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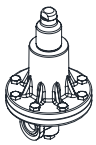	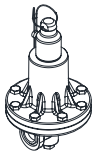	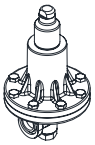	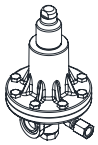	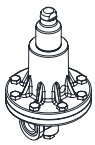
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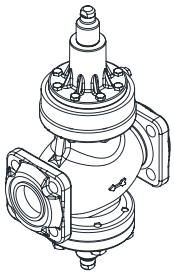	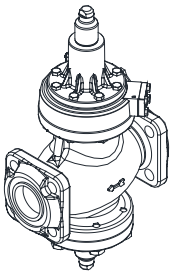	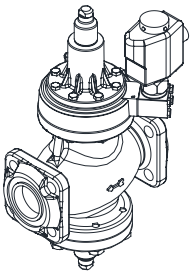	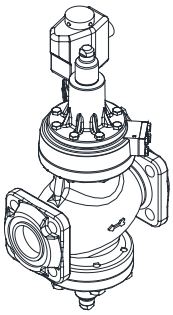	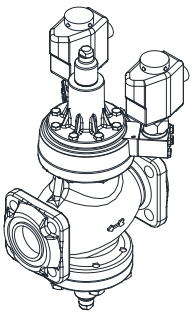
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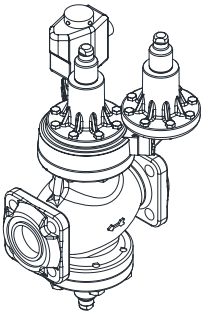	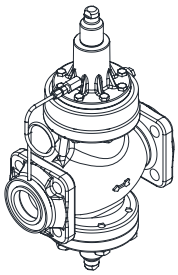	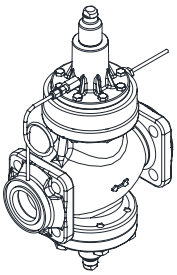	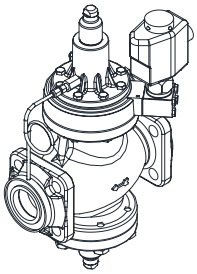	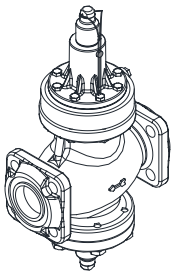
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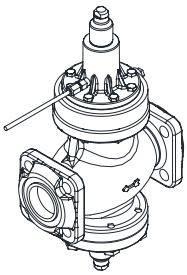
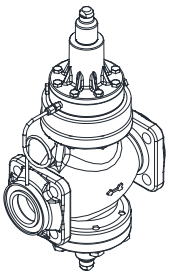
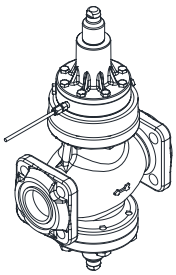
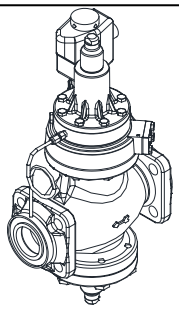
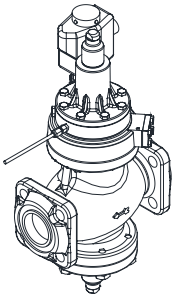
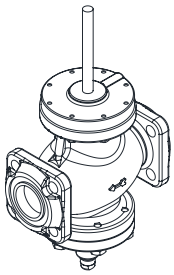
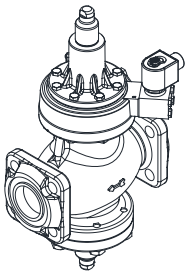
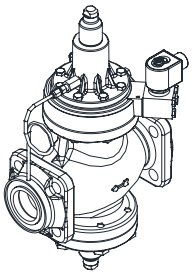
				
A4AR	A4YB	A4YBL		
				

Parker Hannifin Corporation
Refrigerating Specialties Division
2445 South 25th Avenue
Broadview, IL 60155-3891 USA
Phone: (708) 681-6300
Fax: (708) 681-6306

