

# FLOWTREN 700-R REPAIRABLE ACTUATOR



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.

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# FLOWTREN

SMARTER, FASTER FLUID HANDLING SOLUTIONS

## Flowtrend Replacement for the Tri-Clover® Non-Repairable Actuators

Pneumatic valve actuator featuring a unique design that offers a repairable option. Its heavy-duty construction and precise components ensure positive alignment under severe conditions.

### FEATURES

- Caged spring for safe service
- Corrosion resistant coated springs
- Long lasting stem bushings, coupled with PTFE split bushings
- Cylinder walls are 3mm thick to prevent damage to the glide path of the piston
- Exterior surfaces are 32Ra finish
- Intended to be interchangeable with Tri-Clover® non-repairable actuators
- Actuation is easily changed from normally open to normally closed
- Compatible with Alfa Laval® and Burkert® control and indication tops

### FUNCTIONS

- Pneumatic downward movement, spring return (NO)
- Pneumatic upward movement, spring return (NC)
- Pneumatic downward and upward movement (A/A)
- Actuator for intermediate position of valve plug as option

### AIR SUPPLY SPECIFICATIONS

- Max air pressure: 100psi
- Air filter regulator is recommended
- Heavy duty spring options are available to hold against higher product pressures. Heavy duty springs will require additional air supply pressure to overcome the spring

### Minimum Air Pressure Requirements

| VALVE SIZE             | STROKE (in) | VOLUME [cu in] |
|------------------------|-------------|----------------|
| 1"                     | .75         | 11.1           |
| 1.5" [3" short stroke] | 1           | 14.80          |
| 1.5" [3" long stroke]  | 2           | 29.50          |
| 4" short stroke HP     | 2           | 50.00          |
| 4" long stroke HP      | 4           | 95.00          |
| Type 15 diaphragm      | 1           | 18.00          |

## TECHNICAL DATA

### Type 10 (normally open)

Shut-off valve holding pressures

70 psi air pressure supplied to actuator

| SHORT STROKE [STANDARD]* |                 |         |               |
|--------------------------|-----------------|---------|---------------|
| SIZE                     | ELAS-TOMER PLUG | TR PLUG | STROKE LENGTH |
| 1"                       | 105 psi         | 110 psi | .75"          |
| 1.5"                     | 120 psi         | 110 psi | 1"            |
| 2"                       | 80 psi          | 70 psi  | 1"            |
| 2.5"                     | 35 psi          | 20 psi  | 1"            |
| 3"                       | 20 psi          | 15 psi  | 1"            |
| 4"                       | 35 psi          | 20 psi  | 2"            |

| LONG STROKE [STANDARD]* |                 |         |               |
|-------------------------|-----------------|---------|---------------|
| SIZE                    | ELAS-TOMER PLUG | TR PLUG | STROKE LENGTH |
| 1"                      | N/A             | N/A     | N/A           |
| 1.5"                    | 120 psi         | 110 psi | 2"            |
| 2"                      | 125 psi         | 120 psi | 2"            |
| 2.5"                    | 60 psi          | 50 psi  | 2"            |
| 3"                      | 45 psi          | 40 psi  | 2"            |
| 4"                      | 40 psi          | 20 psi  | 4"            |

### Type 10 (normally open)

Shut-off valve holding pressures

90 psi air pressure supplied to actuator

| SHORT STROKE [STANDARD]* |                 |         |               |
|--------------------------|-----------------|---------|---------------|
| SIZE                     | ELAS-TOMER PLUG | TR PLUG | STROKE LENGTH |
| 1"                       | 105 psi         | 105 psi | .75"          |
| 1.5"                     | 150 psi         | 150 psi | 1"            |
| 2"                       | 150 psi         | 150 psi | 1"            |
| 2.5"                     | 90 psi          | 80 psi  | 1"            |
| 3"                       | 70 psi          | 60 psi  | 1"            |
| 4"                       | 80 psi          | 75 psi  | 2"            |

| LONG STROKE [STANDARD]* |                 |         |               |
|-------------------------|-----------------|---------|---------------|
| SIZE                    | ELAS-TOMER PLUG | TR PLUG | STROKE LENGTH |
| 1"                      | N/A             | N/A     | N/A           |
| 1.5"                    | 150 psi         | 150 psi | 2"            |
| 2"                      | 150 psi         | 150 psi | 2"            |
| 2.5"                    | 120 psi         | 110 psi | 2"            |
| 3"                      | 80 psi          | 70 psi  | 2"            |
| 4"                      | 100 psi         | 80 psi  | 4"            |

