

# 3-WAY DUCTILE IRON VALVE



## YFV-5000 series

### Application

Used as a mixing or diverting valve in heating, ventilation, air conditioning system, ice thermal storage 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%.
- Refrigerant R12, R22, R502.
- Maximum pressure 20k(JIS 20k RF Flange).

### 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	
					71	81
200	YFV-5200	794	20	65	3.8	7.9
250	YFV-5250	1190	20	65	2.5	5
300	YFV-5300	1914	20	70	-	3.5
350	YFV-5350	2567	20	75	-	2.6

- 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.
- Accessories : Coupling nuts, Rings, Adaptors

# 3-WAY DUCTILE IRON VALVE

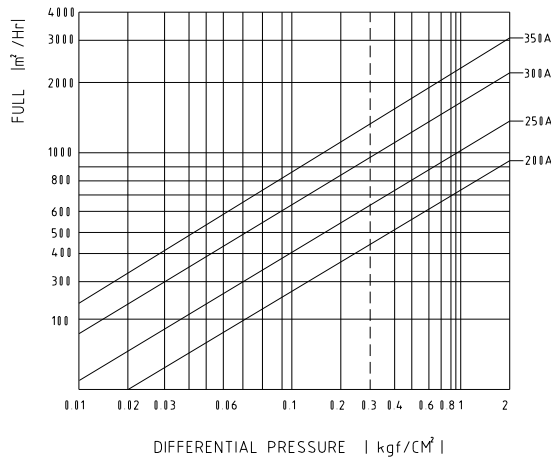
## Technical Data

• End Connection	:	RF(Flange Type)
• Valve Body Rating	:	KS 20Kgf/cm2
• Leakage		
Through Port	:	0.01% ANSI ClassII
Bypass Port	:	0.1% ANSI ClassI
• Flow Characteristics	:	Linear
• Range Ability	:	50:1 30:1
• Recommended Actuator	:	YGC-71,YGC-81
	Body	: Cast Steel 200~350A
	Bonnet	: Brass, Cast Bronze, Ductile Iron
	Stem	: STS304, STS410
• Materials	Plug	: STS304
	Seat-Ring	: Under 150A :SSC14A / Above 200A :BsC3
	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.

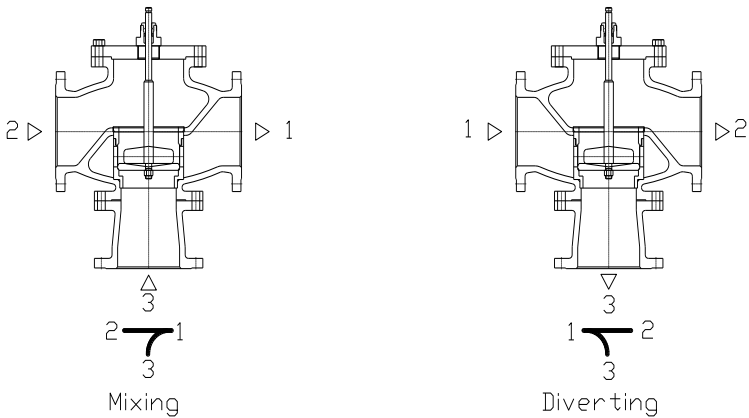


### Design characteristics

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

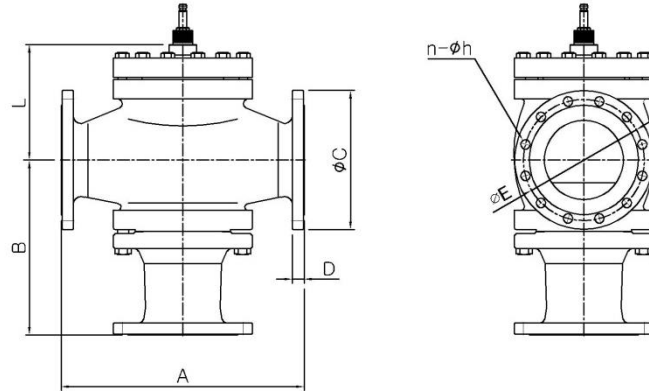
- Mixing Type : Fluid is absorbed from 2&3, and mixed out to 1 [Figure 1].
- Diverting Type : Fluid is absorbed from 1, and distributed out to 2&3 [Figure 2].
- Valve stem is decreased : Though port Open, Bypass port Close .
- Valve stem is increased : Though port Close, Bypass port Open.



#### 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.

Shape Dimension



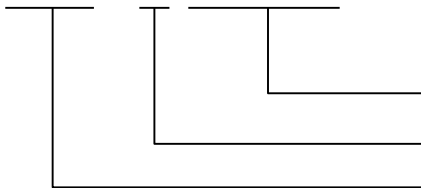
Size(A)	A	B	C	D	E	L	n-φ h
200	612	422	350	30	305	270	12-25
250	724	505	430	34	380	322	12-27
300	850	530	480	36	430	420	16-27
350	980	595	540	40	480	490	16-33

Order specifications

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

Ex) Three-way valve YFV-5200(5000series)

Y F V- 5 □ □ □



Valve Size(A) : 200 ~ 350A

Valve Type : 5 -20Kg/cm2, 2Way Valve

Product Group : Flange Type