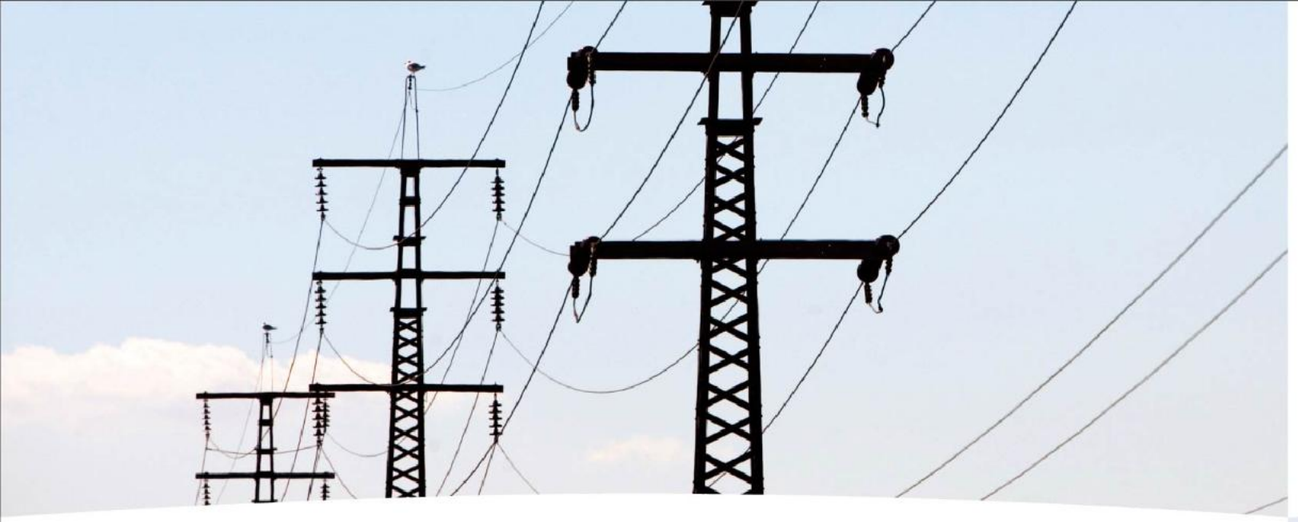


- Quick Maintenance
- Anti-erosion, Anti-cavitation
- Anti-seize

Suzhou Delan Energy Science&Technology Co.,Ltd.

Add: No 566 Fangqiao Road ,Caohu Industrial Park,Xiangcheng Economic Development Zone,Suzhou,China

Tel: +86-512-65786108

Fax: +86-512-65786208

Web: www.delanvalve.cn

E-mail: delan@delanvalve.com

Delan 德兰调节阀

DELAN JY4500 SERIES

Delan 德兰调节阀

DELAN JY4500 SERIES

Delan

JY4500 Series

Y Type Globe Valve

Delan® 德兰调节阀

DELAN JY4500 SERIES

Content

Application Range ····· 01

Design Standard ····· 01

Technical Parameters of Y Type Globe Valve ····· 02

Performance Parameters ····· 02

Valve Characteristic ····· 03

Pressure Class and Connecting End ····· 04

Structure ····· 04

Material Table ····· 05

Product Model ····· 06

Dimension and Weight ····· 07

2024 | First Edition

Application Range

- Water Drainage, discharge of various steam–water pipes
- Water drainage, discharge of superheater
- Periodical blowdown cutoff of boiler
- Continuous blowdown cutoff
- Steamming out cutoff of soot blower

Design Standards

- Design and Manufacturing：ASME 16.34 JB/T3595
- Inspection and test：JB/T3595 MSS SP61
- Connection End
  - Socket welding：ASME B16.11
  - Butt welding：ASME B16.25
  - Flange：ASME B16.5
- Class of design: special, limited, standard

Technical Parameters of Y-Type Globe Valve

- Nominal diameter：3/4″ ~ 4″
- Nominal pressure：ANSI 150LB ~ 4500LB
- Applicable temperature：–23℃ ~ +600℃
- Actutor: Handwheel, Electric operated Actutor
- Leakage: zero

Performance parameter

- Type of valve body：Y type a angle of 45 degree
- Valve material：A105 、12Cr1MoV、F22、F316、F91、F92
- Bonnet Type：standard
- Trim
  - integral type：integral surfacing valve seat
  - Replaceble type of trim：valve seat disc, bonnet can be replaced easily, good maintenance performance; trim can be replaced within half an hour
- Flow characteristic：quick opening
- Actuator：hand–operated and motor–driven actutor are available

Valve characteristic

Excellent Packing System

Delan uses antioxidant and high-temperature resistant fillers to ensure optimal sealing and lubrication performance, allowing for easy and effortless operation in a safe environment.

