

PNEUMATIC PIPING DEVICES

Service Information

PRODUCT DESCRIPTION	PAGE
Quick Exhaust Valves (Quick Release Valves). 1/4", 3/8", 1/2", 3/4" & 1" pipe sizes, diaphragm type, aluminum body	2-3
Quick Exhaust Valves (Molded glass filled plastic). 1/4" & 3/8" pipe sizes	2-3
Shuttle Valves. 1/4", 3/8" & 1/2" pipe sizes	4
Check Valves. 1/4", 3/8", 1/2", 3/4" & 1" pipe sizes	.5
Flow Control Valves (FLOREG® Valves). 1/4", 3/8", 1/2", 3/4" & 1" pipe sizes	.6-7

INSTALLATION

The above devices are generally supported by piping alone, however for some of the devices, mounting brackets are available either as an integral part of the body or furnished as an accessory. Outline dimensions and general sales information for these devices can be found in the SC-400 catalog.

ADJUSTMENT

No adjustment to any of these devices is required except for the FLOREG® Valves, where an adjusting screw regulates fluid flow in the controlled direction only.

GENERAL MAINTENANCE AND REPAIR RECOMMENDATIONS

Maintenance periods should be scheduled in accordance with frequency of use and working environment of the valves.

All valves must be visually inspected for wear and given an "in system" operating performance and leakage test at least once a year. If these visual observations indicate valve repair is required, the valve must be removed, repaired and tested.

A major overhaul is recommended at one million cycles. However, where frequency of use is such that it would require more than two years to obtain one million cycles, the valve must be overhauled at the two year period.

WARNING - INSTALLATION AND MOUNTING

The user of these devices must conform to all applicable electrical, mechanical, piping and other codes in the installation, operation or repair of these devices.

WARNING - INSTALLATION AND MOUNTING (CONTINUED)

INSTALLATION! Do not attempt to install, operate or repair these devices without proper training in the technique of working on pneumatic systems and devices, or under trained supervision.

Compressed air systems contain high levels of stored energy. Do not attempt to connect, disconnect or repair these products when a system is under pressure. Always exhaust the pressure from an air system before performing any service work. Failure to do so can result in serious personal injury.

MOUNTING! Devices should be mounted and positioned in such a manner that they cannot be accidentally operated.

MAINTENANCE

No special tools are required to disassemble or assemble any of these devices. By removing only the screws and washers, the devices are readily disassembled and assembled. Repair kits for all the devices are available.

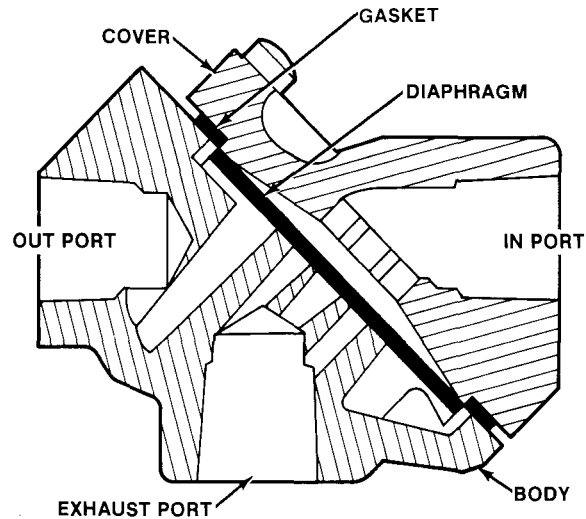
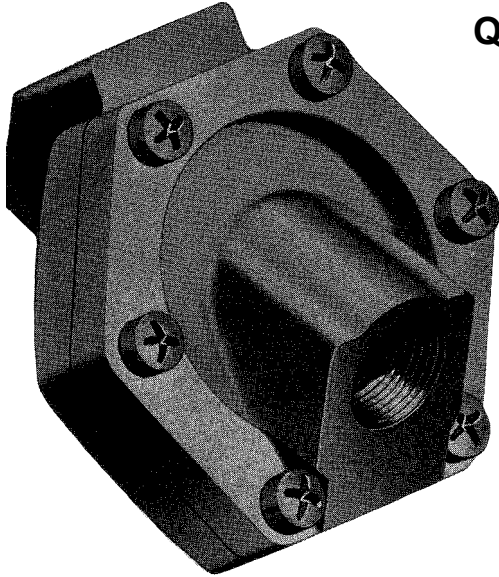
When complete disassembly is required, clean all metal parts with a nonflammable solvent and wash all rubber and plastic parts with soap and water. Rinse thoroughly and blow dry with a low-pressure air jet.

