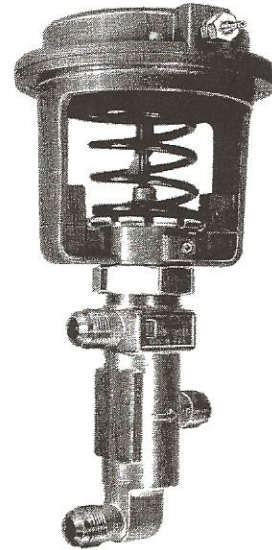


BEFORE INSTALLING, NOTE

Plumb the valve so water flow direction agrees with the arrow on the body.

When installing the valve, allow space for actuator removal and service.

It may be necessary, due to space limitations, to remove the actuator before installing the valve body. Follow the procedures shown in Figure 3. Reverse this procedure to replace the actuator.



RI020

INSTALLATION

1. Mounting bracket No. 313827A (ordered separately) may be used for internal mounting of the 3/8-inch (nominal) valve as shown in Figure 1.
2. Mount the valves directly into the water line using 45-degree SAE flare nuts (not furnished), as shown in Figure 2.
3. To facilitate connection of air lines, back off the two setscrews in the base of the actuator to permit actuator rotation.

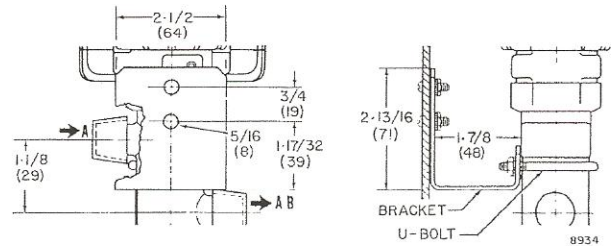


Fig. 1. Bracket No. 313827A Dimensions in Inches (Millimeters).

Table 1. VP522A & B Approximate Dimensions in Inches (Millimeters). See Fig. 3.

| Nominal Valve Size | Copper Tubing Size | | A | B | C | D | E | F | G | H |
|--------------------|--------------------|-----|------------------|----------------|----------------|---------------|-----------------|----------------|-----------------|----------------|
| | Nominal | OD | | | | | | | | |
| 3/8 | 3/8 | 1/2 | 9-13/16 (249) | 1-3/16 (30) | 3-5/8 (92) | 13/32 (10) | 1-11/16 (43) | 3-3/8 (86) | 1-5/8 (41) | 5-1/8 (130) |
| 1/2 | 1/2 | 5/8 | 9-15/16 (252) | 1-1/2 (38) | 3-5/32 (80) | 11/16 (17) | 2-1/4 (57) | 4-1/2 (114) | 1-19/32 (40) | 5-1/8 (130) |
| 3/4 | 3/4 | 7/8 | 9-15/16 (252) | 1-1/2 (38) | 3-5/32 (80) | 11/16 (17) | 2-1/4 (57) | 4-1/2 (114) | 1-19/32 (40) | 5-1/8 (130) |

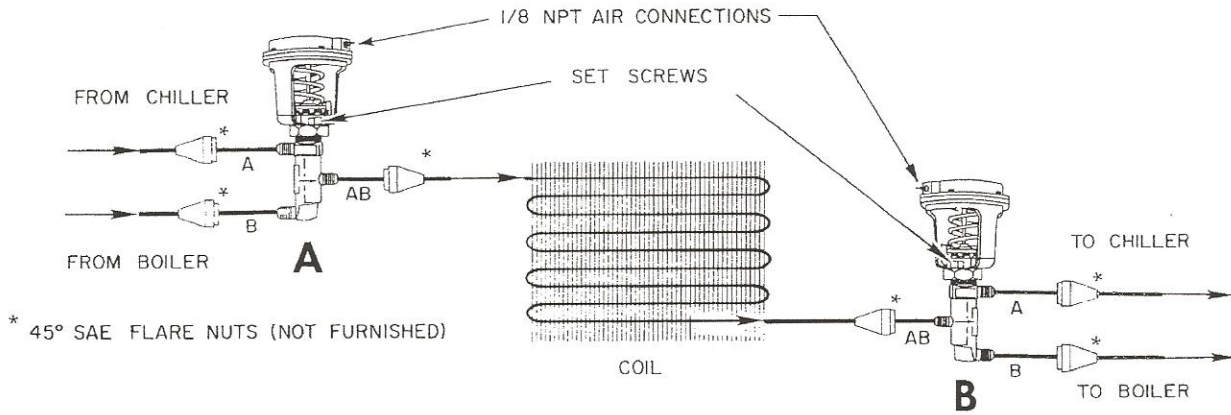


Fig. 2. Typical VP522A & B Valve Installation.