Stellite cobalt–based hard alloy disc

The sealing surface of the disc surfacing hard alloy or using intergral hard alloy as the disc which has excellent comprehensive mechanical properties. Capibility of wear and erosion resistance prolonged the

Up and down guiding ring on the disc

The cavity guided disc has a up and down guiding rings. The top and the bottom of the dics guide direction at the same time which composes of the piston type disc of the body cavity guiding to eliminate valve seizing, surface abrasion , disc vibration and so on during the whole process. The bottom guiding ring of the disc make the fluid to pass it by way of closing to a straight line for eliminating the valve breakdown caused by the side impact effectively.

With best CV value

The structure of gradient stem and the best shape design of the flow passage provide the fluid passed through by way of closing to a straight line which is high cv value and low loss of pressure head.

Sealing surface with special overlaying welding

Hard alloy is overlaying welded on the sealing surface of the valve body which making the valve body to have more compact structure. Connical sealing surface design provides endurable and reliable tight sealing by using small axial force only.

Replaceble trim structure

Replaceble trim structure is optional. valve seat, disc can be replaced quickly which reducing the repair time of the valve sealing surface after it is used in the severe service condition, meanwhile, it prolonged the integral service life of the valve.

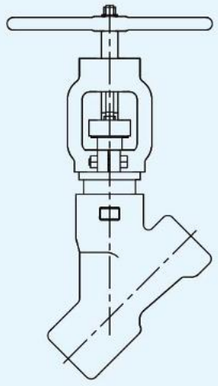
pressure rating and connecting end

nominal diameter		nominal pressure(1b)							
inch	mm	150、300、600、900、1500			2500			3500、4500	
1/2"	15	☆	◇	△	☆	◇	△	☆	◇
3/4"	20	☆	◇	△	☆	◇	△	☆	◇
1"	25	☆	◇	△	☆	◇	△	☆	◇
1-1/4"	32	☆	◇	△	☆	◇	△	☆	◇
1-1/2"	40	☆	◇	△	☆	◇	△	☆	◇
2"	50	☆	◇	△	☆	◇	△	☆	◇
2-1/2"	65	☆	◇	△		◇	△		◇
3"	80		◇	△		◇	△		◇
4"	100		◇	△		◇	△		◇
5"	125		◇	△		◇	△		◇

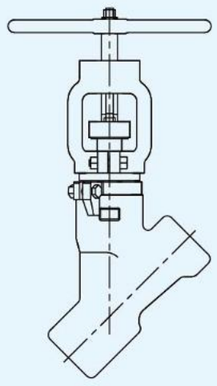
remarks: ☆ Socket welding ◇ butt welding △ Flange

Type of structure

Y-type globe valve has two kind of cavity structure : typeof cavity sealing welding and type of cavity clamp



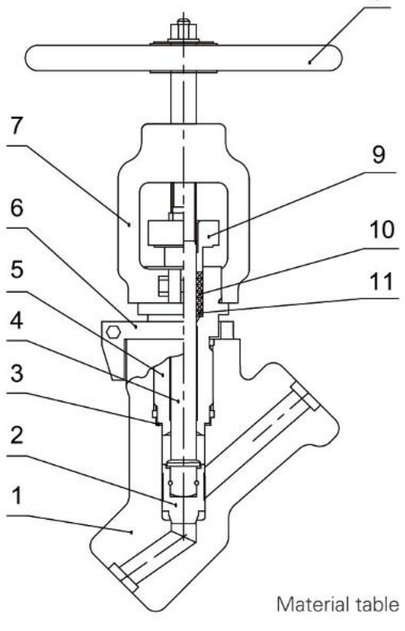
Type of cavity sealing welding



Type of cavity clamp

Material Table

No	Name	Material					
1	valve body	A105+Stellite	12Cr1MoV +Stellite	F22+Stellite	F91+Stellite	F92+Stellite	F316+Stellite
2	disc	Stellite21	Stellite21	Stellite21	Stellite21	Stellite21	Stellite21
3	A seal	Flexible graphite with 316 s.s.wire inside	Flexible graphite with 316 s.s.wire inside	Flexible graphite with 316 s.s.wire inside	Flexible graphite with 316 s.s.wire inside	Flexible graphite with 316 s.s.wire inside	Flexible graphite with 316 s.s.wire inside
4	Stem	410	410	660	660	660	F316
5	packing box	A105	12Cr1MoV	F22	F91	F92	F316
6	clamp	WCB	WCB	WCB	WCB	WCB	WCB
7	yoke	A105	A105	A105	A105	A105	A105
8	handwheel	QT400-18	QT400-18	QT400-18	QT400-18	QT400-18	QT400-18
9	cover board	A105	A105	A105	A105	A105	A105
10	packing	flexible graphite	flexible graphite	flexible graphite	flexible graphite	flexible graphite	flexible graphite
11	packing gasket	304	304	304	304	304	304



