

Your trusted business partner



Pressure Seal Valves

Version: CAT-PSV-2014

Pressure Seal Parallel Slide Gate Valves

1

*Design construction according to API 600, API 6D, ASME B16.34
Testing according to API 598, API 6D
Marking according to MSS SP25*

2

*Outside Screw and Yoke (OS&Y)
Self aligning packing gland in two parts
Welded seats, and pressure seal*

3

*Full stellited seats
Pressure Seal Bonnet
Other design at request
Valves are Full Bore*

4

*Flanges according ASME B16.5 for size 2" to 24"
To ASME B16.47 for size >26"
Butt Welding End according to ASME B16.25
Face to face according to ASME B16.10*

5

*Suggested bevel gear operator for
DN \geq 8" Class 600 and 900
DN \geq 6" Class 1500
DN \geq 4" Class 2500*

6

*For pressure and temperature ratings see material application
in accordance with ASME B16.34*

7

If the medium is acidic, materials meet the NACE MR 0175 or NACE MR 0103

Pressure Seal Parallel Slide Gate Valves are designed in accordance with the latest applicable revisions of API 600, API 6D and ASME B16.34 for classes ANSI 600, 900, 1500 and 2500.

Pressure Seal Parallel Slide Gate Valves are mainly used industrial pipelines as a closure device.

1. The gate valve is one of the most commonly used block valves. It is used mainly fully open or fully closed to block the service in the pipelines rather than control the flow. This product is used in the petrochemical industry, thermal power station, nuclear power station and other high temperature and high pressure services in general industry.

2. Rotate the handwheel in clockwise direction, the disc moves down between the two seats. The springs push the disc halves outward in order to get the primary seal. Increasing the line pressure increases the force on the discs into the seats. This improves the sealing, which is similar with the check valve - the higher of the pressure, the better of sealing.

3. Rotate the handwheel in clockwise direction, then the valve closes, counter-clockwise to open.

4. The operating force required is low, as well as the closing torque. The full opening means no exposure of the gate sealing face when totally opened thus protecting it from erosion.

5. The design of the wedge and seat sealing surface is parallel, which helps avoid pressure lock situation if the service temperature is increasing.

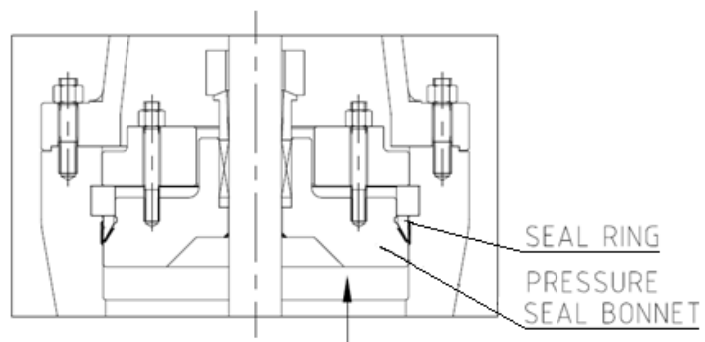
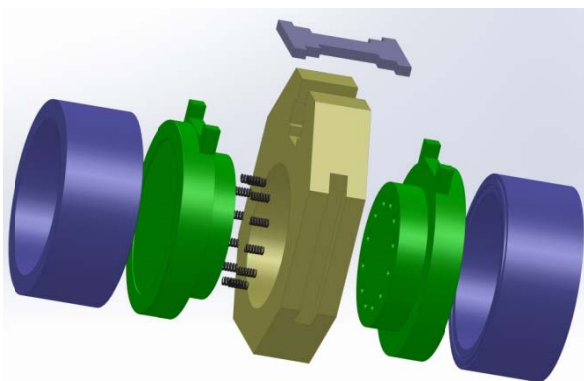
6. The product can be provided with or without the by-pass circuit (it is recommended that valve sizes 6'' or larger have by-pass circuit).

7. When the valve opens, opening the by-pass circuit will reduce the pressure difference across the valve, will make the valve easier to open. When the valve is closed, open the by-pass valve on upstream side to avoid pressure rising abnormally in valve body cavity.

8. This valve should only be used when fully opened or fully closed. If it used partially open, the wedge may cause a vortex, and increase the fluid resistance, causing erosion and vibration.

