

# 3-WAY DUCTILE IRON VALVE



## YFV-3000 series

### Application

Used as a control or blocking valve in heating, ventilation, air conditioning system & domestic water facilities.

- Hot water : Maximum 120°C.
- Domestic water.
- Cold water : Maximum -15°C.
- Water with the following additives.
  - Oxygen absorption chemical / Glycol(antifreeze) with the maximum 50%.
- Maximum pressure Flange Type 10k (JIS 16K FF).

### Technical Data

Valves					Close-Off Rating(Max,ΔP(kgf/cm <sup>2</sup> ))			
Valve Size (A)	Type Reference	Cv	Max. Pressure Max, (kgf/cm <sup>2</sup> )	Lift (mm)	YGC(D) Actuator Series			
					41	51	61	71
15	YFV-3015	4.7	10	20	17	-	-	-
20	YFV-3020	7	10	20	17	-	-	-
25	YFV-3025	11.7	10	20	16	-	-	-
32	YFV-3032	18.7	10	20	12	-	-	-
40	YFV-3040	29	10	20	10	-	-	-
50	YFV-3050	47	10	20	-	7.2	-	-
65	YFV-3065	54	10	40	-	4.0	-	-
80	YFV-3080	83	10	40	-	-	11	-
100	YFV-3100	150	10	40	-	-	7	-
125	YFV-3125	237	10	40	-	-	4.5	-
150	YFV-3150	344	10	40	-	-	-	6.8

- Max.Pressure(kgf/cm<sup>2</sup>)=Maximum pressure in a opened or closed valve.
- Max,ΔP(kgf/cm<sup>2</sup>)=Maximum differential pressure in a closed valve.
- Water : Range ability 90%, Valve size is 1 step increased when flow velocity is above 3m/s.  
Steam : Range ability 55%, Valve size is 1 step increased when flow velocity is above 10m/s.

## 3-WAY DUCTILE IRON VALVE

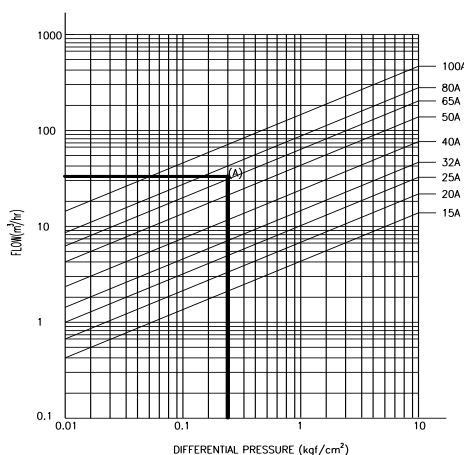
### Technical Data

• End Connection	:	FF Flange
• Valve Body Rating	:	KS 10Kgf/cm <sup>2</sup>
• Leakage	Through Port	: 0.01% ANSI ClassII
	Bypass Port	: 0.1% ANSI ClassI
• Flow Characteristics	:	Equal Percentage
• Range Ability	:	25:1
• Recommended Actuator	:	SMA-10P(A), SMA-35P(A), SMA-55P(A)
	Body	: Ductile Iron(GCD45)
	Bonnet	: Ductile Iron
	Stem	: STS304, STS410
•Materials	Plug	: STS304
	Seat-Ring	: SSC14A
	Packing Box	: Spring loaded PTFE and Elastomer V-ring

### Valve sizing

- First side= 3kgf/cm<sup>2</sup>, Second side= 2.7kgf/cm<sup>2</sup>, Flow velocity= 32m<sup>2</sup>/hr.

Valve size is :  $\Delta P = 0.3 \text{ kgf/cm}^2$ , therefore the valve size is 80A at the point A when the flow velocity= 32m<sup>2</sup>/hr.

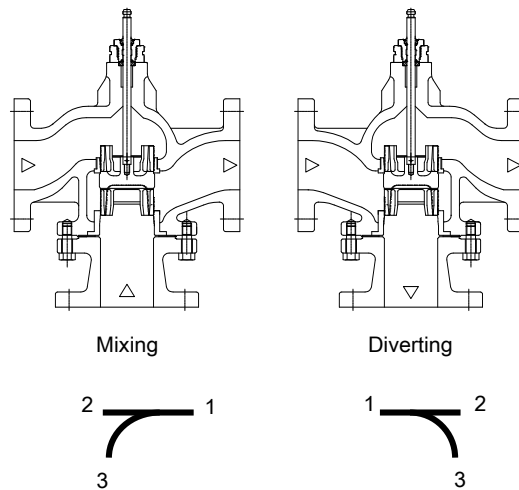


## Design characteristics

Valve & controller are provided separately, and the assembly does not require special tools or modification. Plug shape is divided into Parabolic(P), Profile(V), etc. according to the valve size & unique range ability, and Perforate shape is also available in an unstable condition such as cavitation.

### 1) Valve Design characteristics

- Valve stem is decreased: Through-Port Open, Bypass Close.
- Valve stem is increased: Through-Port Close, Bypass Open

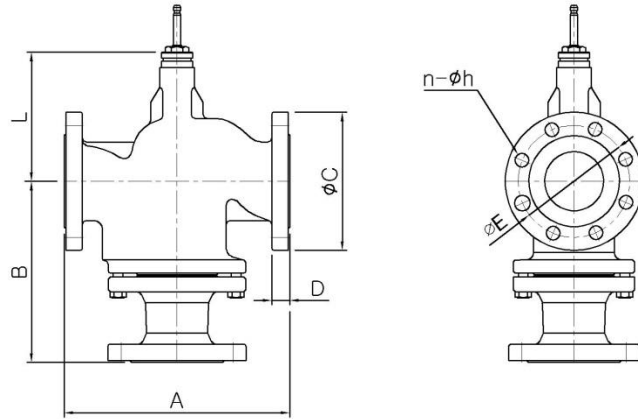


### 2) Gland sealing box characteristics

- A pair of O-Rings & dust protection strip-attached Sealing Gland.
- Self-adjusting Teflon sleeve-attached Sealing Gland.
- Sealing Gland is changeable without separating the valve

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## Shape Dimension



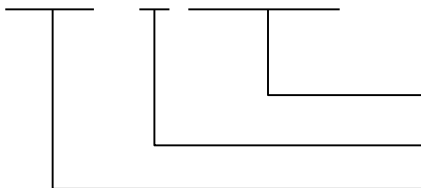
Size(A)	A	B	C	D	E	L	n-Ø h	Weight(kg)
15	184	116	95	16	70	78	4-15	-
20	184	116	100	18	75	78	4-15	-
25	184	116	125	18	90	73	4-19	-
32	222	159	135	20	100	76	4-19	-
40	222	159	140	20	105	76	4-19	-
50	254	185	155	20	105	119	4-19	-
65	276	224	175	22	140	134	4-19	-
80	298	240	185	22	150	149	8-19	-
100	352	250	210	24	175	172	8-19	-
125	403	270	250	24	210	176	8-23	-
150	451	310	280	26	240	199	8-23	-

## Order specifications

Product name & Type are required to be filled with the type appendages when ordering.

Ex) Three-way valve YFV-3065(3000series)

Y F V - 3



Valve Size(A) : 65 ~ 150A

Valve Type : 3 -10Kgf/cm2, 3way Valve

Product Group : Flange Type