

# 3-WAY CAST BRONZE VALVE



## YTV-6000 series

### Application

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

- Hot water : Maximum 160°C 16k Max (Maximum pressure).
- 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.
- BSPT 16k, Thread Connection.

### Technical Data

Valves					Close-Off Rating (Max,ΔP(kgf/cm <sup>2</sup> ))	
Valve Size (A)	Type Reference	Cv	Max. Pressure (kgf/cm <sup>2</sup> )	Lift (mm)	YGC(D) Actuator Series	
					41	51
15	YTV-6015	4.7	16	19	10	15
20	YTV-6020	7	16	19	8.7	15
25	YTV-6025	11.7	16	19	8	15
32	YTV-6032	18.7	16	19	5	13
40	YTV-6040	29	16	19	3.5	12
50	YTV-6050	47	16	19	3	7.2

- 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 CAST BRONZE VALVE

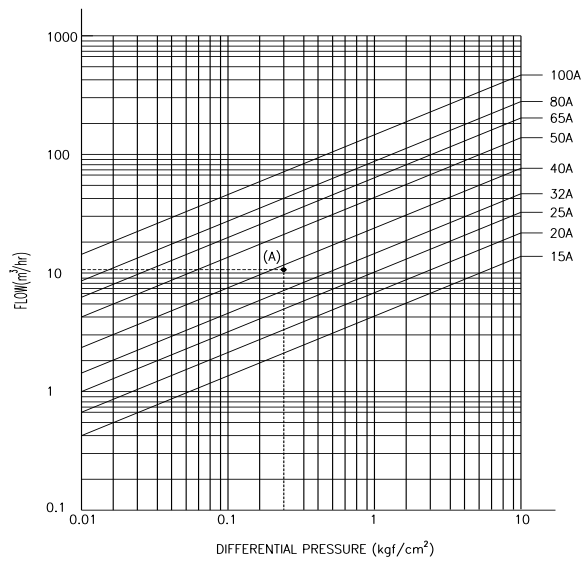
## Technical Data

- Body Thread : PT (Pipe Threaded)
- Valve Body Rating : KS 16Kgf/cm<sup>2</sup>
- Leakage : 0.01% Valve capacity at full travel ANSI B 16.104-1976 ClassIV
- Flow Characteristics : Equal Percentage
- Range Ability : 25:1
- Recommended Actuator : YGC(D)-41,YGC(D)-51
- Materials
  - Body : Cast Bronze(BC6)
  - Bonnet : Brass, Cast Bronze(BC6)
  - Stem : STS304, STS410
  - Plug : STS304
  - Seat-Ring : SSC14A
  - Packing Box : Single Gland Sealing (E.P.D.M) / Teflon, Viton O-ring

## Valve sizing

- First side= 3kgf/cm<sup>2</sup>, Second side= 2.7kgf/cm<sup>2</sup>, Flow velocity= 12m<sup>3</sup>/hr.

Valve size is :  $\Delta P = 0.3\text{kgf/cm}^2$ , therefore the valve size is 40A at the point A when the flow velocity= 12m<sup>3</sup>/hr.



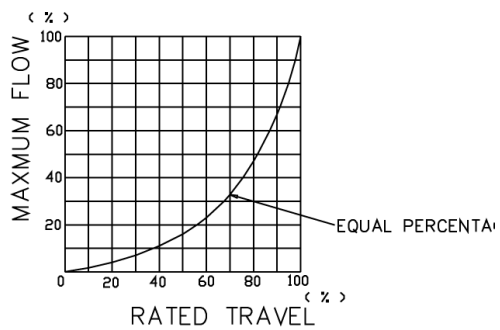
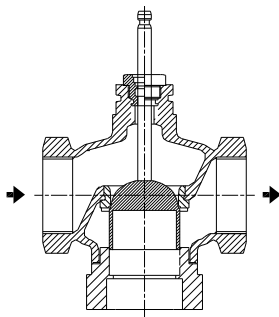
## Design characteristics

Valve & controller are provided separately, and the assembly does not require special tools or modification. Valve body material is made of Ductile Iron, and the Stem, Seat-ring & Plug material are of Stainless steel(see the Valve structure & Fluid direction figures).

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

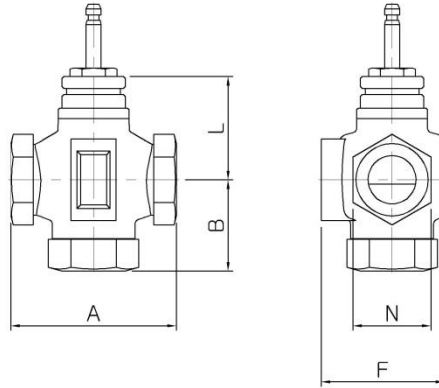
- Valve stem is decreased : Open.
- Valve stem is increased : Close.



### 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



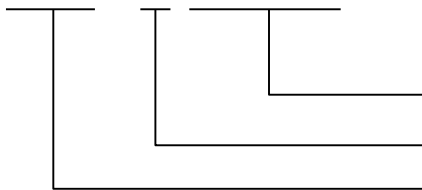
Size(A)	PT	A	B	L	N	F	Weight(kg)
15	1/2	100	64	65	29	64	1.5
20	3/4	100	62	65	35	64	2.4
25	1	105	67	68	44	64	2.9
32	1 1/4	110	73	70	54	84	3.9
40	1 1/2	140	73	82	60	114	5.5
50	2	150	84	82	74	126	8.9

Order specifications

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

Ex) Three-way valve YTV-6020(6000series)

Y T V- 6 □ □ □



Valve Size(A) : 15 ~ 50A

Valve Type : 6 ~16Kgf/cm2, 2Way Valve

Product Group : Thread Type