

Style "WCSS" Valve Assembly

Features:

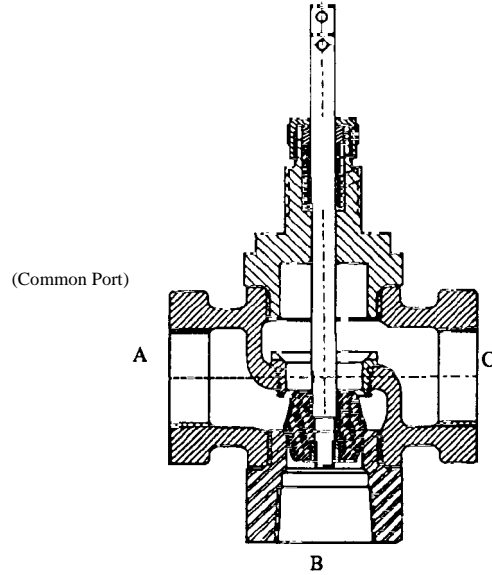
- Sizes 1/2" 3/4", 1"
- Three-Way Type
- All Stainless Steel Construction
- Quick Disconnect Stem

General Description

These valves are especially suited for Temperature Regulators for applications requiring opening one line and closing another by operation of the regulator actuator to which it is attached. Typical service is bypass, diverting, blending and alternating hot-cold service.

Valve stems of highly finished type 316 stainless steel feature quick-disconnect valve stem construction which permits removal of valve from regulator without disturbing valve stem stroke adjustment in the upper-works.

Stainless steel body and trim make this valve ideal for most any process material and ambient conditions.



With stem up, port B is open
 With stem down, port C is open

Specifications

Type: 3-Way
 Size: 1/2", 3/4", 1"
 Materials:
 Stem 316 SS
 Plug 316 SS
 Seat Ring 316 SS
 Body: CF8M (316 SS)
 Packing: Teflon Chevrons with 316 SS Spring
 Ends: Female Thread

Other Parts: Stainless Steel
 Maximum Leakage (Factory Test): 0.1% of rated flow at 50 psig (Class III)

Maximum Pressure/Temperature:
 450 psig max. at 100°F.
 450 psig max. at 450°F.

Flow (Preliminary)

| Size | End Connection | Port Size | Max. Pres. Drop | C _v | Max. Seat Leakage @ 50 psig | Stem Force | Flow |
|------|----------------|-----------|-----------------|---------------------|-----------------------------|------------|---------------|
| 1/2" | 1/2 NPT | 1/2" | 40 psig | A-C 2.2 A-B 2.2 | 59 cc/min. | 30 lbs. | Linear |
| 3/4" | 3/4 NPT | 3/4" | 40 psig | A-C 4.6 A-B 4.6 | 123 cc/min. | 50 lbs | Linear |
| 1" | 1 NPT | 1" | 40 psig | A-C 9.0 A-B 9.0 | 241 cc/min. | 70 lbs | Linear |
| 1/2" | 1/2 NPT | 9/16" | 75 psig | A-C 3.0 A-B 3.8 | 80 cc/min. | 30 lbs | Quick Opening |
| 3/4" | 3/4 NPT | 3/4" | 75 psig | A-C 5.6 A-B 8.5 | 150 cc/min. | 50 lbs | Quick Opening |
| 1" | 1 NPT | 1" | 75 psig | A-C 9.0 A-B 10.7 | 241 cc/min. | 70 lbs | Quick Opening |

