



## 10-4

## 2-way control valve GVF 21 / GVF 22



### Summary

GVF21/22 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

### Application

- Allowable pressure : 10Kgf/cm<sup>2</sup>
- Applicable fluid and temp. : 1) up to 130°C for hot water  
2) up to -25°C for cold water

### Technical Data

- Allowable pressure : 10Kgf/cm<sup>2</sup>(10bar)
  - Applicable fluid and temp. : -25°C ~ 130°C (-25°C ~ 180°C with GVF22)
  - Linear type
  - Leakage : ≤ 0.01% of Kvs value Class IV (ANSI B 16.104)
  - End connection : GVF21 - JIS 10K RF type  
GVF22 - JIS 20K RF type
- ※ FCD of body material is available upon the request of customer

※ Close-off pressure

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

Sv : Rangeability (VDI 2173)

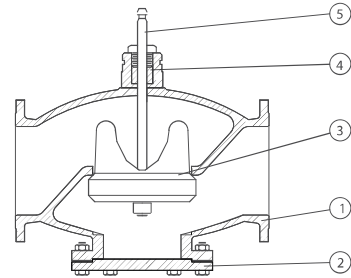
Kv = Cv/1.167

ΔPV100 : Maximum allowable pressure difference of valve faces in full opening position with installation highly loaded

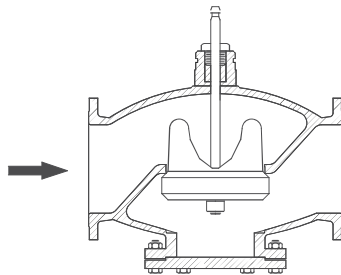
ΔPmax : Maximum allowable pressure difference of actuator not to leak fluid in closing position(close-off pressure)

## Materials

No	1	2	3	4	5
Part Name	Body	Flange	Plug	Packing Box	Stem
Material	SCPH2	SCPH2	SCS13	V-Ring (Teflon)	SUS304
	(A216WCB)	(A216WCB)	(A351CF8)		(AISI304)



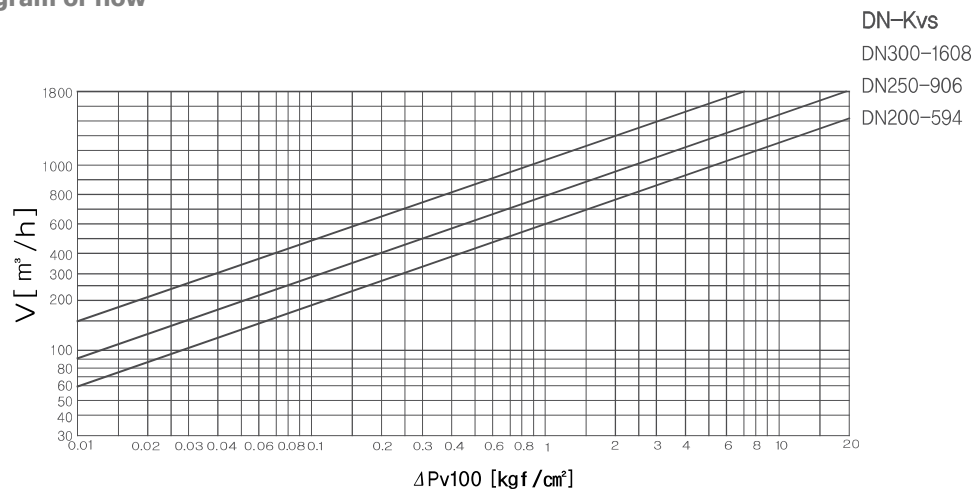
## Mechanical Design



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

## Valve to select

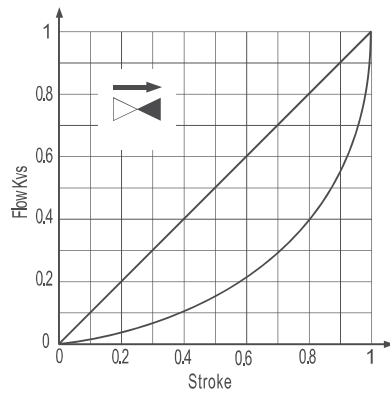
### ► Diagram of flow



V : flow(m³/h)

ΔPv100 : valve pressure drop(kgf/cm²)

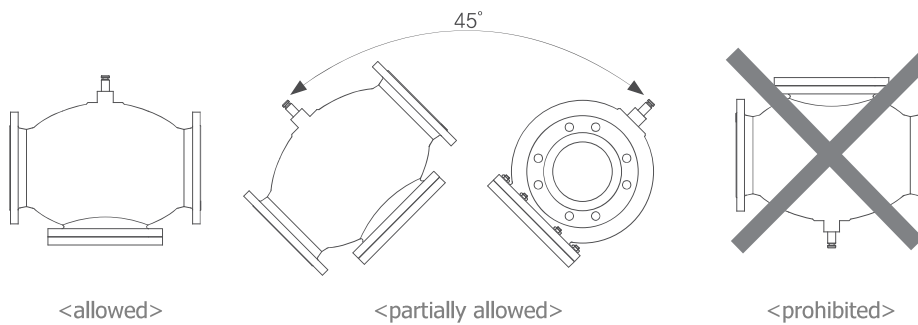
## Valve flows



- Flow control of valve
- Linear or EQ%
- Proportion of flow control - 50:1

## Mounting Notes

- Recommend to install circulating line to protect valve stem normally
- Strainer installation recommended for higher safety rate of valve function