Replace any rubber parts that are damaged or worn. Repair parts and kits for valve portions are available as shown under the appropriate parts section.

Lubricate all seals with Dow Corning No. 55 Pneumatic Grease, Part No. R431001579, 3 oz. size, (Old Part No. P -048293-00002). Lubricate all metal-to-metal surfaces with Number 107 Lubriplate Part No. R431001582, 5 oz. size, (Old Part No. P -048294-00003). No lubrication is necessary for the diaphragms of the Quick Exhaust and Shuttle Valves.

QUICK EXHAUST VALVES

Service Information



ASSEMBLY VIEW

The Quick Exhaust Valve speeds the exhausting of your air cylinders, clutches, or other pneumatic devices. Air pressure is vented close to the operated device instead of back through the control valve.

INSTALLATION

The Quick Exhaust Valve should be installed as close as possible to the device to be vented.

Quick Exhaust Valves are built in either aluminum or plastic body construction, in 1/4" and 3/8" sizes. The 1/2", 3/4" and 1" sizes are built with only the aluminum body.

The 1/4" and 3/8" sizes can be supported by piping alone, but mounting brackets are available for installations involving vibration or long pipe runs. Longer body screws are not required. The 1/2", 3/4" and 1" valves have a mounting bracket as an integral part of the cover.

The IN and OUT ports are usually on the same center line, but the cover of any of the Quick Exhaust Valves can be rotated in 60 degree steps to accommodate piping. The cover is often rotated 180 degrees to eliminate an elbow fitting in the piping system. This assembly places the IN port at a 90 degree angle to the OUT port.

OPERATION

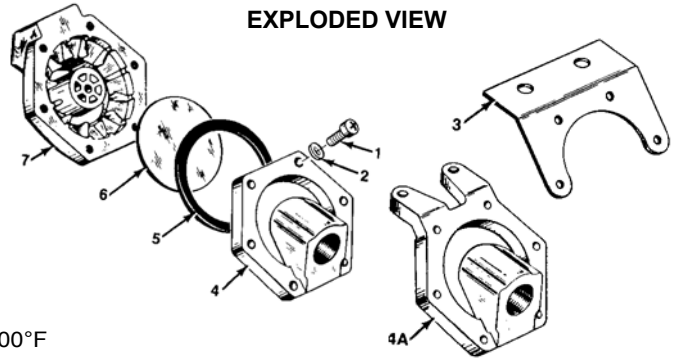
Maximum operating pressure, temperature, and other Technical Data are shown on page 3 for both the aluminum and plastic bodies.

The Quick Exhaust Valve has 3 ports as shown in the assembly view. Air pressure entering the IN port forces the diaphragm to seal the EXHAUST port and air flows around the edge of the diaphragm to the OUT (Cylinder) port. When air pressure at the IN port is reduced, the pressure is slightly greater at the OUT port, the diaphragm is forced against the IN port. With the IN port sealed off, a direct passage is opened between the OUT port and EXHAUST port, allowing the operated device to vent quickly.

QUICK EXHAUST VALVES – Aluminum Body

REPAIR KITS (INCLUDES DIAPHRAGM AND GASKET)

Port size	Old Part Number	New Part Number
1/4" & 3/8"	P -060213-00002	R431005410
1/2"	P -060214-00002	R431005412
3/4" & 1"	P -060215-00001	R431005414



TECHNICAL DATA

Port Sizes: 1/4", 3/8", 1/2", 3/4" & 1" NPTF

Working Pressure: 200 PSI on 1/4" & 3/8",
150 PSI on 1/2" thru 1" sizes

Temperature Range: -40°F to + 160°F max, temperature (+200°F intermittent)

Media: Air

Materials: Die-cast, aluminum body. Fabric reinforced synthetic rubber diaphragm.

Port size	Old Part Number	New Part Number	Description	Approx. Wt.	in to out	out to exh
1/4"	P -052935-00002	R431003038	In-line piping	10 oz.	1.77	2.5
1/4"	P -052935-00021	R431003043	Right angle piping	10 oz.	1.77	2.5
3/8"	P -052935-00003	R431003039	In-line piping	10 oz.	2.73	3.08
3/8"	P -052935-00031	R431003044	Right angle piping	10 oz.	2.73	3.08
1/2"	P -052935-00004	R431003040	In-line piping	1 lb. 7 oz.	5.00	5.50
1/2"	P -052935-00041	R431003045	Right angle piping	1 lb. 7 oz.	5.00	5.50
3/4"	P -052935-00006	R431003041	In-line piping	2 lb. 14oz.	9.7	10.55
3/4"	P -052935-00061	R431003047	Right angle piping	2 lb. 14oz.	9.7	10.55
1"	P -052935-00008	R431003042	In-line piping	3 lb. 5 oz.	11.95	13.45
1"	P -052935-00081	R431003048	Right angle piping	3 lb. 5 oz.	11.95	13.45