Material table

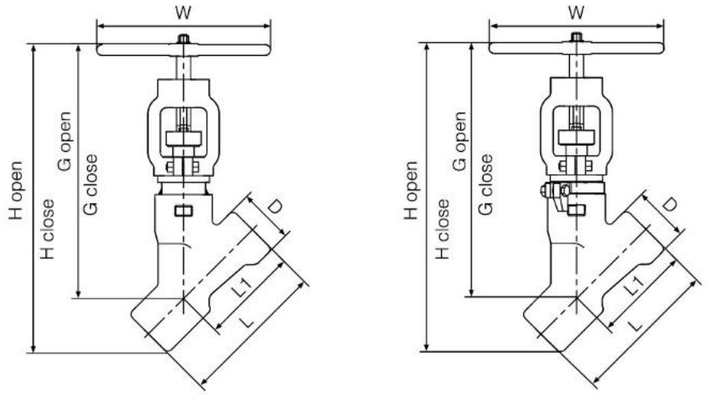
Ordering Model

Model: 2"JY20F2C

Size	Type of vale	Pressure Rating	Connection	Material of sealing surface	Material of valve body	Type of driving
2"	JY	20	F	2	C	
metric system: mm	Y type globe valve	1=150LB	W: butt welding	2: alloy stellite	C: ASTM A105	D:electric driving
British System: Inch		3=300LB	S: Socket welding		V: 12Cr1MoV	
		6=600LB	F: Flange		F22: F22	
		9=900LB			F91: F91	
		20=1690LB			F92: F92	
		30=2680LB			R:316	
		45=4500LB				

External Dimension and weight table

1. Hand-operated globe valve external dimension and weight table



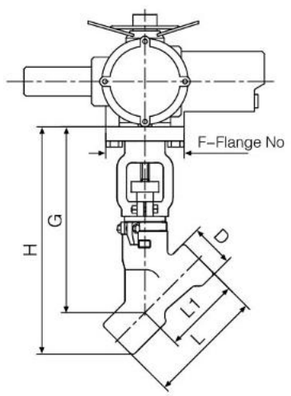
type of cavity sealing welding

type of cavity clamp

nominal Pressure Class	Nominal Diameter		L	D	L1	W	H open	G open	H close	G close	Weight (Kg)
	inch	mm	mm								
150-900lb	1/2"	15	152	60	102	216	375	319	356	300	10
	3/4"	20	152	60	102	216	389	333	370	314	10
	1"	25	152	60	102	216	389	333	370	314	10
	1-1/4"	32	152	60	102	216	389	333	370	314	10
	1-1/2"	40	180	81	122	216	443	374	414	345	16
	2"	50	180	81	122	216	443	374	414	345	16
	2-1/2"	65	272	102	180	363	561	461	523	423	37
	3"	80	272	102	180	363	561	461	523	423	37
	4"	100	325	122	224	406	633	519	582	468	61
	5"	125	368	150	267	432	799	681	748	630	110
1500-4500lb	1/2"	15	152	60	102	216	375	319	356	3ป	10
	3/4"	20	152	60	102	216	389	333	370	314	10
	1"	25	152	60	102	216	389	333	370	314	10
	1-1/4"	32	180	81	122	216	443	374	414	345	16
	1-1/2"	40	180	81	122	216	443	374	414	345	16
	2"	50	272	102	180	363	552	452	523	423	37
	2-1/2"	65	325	122	224	406	620	506	582	468	61
	3"	80	325	122	224	406	620	506	582	468	61
	4"	100	325	122	224	406	633	519	582	468	61
	5"	125	368	150	267	432	799	681	748	630	110

External Dimension and weight table

2. Motor-driven globe valve external dimension and weight table



type of cavity clamp

nominal Pressure Class	Nominal Diameter		L	D	L1	F-Flange No	H close	G close	Weight (excluding electric actuator)
	inch	mm	mm						Kg
150-900lb	1/2"	15	152	60	102	F10	326	270	8.5
	3/4"	20	152	60	102	F10	340	284	8.5
	i"	25	152	60	102	F10	340	284	8.5
	1-1/4	32	152	60	102	F10	340	284	8.5
	1-1/2"	40	180	81	122	F10	384	315	14.5
	2"	50	180	81	122	F10	384	315	14.5
	2-1/2"	65	272	102	180	F14	493	393	32.5
	3"	80	272	102	180	F14	493	393	32.5
	4"	100	325	122	224	F14	552	438	54
	5"	125	368	150	267	F16	750	640	100
1500-4500lb	1/2"	15	152	60	102	F10	326	270	8.5
	3/4"	20	152	60	102	F10	340	284	8.5
	1"	25	152	60	102	F10	340	284	8.5
	1-1/4"	32	180	81	122	F10	384	315	14.5
	1-1/2	40	180	81	122	F10	384	315	14.5
	2"	50	272	102	180	F14	493	393	32.5
	2-1/2"	65	325	122	224	F14	552	438	54
	3"	80	325	122	224	F14	552	438	54
	4"	100	325	122	224	F14	552	438	54
	5"	125	368	150	267	F16	750	640	100