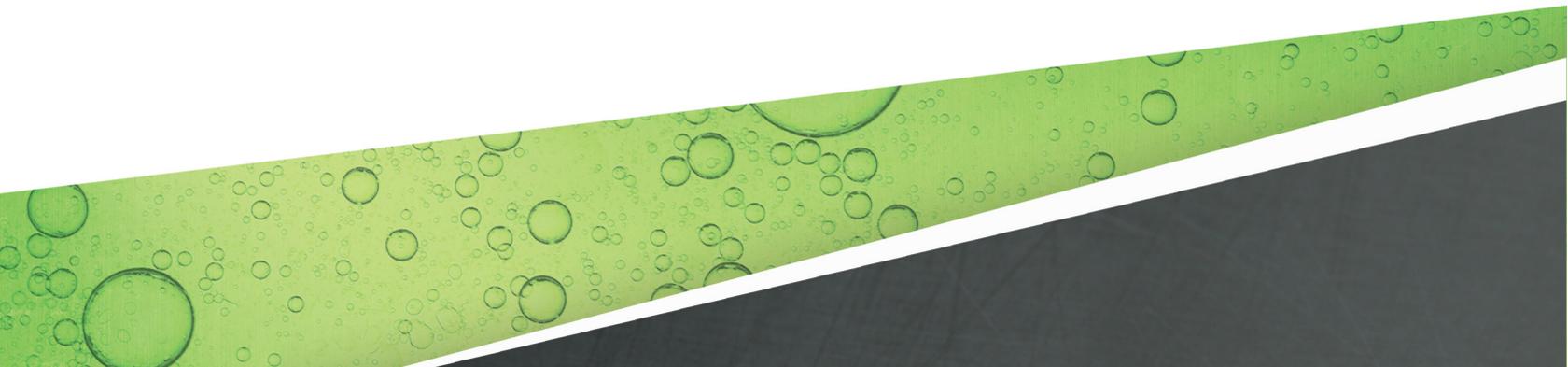


DOUBLE-POPPETTED VAPOR SHEAR VALVE

INSTALLATION GUIDE



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Contents

- Introduction1
- Conventions used in this manual1
- Operating precautions1
- Questions and concerns2
- Certification3
- Declaration of conformity.....3
- Installation.....5
- Installing the double-poppetted vapor shear valve5
- Tools and supplies required.....6
- Torque values6
- Procedure6
- Pressure test7
- Inspection7

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Introduction

Conventions used in this manual

This manual includes safety precautions and other important information presented in the following format:

NOTE: This provides helpful supplementary information.

IMPORTANT: This provides instructions to avoid damaging hardware or a potential hazard to the environment, for example: fuel leakage from equipment that could harm the environment.

⚠ CAUTION: This indicates a potentially hazardous situation that could result in minor or moderate injury if not avoided. This may also be used to alert against unsafe practices.

⚠ WARNING: This indicates a potentially hazardous situation that could result in severe injury or death if not avoided.

⚠ DANGER: This indicates an imminently hazardous situation that will result in death if not avoided.

Operating precautions

Franklin Fueling Systems (FFS) equipment is designed to be installed in areas where volatile liquids such as gasoline and diesel fuel are present. Working in such a hazardous environment presents a risk of severe injury or death if you do not follow standard industry practices and the instructions in this manual. Before you work with or install the equipment covered in this manual, or any related equipment, read this entire manual, particularly the following precautions:

IMPORTANT: To help prevent spillage from an underground storage tank, make sure the delivery equipment is well-maintained, that there is a proper connection, and that the fill adaptor is tight. Delivery personnel should inspect delivery elbows and hoses for damage and missing parts.

⚠ CAUTION: Use only original FFS parts. Substituting non-FFS parts could cause the device to fail, which could create a hazardous condition and/or harm the environment.

⚠ WARNING: Follow all codes that govern how you install and service this product and the entire system. Always lock out and tag electrical circuit breakers while installing or servicing this equipment and related equipment. A potentially lethal electrical shock hazard and the possibility of an explosion or fire from a spark can result if the electrical circuit breakers are accidentally turned on while you are installing or servicing this product. Refer to this manual (and documentation for related equipment) for complete installation and safety information.