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

## Guide for inspection

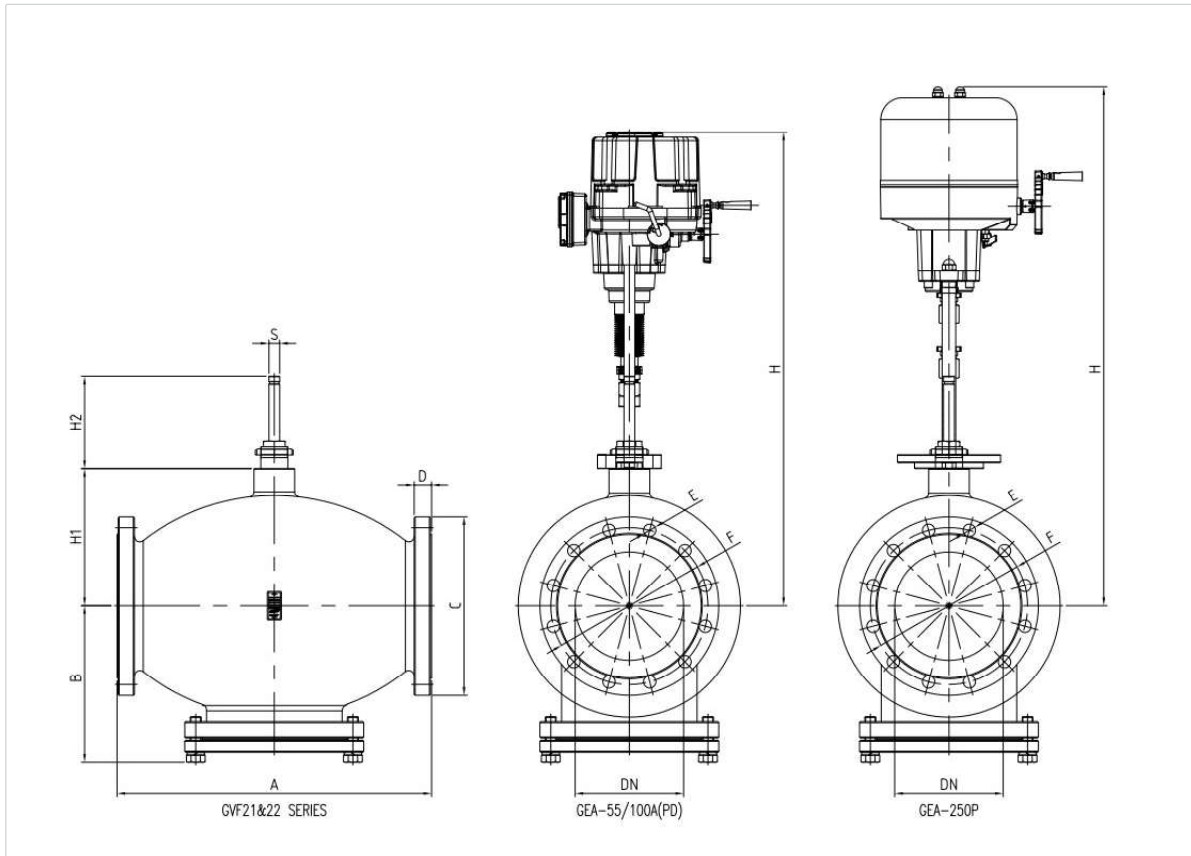
Inspect the valve in the status of right mounting of actuator

1. Close position with valve shaft upward
2. Open position with valve shaft downward

## 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	
GVF 21.200	200	580	ø330	ø20	32	ø290	12-ø23	287	255	170	875	869	165
GVF 21.250	250	685	ø400	ø20	32	ø355	12-ø25	346	305	180	925	919	280
GVF 21.300	300	800	ø445	ø20	34	ø400	16-ø25	376	300	195	-	914	368
GVF 21.350	350	880	ø490	ø20	34	ø445	16-ø25	398	325	200	-	939	430

### 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	
GVF 22.200	200	580	ø350	ø20	34	ø305	12-ø25	287	255	170	875	-	182
GVF 22.250	250	685	ø430	ø20	34	ø380	12-ø27	346	305	180	925	919	305
GVF 22.300	300	800	ø480	ø20	40	ø430	16-ø27	376	300	195	-	914	388
GVF 22.350	350	880	ø540	ø20	42	ø480	16-ø33	398	325	200	-	939	450

Units : mm

Specifications to be changed upon the production environment