



**JATCO, INC.**  
ENVIRONMENTAL  
PROTECTION  
EQUIPMENT

**Installation Instructions  
JATCO Environmental Protection Tank  
J-5000-100 ABV**

**\*INSTRUMENTATION GAS IS MANDATORY FOR SUPPLY GAS\***

The JATCO Environmental Tank must be installed at a level which will allow the waste liquids to be disposed of to gravity flow into the tank.

**IMPORTANT: The top of the tank must be below the level of waste liquids to be received.**

Inlet and the outlet check valves are both teed from the same port near the bottom of the tank (end opposite the sight glass). When facing this end, the inlet check valve is on the left (**A**) and the outlet check valve is on the right (**B**).

The discharge should be piped directly to the storage tank that is to receive the waste liquid. The discharge may be teed into an existing flow line, provided that a high-pressure check valve (1000 psi) is installed to prevent high pressure from returning to the discharge check valve on the JATCO tank.

The tank supply gas must have adequate **volume** and pressure. For best operation use 1" pipe for the tank supply gas plumbed as close to the tank as possible. Then reduce down to the tubing connections (**C**) and (**J**) on the JATCO tank.

This application requires two separate supply gas pressures. First supply gas pressure is connected to the bottom inlet of the micro valve (**C**) this gas pressure must meet 70 psi and not exceed 100 psi. Second supply gas pressure is connected to the 3-way ball valve (**J**) this gas pressure must not exceed 100 psi for normal operation. No pressure regulator is provided.

Manual dump plunger (**F**) and gauge cock knobs are removed for shipping.

Manual Dump Plunger (**F**): Install in 1/8" NPT hole in top of valve body.

**Note: The gland nut should be finger tight only.**

Depressing the manual dump plunger (**F**) allows the operator to check function of the float and micro valve. When the plunger is depressed, the tank will cycle once and return to the automatic operation. The plunger button should be returned to the extended position.

3-way ball valve (**G**) is vented through 1/2" NPT port (**H**).

Liquid levels in the JATCO tank may be observed in the sight glass (**I**) furnished as standard equipment.



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Service Guide  
J-5000-100 ABV**

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Listed below are a series of steps to follow if the JATCO tank fails to dump properly.

Be sure there is an adequate supply of volume and gas pressure (70-100 psi), to the inlet connection on the micro valve (**C**), and (100 psi max) to the 3-way ball valve supply (**J**). If there is enough pressure at the supply connections, press down on the manual dump plunger (**F**). This should cause the tank to manually dump, then vent through (**H**) when the cycle is complete. If the JATCO tank fails to dump manually, remove pilot signal connector tubing to 3-way ball valve's actuator (**G**) to test for pilot signal from 3-way micro valve (**D**). If the 3-way micro valve is not sending a pilot signal to the actuator when depressing manual dump plunger, removal and or inspection of micro valve will be necessary and proceed to next step. If pilot signal pressure is present but actuator fails to operate, usually the pilot signal will escape from the actuator vent orifice. This indicates O-ring failure in the actuator and replacement may be necessary. The actuator does have a repair kit mainly consisting of O-rings.

**\*Note: 2" valve body (Bull plug) does not need to be removed to change out micro valve.**

To remove the micro valve, remove the top vent tube connector and the bottom gas supply connector to allow access and removal of the two hex socket cap screws. Remove the cap screws and the micro valve from the valve body. Inspect the inlet port to see if any obstruction has lodged in the orifice which could clog the micro valve. If no obstruction is visible, apply gas pressure to the inlet port and operate the toggle spring. Flipping the toggle up should allow gas to flow out of the center 1/4" NPT port. If operating the toggle does not allow gas to flow, the micro valve must be replaced.

To re-install the micro valve and mounting plate assembly on the 2" valve body, flip the toggle to the down position and insert toggle spring through the center hole in the valve body. Re-install the two mounting cap screws, the vent connector, and the gas supply connectors. Check system by pushing down manual dump plunger.