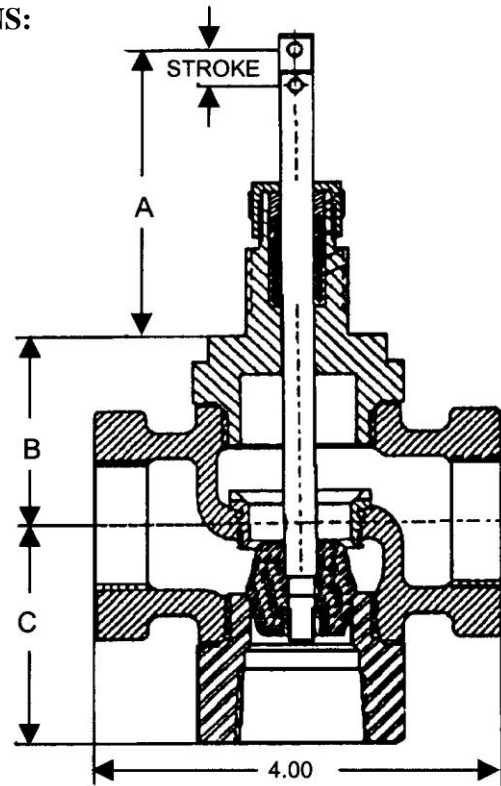
Style WCSS used with self-actuated temperature regulator series.

Maximum Recommended Pressure Drops, PSI*

| Valve Size | Flow | SATR Series | | | | | | |
|------------|---------------|-------------|---------|---------|---------|---------|---------|---------|
| | | RT-1001 | RT-1003 | RT-1004 | RT-1006 | RT-1007 | RT-1009 | RT-1011 |
| 1/2" | Linear | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| 3/4" | Linear | 30 | 40 | 40 | 40 | 40 | 40 | 40 |
| 1" | Linear | 15 | 40 | 40 | 20 | 30 | 40 | 40 |
| 1/2" | Quick Opening | 65 | 75 | 75 | 75 | 75 | 75 | 75 |
| 3/4" | Quick Opening | 30 | 75 | 75 | 40 | 50 | 75 | 75 |
| 1" | Quick Opening | 15 | 40 | 75 | 20 | 30 | 40 | 40 |

DIMENSIONS:

| Valve Size | Flow | Dimensions | | | |
|------------|---------------|------------|------|------|------|
| | | Stroke | A | B | C |
| 1/2" | Linear | 3/8" | 2.88 | 1.90 | 2.25 |
| 3/4" | Linear | 3/8" | 2.88 | 1.90 | 2.25 |
| 1" | Linear | 3/8" | 2.88 | 1.90 | 2.25 |
| 1/2" | Quick Opening | 3/16" | 2.81 | 1.88 | 2.44 |
| 3/4" | Quick Opening | 1/4" | 2.81 | 1.88 | 2.44 |
| 1" | Quick Opening | 5/16" | 2.81 | 1.88 | 2.44 |



INSTALLATIONS:

Alternating:

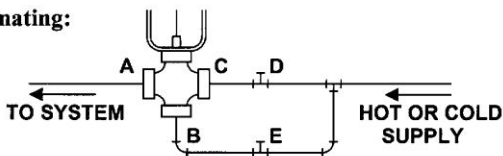


Figure 1 – Illustrates how connections would be made where it is desired to shift from heating service to cooling service by manually opening and closing proper valves (shown as D and E in the illustration).

Blending:

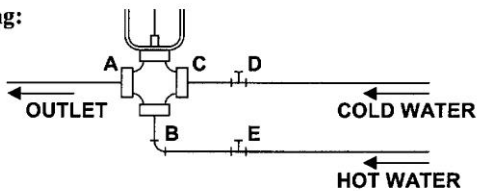


Figure 2 – Illustrates a simple means for blending hot and cold water where a rough mixing is suitable.

Diverting:

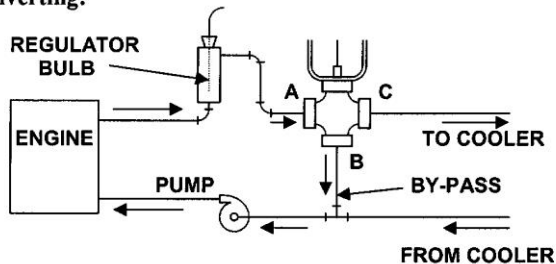


Figure 3 – Illustrates the most widely used method of cooling water control for internal combustion engines.



Robertshaw Industrial Products
 1602 Mustang Drive
 Maryville, Tennessee 37801
 Phone: (865) 981-3100 Fax: (865) 981-3168
<http://www.robertshawindustrial.com>