9. The service inside the body cavity will push the pressure seal bonnet per the above arrow direction. The higher the pressure is, the stronger the propulsive force will be so that the sealing effect between the bonnet and sealing ring will be better. This design is applicable for high pressure valves.

10. The Pressure Seal Parallel Slide Gate Valve is available in both Cast Steel and Forge Steel Body materials as listed in ASME B16.34.



Pressure Seal Parallel

Slide Gate Valves

Product Range

SIZE	CLASS 600	CLASS 900	CLASS 1500	CLASS 2500
2	•	•	•	•
2 1/2	•	•	•	•
3	•	•	•	•
4	•	•	•	•
6	•	•	•	•
8	•	•	•	•
10	•	•	•	•
12	•	•	•	•
14	•	•	•	•
16	•	•	•	•
18	•	•	•	•
20	•	•	•	•
24	•	•	•	•

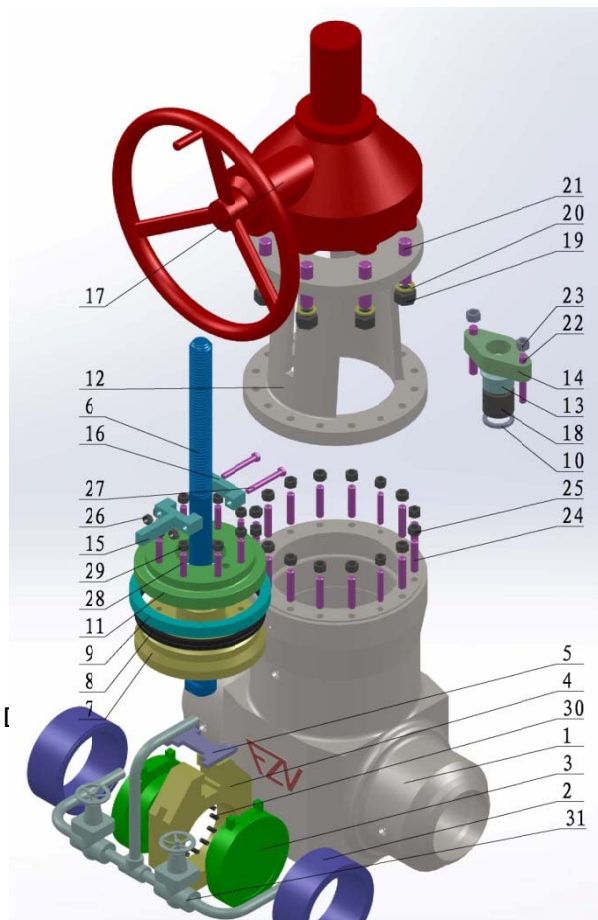
Pressure Seal Parallel Slide Gate Valves

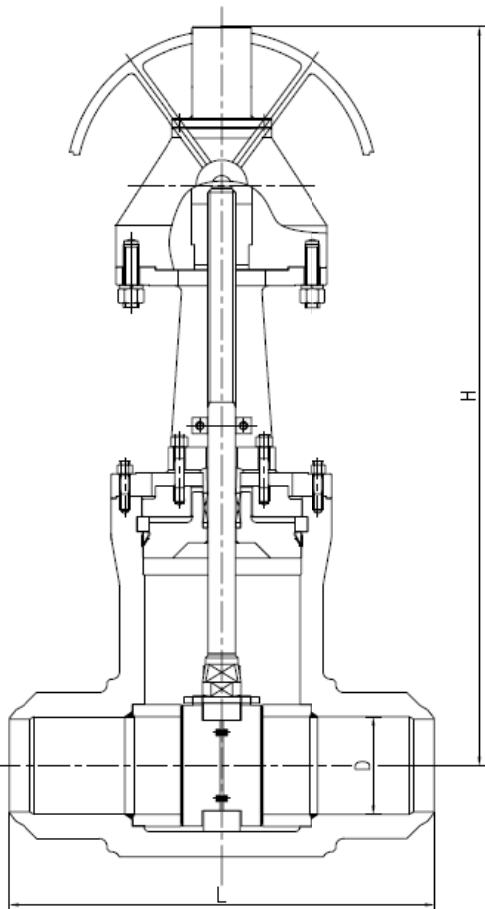
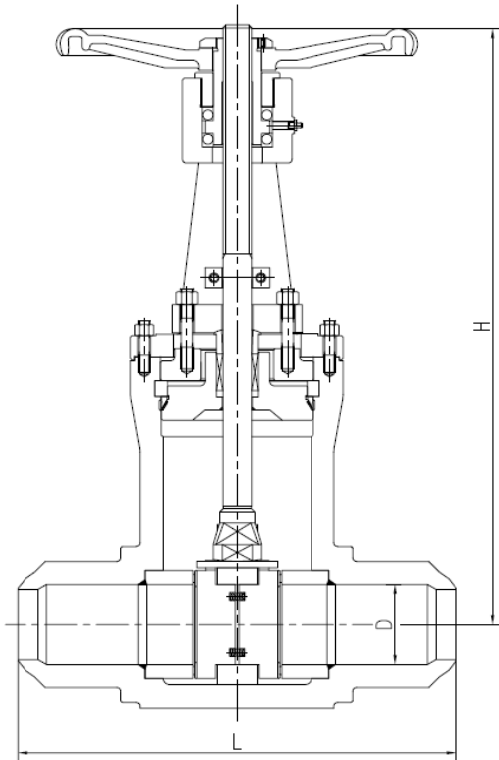
PART LIST

