



10-7

## 3-way control valve GXF 21 / GXF 22



밸브

### Summary

GXF21/22 is for wide range of applications in the system of HVAC, steam and hot&cold water

Size	200A	250A	300A	350A
Stroke(mm)	50	60	75	80

### Applications

- Allowable fluid and Temp.
  - Hot water : up to 130°C
  - Cold water : up to -25°C

### Technical data

- Allowable pressure : 10Kgf/cm<sup>2</sup>
- Allowable Temp. : -25 ~ 130°C (-25 ~ 180°C with GXF22)
- Linear type
- Leakage
  - 1) Through port : ≤0.01% of Kvs value Class IV
  - 2) By-pass : ≤0.1% of Kvs value
- Operating pressure : 10Kgf/cm<sup>2</sup>(GXF21) / 20Kgf/cm<sup>2</sup>(GXF 22)
- End Connection : JIS 10K RF (GXF21)  
JIS 20K RF (GXF22)
- FCD body materials available upon the request of customer

※ Close-off pressure

Model	DN		유량계수		Stroke mm	Sv	Actuator ΔPmax (kgf/cm <sup>2</sup> )	
	mm	Inch	Kv	Cv			GEA-100A(P)	GEA-250A(P)
GXF 21 · 200	200	8"	594	696	50	50	2.4	6.1
GXF 21 · 250	250	10"	906	1057	60	50	1.6	3.9
GXF 21 · 300	300	12"	1608	1875	75	50	—	2.7
GXF 21 · 350	350	14"	2509	2928	80	50	—	2.0

Sv : Rangeability (VDI 2173)

ΔP<sub>100</sub> : Maximum allowable pressure difference of valve faces in full opening position with installation highly loaded

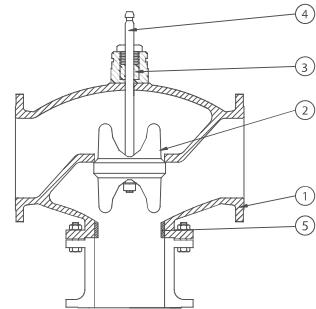
ΔP<sub>max</sub> : Maximum allowable pressure difference of actuator not to leak fluid in closing position(close-off pressure)

Kv = Cv/1.167

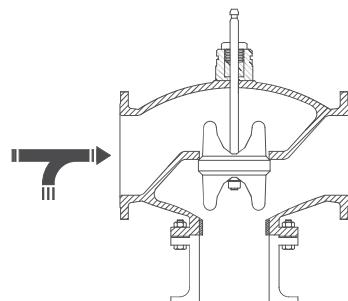
### Materials

No	1	2	3	4	5
Part Name	Body	Plug	Packing Box	Stem	Seat Ring
Material	SCPH2	SCS13	Teflon	SUS304	FC

(A216WCB) (A351CF8) (AISI304)



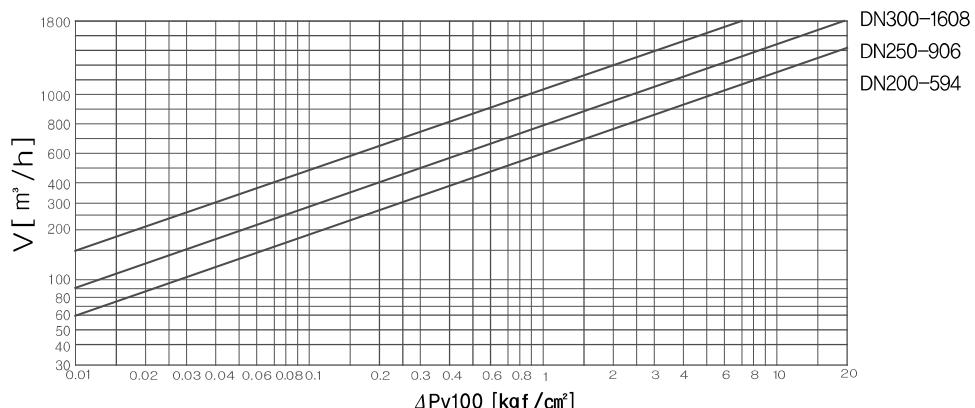
### Mechanical design



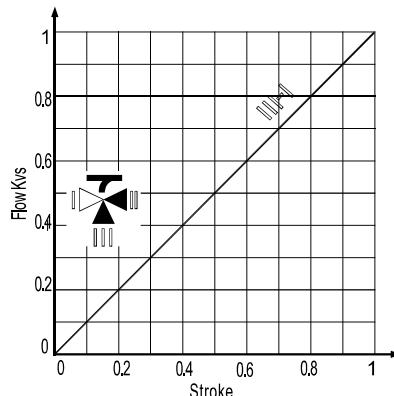
- Plug direct-coupled with valve stem
- Seat with special materials attached to valve body

### Valve selection

#### ► Diagram of flow

V : flow(  $\text{m}^3/\text{h}$  )ΔPv100 : valve pressure drop(  $\text{kgf}/\text{cm}^2$  )

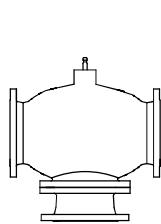
## Valve flows



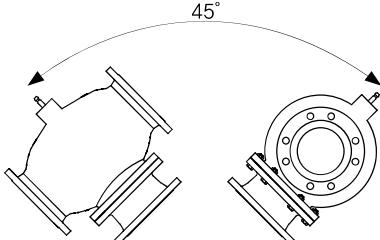
- Flow control of valve
- Linear
- Proportion of flow control - 50:1

