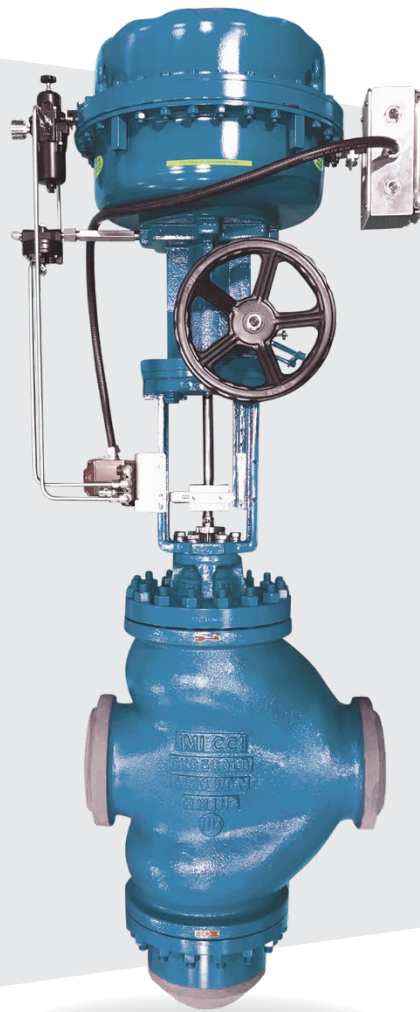



830T Series



 Engineering
GREAT Solutions

Three-way valve for general applications

830T Series - Three-way Valve

The 830T Series three-way valve is designed for diverting or mixing in general service applications. In diverting applications it takes a common fluid stream and splits it into two outlet ports. For mixing applications it combines two fluid streams and discharges the mixed fluid to a common outlet port. By performing the function of two opposite acting standard two-way valves, the three-way valve is a more cost-effective control option for diverting or mixing applications. The 830T Series valve is available in sizes 1 inch to 10 inch and ASME 150 to 300.

Key Features and Benefits

> High capacity

Large streamlined passages allow higher flow for optimised mixing and diverting.

> Flexibility

The 830T series comes with a wide range of options to fit your application needs.

> Stable operation

Multiple guiding along the cage and stem assures smooth plug travel for a stable operation.

> Durability

The sturdy design with tight tolerances and multiple guides ensure a trouble-free service life.

Applications

To further illustrate the concept of the diverting and mixing design, Figure 1 is a diverting type and Figure 2 is a mixing type. In a diverting type, fluid AB is split into outlet A and outlet B at the two outlet ports. In a mixing type, fluid A and fluid B combine at the two inlet ports and discharge as fluid AB at the one outlet port.

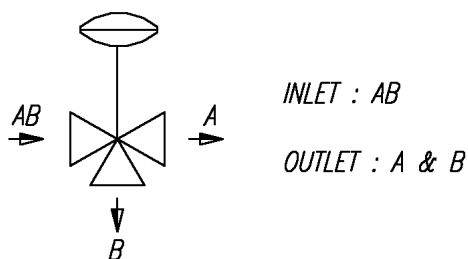


Figure 1. Flow diagram for diverting type

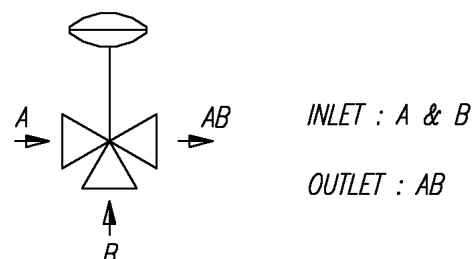


Figure 2. Flow diagram for mixing type

Technical Details

Options in brackets are available upon request.

Pressure rating

ASME B16.34 Class 150, Class 300

Maximum design temperature

260°C

End type

RF and FF flange

Seat type

Screwed double seat

Shut-off class

ANSI / FCI 70.2, Class III, IV

Body, bottom flange, bonnet material

A216 WCB (A216 WCC, A351 CF8, A351 CF8M)

Trim material

410 SS (316 SS)

Trim characteristic

Linear

Actuator

MSD-III diaphragm actuator (SP actuator)

	Bonnet type									
	Clamp					Bolted				
Body size	1"	1-½"	2"	2-½"	3"	4"	5"	6"	8"	10"
Stroke (mm)	20	20	20	40	40	50	50	50	70	70 (100)
CV	16	33	50	75	105	190	280	390	500	750 (1020)

