

INSTALLATION INSTRUCTIONS FOR ROBO DRAIN MODEL RD11-VAC

HOW IT WORKS

When properly installed, the RD11-VAC will provide trouble-free and maintenance-free draining of unwanted accumulations of condensation and other foreign matter from any collection point in a vacuum system.

The condensation enters through a normally open 3/4" valve and then into a reservoir where it will continue to accumulate. As the level of condensate rises in the vessel, an internal float rises. Upon a predetermined level of condensate, the flow will cause an internally isolated valve to open and allow compressed air to close the 3/4" inlet valve and thus isolating the reservoir from the vacuum system. The control air will also cause the reservoir to be pressurized and provide air to an air cylinder which will open a ball valve. As the reservoir is pressurized, the condensate will then be pushed out the opened ball valve.

When the level of condensate falls to a predetermined level, the float will then close the internally isolated valve and thus shut off the supply air to the above mentioned items. The air in the control lines will then bleed out a small bleed hole. The cylinder will then close and the inlet valve will then reopen. The system will then be ready to receive more condensate.

INSTALLATION

CAUTION: COMPRESSED AIR CAN BE DANGEROUS. Before attempting to install the drain, be certain that the pressure vessel on which the drain will be installed is at atmospheric conditions.

The drain should not be installed in areas that are exposed to freezing temperatures. Be certain that the air system pressure to the control system does not exceed 120 psi. The inlet temperature should not exceed 180 degrees F.

Connecting the drain to the vacuum system should be done by using the recommended installation diagram shown herein. The installation of a strainer is not required or recommended.

Install the drain as close to the source to be drained as possible. Since the RD11-VAC uses gravity to fill the reservoir, the entire drain must be installed below the vessel to be drained. If flexible tubing is used on the discharge, be certain it is properly fastened to prevent it from whipping when the drain discharges the condensation.

The RD11-VAC is designed to accept condensation through the top 3/4" npt inlet port only. **Connect the Vent Line to a point of equal vacuum on the vessel being drained, above the water line. When that is not possible, a Vent Line must be installed**

between the reservoir and the vacuum producer. This will ensure that the air in the reservoir will properly exit as the condensation displaces the air in the tank. The vent line should be installed in the port indicated on the drain. Use non-galling pipe sealant on all joints.

The use of shut-off valves, unions and by-pass valves is recommended. A backup wrench should be used on the discharge ball valve to prevent it from turning and causing the linkage to bind.

The drain line should be installed using 3/4" pipe connections and fittings. Any reduction in pipe size is not recommended. It is best to run the drain in a downward pitch from the bottom of the vessel being drained to the RD11-VAC inlet (see diagram). The power to operate the RD11-VAC comes from compressed air. **ONLY CLEAN, DRY AIR SHOULD BE USED.** The supply pressure should be between 80 and 120 psig. The RD11-VAC is supplied with a particulate filter, which should be installed in the RD11-VAC head where indicated.

Once the drain is installed, close the By-Pass drain valve and open the Shut-Off valve. The pressure vessel can now be placed under vacuum.

CHECKING THE DRAIN'S OPERATION

After installation is complete and the drain is on line, a check should be made that the condensation is properly entering the reservoir. This can easily be done by looking through the translucent reservoir.

If condensation is not entering the reservoir, check for the following:

1. Make sure the auxiliary shut-off valve is open.
2. Be certain a vent line is installed, make sure it is down stream from the vessel that is being drained.
3. Be certain that the RD11-VAC reservoir is not higher than the vessel that is being drained.
4. Check to make sure the vessel being drained has condensation in it.

WARRANTY

The RD11-VAC is warranted to be free from defects in workmanship and materials for a period of one year from the date of shipment.

The liability of the manufacturer is limited to repair or replacement of the drain at its option. In no event shall the manufacturer be liable for special or consequential damages or for delay in performances of this warranty.

