# RELAXATION VESSEL MANUAL







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DISCLAIMER: This generic vessel manual is provided on the web for your information, with the understanding that each vessel manual sent out from Velcon is customized for the particular vessel, and contains accessory information not included in this document. This document makes reference to other pieces of literature, such as schematics, drawings, and installation instructions that are added to the manual as needed depending on the vessel parameters.

### **GENERAL DESCRIPTION**

The Velcon Relaxation Vessel that you have received consists of the vessel and optional accessory equipment to meet your specific requirements. Descriptive literature covering the ordered accessories is included near the back of this manual.

A relaxation vessel is installed in the fuel system, usually downstream of a filter/separator and/or monitor vessel, to help dissipate (or "bleed off") static electricity charges that have been built up in the fuel by upstream filter vessels. The relaxation vessel is usually sized to allow about 30 seconds of relaxation time in the vessel. For example, in a 300 USGPM fuel system, the vessel capacity would be about 150 gallons.

The optional accessories recommended for relaxation vessels are a manual drain valve, pressure relief valve, and an automatic air eliminator. If there is an underground storage tank upstream or downstream of the relaxation vessel, a Gammon check valve above the air eliminator is also recommended.

### **INSTALLATION OF VESSEL**

- 1. Identify the vessel inlet and outlet by the markings provided on the vessel piping.
- 2. INLET and OUTLET PIPING should be carefully aligned to avoid stressing the vessel connections during installation. Installation of shut-off valves on either side of the vessel is recommended so that it can be independently drained for internal inspection.

# CAUTION: STEPS 3 AND 4 SHOULD BE PERFORMED BEFORE REMOVING HINGE OR PIVOT MOUNTED COVER TO INSURE STABILITY OF THE FILTER.

- Bolt the vessel to a stable base.
- 4. Carefully install correct gaskets on the inlet and outlet connections and connect to the inlet and outlet piping.
- 5. Connect any accessories that are not already installed. See Accessory Parts List and literature as required.
- 6. Be sure the cover gasket is in place and properly aligned. Replace cover and secure tightly.
- 7. NOTE: VESSELS MUST BE PROVIDED WITH PRESSURE RELIEF VALVES IF THE SYSTEM HAS POSITIVE DISPLACEMENT PUMPS UPSTREAM OR AUTOMATIC SHUT-OFF VALVES DOWNSTREAM OF THE VESSEL.

### START UP PROCEDURE

If the Relaxation Vessel has the accessories listed below, they should be placed in the following positions:

- 1. Manual drain valve closed.
- 2. Manual air eliminator valve open.
- 3. The valves in the inlet and outlet piping should be closed.

For information on operation of accessories, turn to Accessory Instructions in the back of the manual.

After the valves have been positioned as outlined, the unit is ready to be filled.

The following operating instructions can be used for initial start-up and for subsequent start-ups after servicing of the unit.

- 1. Start the system pump.
- 2. Slightly open the inlet valve, allowing the vessel to slowly fill with fluid.
- 3. If the unit is equipped with a manual air eliminator valve, leave the valve cracked open until the fluid flows from the opening; then close quickly.
- 4. If equipped with an automatic air eliminator, the unit is filled when the air eliminator stops flowing air.
- 5. When the Velcon Vessel is filled with fluid, <u>slowly</u> open the valve on the outlet line. Then slowly open the inlet valve fully.

#### **OPERATING INFORMATION**

Below are the Velcon recommendations for operating procedures. Your Company Maintenance and/or Quality Control procedures may provide alternate instructions on these matters.

Daily drain a small amount (about ½ gallon) from the bottom of the relaxation vessel to remove any free water which may have condensed out of the fuel due to temperature drop. (Water left in the vessel could lead to unwanted microbiological growth.) Perform this drain with fuel flowing through the vessel, or at least under system pressure.

## **INSPECTION PROCEDURE**

- A. Shut off the pump.
- B. Close the inlet and outlet pipe valves.
- C. Open drain valves and remove product from the vessel.
- D. Open the manual air eliminator valve. This will permit the unit to drain faster.
- E. Open cover and inspect cover gasket replace gasket if it is damaged.
- F. Wipe off or wash down any foreign matter from the vessel interior.
- G. Check cover gasket for alignment, replace cover and secure tightly. The vessel is now ready for the start-up procedure.

To reorder replacement parts or to obtain further information contact your Velcon Filters, Inc. representative

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