

## Valve Body Assembly Style "WD"

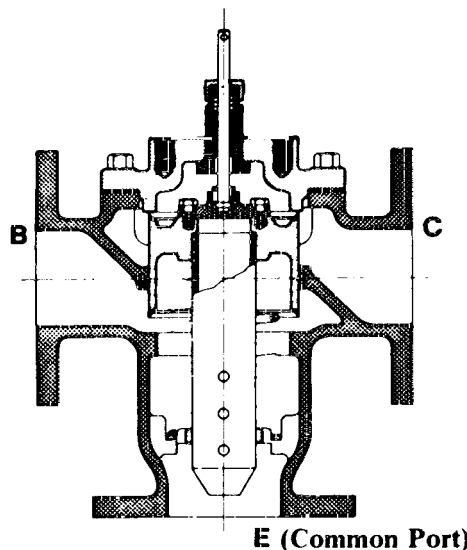
### FEATURES

Balanced Sleeve Three-Way Type  
 Sizes 2" thru 6"

### GENERAL DESCRIPTION

This three-way valve has a balanced sleeve type poppet and is suitable where it is desired to open one line and close another by the operation of the actuator. This valve can be used for water, oil, calcium chloride brine or other liquid service.

When controlling circulation of cooling water or lubricating oil for an internal combustion engine, this valve is employed to bypass part of the cooling water or oil around the cooling system or heat exchanger.



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

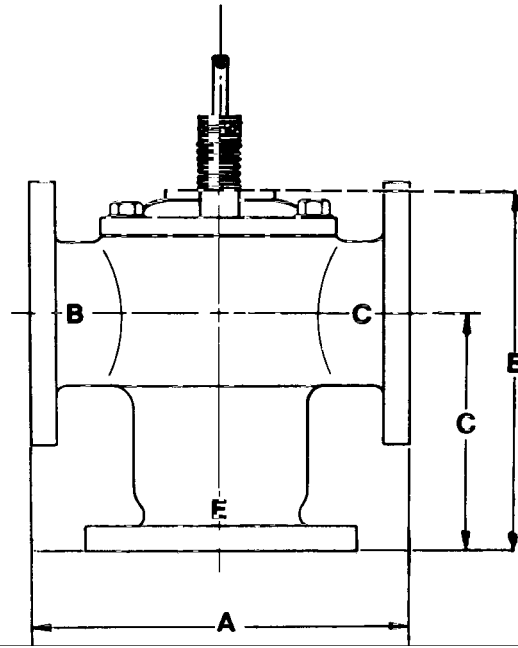
### SPECIFICATIONS

- End Connections ..... Brass 150 lb. ANSI flanges
- Action ..... 3-way
- Flow Characteristic ..... Quick-opening
- Stem Connection ..... Quick-disconnect type
- Body Material ..... Brass ASTM B62
- Trim Material:
  - Stem ..... 316 stainless steel
  - Plug ..... Brass ASTM B16
  - Poppet ..... Brass ASTM B62
  - Pipe ..... Brass ASTM B43
  - Seat ..... Integral seats brass ASTM B62
- Maximum Pressure Drop ..... 2" - 3", 40 psi.  
 4" - 6", 25 psi.
- Temperature Limit ..... 200°F (93°C)

- Stem Packing ..... Rubber U-cup
- Available Actuators ..... VC-230A, VC-231A

Valve Size		2	2 1/2	3	4	5	6
Cv	E - B	64	81	115	220	344	506
	E - C	64	88	106	237	385	563
Valve Travel, In. (mm)		.281 (7.13)	.416 (10.5)	.594 (15.08)	.626 (15.97)	.721 (18.31)	1.031 (26.19)

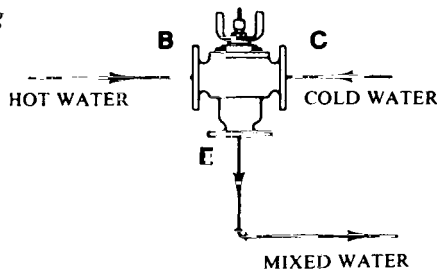
# DIMENSIONS



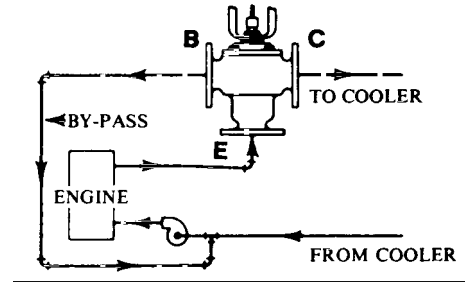
Valve Size, In.	2	2 1/2	3	4	5	6
Dim. A, In. (mm)	8-5/8 (219)	10 (254)	10-1/2 (267)	15-7/8 (403)	19-1/4 (489)	23-1/2 (597)
Dim B, In. (mm)	9 (229)	10-1/8 (257)	10-3/8 (264)	1-13/16 (300)	17-3/16 (437)	19 (483)
Dim. C, In. (mm)	5-3/16 (132)	6-1/2 (165)	6-3/4 (171)	8-9/16 (217)	11-5/8 (295)	13-7/16 (341)

## INSTALLATIONS

*Mixing*



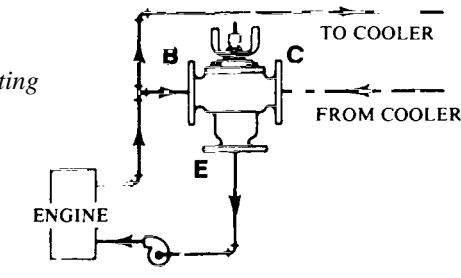
*Diverting*



**Figure 2:** This drawing illustrates the most widely used method of cooling water control for internal combustion engines.

**Figure 1:** Illustrating a simple means for mixing hot and cold water where a rough mixing is suitable.

*Diverting*



**Figure 3:** This drawing shows a method of controlling the cooling of engine lubricating oil.



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