

SV8 & SV9 SERIES VACUUM SEAL-OFF VALVES

1/4, 1/2, 3/4, 1 Inch Sizes

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INTRODUCTION

This Installation, Operation, and Maintenance Manual is intended to be as complete and up to date as possible. It covers installation, operation, and maintenance procedures for a CPC-Cryolab product. CPC-Cryolab reserves the right to update this manual and other product information concerning installation, operation, and/or maintenance, at any time and without obligation to notify product owners of such changes.

CPC-Cryolab is not responsible for injury to personnel or product damage due to improper installation, operation, and/or maintenance. All installation, operation, and maintenance procedures should only be performed by trained/certified personnel. All personnel performing these procedures should completely and carefully read and understand all supplied materials before proceeding. All personnel should pay strict attention to all Notes, Cautions, and Warnings that appear within procedures detailed in this manual.

CPC-Cryolab welcomes user input as to suggestions for product or manual improvement.

CONTACT INFORMATION

For information concerning warranties, or for questions pertaining to the installation, operation, or maintenance of CPC-Cryolab products, contact:

CPC-CRYOLAB
4430 E. Adamo Dr. #305
Tampa, FL 33605
USA Phone: (813)-644-3764
Website: www.cpc-cryolab.com

To order replacement parts, contact CPC-Cryolab at the addresses listed above. Please include model and serial number of units for which parts are being ordered. If ordering by phone, please have this information readily available.

GENERAL NOTES AND WARNINGS

Notes:

- If the manual fails to answer all questions, or if specific installation, operation, and/or - maintenance procedures are not clearly understood, contact CPC-Cryolab for clarification before proceeding.
- If the unit is damaged during installation, operation, or maintenance, complete following steps:
 1. Turn off and lock-out all supply to the unit in an approved manner, including incoming valves.
 2. Contact in-house maintenance personnel or CPC-Cryolab for further instructions.

Throughout this manual, warnings will be denoted as shown in the example below:

CAUTION!

Piping system must be adequately designed and supported to prevent extraordinary loads to pressure equipment.

WARNING!

Serious injury or death can occur if not handled by properly trained personnel. Please consult the manufacturer with any questions prior to conducting work.

INSTALLATION

GENERAL NOTES

The valve and all associated parts should be unpacked and checked against the packing list and/or the approved customer drawing prior to installation. If parts are missing or there are more parts than necessary, contact CPC-Cryolab.

The valve is not to be installed or used in a pipeline that exceeds the maximum allowable working pressure listed on the valve tag.

Care must be taken during installation of oxygen clean to ensure the site is clean and the valve's cleanliness is not compromised.

WELDING VALVE IN PIPELINE

Prior to welding, brazing, or soldering, ensure pipeline is clean and free from contaminants such as dirt, weld slag, machining burrs, and pipe scale.

Disassemble the valve following the guidelines illustrated in the Maintenance section under Disassembly. Support the valve body securely until it is welded into the pipeline.

Weld, braze, or solder valve into the pipeline in accordance with all applicable local and national codes and standards. Reassemble the valve following the guidelines illustrated in the Maintenance section under Reassembly.

OPERATION

SV8 & SV9 vacuum seal-off valves are operated with the use of a valve operator. The valve operator is matched to the seal-off valve based on model and size (Figure 3 on page 5). A drawing of a valve operator can be seen in Figure 4 on page 5.

Please refer to Figures 1 & 2 for a basic illustration of this type of valve. The numbers in parentheses below refer to the item number in the specified figure. Ensure the valve is isolated from all sources of pressure and completely depressurized before proceeding.

Remove the cap (4) from the body (1), for SV9 valves remove retaining ring (5) as well. Attach the correct size V08 valve operator to the body (1) and tighten coupler nut hand tight. Connect evacuation pump to the operator. Engage plug (2) by pushing the shaft downward then turning the operator knob clockwise until resistance is felt.

Once engaged, open valve by lifting operator knob. Once the desired level of vacuum is achieved, close the seal-off valve by firmly pushing downward on operator knob seating plug (2) into body (1). Disengage plug (2) by turning the operator knob counterclockwise until disengaged from plug (2). Remove the operator from the body (1) by loosening coupler nut then lifting operator from body (1), then replace the cap (4). For SV9 valves replace retaining ring (5) prior to replacing the cap (4).

MAINTENANCE

WARNING!

Injury or death can occur due to failure to completely isolate equipment from all sources of pressure before beginning disassembly. Do not proceed until valve has been completely isolated from the process and vented to atmospheric pressure.

