

## SELF-RELEIVING BALL VALVE REGULATOR

THIS ACCESSORY IS USED WITH THE FOLLOWING AIR MOTORS  
AF04XX-01 AF06XX-01 AF08XX-01 AF10XX-01 AF12XX-01



**READ THIS MANUAL CAREFULLY BEFORE INSTALLING,  
OPERATING OR SERVICING THIS EQUIPMENT.**

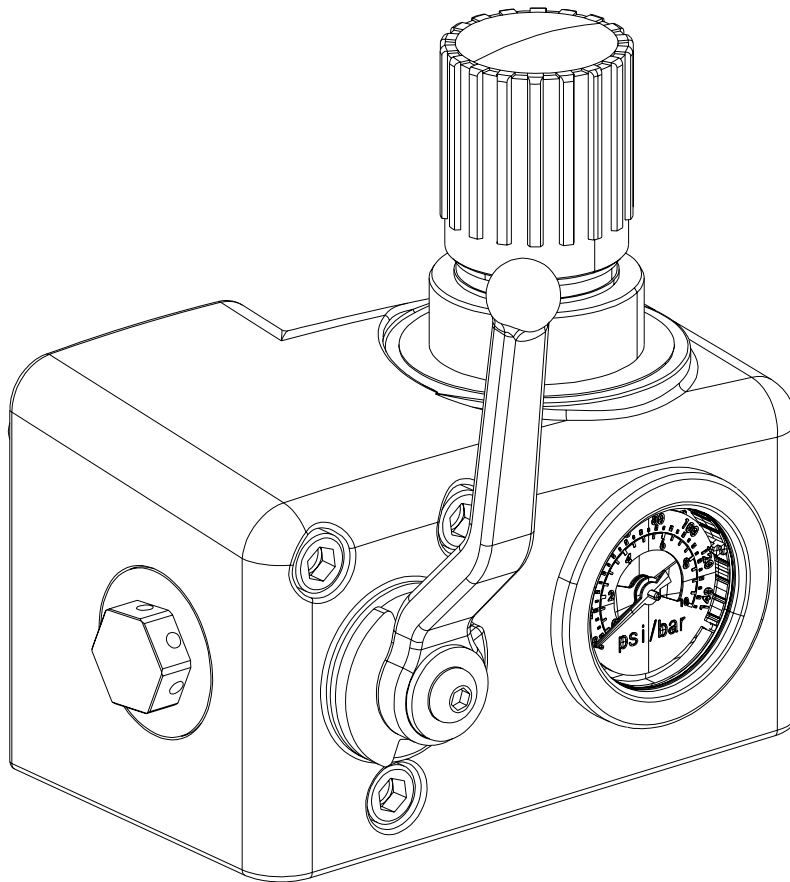
It is the responsibility of the employer to place this information in the hands of the operator. Keep for future reference.

### GENERAL DESCRIPTION

ARO regulators provide controlled, consistent air pressure required for the operation of a pneumatic actuated motor and any coupled system. The integrated ball valve enables the operator to easily throttle the motor/system from an off position to the preset desired regulator pressure. In turn the operator can also throttle from a full run position to an off condition and control the positioning of the motor/system. The ball valve also enables the operator to safely depressurize the motor/system without disconnecting the supply air line.

### REGULATOR DATA

**Model**..... 67442  
**Air Inlet Port** ..... 1/2 - 14 NPT  
**Maximum Air Inlet Pressure** ..... Refer to Air Inlet  
P<sub>MAX</sub> found on model plate of pump/ air motor  
**Operating Temperature Range**..23° F to 175° F (-5° C to 79° C)  
**Maximum Air Flow**..... 215 SCFM (101 dm<sup>3</sup>/s)



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## OPERATING AND SAFETY PRECAUTIONS

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**⚠ CAUTION** High pressure equipment – Always disconnect air supply and relieve material pressure before attempting to service.

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### INSTALLATION

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1. Install the 67442 self-relieving ball valve regulator using the three (11) bolts passing through the (1) regulator housing. Be certain that the (26) O-ring is in the recess groove on the mounting side of the (1) regulator housing to establish the pneumatic seal. Tighten all (11) bolts evenly to 50-60 in-lbs (13.6-20.3 Nm).
2. The (39) adjustment knob should be turned counterclockwise until compression is released from the pressure control spring. This prevents over-pressurizing the air operated equipment when the air supply is turned on.
3. The (8) ball valve control handle should be turned clockwise until it stops. This will be in the de-pressurize / vent position of the control handle. The (8) handle position is adjustable to eight different locations and can be adjusted by removing the (10) button head screw, (9) washer, and (8) control handle and oriented as desired. The (7) key should not be removed. The (7) key establishes the on/ off /vent orientation of the ball valve.
4. Connect piping to Air inlet port using pipe thread sealant on male threads only. Do not allow sealant to enter interior of regulator.
5. Air line piping should be the same size as regulator ports.