⚠ WARNING: Before you enter a containment sump, check for the presence of hydrocarbon vapors. Inhaling these vapors can make you dizzy or unconscious, and if ignited, they can explode

and cause serious injury or death. Containment sumps are designed to trap hazardous liquid spills and prevent environmental contamination, so they can accumulate dangerous amounts of hydrocarbon vapors. Check the atmosphere in the sump regularly while you are working in it. If vapors reach unsafe levels, exit the sump and ventilate it with fresh air before you resume working. Always have another person standing by for assistance.

⚠ WARNING: Follow all federal, state, and local laws governing the installation of this product and its associated systems. When no other regulations apply, follow NFPA codes 30, 30A, and 70 from the National Fire Protection Association. Failure to follow these codes could result in severe injury, death, serious property damage, and/or environmental contamination.

⚠ WARNING: Always secure the work area from moving vehicles. The equipment in this manual is usually mounted underground, so reduced visibility puts service personnel working on it in danger from moving vehicles that enter the work area. To help prevent this safety hazard, secure the area by using a service truck (or some other vehicle) to block access to the work area.

⚠ WARNING: Make sure the double-poppetted vapor shear valve body is rigidly anchored to a structural member within the island and dispenser. If there is a severe impact, this helps ensure that the valve breaks at the shear section. Otherwise, the break may happen at the outlet pipe, which could result in a hazard. The valve is designed to shear off when a bending moment is applied. When you tighten the inlet pipe to the valve, apply torque, not a bending moment.

⚠ WARNING: Do not rely on vapor piping to provide a rigid attachment to the sump or the dispenser stabilizer bars.

⚠ WARNING: To help prevent the possibility of serious injury or death, do not use power tools or any equipment that might create a spark (or other ignition source) in the vicinity of the dispenser sump or anywhere gasoline, gasoline vapor, diesel fuel, or any other combustible substances might be present.

⚠ WARNING: You must use certified non-sparking tools during all installation, inspection, testing, and maintenance work.

⚠ DANGER: Make sure you check the installation location for potential ignition sources such as flames, sparks, radio waves, ionizing radiation, and ultrasound sonic waves. If you identify any potential ignition sources, you must make sure safety measure are implemented.

Questions and concerns

In case of emergency, follow the procedures established by your facility. If you have questions or concerns about safety or need assistance, use the information below to contact Franklin Fueling Systems:

Web: franklinfueling.com

Telephone:

USA and Canada: +1.608.838.8786, +1.800.225.9787

USA Technical Support: 1.800.984.6266

UK: +44 (0) 1473.243300

Mexico: 001.800.738.7610

China: +86.10.8565.4566

Certification

Declaration of conformity

FFS declares that the Double-Poppetted Vapor Shear Valve assembly (36220631) has been designed and evaluated to comply with the following standards:

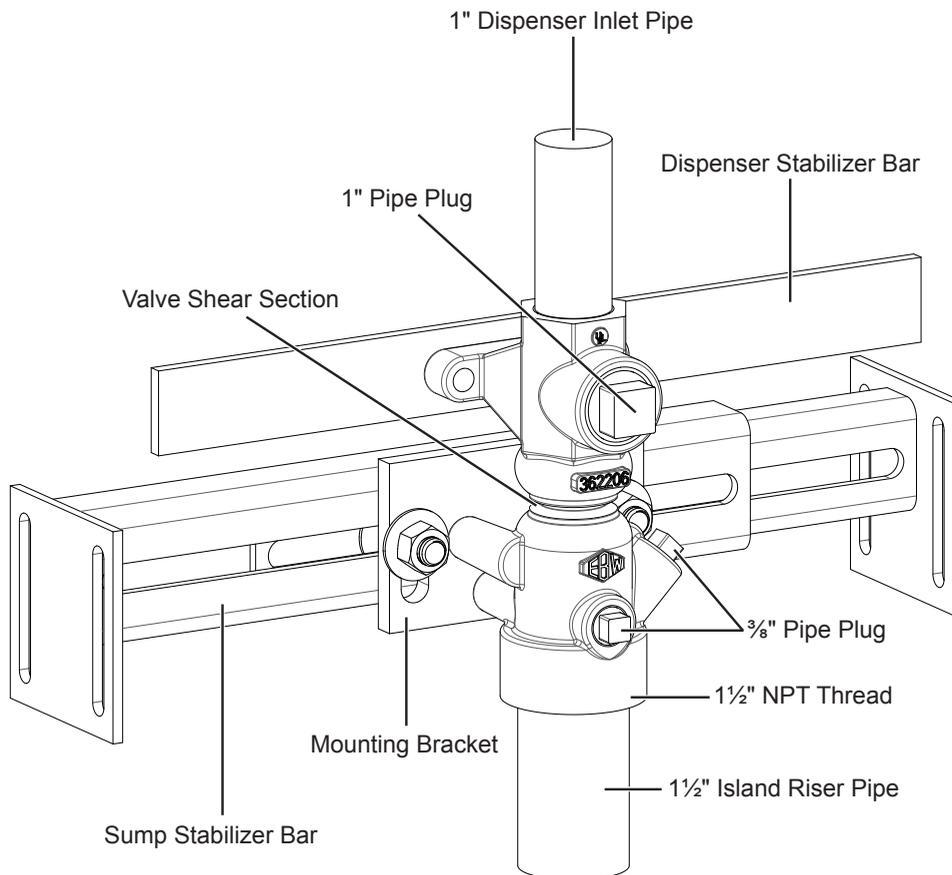
- EN 13167-3:2012
- EN 80079-36:2016
- EN 80079-37:2016

Certification	Models covered	Information
UL	36220601, 36220631	File: MH92534
ATEX	36220631	  II 1G Ex H IIB T3 Ga 0539 DEMKO 17 ATEX 1914 EN 13617-3 Class 3

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Installation

Installing the double-poppetted vapor shear valve



NOTE: An optional sump installation hardware kit is available.

Before you begin this procedure, make sure the island riser pipe is cut and threaded to a length that puts the shear section groove within 1/2" of the top of the island when you install the valve. If you must cut and thread the island riser pipe on site, make sure you have the optional tools listed below, and carefully follow these warnings:

⚠ WARNING: To help prevent the possibility of serious injury or death, carefully follow the operation and safety information provided by the manufacturer of the pipe threader. Move the island riser pipe to an open, well-ventilated area. Make sure no gasoline, gasoline vapor, diesel fuel, or any other combustible substances are present. If there is any residue that may be combustible on the riser pipe, clean it thoroughly before you cut it.

⚠ WARNING: Make sure the valve is grounded to earth through either the inlet or outlet pipe.

⚠ CAUTION: Do not use PTFE thread sealing tape on any pipe thread joints. If there is an impact to the dispenser, this tape can prevent the valve from sealing properly.

IMPORTANT: Before you install any plug, always apply sealing compound to its threads.

NOTE: The valve should come with a 1" plug in the side inlet port and 3/8" plugs in the pressure test ports.

Tools and supplies required

- UL-classified, non-hardening, gasoline resistant pipe-joint sealing compound
- 2 pipe wrenches (non-sparking)
- Pipe cutter or saw (non-sparking and optional)
- Pipe threader (non-sparking and optional)

Torque values

⚠ CAUTION: Do not tighten beyond torque limits. Overtightening can crack the valve body and allow vapor to leak.