QUICK EXHAUST VALVES – Plastic Body

PARTS LIST (IN ORDER OF DISASSEMBLY)

REPAIR KIT (INCLUDES DIAPHRAGM AND GASKET)

Port size	Old Part No.	New Part No.
1/4" & 3/8"	P -060213-00002	R431005410

TECHNICAL DATA

Port sizes: 1/4" & 3/8" NPTF

Working Pressure: 150 PSI

Temperature Range: -20°F to + 160°F
(+200°F intermittent)

Media: Air

Materials: Molded glass filled acetal plastic & fabric reinforced synthetic rubber diaphragm

Pipe Thread Torque (max): 120 in lbs.

REF.	QTY.	DESCRIPTION
1*	6	SCREW
2*	6	WASHER
3**	1	BRACKET, Mounting
4	1	COVER (1/4" & 3/8")
4A	1	COVER, w/ integral bracket (1/2" - 1")
5	1	GASKET
6	1	DIAPHRAGM
7	1	BODY

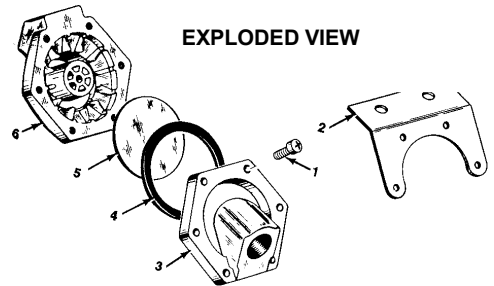
* Quick Release Valves with 1/4" or 3/8" ports, use Screw with integral washer.

** ACCESSORIES: Mounting bracket for 1/4" & 3/8" models, Part Number R431003093, (Old Part Number P -053067-00000)

PARTS LIST (IN ORDER OF DISASSEMBLY)

REF	QTY.	DESCRIPTION
1**	6	SCREW
2*	6	BRACKET, Mounting
3	1	COVER
4	1	GASKET
5	1	DIAPHRAGM
6	1	BODY

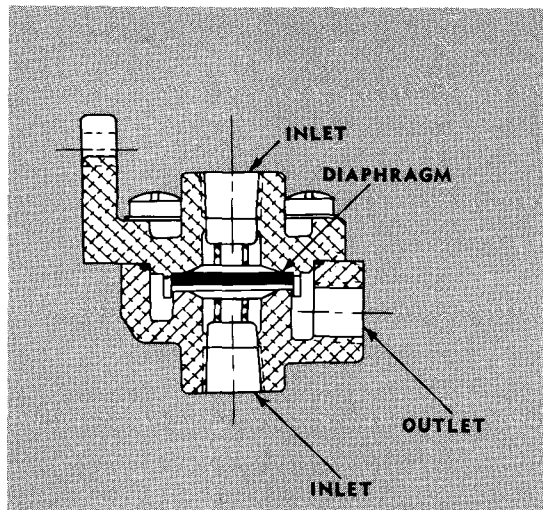
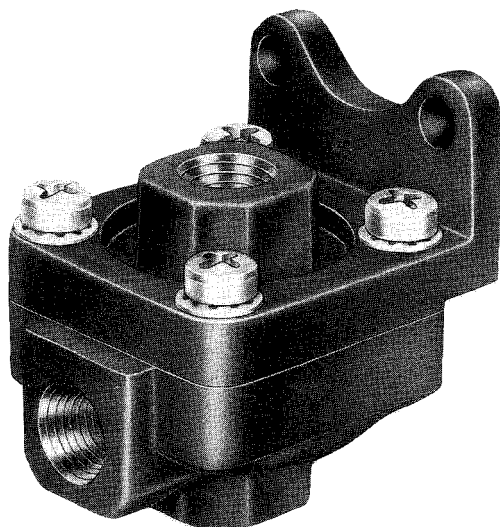
* ACCESSORIES: Mounting bracket for 1/4" & 3/8" models, Part number R431003093 (P -053067-00000)
** Body Screws: max. torque is 18 in. lbs.