## Mounting notes

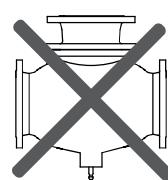
- Recommend to install circulating line in heating system  
(To prolong the life-span of Packing)
- Strainer installation into inlet of valve



<allowed>



<partially allowed>



<prohibited>

- Match the flow direction with marked direction(→) on the valve body

A  for mixing valve : from "A" to "AB"

B

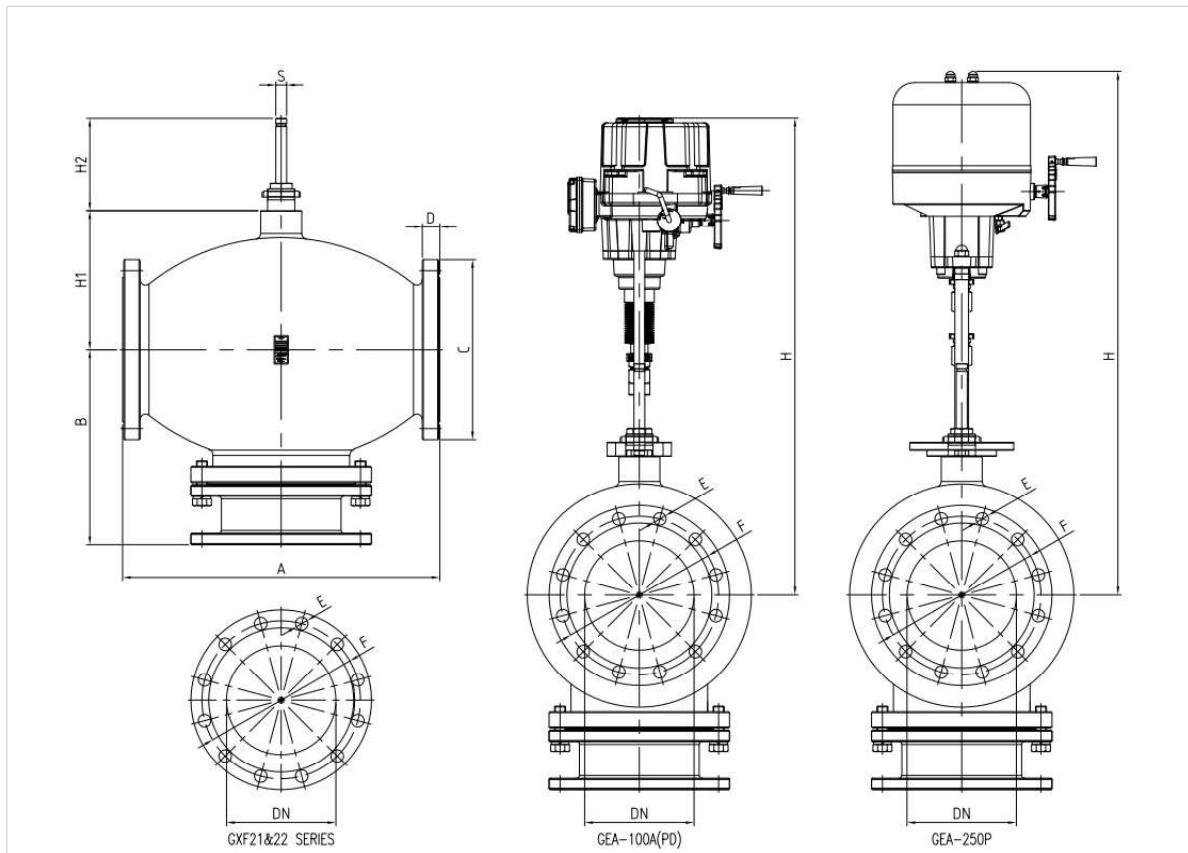
## Guide for inspection

Inspect the valve in the status of right mounting of actuator

1. valve shaft(spin) downward : open in Through-port, close in By-pass
2. valve shaft(spin) upward : close in Through-port, open in By-pass

## Tips

- Valve packing replacement without disassembling in case of damage
- Packing box applicable for -25 ~ 130°C(hot and cold water)

 Shape dimension


JIS 10K RF, KS 10K RF (KS B 1511)

MODEL	DN	A	C	S	D	E	F	B	H1	H2	H		Weight Valve(Kg)
											GEA 100	GEA 250	
GXF 21.200	200	580	ø330	ø20	32	ø290	12-ø23	357	255	170	875	869	170
GXF 21.250	250	685	ø400	ø20	32	ø355	12-ø25	446	305	180	925	919	290
GXF 21.300	300	800	ø445	ø20	34	ø400	16-ø25	512	300	195	-	914	388
GXF 21.350	350	880	ø490	ø20	34	ø445	16-ø25	567	325	200	-	939	450

JIS 20K RF, KS 20K RF

MODEL	DN	A	C	S	D	E	F	B	H1	H2	H		Weight Valve(Kg)
											GEA 100	GEA 250	
GXF 21.200	200	580	ø305	ø20	30	ø290	12-ø25	357	255	170	875	869	170
GXF 21.250	250	685	ø380	ø20	34	ø355	12-ø27	446	305	180	925	919	290
GXF 21.300	300	800	ø430	ø20	36	ø400	16-ø27	512	300	195	-	914	388

Units : mm  
Specifications to be changed upon the production environment