Tighten threads to the following torque specifications:

- 1.5" outlet: 90 to 135 ft-lb
- 1" inlet: 75 to 100 ft-lb

To tighten to these torque values, you can use an EBW 901-101-01 chain wrench and a 3/4" drive torque wrench with at least a 125 ft-lb rating. Due to the chain and torque wrench offset, the actual torque wrench readings for the above limits are:

- 1.5" outlet: 75 to 115 ft-lb
- 1" inlet: 60 to 85 ft-lb

Apply the thread sealing compound to the pipe plugs and torque them to the following values:

- 3/8" plug: 25 to 35 ft-lb
- 1" plug: 25 to 35 ft-lb

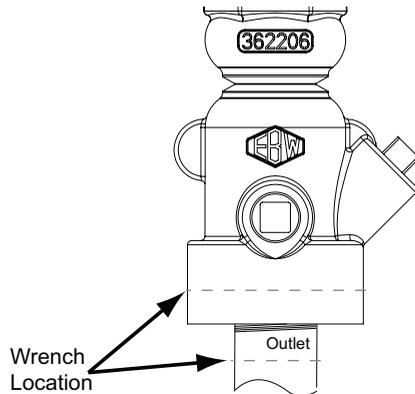
Procedure

IMPORTANT: The outlet end of the valve must be rigidly attached to the sump stabilizer bar. Three bosses, with 3/8-16 UNC threads, are provided to attach to the bracket of the appropriate stabilizer bar kit.

IMPORTANT: Make sure you support the valve while you install it according to this procedure. This helps prevent forces from being transmitted to the shear section, which can damage the valve and prevent proper operation.

IMPORTANT: Make sure you remove the plastic caps from the inlet and outlet ports before you install the valve.

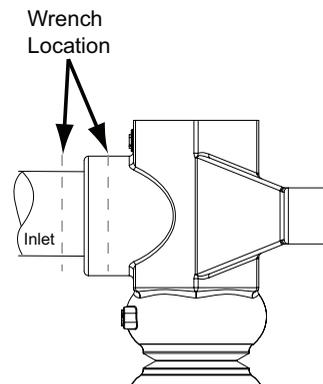
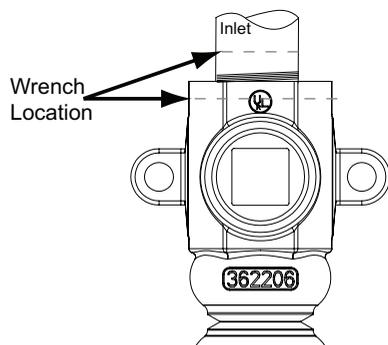
1. Attach the mounting bracket to the valve with the provided mounting screws. Do not attach the mounting bracket (with the valve) to the sump stabilizer bar.
2. Apply sealing compound to the outlet pipe threads, and install the valve on the outlet pipe.
3. Tighten the valve until it is hand-tight, and then use a pipe wrench at the locations shown in the following illustration to finish tightening it to the recommended torque values.



NOTE: The dispenser pipe can be connected to the top or side inlet port. If you wish to use the side inlet port, remove the 1" plug, apply the sealing compound to the threads, and install the plug into the top inlet port.

IMPORTANT: The inlet end of the valve must be rigidly attached to the dispenser. Two cast-in clearance holes, sized for 3/8-16 UNC fasteners, are provided to attach to the dispenser stabilizer bar or the appropriate bracket for your dispenser.

4. Remove the plastic cap from the inlet pipe (if necessary), apply sealing compound to the inlet pipe threads, and then screw the inlet pipe into the valve until it is hand tight.
5. Attach a pipe wrench to the valve as shown below. Use the wrench to hold the valve in place so that the valve is not twisted. Use the other pipe wrench to tighten the inlet pipe.



IMPORTANT: Make sure you do not apply twisting or bending moments to the shear valve. If tightening the fasteners causes any twisting or bending moments, adjust the position of the brackets on the stabilizer bars until you can tighten the mounting fasteners without causing any twisting or bending moments.

6. Once you have installed the inlet and outlet pipes and have tightened them to the recommended torque, tighten the inlet and outlet mounting fasteners to the stabilizer bars.

Pressure test

When you finish the installation, perform a pressure decay test to make sure there are no leaks. Make sure you restrict the pressure for the test to a maximum of 10" of water column.

Inspection

If there is an impact to a dispenser, check its vapor shear valve. If the valve is damaged, replace it.



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