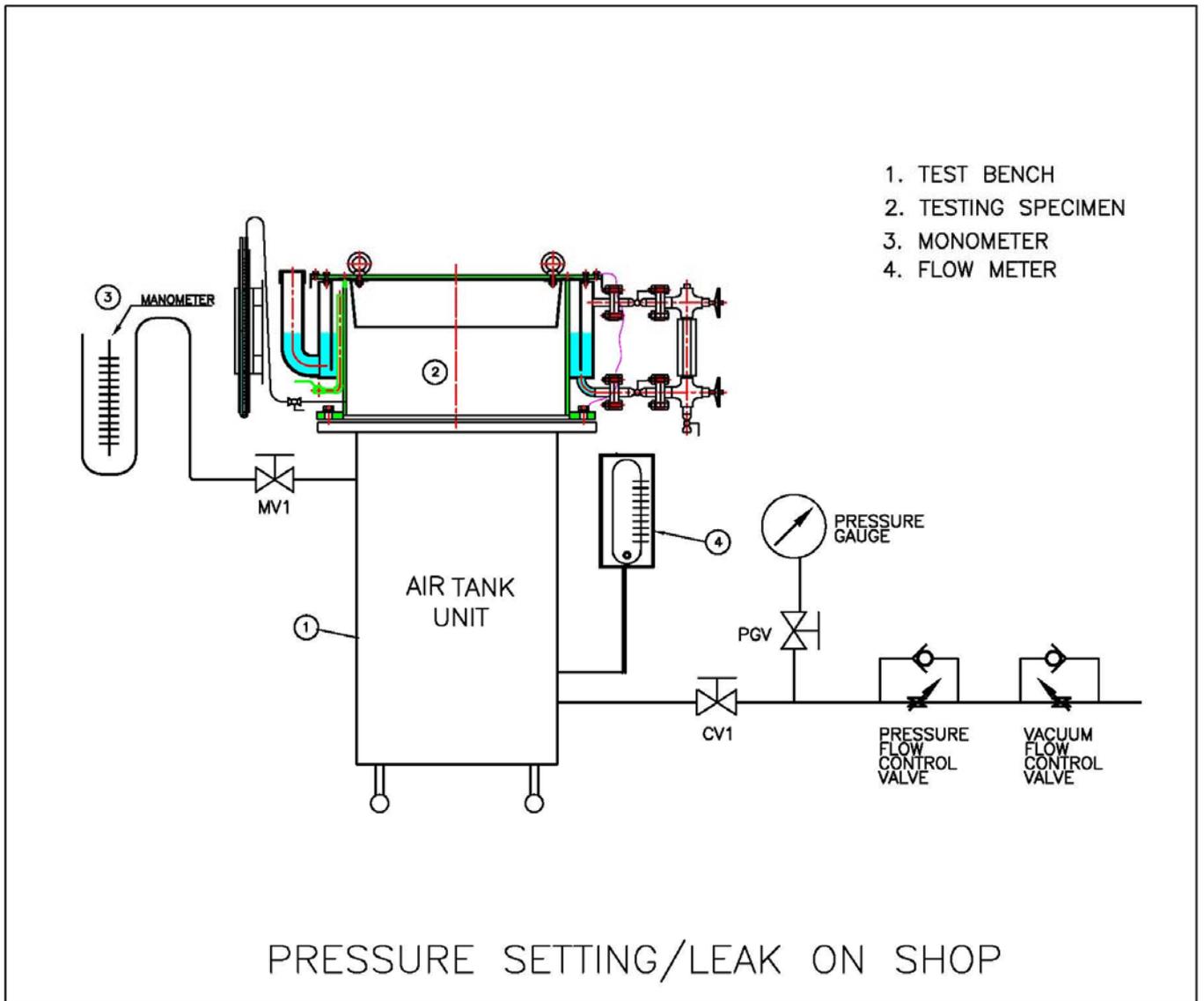


Figure 6.