

AIR CYLINDER ACTUATED BUTTERFLY VALVE

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WARNING!

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

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 Leslie Controls, Inc. Rotary On-Off Electric/Pneumatic Control Valve. Leslie reserves 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.

Leslie is not responsible for inaccuracies in specifications, procedures and/or content of other product literature, supplied by manufacturers of components used in Leslie Controls, Inc. Rotary On-Off Electric/Pneumatic Control Valve, Leslie strives to use only highest quality components; however, LESLIE has no direct control over their manufacture, or their consistent quality.

Leslie is not responsible for injury to personnel or product damage due to improper installation, operation, and/or maintenance of Leslie Controls, Inc. Rotary On-Off Electric/Pneumatic Control Valve. Trained/certified personnel should only perform all installation, operation, and maintenance procedures. Personnel should be trained in and familiar with correct piping and electrical procedures and methods, and should be experienced in working with hot/boiler water systems and steam systems. All personnel performing these procedures should completely and carefully read and understand all supplied materials before attempting procedures. All personnel should pay strict attention to all Notes, Cautions, and Warnings that appear within procedures detailed in this manual.

Leslie welcomes user's input as to suggestions for product or manual improvement.

Contact Information

For information concerning warranties, or for questions pertaining to installation, operation or maintenance of LESLIE products, contact:

LESLIE CONTROLS INC.
12501 Telecom Drive
Tampa, FL 33637
USA Phone: (813) 978-1000
USA Fax: (813) 978-0984
www.LESLIECONTROLS.com

To order replacement parts, contact LESLIE CONTROLS at address listed above, or call toll free:

USA/Canada/Caribbean Phone: (800) 323-8366

Note: Please include model and serial number of unit for which parts are being ordered. If ordering by phone, please have this information readily available.

GENERAL NOTES AND WARNINGS

Notes:

- If questions are not answered by this manual, or if specific installation, operation, and/or maintenance procedures are not clearly understood, contact Leslie Controls, Inc. for clarification before proceeding.
- If unit is damaged during installation, operation, or maintenance, complete following steps:
 1. Turn off and lock out electric power supply to unit in an approved manner.
 2. Turn off all incoming valves and sources of pressure.
 3. Contact in-house maintenance personnel or Leslie Controls, Inc. for instructions.

Note: Throughout this manual, BOXES will denote warnings and cautions

CAUTION!

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

INSTALLATION AND OPERATION

1. The Cylinder Operated Butterfly Valve is shipped from the factory with the valve locked in the closed position.
2. Before installing and connecting valve in pipeline, make sure pipeline and spacer are clean and free from dirt, metal chips, slag, etc, to prevent damage to valve seal or clogging of valve.
3. Do not strain the valve actuator assembly or use cylinder for leverage when connecting pipes.
4. Use the proper flange gasket material, and tighten the flange bolts gradually and evenly, so as not to distort the valve body.
5. Check to be sure that all bolts are equally and fully tightened before applying pressure.

PIPE CONNECTION

The valve is designed for installation between standard ANSI pipe flanges. Before installation of the valve, the connecting piping should be cleaned to assure best results. Accidental contact with upstream or downstream pipe or spacer will damage wager and may cause excessive leakage or binding. Install valve with valve actuator assembly parallel to horizontal pipeline. Allow sufficient room around actuator and cylinder for regular maintenance and service.

POSITION LOCK SCREW REMOVAL

(See Fig.1)

1. Install valve assembly between flanges in pipeline per installation instructions above
2. Apply 60 to 90 PSIG air to cylinder supply port.
3. Unscrew valve position locking screw and remove washer.
4. Save screw and washer for valve removal from the pipeline.

Figure 1 – Cylinder Sectional View

OPERATING CYLINDER CONNECTION

Remove protective plug and connect air supply from the 20CB, 3-Way solenoid pilot valve to the 3/4" NPT cylinder supply inlet at top of cylinder. The cylinder must receive adequate air pressure as listed in table.

REPLACEMENT PARTS

CYLINDER SEAL REPLACEMENT

The cylinder seals are designed to last for the life of the unit. Should it become necessary to replace the seal, refer to Laurence drawing RS6648a for instruction.

POSITION SWITCH REPLACEMENT

Refer to drawing number listed in table for instruction.

PROTECTION/ REPLACEMENT OF CYLINDER VENT

CAUTION!

Do not paint over the porous metal cylinder breather vent located in the cylinder head. Mask element before painting and remove masking after painting.

