

# Space Saver<sup>™</sup> Actuators Air Actuated 0700 Series





# Space Saver™

Air Actuated 0700 Series

This line of space saving pneumatic actuators is designed to provide safe, reliable control of most Hoke Flomite®, Selectomite®, and DL/TL ball valves. For added flexibility, Space Saver actuators may be operated with many types of clean gases including air, natural gas, and nitrogen. Spring return and double acting versions are available for either 90° or 180° actuation. All Space Saver actuators come standard with a manual override feature for emergency operation.



### **Typical Applications**

- Chemical
- Petrochemical
- · Oil and Gas Drilling
- Research and Development
- Environmental Control
- · Instrumentation Panels

### **Technical Data**

Housing Material	Polyurethane coated aluminum
Maximum Operating Pressure	125 psig (9 bar)
Air Supply Connection*	1/8 Female NPT
Operating Temperature Range	A4 Actuators- 0° to 250° F (-18° to 121° C) A5 Actuators- 0° to 400° F (-18° to 204° C)
Cycle time**	1 second (dependent on air supply)
Cycle Life	250,000 cycles minimum
Weight	1.7 lbs. (0.75 kg)

<sup>\*</sup> The air line supplying and venting the actuator must not restrict airflow. Orifice size of air supply valves should be 3/32" minimum (2.4 mm) to assure full actuator torque output.

\* Cycle time should not exceed 10 cycles per minute when operating continuously. DL or TL ball valves are recommended for higher cycle times.

### **Features & Benefits**

Saves space

- Compact dimensions (2.25" x 2.75" x 3.5")
- One Space Saver actuator can operate two valves simultaneously
- Hoke DL and TL ball valves are available for high cycle applications
- Available as 90°/180° spring return and double acting
- Operates with many clean gases (air, natural gas, nitrogen) for added flexibility
- Minimal number of moving parts for reduced maintenance
- Corrosion resistant polyurethane coated aluminum housing for added durability
- · High burst strength for enhanced safety
- Manual override for emergency operation
- Rapid response time of one second or less per cycle
- Unique piston gear drive assembly allows for wide range of uses
- Choice of two operating temperature ranges (A4, A5 models)
- Special High Tolerance NPT Thread

# Space Saver

### **HOKE Incorporated**

# **Space Saver™**

### **Specifications**

### **Materials of Construction**

- · Polyurethane coated aluminum housing
- Aluminum, anodized and PTFE coated geared piston
- 316 stainless steel geared output shaft
- · Filled PTFE shaft bearing

- · Reinforced polyamide polymer liner
- Nitrile seals (A4 models), Viton® seals (A5 models)
- · Alloy steel springs with corrosion resistant coating

### **Torque Specifications**

0713A4, 0713A5 180° Spring Return

INLET PRESSURE (PSIG/BAR)		RQUE OUTPUT SS / NM)	SPRING SIDE TORQUE OUTPUT (IN/LBS / NM)		
	AIR START	AIR END	AIR START	AIR END	
50/3	18/2	7/1	16/2	6/1	
60/4	23/3	13/2	16/2	6/1	
70/5	28/3	17/2	16/2	6/1	
80/6	34/4	22/3	16/2	6/1	
90/6	42/5	27/3	16/2	6/1	
100/7	46/5	31/4	16/2	6/1	
120/8	56/6	42/5	16/2	6/1	

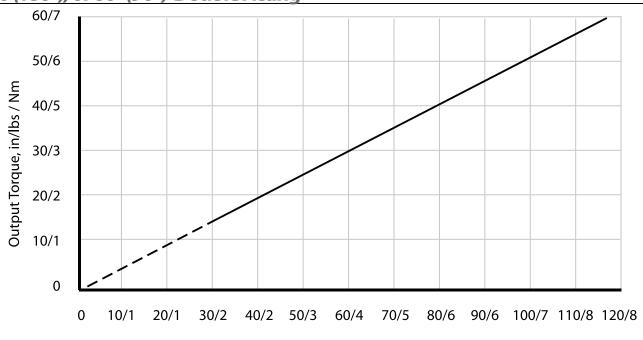
Minimum inlet pressure to obtain 180° rotation = 50 psig (3 bar)

0722A4, 0722A5 90° Spring Return

INLET PRESSURE	AIR SIDE TORQUE OUTPUT (IN/LBS / NM)		SPRING SIDE TORQUE OUTPUT (IN/LBS / NM)		
(PSIG)	AIR START	AIR END	AIR START	AIR END	
60	9/1	5/1	30/3	20/2	
70	16/2	10/1	30/3	20/2	
80	20/2	13/2	30/3	20/2	
90	26/3	18/2	30/3	20/2	
100	30/3	20/2	30/3	20/2	
120	40/5	30/3	30/3	20/2	

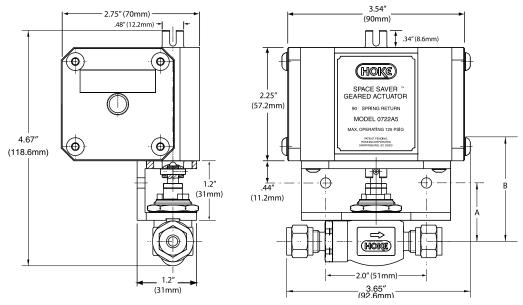
Minimum inlet pressure to obtain 90° rotation = 60 psig (4 bar)

### 0750 (180°), 0760 (90°) Double Acting



Inlet Pressure, PSIG / Bar

# Space Saver™



These diagrams above and table below show mounting dimensions and specifications for Space Saver actuators with 1- and 2-valve configurations.

