

## *Installation & Operation Manual*



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**Model EZ-12**  
Pneumatic Demand Condensate Drain

# EZ-12 Drain

## Installation & Operation Instructions

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The EZ-12 Drain is designed for trouble-free and maintenance-free draining of unwanted accumulations of condensation and other foreign matter from any collection point in a compressed air system.

### INSTALLATION

#### CAUTION: COMPRESSED AIR CAN BE DANGEROUS.

#### IN GENERAL

The EZ-12 Drain is designed for compressed air systems. The EZ-12 Drain relies on gravity to fill its reservoir. In order for the condensate to properly enter the EZ-12 Drain reservoir, it must be installed at a point lower than the bottom of the vessel to be drained. Attempt to keep the piping run short, while positioning the EZ-12 Drain as close as possible to the drainage point. Run the piping in a continuously sloping manner while avoiding any pockets where condensate might collect. Always use non-galling pipe sealant. The use of unions and shut-off valves are recommended wherever possible.

**Before attempting to install the drain, be certain that the pressure vessel on which the drain will be installed is completely depressurized.**

The drain should not be installed in areas that are exposed to freezing temperatures. Be certain that the air system pressure is between 70-200 PSI. The inlet temperature should not exceed 180 degrees F.

Connecting the drain to the air system should be done by using the recommended installation diagram shown herein. The installation of a strainer is highly recommended.

Install the drain as close to the source to be drained as possible. Since the EZ-12 Drain 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 EZ-12 Drain will accept condensation from the top inlet or optional bottom inlet connection. The connections are 1/2" NPT.

### STANDARD PRACTICES

- Install isolation valves, bypass piping and unions in all piping.
- Use non-galling pipe sealant on all joints.
- A backup wrench should be used on the discharge ball valve to prevent it from turning when piping up to the discharge.

The drain line should be installed using 1/2" pipe connections and fittings. Any reduction in pipe size is not recommended. The EZ-12 Drain reservoir cannot be higher than the bottom of the vessel that is being drained. It is best to run the drain in a downward pitch from the bottom of the vessel being drained to the EZ-12 Drain inlet.

#### VENTING / BALANCE LINE

Allowing the air to exit the EZ-12 Drain's reservoir as the condensate enters is critical for proper operation. The unit will "air-lock" and not work properly if that exchange cannot take place.

Installing a balance line is necessary. It may also be required when sudden surges of condensate are heavy enough to "air-lock" the EZ-12 Drain's reservoir. The vent line should be installed off of the vent valve on the top of the drain. The valve has a 1/4" tubing connection. The other end of the vent line should be connected to the air system at a point just down stream from the source that is being drained. This will ensure that the air in the reservoir will properly exit as the condensation fills the tank. Connecting the balance line back to a point in the system where the pressure is equal-to the drain point will allow the condensate to fill the reservoir while eliminating the possibility of an "air-lock" condition.

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

### CHECKING DRAIN 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 auxilliary shut-off valve is open.
2. Do not use the EZ-12 Drain without installing a vent line OR needle valve.
3. If a vent line is installed, make sure it is down stream from the vessel that is being drained.
4. Be certain that the EZ-12 Drain reservoir is not higher than the vessel that is being drained.
5. Check to make sure the vessel being drained has condensation in it.

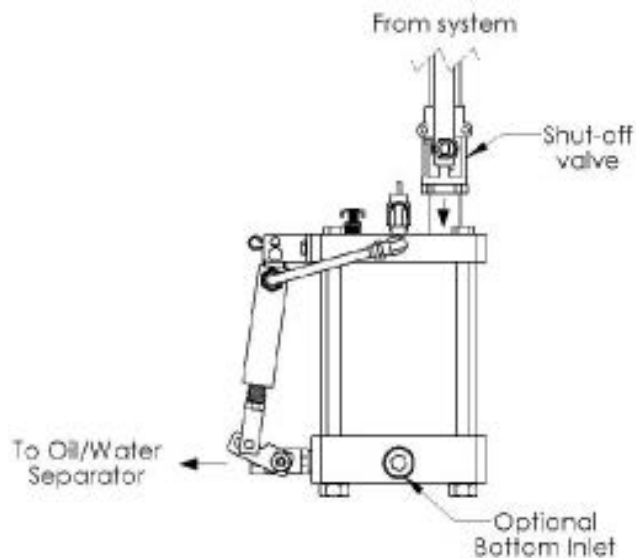
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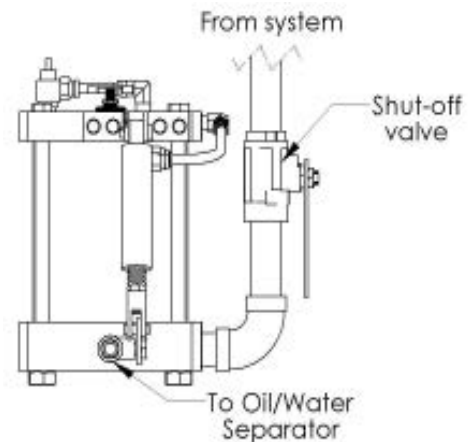
## INSTALLATION ARRANGEMENTS

The figures are suggested methods for installing the EZ-12 Drain.



**Figure 1**

The preferred arrangement is to pipe the condensate stream into the drain on the top inlet. The inlet connection is 1/2" NPT.



**Figure 2**

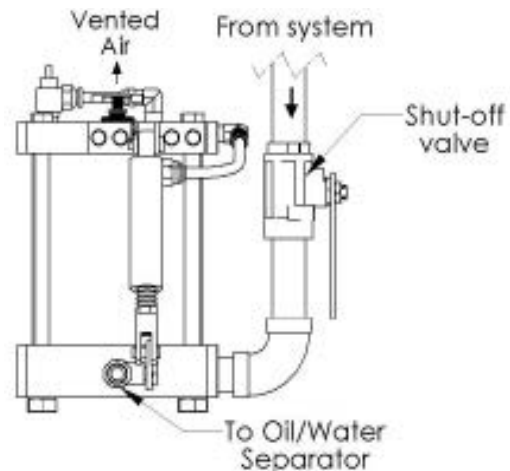
The alternate arrangement is to pipe the condensate inlet into optional bottom inlet. The optional inlet connection is 1/2" NPT.

### VENTING AIR

Venting is a must for proper operation of the drain. Trapped air inside the drain may form an air lock and prevent the drain from operating properly.

A small needle valve is installed on the top of the drain. The valve can be vented directly to atmosphere or captured using the 1/4" tubing and connecting back to the process.

When venting to atmosphere, adjust the valve by opening counter clockwise until you can just feel air exiting. This ensures proper operation of the drain.



### WARRANTY

The EZ-12 Drain 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.

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