Port size	Old Part Number	New Part Number	Description	Approx. Wt.	CAPACITY C _v	
					In to Out	Out to Exh
1/4"	P -069324-00002	R4311007444	In-Line piping	7 oz.	1.54	1.84
1/4"	P -069324-00021	R4311007446	Right-angle piping	7 oz.	1.54	1.84
3/8"	P -069324-00003	R4311007445	In-Line piping	7 oz.	2.3	2.75
3/8"	P -069324-00031	R4311007444	Right-angle piping	7 oz.	2.3	2.75

SHUTTLE VALVES

Service Information



TECHNICAL DATA

Port Sizes: 1/8", 1/4", 3/8" & 1/2" NPTF

Working Pressure: 200 PSI Maximum

Temperature Range: -40°F to + 160°F
(200°F intermittent)

Materials: Body segments are corrosion-resistant, die-cast aluminum. The diaphragm and gasket are Buna N rubber.

IDENTITY SCHEDULE

Port size	Old Part Number	New Part Number	Approx. Wt.	C _v
1/8" *	P-054350-00001	R431003347	7 oz.	1.25
1/4" **	P-054350-00002	R431003348	7 oz.	1.58
3/8"	P-054350-00003	R431003349	1 lb. 3 oz.	3.61
1/2"	P-054350-00004	R431003350	1 lb. 3 oz.	5.12

* Also available in a 7/16"-20 UNF Straight Thread, Pt. No. P-054350-00044.

** Also available in a 9/16"-18 UNF Straight Thread, Pt. No. R431003351, (Old Pt. No. P-054350-00023), & in a 9/16"-18 UNF Straight Thread, Pt. No. P-054350-00027, (non-magnetic)

INSTALLATION

The Shuttle Valve can easily be supported by piping alone, but mounting feet are included for installations with vibration or long pipe runs.

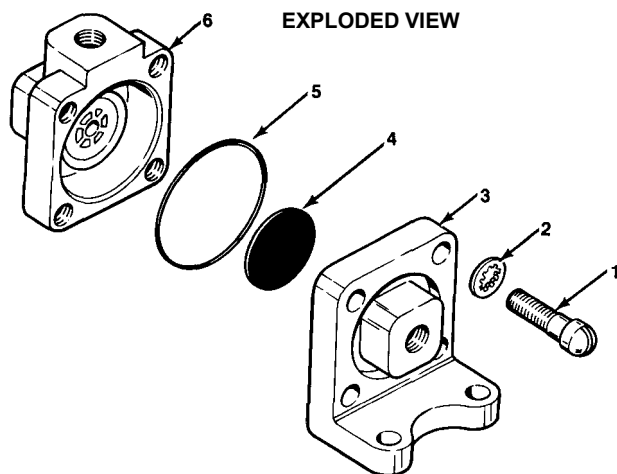
OPERATION

The Shuttle Valve automatically selects the higher pressure from one or the other of two input ports and directs the flow of air to a common outlet. The valve serves to connect two segregated lines to a common line without destroying the segregation.

The Shuttle Valve has 3 ports as shown in the assembly view. When a pressure differential of 1 psi or more exists between either inlet port, the higher pressure forces the diaphragm to seal the opposite port of the valve, and the higher pressure air flows out the common outlet. The low (or zero) pressure inlet port is sealed from both the outlet and the opposite inlet port.

REPAIR KITS (INCLUDES REF. ITEMS 4 & 5)

Port size	Old Part Number	New Part Number
1/8" & 1/4"	P-060918-00000	R431005614
3/8" & 1/2"	P-060919-00000	R431005615



PARTS LIST (IN ORDER OF DISASSEMBLY)

REF.	QTY.	DESCRIPTION
1*	6	SCREW
2*	6	WASHER
3	1	COVER
4*	1	DIAPHRAGM
5*	1	GASKET
6	1	BODY

* 1/4" or 3/8" port sizes, use screw with integral washer

CHECK VALVE

Service Information

TECHNICAL DATA

Port Sizes: 1/8", 1/4", 3/8", 1/2" 3/4" & 1" NPTF

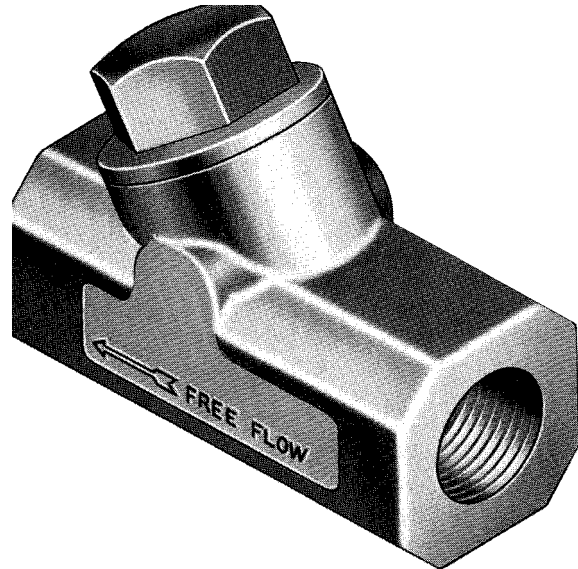
Working Pressure: 250 PSIG maximum

Temperature Range: -40°F to +160°F max. temp.
(+200°F intermittent)

Media: Air

Materials: CORROSION RESISTANT - The body and cap are made of anodized die cast aluminum. Internal parts consist of a stainless steel valve, plated spring and Buna N Seal.