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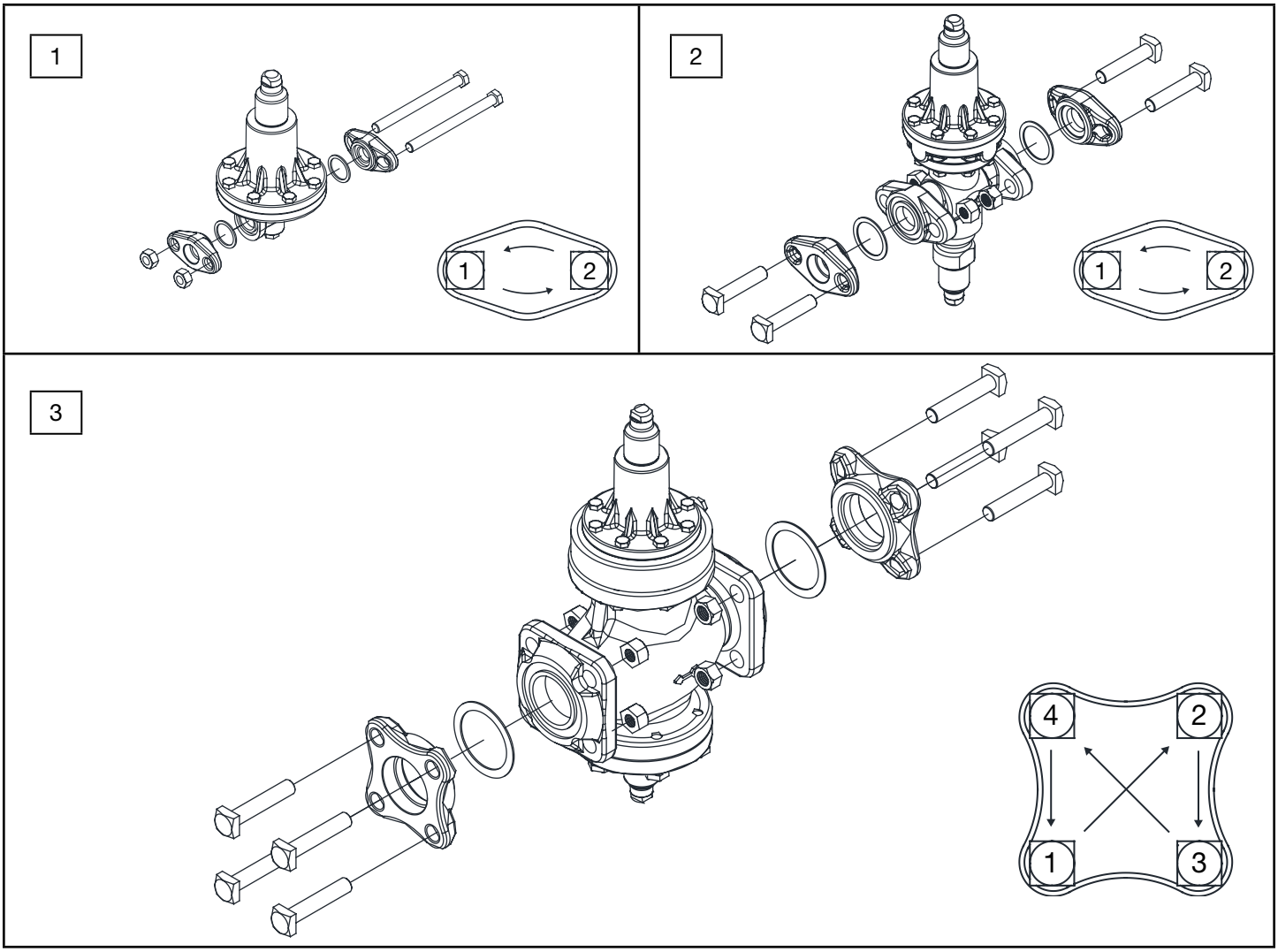
P/N: 319016 Date: 07-18 ECO: 0253166



ENGLISH

Flanged A2, A4A, and A4Y Regulating Valves Installation Information

Operation
Prior to installing flanged A2, A4A, and A4Y regulating valves, the included safety bulletin must be read and understood.