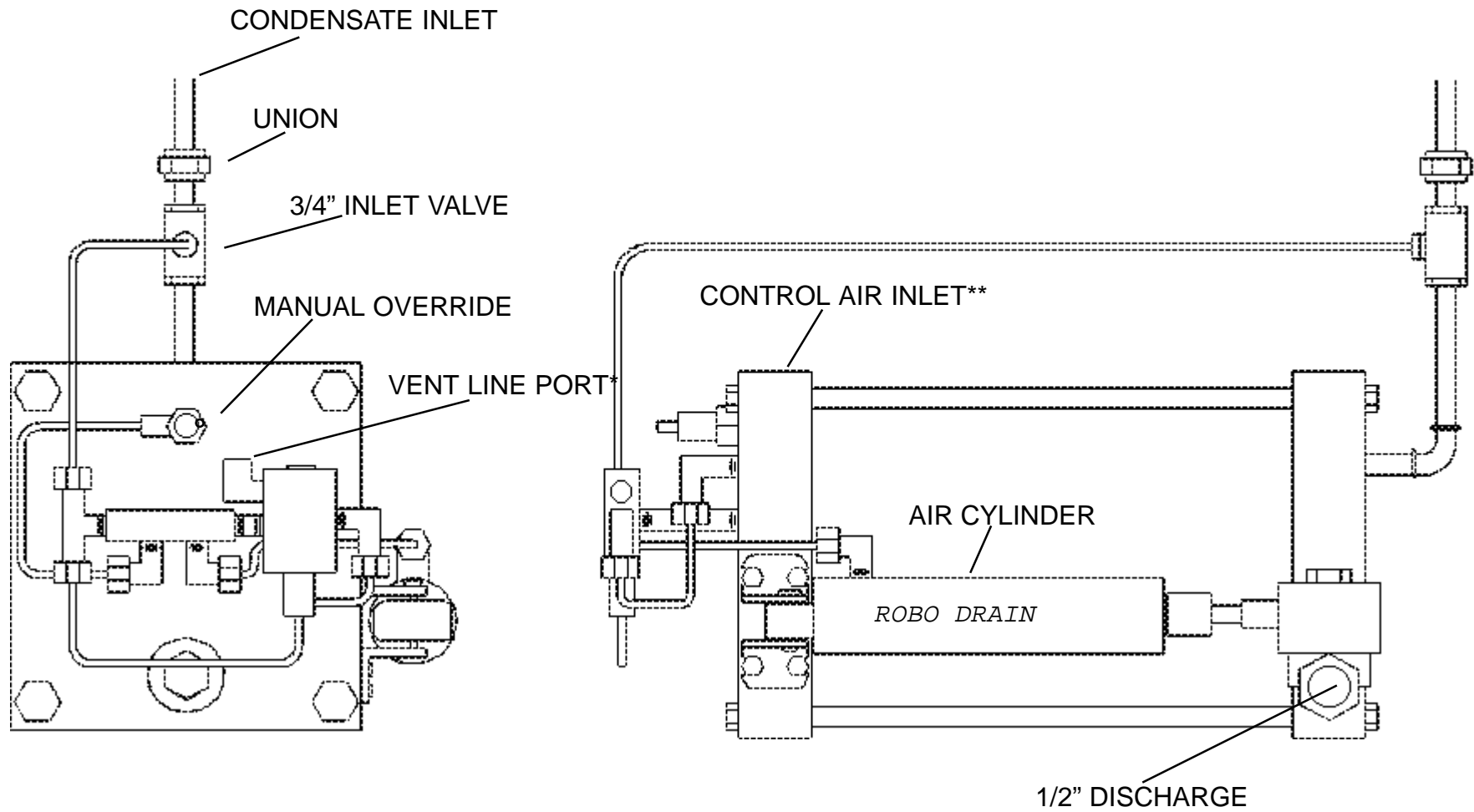
CAUTION: Any attempt to repair the drain without authorization will void any warranty.

INSTALLATION DIAGRAM ON REVERSE SIDE

Manufactured by:

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Installation Diagram for Robo Drain Model RD11-VAC



* Vent line must be installed for drain to work properly.

** Control air must be dry and filtered to 1micron.