Check Valves are used in a line to permit free flow in one direction only. Less than 1/2 psi pressure is required to open the valve. The valve is spring loaded to close when no pressure differential exists.



INSTALLATION

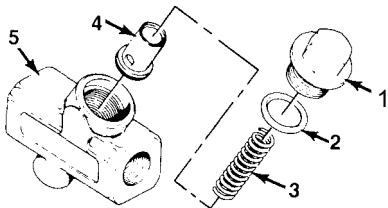
Check Valves may be installed anywhere in any position where flow control is desired. The free flow direction is indicated on the body.

IDENTITY SCHEDULE

Port size	Old Part Number	New Part Number	Approx. Wt.	Capacity C _v
1/8"	P -055023-00000	R431003553	2-3/4oz	1.19
1/4"	P -055024-00000	R431003554	2-1/2 oz.	1.34
3/8"	P -055025-00000	R431003556	3- 3/4 oz.	3.03
1/2"	P -055026-00000	R431003557	6-1/2 oz.	3.5
3/4"	P -055027-00000	R431003558	280z	10.00
1"	P -055028-00000	R431003559	340z	13.80

* Part No. P -060359-00000 is available in 7/8-14 st. thread ports & Part R431007332 (Old Part No. P -068625-00000) is available in 3/4-16 st. thread ports

EXPLODED VIEW



PARTS LIST

REF. NUMBER	DESCRIPTION
1	NUT, Cap
2	RING, "O"
3	SPRING
4	VALVE
5	BODY

Repair kits (Included Ref. Items 2 & 4)

Port size	Old Valve Part No.	New Valve Part No.	Old Kit Part Number	New Kit Number
1/8" & 1/4"	P -055023-00000 & P -055024-00000	R431003553 & R431003554	P -069543-00000	R431007468
3/8"	P -055025-00000	R431003556	P -069544-00000	R431007469
1/2"	P -055026-00000	R431003557	P -069545-00000	R431007470
3/4" & 1"	P -055027-00000 & P -055028-00000	R431003558 & R431003559	P -069546-00000	R431007471

FLOREG® VALVE

Service Information

TECHNICAL DATA

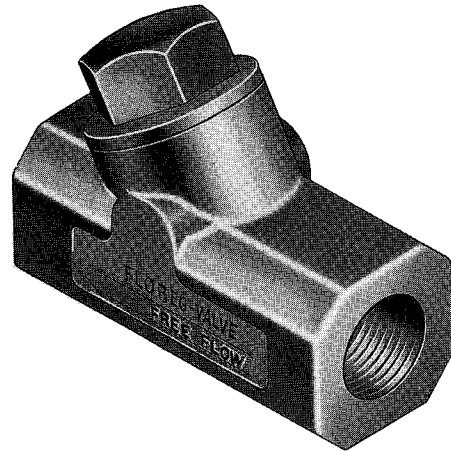
Port Sizes: 1/8", 1/4", 3/8", 1/2", 3/4" & 1" NPTF

Working Pressure: Vacuum to 250 PSIG maximum
Hydraulic - 500 PSIG max. (non-shock)

Temperature Range: -40°F to + 160°F max. temperature
(+200°F intermittent)

Media: Air
Hydraulic - Type "A" only

Materials: CORROSION RESISTANT - The body and cap are made of anodized die cast aluminum.
Internal parts consist of a stainless steel valve, plated spring and Buna N Seal.



The FLOREG® Valve is an adjustable flow device that works with other components of a fluid circuit to time, sequence, or to coordinate operations. It controls the rate at which a gas or liquid can flow in one direction, yet allows free flow in the opposite direction.

INSTALLATION

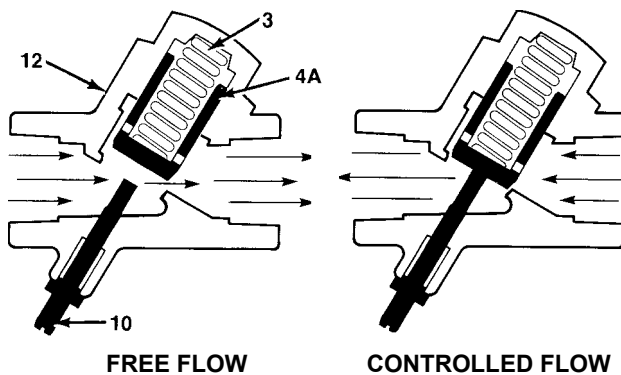
It is desirable to install FLOREG® Valves in the upright position. Free-flow direction is indicated on the valve.