Refrigerants
Suitable for ammonia and other common refrigerants

Temperature Range
-50ºC to 105ºC (-60ºF to 220ºF)

Maximum Rated Pressure (MRP)
Standard - 27.6 bar (400 psig)
PED 2014/68/EU - 28 bar (406 psig)

Flange Connection Types
Threaded (FPT)
Socket Weld (SW)
Butt Weld (BW)
Copper (ODS)

Pressure Regulator Range	Set Point Range	Pressure Change per Turn of the Adjustment Screw	Factory Set Point [1]
V	500mm Hg - 8.3 bar (20in Hg - 120 psig)	*Approximate* 1.7 bar (25 psig)	1.0 bar (15 psig)
A	0.35 - 10.3 bar (5 - 150 psig)	*Approximate* 1.7 bar (25 psig)	2.8 bar (40 psig)
D	5.2 - 19.3 bar (75 - 280 psig)	*Approximate* 3.7 bar (53 psig)	9.7 bar (140 psig)

1. The factory set point changes based on regulator type. Example "K" feature for range A is 4.8 bar (70 psig).

Figure 1: A2-Series Pressure Regulators Valves (two bolt flanged valves)

Figure 2: 20mm - 25mm (¾" - 1") A4-Series Pressure Regulators (two bolt flanged valves)

Figure 3: 32mm - 100mm (1¼" - 4") A4-Series Pressure Regulators (four bolt flanged valves)

Note: All valves come with bolts, nuts and flange gaskets.

Type Suffix	Variation	Product Bulletin (Valve Style)
-	No Variation	20-02 (A2), 23-05 (A4A)
B	Regulator with Electric Wide Opening	23-06 (A4A)
D	Dual Regulator	23-06 (A4A)
E	Externally Equalized	23-05 (A4A), 21-02 (A4A)
K	Re-Seating Relief Regulator	21-03 (A2), 23-05 (A4A)
L	Differential Regulator	23-10 (A4A)
O	Outlet Regulator	21-02 (A2), 23-07 (A4A)
P	Pneumatically Compensated	23-08 (A4A)
S	Regulator with Electric Shut-Off	23-06 (A4A)
R	Remote Piloting	23-05 (A4A)
Y	Non-Spin Plug	
Z	Basic Regulator Assembly	23-06 (A4A)

Installation
All regulators are packed for maximum protection. Unpack carefully. Check the carton to make sure all flanges and other items are unpacked. Save the enclosed instructions for the installer and eventual user. Do not remove the protective coverings from the inlet and outlet of the regulator until the regulator is ready to be installed. Protect the inside of the regulator from moisture, dirt and chips throughout installation. When welded or brazed flange connections are used, all slag, scale and loose particles should be removed from the flange interior before the regulator is installed between the flanges. It is advisable to install a close-coupled companion strainer (RSF) at the inlet of the regulator to help protect it from any foreign material in the system.

The A4A series of regulators will give optimum performance if mounted in a horizontal line in a vertical position with the manual opening stem on bottom. Where other positions are desired, the factory should be consulted; please give application and piping details. The regulator must be installed with the arrow on the valve body pointing in the direction of the fluid flow for the regulator to function properly. Backward flow through the regulator is uncontrolled and will vary with the valve model and the reverse pressure drop encountered. The regulator is not a check valve.

The regulator should be installed in a location where it is easily accessible for adjustment and maintenance. The location should be such that the regulator can not be easily damaged by material handling equipment. When it is necessary to insulate the regulator (and companion strainer), the insulation should be installed to provide access to the regulator (and companion strainer) for adjustment and maintenance. Proper indicating gauges should be installed to be easily visible to the operating engineer for system checking and adjusting purposes.

Suggested Flange Tightening Instructions for Manufacturer's Instructions
Verify that piping into which a valve or flange is to be installed is properly supported and aligned. Be certain that the mating surfaces of the gasketed joints are parallel, aligned, perpendicular to the pipe axis, in good condition and free of debris and corrosion. Use only undamaged gaskets suitable for service in an ammonia refrigerating system. Verify that all the nuts, bolts, cap screws and washers meet Parker's requirements for the application and tighten progressively in a diametrically staggered pattern. Leak test upon completing the installation.

Tighten the flange bolts and nuts evenly to provide proper seating of the flange gasket as well as to avoid damage to gaskets or flanges (as shown in figures 1 through 3). Avoid using the regulator flange bolts to stretch or align pipe. Even the heavy-duty iron alloy body of an A4A can be distorted, causing the precision parts to bind.

For more information please reference the IIAR 2-2008 Section 10.

Important Note:
The control air supplied to the type A4AP valve regulators must be clean, dry and oil free. To avoid the possibility of rust and of moisture from the compressed air freezing in the bonnet or in other parts of the control system, dehydrated air must be used whenever it may come in contact with temperatures below freezing. For applications where temperatures are below 0ºC (32ºF), the type A4AR main valve with a remote pneumatic pilot should be used. The pilot can be located in a non-refrigerated space, connected to the main valve by a pair of $^{3}/_{8}$" pilot control lines.

Coils must be wired separately for valve variations with multiple coils.