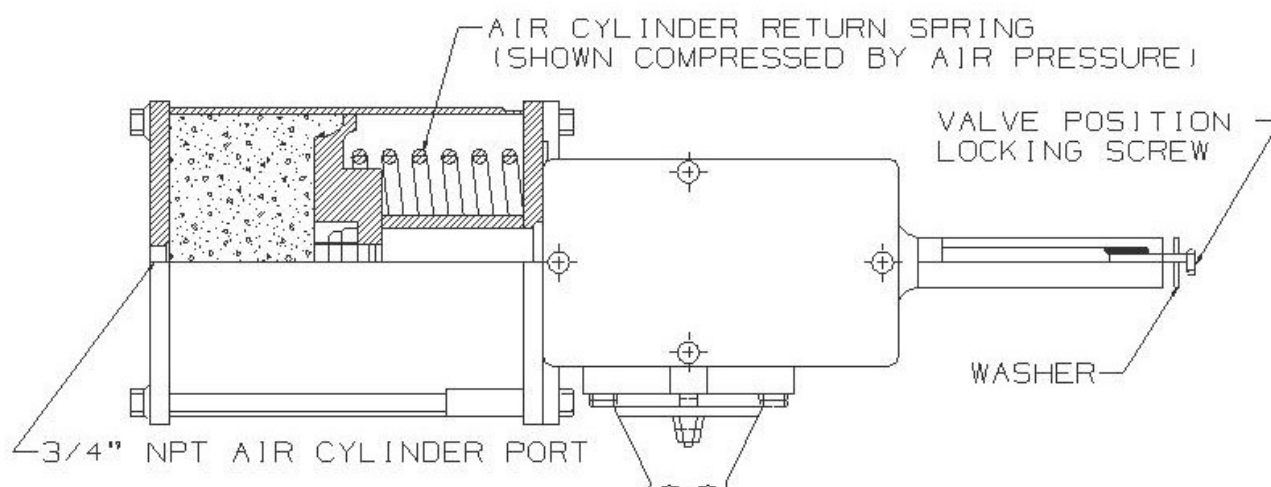
If the vent becomes clogged from dirt or paint – clean or replace. To replace breather vent, remove the one closest linkage cover screw to provide socket wrench clearance. Unscrew the vent and replace with a cleaned or new vent. Replace linkage cover screw.

MAINTENANCE

BUTTERFLY WAFER MAINTENANCE

Lubrication and maintenance is not required or recommended for the wafer seal, seat, shaft, and bearings. Repairs should only be performed by the factory or authorized service center.

Figure 1 - Cylinder Sectional View



<i>RGL Part #</i>	<i>Pipe Size</i>	<i>Drawing #</i>	<i>Model #</i>	<i>GE Part #</i>	<i>Former GE #</i>	<i>Location</i>	<i>Cylinder PSIG</i>	<i>Wafer PSIG</i>	<i>Switch Drawing</i>
BFCY600007	6"	S6509-D	6509	354A1589P001	279A1347P002/8/9	INSIDE	45-183	10-65	RS6650A
BFCY600007CE	6"	R6898B	6509CE	RV-30668	---	INSIDE	45-183	10-65	R6900B
BFCY600009	8"	S6512-D	6512	354A1371P001	336A2423P001/2	OUTSIDE	45-183	10-65	RS6649A
BFCY800003	8"				286A6149P001/4/7 314A5240P002/3 239A5468P001 324A5781P001 342A2566P001/2				
		S6515-D	6515	354A1107P001 357A1237P001		INSIDE	70-225	10-107	RS6650A
BFCY800003CE	8"	R6909B	6515CE	368A2261P001	---	INSIDE	70-225	10-107	RS6900B
BFCY800005	8"	S6518-D	6518	342A2589P001	---	OUTSIDE	70-225	10-107	RS6649A
BFCY800010	8"	R6762D	6515-2	[TBD]	---	INSIDE	70-225	10-107	RS6650A
BFCY100003	10"	S6522-D	6522	342A1584P004	---	INSIDE	70-225	10-107	RS6650A
BFCY100004	10"	S6521-D	6521	342A1584P001/2	---	OUTSIDE	70-225	10-107	RS6649A
BFCY100005	10"	S6519-D	6519	342A1584P005	---	INSIDE	70-225	10-107	RS6650A
BFCY100006	10"	S6520-D	6520	328A7107P001	---	OUTSIDE	70-225	10-107	RS6651A



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It is solely responsibility of system designer and 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 selection of materials based on technical information supplied to Leslie Controls Inc.; however, system designer and user retain final responsibility. Designer should consider applicable Codes, material compatibility, product ratings and application details in selection and application. Improper selection, application or use of products described herein can cause personal injury or property damage. If designer or user intends to use product for an application or use other than originally specified, he must reconfirm tat selection is suitable for new operating conditions. Life expectancy for this product defaults to warranty period of sales contract.