8932

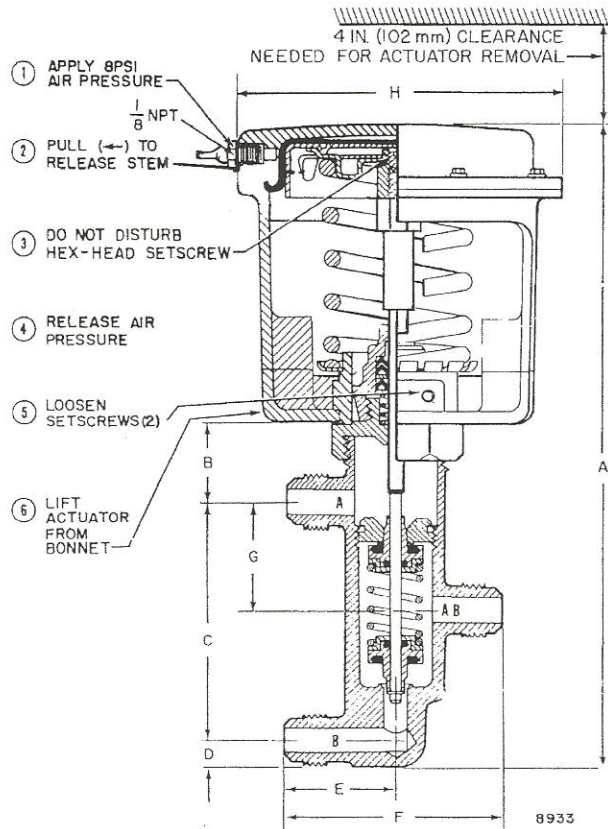


Fig. 3. VP522 Approximate Dimensions in Inches (Millimeters). See Table 1.

CHECKOUT AND TESTING

Be sure the circulator pump is running before attempting valve adjustment.

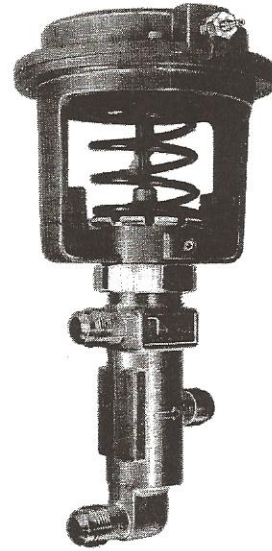
1. Vary the branch line pressure to the inlet valve on VP522A units. Note the pressure range at which no movement (dwell) occurs.
2. Repeat above procedure for the VP522B.
3. Using a screwdriver or spring adjustment wrench, adjust the tension of the spring on the VP522B by turning the spring retainer ring.

Adjust the VP522B so that it switches during the VP522A dwell for increasing *and* decreasing branch line pressure.

EPRI Edgemont Precision Rebuilders, Inc
 Matlack Industrial Center
 207 Carter Dr Unit C
 West Chester, PA 19382
 800-356-3774

Honeywell

VP522A & B Sequencing Water Valves



R1020

GENERAL

The VP522 Sequencing Water Valve is a three-pipe, sequencing, pneumatically operated water valve for controlling both hot and cold water flow in fan-coil and induction units.

FEATURES

- Corrosion resistant
- Molded-in composition discs for tight shutoff
- Flared connections for easy installation
- Operator rotatable 360 degrees for convenient air piping alignment

EPRI Edgemont Precision Rebuilders, Inc
Matlack Industrial Center
207 Carter Dr Unit C
West Chester, PA 19382
800-356-3774

VP522A & B Sequencing Water Valves

DESCRIPTION

The VP522 Sequencing Water Valve is a three-pipe, sequencing, pneumatically operated water valve for controlling both hot and cold water flow in fan-coil and induction units.

SPECIFICATIONS

Models:

| Model Number | √ | Valve Size (In.) | | Capacity Index (Cv) | | Close-Off, psi (kPa) |
|-------------------------------------|---|------------------|---------------------|---------------------|--------|----------------------|
| | | Nominal | O. D. Copper Tubing | Port A | Port B | |
| VP522A | | 3/8 | 1/2 | 1.5 | 1.5 | 50 (345) |
| Proportioning- Sequencing | | 3/8 | 1/2 | 0.9 | 0.5 | 50 (345) |
| | | 1/2 | 5/8 | 2.5 | 1.6 | 50 (345) |
| | | 3/4 | 7/8 | 4.0 | 2.5 | 45 (310) |
| VP522B Diverting- Sequencing* | | 3/8 | 1/2 | 1.5 | 1.5 | † |
| | | 1/2 | 5/8 | 2.5 | 2.5 | |
| | | 3/4 | 7/8 | 4.0 | 3.5 | |

* Used with VP522A on four-pipe systems.