### Type 20 (normally closed)

Shut-off valve holding pressures (standard\*\*)

| SHORT STROKE [STANDARD]* |                 |         |               |
|--------------------------|-----------------|---------|---------------|
| SIZE                     | ELAS-TOMER PLUG | TR PLUG | STROKE LENGTH |
| 1"                       | 105 psi         | 110 psi | .75"          |
| 1.5"                     | 140 psi         | 140 psi | 1"            |
| 2"                       | 90 psi          | 90 psi  | 1"            |
| 2.5"                     | 55 psi          | 55 psi  | 1"            |
| 3"                       | 40 psi          | 40 psi  | 1"            |
| 4"                       | 65 psi          | 65 psi  | 2"            |

| LONG STROKE [STANDARD]* |                 |         |               |
|-------------------------|-----------------|---------|---------------|
| SIZE                    | ELAS-TOMER PLUG | TR PLUG | STROKE LENGTH |
| 1"                      | N/A             | N/A     | **            |
| 1.5"                    | 140 psi         | 140 psi | 2"            |
| 2"                      | 90 psi          | 90 psi  | 2"            |
| 2.5"                    | 60 psi          | 55 psi  | 2"            |
| 3"                      | 32 psi          | 25 psi  | 2"            |
| 4"                      | 45 psi          | 40 psi  | 4"            |

### Type 20 (normally closed)

Optional "HP" high pressure actuator (6" diameter actuator)

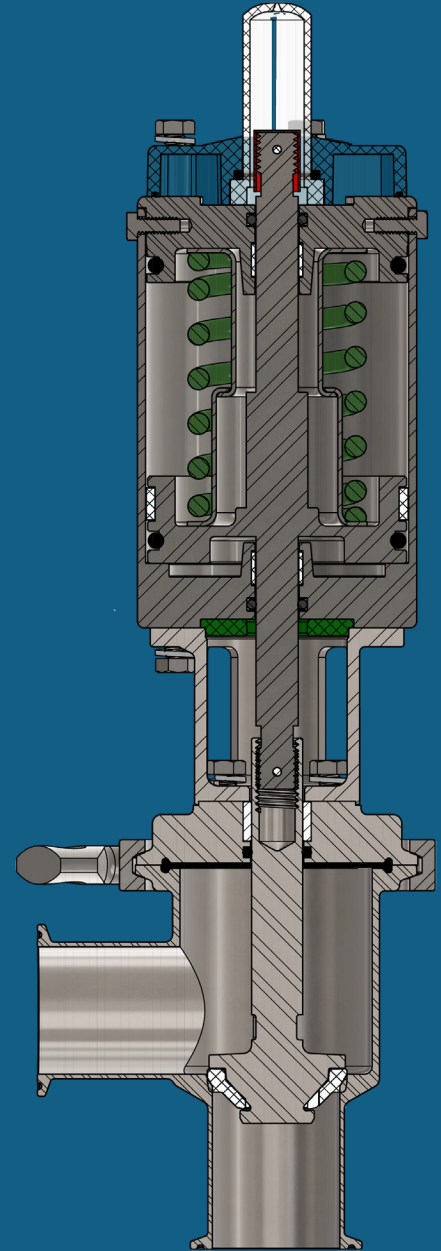
| SHORT STROKE [STANDARD]* |                 |         |               |
|--------------------------|-----------------|---------|---------------|
| SIZE                     | ELAS-TOMER PLUG | TR PLUG | STROKE LENGTH |
| 2.5"                     | 110 psi         | 110 psi | 1"            |
| 3"                       | 95 psi          | 90 psi  | 1"            |

| LONG STROKE [STANDARD]* |                 |         |               |
|-------------------------|-----------------|---------|---------------|
| SIZE                    | ELAS-TOMER PLUG | TR PLUG | STROKE LENGTH |
| 2.5"                    | 115 psi         | 110 psi | 2"            |
| 3"                      | 100 psi         | 95 psi  | 2"            |

\*4.5" diameter actuator is standard on 1"-3" valves. A 6" diameter actuator is supplied with a 4" valve. The 6" diameter actuator is available as a heavy-duty option for the 3" valve

\*\*On a standard actuator, 30 psi is required to offset the spring force when fully extended. 60 psi is required to fully compress the spring

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