OPERATION

Type "A" Standard Flow Regulation

FREE FLOW: Fluid forces valve (4A) upward to compress spring (3) and increase orifice to maximum size.

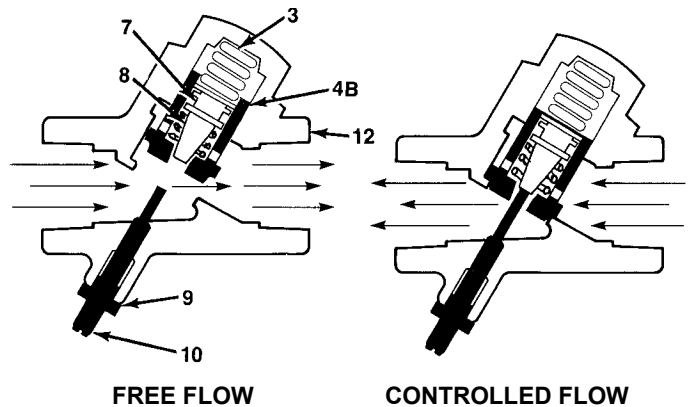
CONTROLLED FLOW: Valve (4A) is held to its seat in the body (12) by the spring (3). This tapered valve is raised off its seat by the adjusting screw (10), permitting a controlled flow of air. Further upward movement of the adjusting screw will raise the valve for increased flow.



TYPE "B" Micrometer" or Fine Flow Regulation

FREE FLOW: Fluid forces main valve (4B) and auxiliary valve (7) upward to compress spring (3) and increase orifice to maximum size.

CONTROLLED FLOW: Main valve (4B) is held to its seat in the body (12) by the spring (3). An auxiliary valve (7) is seated in the main valve by the spring (8). This tapered needle-type auxiliary valve is raised off its seat by the adjusting screw (10), permitting a finely controlled flow of air through the port in the main valve. Further upward movement of the adjusting screw will raise the main valve for increased or maximum flow.



ADJUSTMENT

The regulating screw (10) regulates fluid flow in the controlled-flow direction only. Loosen the lock nut (9) and turn the adjusting screw clockwise to increase flow --counterclockwise to decrease flow. Tighten the lock nut to secure this position.

CAUTION: Do not back regulating screw out beyond 'O' Ring, so that the screw will not come out of the bore.

FLOREG® VALVE Identity Schedule

TYPE "A"

Port Size	Old Part Number	New Part Number	Approx. Wt.	C _v
1/8"	P -066693-00000	R431006861	2.5 oz.	1.16
1/4"	P -053025-00002	R431003089	2.5 oz.	1.28
3/8"	P -053020-00002	R431003085	3.5 oz.	2.98
1/2"	P -053010-00002	R431003081	6.0 oz.	3.35
3/4"	P -055010-00000	R431003539	24 oz.	9.50
1"	P -054986-00000	R431003496	22 oz.	13.28

TYPE "B"

Port Size	Old Part Number	New Part Number	Approx. Wt.	C _v
1/8"	P -055017-00000	R431003544	3.25 oz.	1.16
1/4" *	P -055018-00000	R431003545	3.25 oz.	1.28
3/8"	P -055019-00000	R431003546	4.5 oz.	2.98
1/2" **	P -055020-00000	R431003547	8.5 oz.	3.35
3/4"	P -055021-00000	R431003551	27 oz.	9.50
1"	P -055022-00000	R431003552	25 oz.	13.28

