



FLOWTREND

SMARTER, FASTER FLUID HANDLING SOLUTIONS

**Flowtrend 700-R Series
Maintenance Operations Manual**

INTRODUCTION

The Flowtrend 700-R repairable actuators are spring return units used when a normally open or normally closed valve is required. The actuators contain similar components but are assembled in uniquely for each type of operation.

These actuators can used in both the normally open or normally closed position simply by removing the actuator from the bonnet and turning it upside down.

ACTUATOR DISASSEMBLY

CAUTION!

Be sure that no pressure is applied to the actuator during disassembly

1. (Depending on Actuator size) Remove the 6/8 screws (Item H) from cylinder wall using a 4mm hex wrench. This will allow the cylinder to move freely for disassembly.
2. Separate the actuator body (Item C) cylinder from the end cap (Item I) by standing the actuator upright with the end cap facing up. Holding the cylinder with both hands, place the stem/piston (Item F) that is protruding out the bottom of the cylinder on the work bench. Force the cylinder down and separate the cylinder from the end cap. A rubber mallet can be used to separate the cylinder from the end cap by laying the actuator on its side, and tapping the stem protruding out of the cylinder opposite of the end cap, lightly, until the end cap separates from the cylinder.
3. Once separated, the end cap can be removed by sliding it off the piston/stem assembly.
4. Remove the caged spring assembly (Item G). Note that the caged spring assembly is unidirectional. You can identify the direction of installation by looking at the ID of the spring's cage. The side with the larger ID should be installed facing the piston.)
5. Remove the piston/stem assembly by securing the cylinder with one hand, and pulling the assembly out of the cylinder with the other.

ACTUATOR REASSEMBLY

1. Replace the two small PTFE split bushing (Item B) and the stem o-ring (Item A) located both ends of actuator inside the bottom of the cylinder at the end cap.
2. Replace 1 large PTFE split bushing located around the stem/piston (Item E) and the o-ring (Item D).
3. Using molybdenum disulfide grease, generously lubricate the inner cylinder wall, PTFE split bushings and o-rings. Completed properly, this will insure easy fitment and added life of wear components.
4. Install the piston/stem assembly in the cylinder with the piston facing the open end of cylinder.
5. Install the caged spring assembly (Item G). The side with the larger ID should be installed facing the piston.
6. Replace end cap by carefully placing it over the stem and pushing it into the cylinder. Be sure that the hole on top of the cylinder is aligned properly, and that the PTFE bushings and o-rings are not damaged during reassembly. In some cases, it may be necessary to use a rubber mallet to tap the end cap into the cylinder.
7. Install the screws that were removed and tighten these screws to 20 ft.-lb of torque.

Note

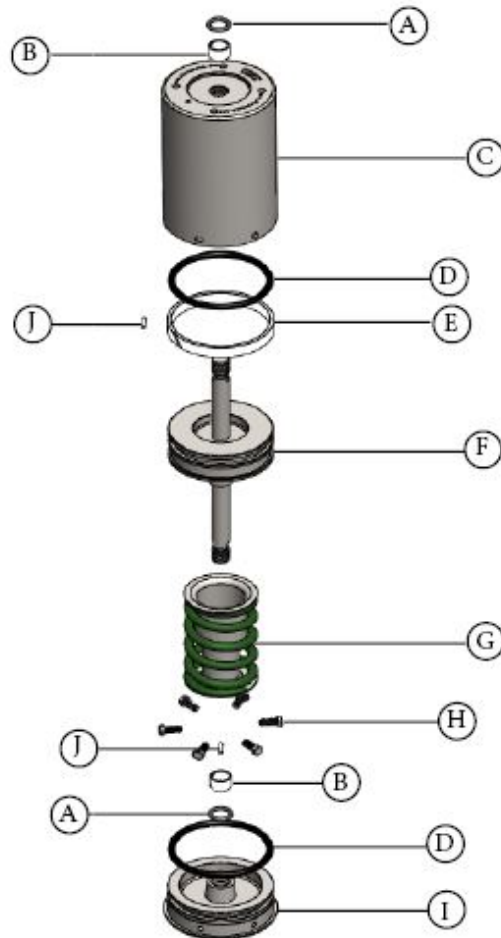
To convert a Normally Open Actuator to a Normally Closed Actuator, simply turn the actuator upside down. It is not necessary to disassemble the actuator

Key	Description	Short Stroke Part Number	Long Stroke Part Number	Quantity Req.
A *	700 Repairable Actuator Stem O-Ring	125089	125089	2
B *	700 Rep PTFE Split Bush Small 4"	125090	125090	2
C	700 Repairable ACT Cylinder	103098	127455	1
D *	700 Repairable Actuator Piston O-Ring	125091	125091	2
E *	700 Series 4"ACT Piston Split Bushing	103107	103107	1
F	700 Repairable ACT Stem/Piston Assy	103100	103428	1
G	700 Rep ACT Spring Assy 4" (Blk)	103101	103429	1
H	700 Repairable ACT Screw	103102	103102	6
I	700 Repairable ACT End Cap	103099	103099	1
J *	Third Lock Insert-Nylon	125092	125092	2

4.5" ACTUATOR

Please contact Flowtrend for additional information on different size actuators.

* Items included in actuator Service Kit



Flowtrend® 700-R Series Actuator is a Flowtrend manufactured replacement for the Tri-Clover® 700 Series Actuator. Flowtrend's parts and products are not Alfa Laval® parts and products, and Alfa Laval® does not endorse, approve or warrant Flowtrend's parts or products, or their use.

Note

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Key	Description	Short Stroke Part Number	Long Stroke Part Number	Quantity Req.
A *	700 Repairable Actuator Stem O-Ring	125089	125089	2
B *	700 Rep PTFE Split Bush Small 6"	125090	125090	2
C	700 Repairable ACT Cylinder	127456	127457	1
D *	700 Repairable Actuator Piston O-Ring	125093	125309	2
E *	700 Series 6"ACT Piston Split Bushing	103170	103170	1
F	700 Repairable ACT Stem/Piston Assy	127459	127460	1
G	700 Rep ACT Spring Assy 6" (Blk)	124712	103356	1
H	700 Repairable ACT Screw	103102	103102	8
I	700 Repairable ACT End Cap	127462	127462	1
J *	Third Lock Insert-Nylon	125092	125092	2

6" ACTUATOR

Please contact Flowtrend for additional information on different size actuators.

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