

ENGLISH

Parker Electronic Valve (PEV) Installation Information

Operation

Prior to installing the P-Series Electronic Valve (PEV) the included safety bulletins must be read and understood.

Refrigerants

Suitable for ammonia, CO₂, and other common refrigerants

Maximum Operating Pressure Differential (MOPD)

Liquid Temperature Range

-60°C to 120°C (-76°F to 248°F)

Ambient Temperature Range

-40°C to 50°C (-40°F to 122°F)

Maximum Rated Pressure (MRP)

52 barg (754 psig)

Connection Types

SW, BW ANSI, and BW Metric (DN)

Figure 1: Components

- 1 - Port Plate Assembly
- 2 - Bolts, Port Plate
- 3 - Valve Body
- 4 - Gasket, Port Plate (New)

Figure 5: Re-Assembly

- 1 - Gasket, Port Plate (New)

Figure 6: Port Plate Torque Specs

Port	Bolt Size	Nm	Ft Lb
20 mm (3/4") to 25 mm (1")	M12 x 1.75	61	45
32 mm (1 1/4") to 40 mm (1 1/2")	M16 x 2	149	110

Installation

All personnel working on valves must be qualified to work on refrigeration systems. If there are any questions contact Sporlan Division - Refrigeration Business Unit before proceeding with the work.

All valves are packed for a maximum protection. Unpack carefully. Check the carton to make sure all items are unpacked, see Figure 1 for the list of items included.

Do not remove the protective coverings from the inlet and outlet of the valve until the valve is ready to be installed. Protect the inside of the valve from dirt and chips before and during installation. In the event the valve is left disassembled for any length of time, protecting the components is essential. Place the components in a plastic bag and store them in an area where they will not be damaged.

The valve should be installed in a location where it is easily accessible for adjustment and maintenance. The location should be such that the body cannot be easily damaged by material handling equipment. Proper indicating gauges should be installed to be easily visible to the operating engineer for system checks and adjustment purposes.

The valve should be disassembled before welding to prevent damage to o-rings and teflon (PTFE) components. First remove the port plate by unbolting the bolts as shown in Figure 2. If the port plate does not come apart easily, rotate the port plate 45° and use the corners to pry the port plate out. If using a tool, such as a screw driver, it is important to be careful not to damage any gasket surfaces.

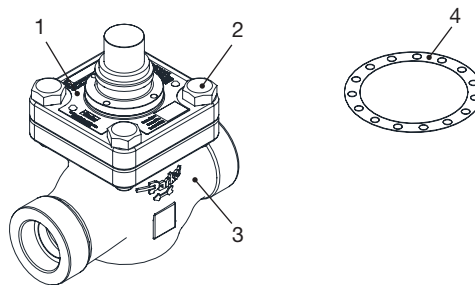
The current port plate gasket must be removed, as shown in Figure 3, and discarded. A replacement gasket is provided with every purchase of a new valve.

The PEV valves must be mounted in the upright horizontal position with the actuator on the top. The valve must be installed with the arrow pointing in the direction of flow for the valve to function properly.

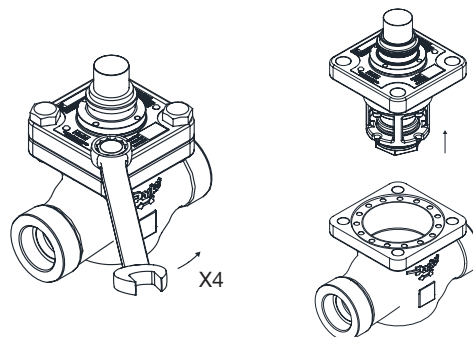
Installers need to follow a WPS (Welding Procedure Specification) for all welding. The procedure and welder doing the weld must be qualified to perform that procedure.

The codes applicable to the welding of socket weld valves require that the pipe be inserted into the socket until bottomed against the stop, then backed out approximately 1/16 of an inch (1.6 mm) before welding. Use of welding rings is optional but recommended for butt weld valves. They help alignment, control gap for full penetration welding, and reduce welding debris entry.

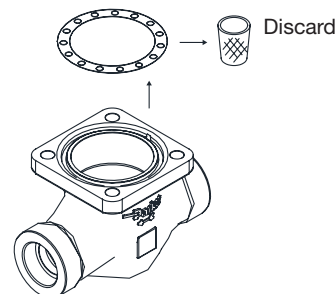
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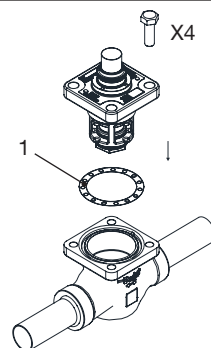
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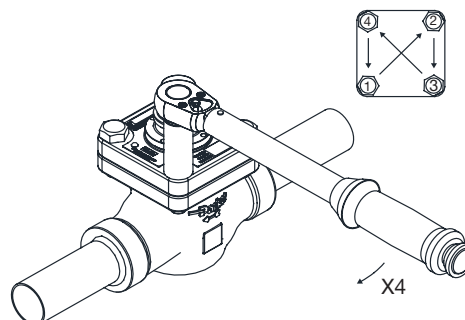
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Installation (continued)

Note: When welding carbon steel to stainless steel the welded joint should be painted to prevent galvanic corrosion.

Reassemble the valve in reverse order, as shown in Figure 5, using the new gasket provided. Tighten the port plate bolts, with a torque wrench, evenly in a X configuration to provide proper seating. Bolt torque values are provided in Figure 6.

See bulletin 24-00 for information on the PEV valve.

Gasket and Sealing Ring Installation

A. Using a 1-1/4" socket wrench and the manual tool, 251595, remove the PEV magnetic cap assembly by turning it counterclockwise until it loosens. Continue turning by hand until it separates from the valve cover.

B. Discard existing assembled o-ring part number 313342.

C. Apply a thin coat of o-ring lubricant to the replacement (new) o-ring, 313342. Carefully install the o-ring to the cap o-ring groove.

D. Place the gasket, 319287, onto the top of the port plate and carefully replace the PEV magnetic cap assembly.

E. Torque the PEV magnetic cap assembly to 75 ft-lbs (102 N-m) by turning it in a clockwise rotation.

See bulletin 24-00 for information on the PEV valve.

⚠ WARNING – USER RESPONSIBILITY

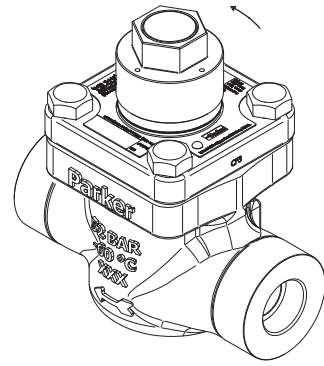
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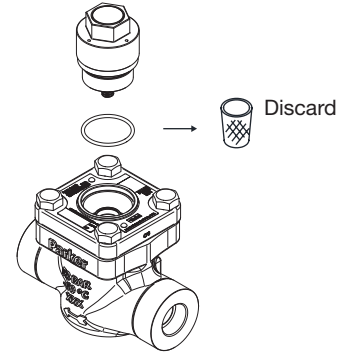
The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

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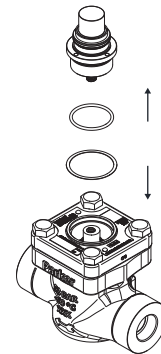
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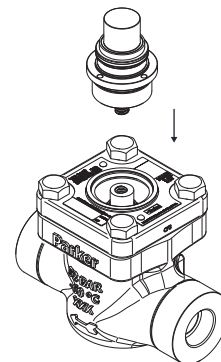
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