* Part No. P -055018-00002 available in 1/4-18 for non-magnetic service

**Part No. P -055020-00002 available in 7/8-14 UNF for non-magnetic service (R431003549)

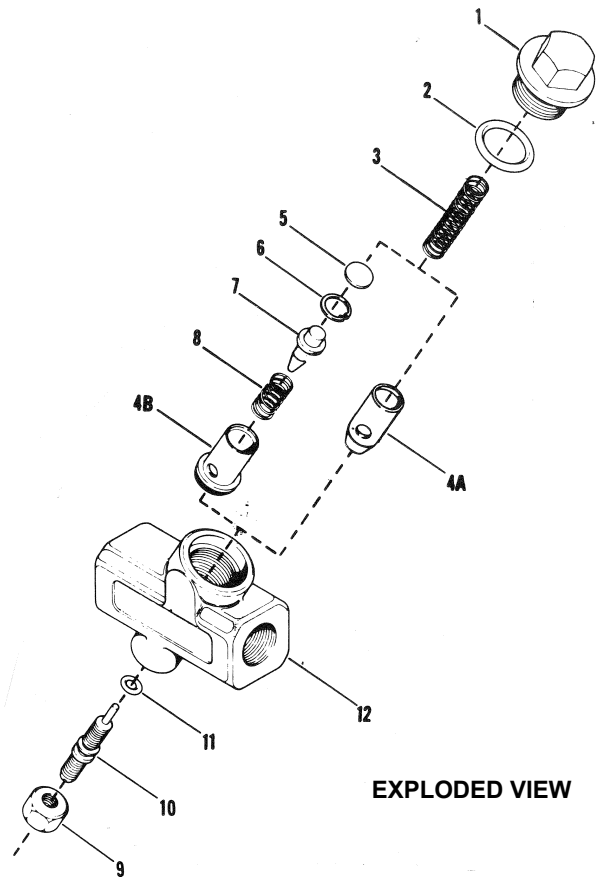
PARTS LIST (In Order Of Disassembly)

TYPE "A"

REF.	QTY.	DESCRIPTION
		'A' FLOREG Valve, Complete
1	1	NUT,Cap
2	1	RING,'O'
3	1	SPRING
4A	1	VALVE
9	1	NUT,Jam
10	1	SCREW, Regular
11	1	RING,'O'
12	1	BODY

TYPE "B"

REF.	QTY.	DESCRIPTION
		'B' FLOREG Valve, Complete
1	1	NUT,Cap
2	1	RING,'O'
3	1	SPRING
4B	1	VALVE, Main
5	1	SEAT, Spring
6	1	RING, Retaining
7	1	VALVE, Auxiliary
8	1	SPRING, Auxiliary
9	1	NUT,Jam
10	1	SCREW, Regular
11	1	RING,'O'
12	1	BODY



EXPLODED VIEW

TYPE "A" REPAIR KITS (INCLUDED REF. ITEMS 2, 4A & 11)

Port Size	Old Valve Part No.	New Valve Part No	Old Kit Part Number	New Kit Part No.
1/8" & 1/4"	P -053025-00002	R431003089	P -069547-00000	R431007472
1/8" & 1/4"	P -066693-00000	R431006861	P -069547-00000	R431007472
3/8"	P -053020-00002	R431003085	P -069548-00000	R431007473
1/2"	P -053010-00002	R431003081	P -069549-00000	R431007474
3/4"	P -055010-00000	R431003539	P -069550-00000	R431007475
1"	P -054986-00000	R431003496	P -069550-00000	R431007475

TYPE "B" REPAIR KITS (INCLUDED REF. ITEMS 2, 4B & 11)

Port Size	Old Valve Part No.	New Valve Part No.	Old Kit Part Number	New Kit Part Number
1/8" & 1/4"	P -055017-00000 & P -055018-00000	R431003544 & R431003545	P -069551-00000	R431007476
3/8"	P -055019-00000	R431003546	P -069552-00000	R431007477
1/2"	P -055020-00000	R431003547	P -069553-00000	R431007478
3/4"	P -055021-00000	R431003551	P -069554-00000	R431007479
1"	P -055022-00000	R431003552	P -069554-00000	R431007479

NOTICE TO PRODUCT USERS

1. WARNING: FLUID MEDIA

AVENTICS pneumatic devices are designed and tested for use with filtered, clean, dry, chemical free air at pressures and temperatures within the specified limits of the device. For use with media other than air or for human life support systems, AVENTICS must be consulted. Hydraulic cylinders are designed for operation with filtered, clean, petroleum based hydraulic fluid; operation using fire-resistant or other special types of fluids may require special packing and seals. Consult the factory.

2. WARNING: MATERIAL COMPATIBILITY

Damage to product seals or other parts caused by the use of noncompatible lubricants, oil additives or synthetic lubricants in the air system compressor or line lubrication devices voids AVENTICS warranty and can result in product failure or other malfunction. See lubrication recommendations below.

AIR LINE LUBRICANTS! In service higher than 18 cycles per minute or with continuous flow of air through the device, an air line lubricator is recommended.* (Do not use line lubrication with vacuum products.) However, the lubricator must be maintained since the oil will wash out the grease, and lack of lubrication will greatly shorten the life expectancy. The oils used in the lubricator must be compatible with the elastomers in the device. The elastomers are normally BUNA-N, NEOPRENE, VITON, SILICONE and HYTREL. AVENTICS recommends the use of only petroleum based oils without synthetic additives, and with an aniline point between 180° F and 210° F.