Materials

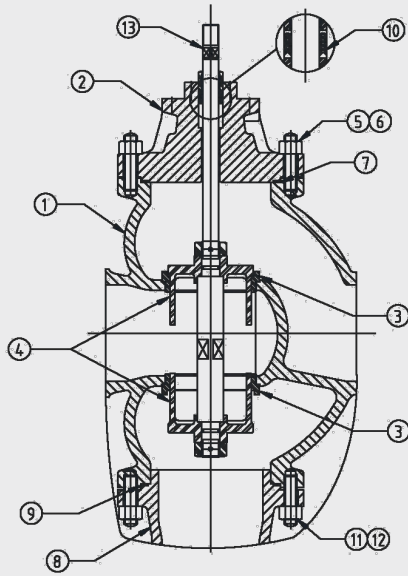


Figure 3. Body sectional view for diverting type

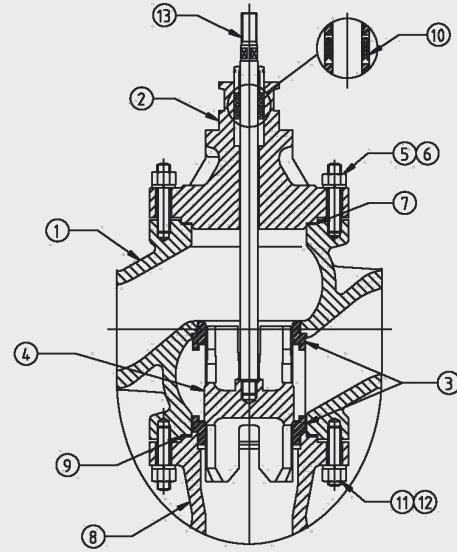


Figure 4. Body sectional view for mixing type

No	Part name	Standard material
1	Body	A216 WCB
2	Bonnet	A216 WCB
3	Seat	410 SS
4	Plug	410 SS
5	Bonnet stud	A193-B7
6	Hex nut	A194-2H
7	Bonnet gasket	Graphite (Filler) with 304SS
8	Bottom flange	A216 WCB
9	Bottom gasket	Graphite (Filler) with 304SS
10	Packing	Teflon
11	Bottom flange stud	A193-B7
12	Hex nut	A194-2H
13	Stem	410 SS

No	Part name	Standard material
1	Body	A216 WCB
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10	Packing	Teflon
11	Bottom flange stud	A193-B7
12	Hex nut	A194-2H
13	Stem	410 SS

Valve Dimensions

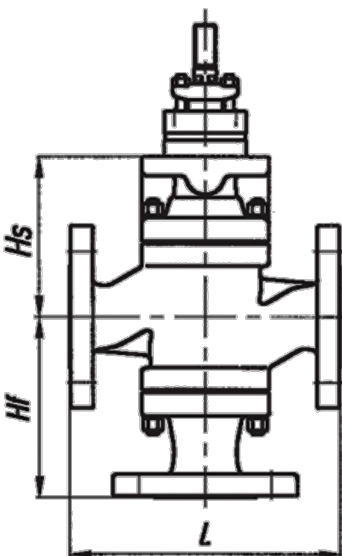


Figure 5. Face to face dimensions

Dimensions for 150# & 300#

		150#									
Body size		1"	1-½"	2"	2-½"	3"	4"	5"	6"	8"	10"
Mixing type	L	184	254	254	276	298	352	403	451	615	N/A
	Hf	124	180	180	200	220	245	323	299	444	N/A
	Hs	111	149	149	174	187	216	303	275	395	N/A
Diverting type	L	184	254	254	276	298	352	403	454	608	698
	Hf	124	180	180	200	220	245	323	370	505	478
	Hs	111	149	149	174	187	216	303	365	456	463

		300#									
Body size		1"	1-½"	2"	2-½"	3"	4"	5"	6"	8"	10"
Mixing type	L	197	254	267	292	318	368	425	473	615	N/A
	Hf	124	180	180	200	220	253	334	299	444	N/A
	Hs	111	149	149	174	187	216	303	275	395	N/A
Diverting type	L	197	254	267	292	318	368	425	474	630	734
	Hf	124	180	180	200	220	253	334	370	525	496
	Hs	111	149	149	174	187	216	303	365	456	463

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