GENERAL NOTES

Standard maintenance kits for valves include a soft goods kit to replace all elastomeric seals.

Apply Krytox® or an equivalent lubricant that is compatible with the process fluid to all threads and O-ring(s) prior to reassembly. It is important to only apply a thin coat of lubricant to the O-rings(s) as excess lubricant can cause valve sticking.

The use of pliers or other tools during maintenance can cause damage to the sealing surfaces which could void any warranty.

DISASSEMBLY

Remove the cap (4) from the body (1), for SV9 valves remove retaining ring (5) as well. Attach the correct size V08 valve operator to the body (1) and tighten coupler nut hand tight. Use the table in Figure 3 to locate the proper operator. Engage plug (2) by pushing the shaft downward then turning the operator knob clockwise until engaged with plug (2). Once engaged, open valve by lifting operator knob. Take care to keep the inside of the body (1) clean and clear of debris while performing maintenance on the plug (2). Remove the O-ring(s) (3) from the plug (2) taking care not to damage the O-rings groove(s).

REASSEMBLY

Lubricate and install new O-ring(s) (3) onto the plug (2). Install the plug (2) into the body (1) by firmly pushing downward on plug (2) seating it into body (1), then replace the cap (4). For SV9 valves replace retaining ring (5) prior to replacing the cap (4).