COMPRESSOR LUBRICANTS! All compressors (with the exception of special "oil free" units) pass oil mist or vapor from the internal crankcase lubricating system through to the compressed air. Since even small amounts of non-compatible lubricants can cause severe seal deterioration (which could result in component and system failure) special care should be taken in selecting compatible compressor lubricants.

3. WARNING: INSTALLATION AND MOUNTING

The user of these devices must conform to all applicable electrical, mechanical, piping and other codes in the installation, operation or repair of these devices.

INSTALLATION ! Do not attempt to install, operate or repair these devices without proper training in the technique of working on pneumatic or hydraulic systems and devices, unless under trained supervision. Compressed air and hydraulic systems contain high levels of stored energy. Do not attempt to connect,

disconnect or repair these products when a system is under pressure. Always exhaust or drain the pressure from a system before performing any service work. Failure to do so can result in serious personal injury.

MOUNTING! Devices should be mounted and positioned in such a manner that they cannot be accidentally operated.

4. WARNING: APPLICATION AND USE OF PRODUCTS

The possibility does exist for any device or accessory to fail to operate properly through misuse, wear or malfunction. The user must consider these possibilities and should provide appropriate safe guards in the application or system design to prevent personal injury or property damage in the event of a malfunction.

5. WARNING: CONVERSION, MAINTENANCE AND REPAIR

When a device is disassembled for conversion to a different configuration, maintenance or repair, the device must be tested for leakage and proper operation after being reassembled and prior to installation.

MAINTENANCE AND REPAIR! Maintenance periods should be scheduled in accordance with frequency of use and working conditions. All AVENTICS products should provide a minimum of 1,000,000 cycles of maintenance free service when used and lubricated as recommended. However, these products should be visually inspected for defects and given an "in system" operating performance and leakage test once a year. Where devices require a major repair as a result of the one million cycles, one year, or routine inspection, the device must be disassembled, cleaned, inspected, parts replaced as required, rebuilt and tested for leakage and proper operation prior to installation. See individual catalogs for specific cycle life estimates.

6. PRODUCT CHANGES

Product changes including specifications, features, designs and availability are subject to change at any time without notice. For critical dimensions or specifications, contact factory.

*Many AVENTICS pneumatic valves and cylinders can operate with or without air line lubrication; see individual sales catalogs for details.

LIMITATIONS OF WARRANTIES & REMEDIES

AVENTICS warrants its products sold by it to be free from defects in material and workmanship to the following:

For twelve months after shipment AVENTICS will repair or replace (F.O.B. our works), at its option, any equipment which under normal conditions of use and service proves to be defective in material or workmanship at no charge to the purchaser. No charge will be made for labor with respect to defects covered by this Warranty, provided that the work is done by AVENTICS or any of its authorized service facilities. However, this Warranty does not cover expenses incurred in the removal and reinstallation of any product, nor any downtime incurred, whether or not proved defective.

All repairs and replacement parts provided under this Warranty policy will assume the identity, for warranty purposes, of the part replaced, and the warranty on such replacement parts will expire when the warranty on the original part would have expired. Claims must be submitted within thirty days of the failure or be subject to rejection.

This Warranty is not transferable beyond the first using purchaser. Specifically, excluded from this Warranty are failures caused by misuse, neglect, abuse, improper operation or filtration, extreme temperatures, or unauthorized service or parts. This Warranty also excludes the use of lubricants, fluids or air line additives that are not compatible with seals or diaphragms used in the products. This Warranty sets out the purchaser's exclusive remedies with respect to products covered by it, whether for negligence or otherwise. Neither, AVENTICS nor any of its affiliates will be liable for consequential or incidental damages or other losses or expenses incurred by reason of the use or sale of such products.

Our liability (except as to title) arising out of the sale, use or operation of any product or parts, whether on warranty, contract or negligence (including claims for consequential or incidental damage) shall not in any event exceed the cost of replacing the defective products and, upon expiration of the warranted period as herein provided, all such liability is terminated. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHETHER FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE. No attempt to alter, amend or extend this Warranty shall be effective unless authorized in writing by an officer of AVENTICS Corporation.

AVENTICS reserves the right to discontinue manufacture of any product, or change product materials, design or specifications without notice.

AVENTICS Corporation

1953 Mercer Road
Lexington, KY 40511
www.aventics.com/us
info.us@aventics.com



AVENTICS Incorporated

3426 Mainway Drive
Burlington, Ontario CANADA L7M 1A8
www.aventics.com/ca
info.ca@aventics.com