All Space Saver actuators and mounting bracket dimensions above are the same across all models.

### **Mounting Dimensions**

SPACE SAVER P/N	1 BALL VALVE	2 BALL VALVES	A	В
0722A4/A5	7142 7155	7142 7155	<sup>59</sup> / <sub>64</sub> " 23 mm	1 <sup>57</sup> ⁄64″ 48 mm
90° Spring Return	7115 7122	 7122	<sup>11</sup> / <sub>32</sub> " 26 mm	2" 50.8 mm
0713A4/A5	7177	7177	<sup>59</sup> / <sub>64</sub> " 23 mm	1 <sup>57</sup> ⁄64″ 48 mm
180° Spring Return	7165		1″ 25 mm	1 <sup>3</sup> 1⁄ <sub>32</sub> " 50 mm
0760A4/A5	7142 7155	7142 7155	<sup>59</sup> / <sub>64</sub> " 23 mm	1 <sup>57</sup> ⁄64″ 48 mm
90° Double Acting	7115 7122	7115 7122	<sup>11</sup> / <sub>32</sub> " 26 mm	2" 51 mm
0750A4/A5 180° Double Acting	7177	7177	<sup>59</sup> / <sub>64</sub> " 23 mm	1 <sup>57</sup> ⁄64″ 48 mm
	7671 7673 7165	7671 7673 7165	1" 25 mm	1 <sup>3</sup> 1⁄ <sub>32</sub> " 50 mm



The 0700 Series single actuator offers the capability of operating up to two 2-way ball valves simultaneously.



Cut-away of 0700 Series showing unique piston/gear drive assembly design.

# **Space Saver**<sup>™</sup>

### **How to Order**

NUMBER OF VALVES PER ACTUATOR*	ACTUATOR Type	SPACE SAVER PART NUMBER	USE WITH BALL VALVE PART NUMBER**	MOUNTING KIT NUMBER	REQUIRED ACTUATION PRESSURE
1	180° Double Acting	0750A4 0750A4 0750A4 0750A4	7165 [] [] [] 7671 [] [] [] 7673 [] [] [] 7177 [] [] []	0700K1 0700K1 0700K1 0700K2	30 psig (2 bar) 40 psig (2 bar) 40 psig (2 bar) 20 psig (1 bar)
2*	180° Double Acting	0750A4 0750A4 0750A4 0750A4	7165 [] [] [] 7671 [] [] [] 7673 [] [] [] 7177 [] [] []	0700K1 0700K1 0700K1 0700K2	50 psig (3 bar) 60 psig (4 bar) 60 psig (4 bar) 25 psig (2 bar)
1	180° Spring Return	0713A4 0713A4	7165 [] [] [] 7177 [] [] []	0700K1 0700K2	60 psig (4 bar) 40 psig (2 bar)
2*	180° Spring Return	0713A4	7177 [] [] []	0700K2	50 psig (3 bar)
1	90° Spring Return	0722A4 0722A4 0722A4 0722A4	7115 [] [] [] 7122 [] [] [] 7142 [] [] [] 7155 [] [] []	0700K3 0700K3 0700K2 0700K2	80 psig (6 bar) 70 psig (5 bar) 60 psig (4 bar) 65 psig (4 bar)
2*	90° Spring Return	0722A4 0722A4 0722A4 0722A5	7122 [] [] [] 7142 [] [] [] 7155 [] [] [] 7015 [] [] [] DL []	0700K3 0700K2 0700K2 0700K3	90 psig (6 bar) 70 psig (5 bar) 75 psig (5 bar) 80 psig (6 bar)
1	90° Double Acting	0760A5 0760A5 0760A5	7115 [] [] [] DL [] 7122 [] [] [] T L [] 7022 [] [] [] T L []	0700K3 0700K3 0700K3	80 psig (6 bar) 70 psig (5 bar) 70 psig (5 bar)
1	90° Double Acting	0760A4 0760A4 0760A4 0760A4	7115 [] [] [] 7122 [] [] [] 7142 [] [] [] 7155 [] [] []	0700K3 0700K3 0700K2 0700K2	30 psig (2 bar) 25 psig (2 bar) 20 psig (1 bar) 20 psig (1 bar)
2*	90° Double Acting	0760A4 0760A4 0760A4 0760A4	7115 [] [] [] 7122 [] [] [] 7142 [] [] [] 7155 [] [] []	0700K3 0700K3 0700K2 0700K2	30 psig (2 bar) 25 psig (2 bar) 20 psig (1 bar) 20 psig (1 bar)

<sup>\*</sup> Two valve mounting kits required for two valve operation.

### FACTORY ASSEMBLY

To order factory assembled, additional information is required

- For Spring Return 90° actuators, normally open or normally closed must be specified.
- For Spring Return 180° actuators, spring return position must be indicated on order.
- Order must also state "factory assembled."
- For general ball valve model numbers, please see above or page 3. For specific information on ball valves, refer to Hoke's High Cycle Ball Valve Catalog #79067. DL or TL Series ball valves should be used for high cycle applications.
- Example: 0722A4 normally open actuator with 7115G6Y ball valve and 0700K3 mounting kit, factory assembled.

### Field Assembly

To order the valve and actuator for field assembly, the valve number, actuator number and mounting kit number must be specified. Example: 7122F4Y TL ball valve with 0722A4 actuator and 0700K3 Mounting Kit, for field assembly.

<sup>\*\* 7165, 7177,</sup> and 7673 Series not recommended for high cycle applications.





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