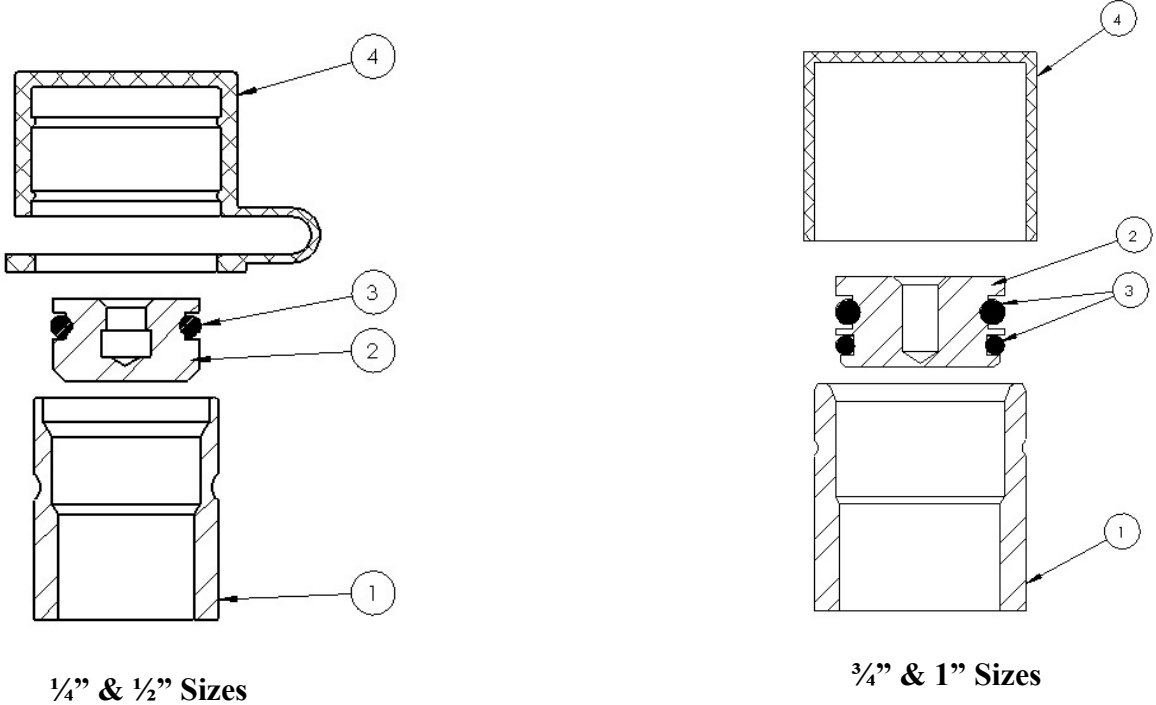


Figure 1 - Standard SV8 Valves

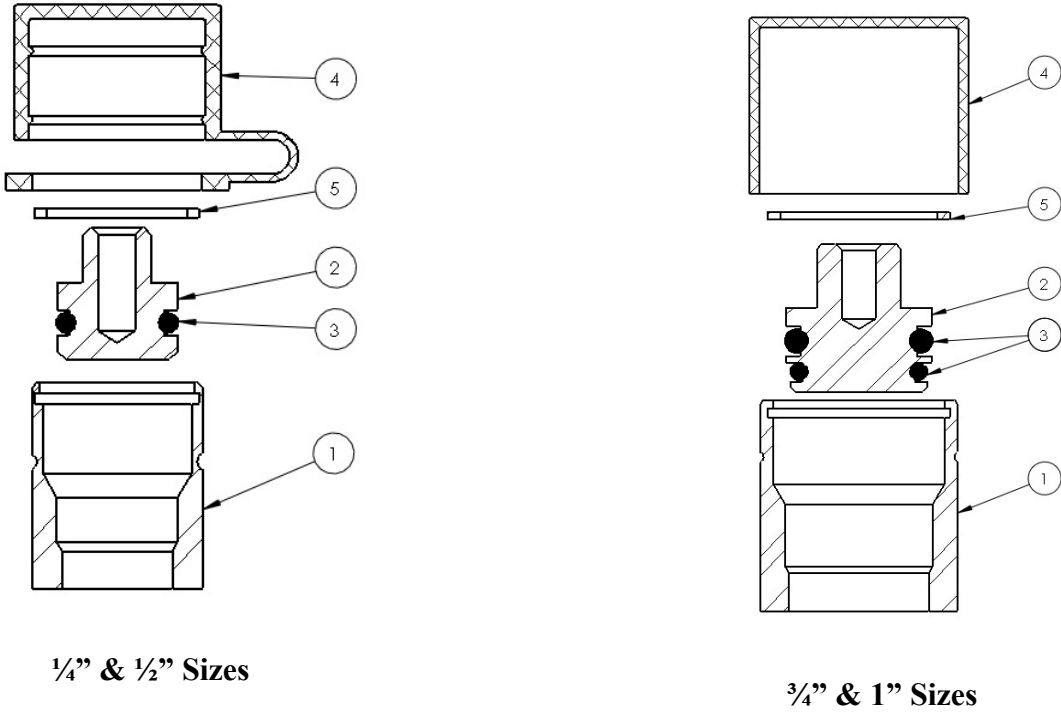


Figure 2 - Standard SV9 Valves

Standard Seal-off Valves and Valve Operators		
Size	SV8 or SV9 Part Number	V08 Part Number
1/4"	SV8-082- SV9-082-	V08-082-
1/2"	SV8-084- SV9-084-	V08-084-
3/4"	SV8-086- SV9-086-	V08-086-
1"	SV8-088- SV9-088-	V08-088-

NOTE: Before installing, operating, or performing maintenance, be sure to have the correct valve operator for the seal-off valve being used.

Figure 3 – SV8 & SV9 Valve Operator Matching

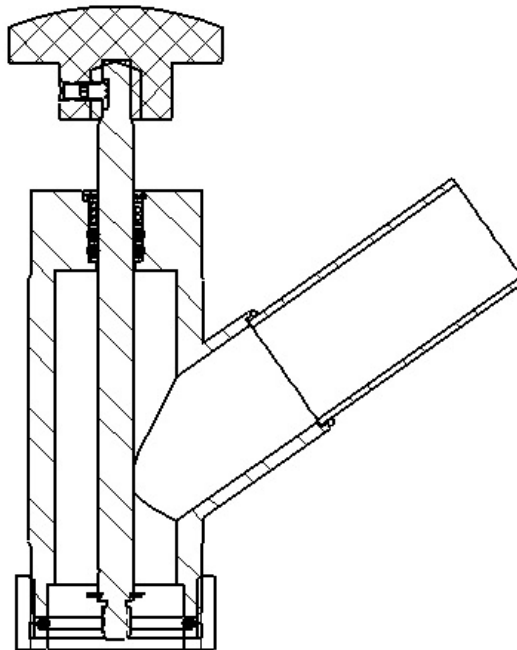


Figure 4 – V08 Series Valve Operator

It is solely the responsibility of the system designer and the user to select products and materials suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. Assistance shall be afforded with the selection of the materials based on the technical information supplied to CPC-Cryolab™; however, the system designer and user retain final responsibility. The designer should consider applicable Codes, material compatibility, product ratings and application details in the selection and application. Improper selection, application or use of the products described herein can cause personal injury or property damage. If the designer or user intends to use the product for an application or use other than originally specified, he must reconfirm that the selection is suitable for the new operating conditions.