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### OPERATION

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#### Regulator

1. Pull (39) knob to adjust air pressure.
2. Turn clockwise to increase air pressure.
3. Turn counterclockwise to decrease air pressure.
4. Push (39) knob to lock.

#### Ball Valve

1. Move the (8) control handle counterclockwise to pressurize the system. A 90 degree movement would be the "off" position. A 90 – 180 degree movement would allow the system to be throttled to full regulated line pressure (180 degree counterclockwise position being the "on" position).
2. Move the (8) control handle clockwise to either stop the system or to de-pressurize the system. A 90 degree movement would return to the "off" position. A 90 – 180 degree movement would allow the system to be de-pressurized and vent the residual system pressure through the (6) vent nut and dump to atmosphere (180 degree clockwise position being "vent" position).

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### PARTS AND MAINTENANCE

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When the life of the product has expired, it is recommended that the product be disassembled, degreased and parts separated by material so that they can be recycled. The original language of this manual is English. Refer all communications to the nearest **Ingersoll Rand** Office or Distributor.

**PARTS LIST 67442**

Item	Description (size)	Qty	Part No.	Mtl
1	Housing	(1)	96919	[A]
2	Seat O-Ring (3/32" X 1 1/4" O.D.)	(2)	Y325-121	[B]
3	Seat	(2)	96925	[D]
4	Ball	(1)	96926	[SS]
5	Vent Nut O-Ring (1/16" X 1-5/16" O.D.)	(1)	Y325-25	[B]
6	Vent Nut	(1)	96924	[Br]
7	Key	(1)	96921	[S]
8	Handle	(1)	96920	[A]
9	Washer	(1)	Y13-4-C	[S]
10	Button Head Screw (1/4"-20 X 3/8")	(1)	Y211-142	[S]
11	Socket Head Screw (5/16"-18 X 3-1/4")	(3)	Y99-511	[S]
12	Cover Ring	(1)	-----	[Ny]
13	Gauge Cover	(1)	-----	[PC]
14	Screw	(2)	-----	[S]
15	Gauge Assembly (0 - 140 psig)	(1)	104334	[Ny/S]
16	Gauge O-Ring	(1)	-----	[B]
17	Valve	(1)	-----	[Ny]
18	Valve O-Ring	(1)	-----	[B]
19	Valve Spring	(1)	-----	[SS]
20	Valve Guide O-Ring	(1)	-----	[B]

Item	Description (size)	Qty	Part No.	Mtl
21	Valve Guide	(1)	-----	[Ny]
22	Pipe Plug (1/4"-18 NPT)	(1)	Y17-51-S	[S]
23	Valve Stem Washer	(1)	96923	[D]
24	Valve Stem O-Ring	(1)	Y325-110	[B]
25	Valve Stem	(1)	96922	[Br]
26	Outlet Port O-Ring (3/32" X 1-1/4" O.D.)	(1)	Y325-121	[B]
27	Stem O-Ring	(1)	-----	[B]
28	Stem	(1)	-----	[Ny]
29	Static Pressure Tube	(1)	-----	[D]
30	Relief Valve Seat	(1)	-----	[B]
31	Relief Valve	(1)	-----	[Ny]
32	Diaphragm	(1)	-----	[Ny/B]
33	Diaphragm Washer	(1)	-----	[Ny]
34	Diaphragm Retaining Washer	(1)	-----	[D]
35	Spring (5-125 psig)	(1)	104331	[S]
36	Adjustment Nut	(1)	-----	[S]
37	Adjustment Bolt	(1)	-----	[S]
38	Bonnet	(1)	-----	[Ny]
39	Knob	(1)	-----	[D]

**MATERIAL CODE**

[A] = Aluminium  
 [B] = Nitrile  
 [Br] = Brass  
 [D] = Acetal  
 [Ny] = Nylon  
 [PC] = Polycarbonate  
 [S] = Steel  
 [SS] = Stainless Steel

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