† VP522B close-off rating maintains closure against 15 psi (103 kPa) difference in return line pressures when used with VP522A. Combination is subject to maximum differential pressure limits of VP522A.

EPRI Edgemont Precision Rebuilders, Inc
Matlack Industrial Center
207 Carter Dr Unit C
West Chester, PA 19382
800-356-3774

Construction:

Body: Forged brass
Seats: Brass; upper seat replaceable, lower seat integral
Disc: Molded-in composition
Plug: Brass
Packing: Rubber V-ring, spring-loaded, self-adjusting
Stem: Stainless steel

Flow Characteristics:

VP522A: Equal percentage through 5/16-in. lift for either port
VP522B: Quick opening through 3/16-in. lift for either port

Body Pressure Rating (Nominal):

250 psi (1724 kPa)

Controlled Medium Temperature:

35 to 250F (2 to 121C)

End Connections:

45 degree SAE flare

Actuator:

Molded neoprene, rolling-diaphragm type

Air Connection:

Combination barb for 5/32-in. (4-mm) or 1/4-in. (6-mm)
O.D. plastic tubing

Maximum Safe Air Pressure:

25 psi (172 kPa)

Maximum Safe Diaphragm Temperature:

160F (71C)

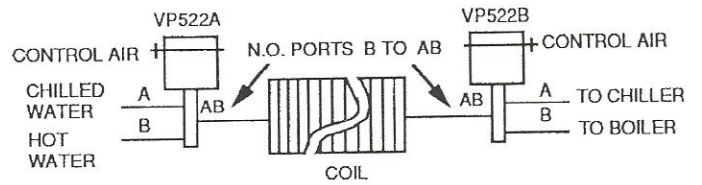
Startpoint and Operating Range:

VP522A: Nonadjustable. Refer to Operation.
VP522B: Startpoint adjustable from 2.0 to 5.5 psi (14 to 38 kPa). Refer to Operation.

VP522A & B Sequencing Water Valves

Operation:

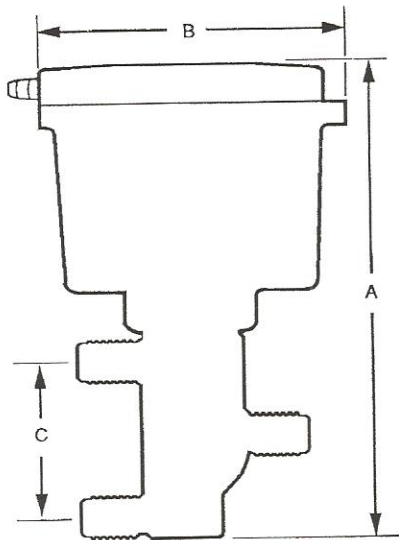
The VP522B is functionally a two-position valve coupled to the return side of the coil. The VP522B diverts the return water from the coil directly to the chiller or the boiler. During the dwell period of the VP522A, when both ports are closed but the valve is moving towards opening either the hot or cold port, the VP522B is actuated to open the proper port.



C4672

| VP522A | | psi (kPa) | VP522B |
|---------------------|-----------------------|-----------|---------------------|
| 3/8 in. Nominal | 1/2 & 3/4 in. Nominal | | All Sizes |
| Hot port open 100% | Hot port open 100% | 0 (0) | Hot port open 100% |
| | | 1 (7) | |
| | | 2 (14) | |
| Hot port closes | Hot port closes | 3 (21) | Hot port closes |
| | | 4 (28) | |
| | | 5 (34) | |
| Both ports closed | Both ports closed | 6 (41) | Both ports closed |
| | | 7 (48) | |
| | | 8 (55) | |
| Cold port opens | Cold port opens | 9 (62) | Cold port opens |
| | | 10 (69) | |
| | | 11 (76) | |
| Cold port open 100% | Cold port open 100% | 12 (83) | Cold port open 100% |
| | | 13 (90) | |
| | | 14 (97) | |
| | | 15 (103) | |

Dimensions in Inches (Millimeters):



C4671

| Nominal Valve Size | A | B | C |
|--------------------|---------------|-------------|-------------|
| 3/8 | 9-13/16 (249) | 5-1/8 (130) | 3-5/8 (92) |
| 1/2 | 9-15/16 (252) | 5-1/8 (130) | 3-5/32 (80) |
| 3/4 | 9-15/16 (252) | 5-1/8 (130) | 3-5/32 (80) |

EPRI Edgemont Precision Rebuilders, Inc
 Matlack Industrial Center
 207 Carter Dr Unit C
 West Chester, PA 19382
 800-356-3774