1. Body	2. Seat
3. Gate	4. Gate Frame
5. Limit Plate	6. Stem
7. Bonnet	8. Seal Ring
9. Segmented Ring	10. Packing Ring
11. Support Feet	12. Yoke
13. Gland Ring	14. Gland Flange
15. Indicator I	16. Indicator II
17. Driving device	18. Packing
19. Nut	20. Spring Washer
21. Bolt	22. Bolt
23. Nut	24. Bolt
25. Nut	26. Nut
27. Bolt	28. Bolt
29. Nut	30. Spring
31. By-pass Line	

Note: I

size below 4" could be without by-pass or some other kind of by-pass, it could be decided after negotiation between customer and FZV.





CLASS	NPS (in)	D (mm)	L (Long pattern) (mm)	L (Short pattern) (mm)	H (mm) (Ref.)
600	2	49	292	178	353
	2 1/2	62	330	216	447
	3	74	356	254	533
	4	100	432	305	720
	6	150	559	457	1080
	8	201	660	584	1240
	10	252	787	711	1340
	12	303	838	813	1770
	14	334	889	889	1890
	16	385	991	991	1980
	18	436	1092	1092	2270
	20	487	1194	1194	2495
24	589	1397	1397	3015	
900	2	49	368	216	353
	2 1/2	62	419	254	453
	3	74	381	305	540
	4	100	457	356	730
	6	150	610	508	1170
	8	201	737	660	1460
	10	252	838	787	1966
	12	303	965	914	2070
	14	322	1029	991	2210
	16	373	1130	1092	2400
	18	423	1219	1219*	2630
	20	471	1321	1321*	2820
24	570	1549	1549*	3230	
1500	2	49	368	216	355
	2 1/2	62	419	254	460
	3	74	470	305	540
	4	100	546	406	750
	6	144	705	559	1137
	8	192	832	711	1442
	10	239	991	864	1630
	12	287	1130	991	1930
	14	315	1257	1067	2110
	16	360	1384	1194	2300
	18	406	1537	1092*	2450
	20	454	1664	1194*	2590
24	546	1943	1397*	3180	
2500	2	42	451	279	360
	2 1/2	52	508	330	460
	3	62	578	368	54
	4	87	673	457	626
	6	131	914	610	1150
	8	179	1022	762	1350
	10	223	1270	914	1405
	12	265	1422	1041	1600
	14	292	1575*	991*	1705
	16	333	1676*	1245*	2055
	18	374	1778*	1118*	2398
	20	419	1880*	1219*	2528
24	511	2032*	1397*	2900	

Note: H is the reference size, subject to actual valves.

The Business Partner You Trust



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 Please consider the environment before printing this product introduction.

 Safety is a deeply held value, integral to honesty, integrity and respect for people.
Goal Zero means relentlessly pursuing no harm to people and no significant incidents.