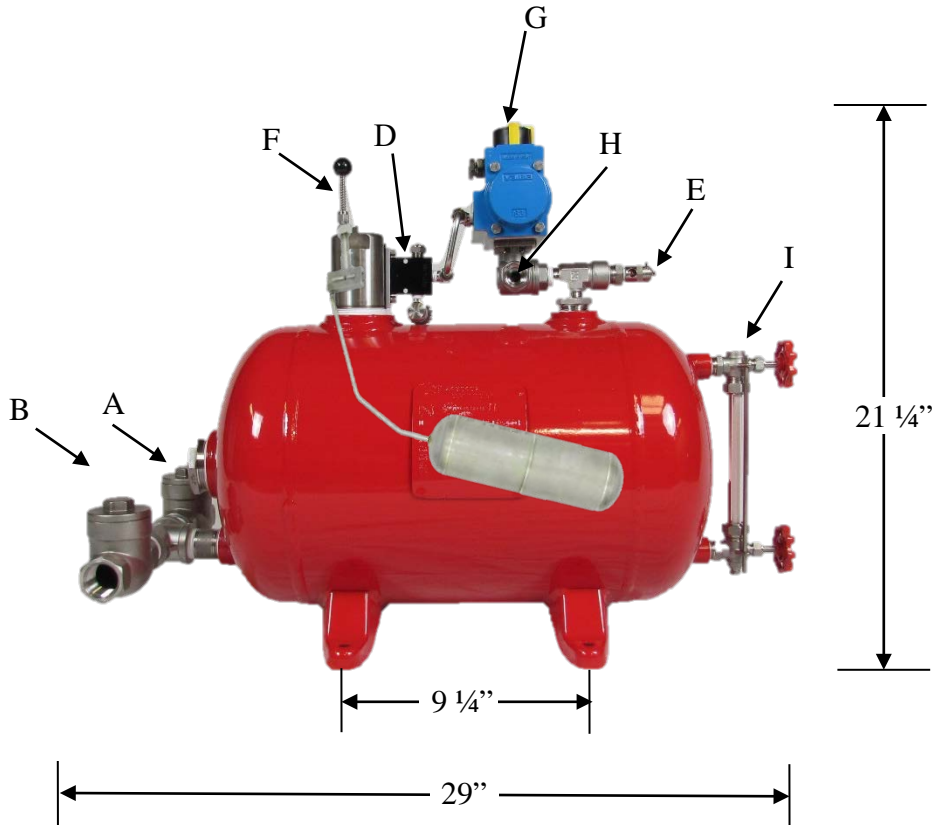
To remove the 2" valve body: Remove micro valve as previously described. Remove manual dump plunger. Loosen hex nut top dead center of 2" valve body and tap down pivot pin to separate from valve body. This allows the float arm assembly to swivel freely while turning valve body out of tank. ***Make sure that pivot pin does not move with 2" valve body.*** Remove float assembly carefully to avoid bending the float arm.

To install valve body, insert float arm into the tank with the float toward the gauge cock end of the tank. Hold the float pivot pin with a screwdriver, keeping the slot on the top of the pivot pin positioned 90° (perpendicular) to the float arm. Tighten the 2" valve body into the tank, positioning the machined surface toward the gauge cock end of the tank, while holding the float pivot with a screwdriver; tighten the hex nut to lock the float arm in place. Re-install manual dump plunger and depress it while observing the trip lever through the toggle orifice on valve body for alignment. The trip lever should be visible and centered. Re-install gasket and micro valve.

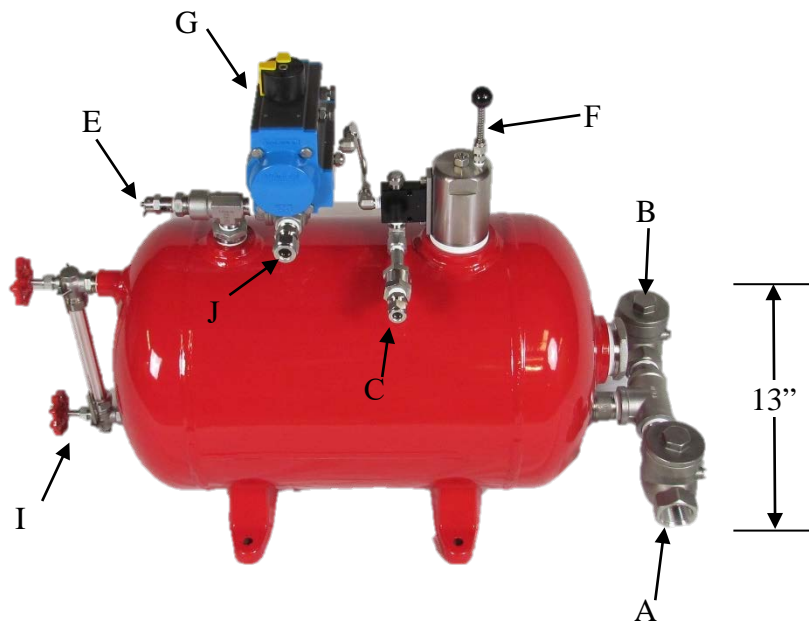


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## J-5000-100 ABV



- A. Inlet Check Valve 1" NPT JM5005
- B. Discharge Check Valve 1" NPT JM5005
- C. Supply Gas Inlet 1/2" NPT Compression (70-100 psi)
- D. 1/4" NPT Micro Valve JM5001
- E. Pressure Relief Valve JM5002-100
- F. Manual Dump Plunger Assembly JM5003
- G. 3-Way Actuated Ball Valve JM5008x-ABV
- H. Vessel Vent 1/2" NPT
- I. Gauge Cocks & Sight Glass JM5009 & JM5010
- J. Tank Motive Gas Supply 1/2" NPT Compression (100 psi Max)





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