

HIGH PRESSURE VALVES



PRESSURE SEAL BONNET DESIGN

VALCO GROUP



Dedication to delivery

VALCO GROUP FRANCE

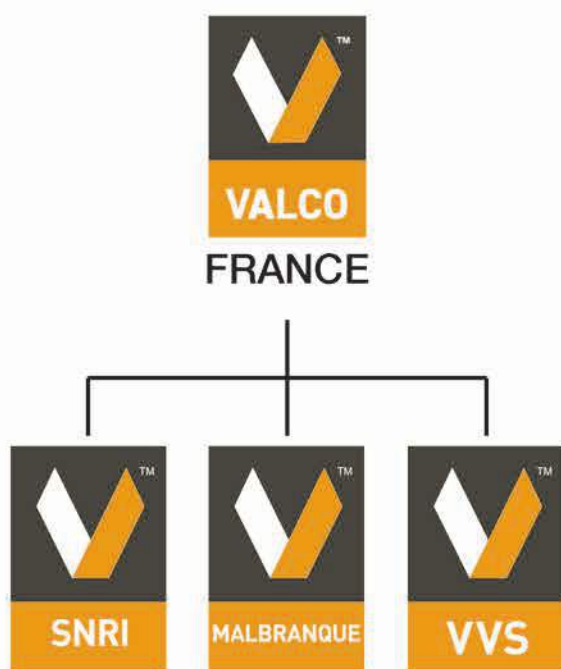
SNRI, MALBRANQUE, VALCO VALVES SERVICES

3 Brands :

> SNRI & MALBRANQUE producer of valves

> VVS (Valco Valves Services) : our in-house & on-site maintenance.

One unique factory based in Ruffec, South West France
(160 km Bordeaux, 400 km Paris).



SNRI & MALBRANQUE are recognised as a worldwide valves manufacturer
Valco Group France develops and produces valves for three main markets :

POWER / NUCLEAR



OIL & GAS / PETROCHEMICAL



MARINE / LNG



A TRUE VALVE MANUFACTURER

MACHINING CENTRES



Our expertise extends from the design to the testing of the valves.

Range of production :

- > Gate, Globe, Check and safety valves
- > Class 150# to 2500# and ISO standards

The Sales Department is always attentive to the needs of our customer.

An experienced Engineering Department of about ten engineers and technicians who work every day to improve our products to meet the customer requirements.

A Production Engineering Department.

Efficient production tools :

- > Machining centres
- > Numerical and conventional machines
- > Welding deposit stations
- > Hydraulic test benches
- > Cryogenic test benches
- > Fugitive Emission test capability
- > Sandblasting / Painting
- > Packaging and Shipping

The Control Department :

- > Three-dimensional control
- > X Ray (subcontracted)
- > P.M.I
- > Dye penetrant
- > Hardness test

All that you need, we supply.

WELDING DEPOSIT



TESTS



SERVICES SUPPORT VALCO VALVES SERVICES : VVS



Our Services do not stop with the completion of the installation and commissioning of the valve package according to the requirements of shipyards. To maintain the high performance of your valves, our dedicated Servicing company **VALCO VALVES SERVICES** is able to propose a specific Support plan according to your maintenance policy.

Coordinated from our **SNRI** sales offices, the **VVS** team can operate and assist you along the way with original spare parts (to ensure valid classification type approval).

Our Service Engineers are fully trained for the valves Maintenance and continuously work for industrial applications within difficult environments (Petroleum and Offshore platforms, Nuclear power plants) Their polyvalence and expertise allow them to perform preventive and curative maintenance for any types of valves and actuators, including butterfly valves and control valves. We are also able to offer training services, **VALCO VALVES SERVICES** is recognized as an official Training Centre.

Also available is a power valve serviceability review and replacement, including retrofit or overhaul of the main components.

We are able to propose a complete revamping program, including replacement of obsolete actuators with the latest designs.

AN EFFICIENT TEAM AT YOUR SERVICE



VVS factory is located next to SNRI

Workshop : 1500 m²

Team : 50 employees

Many production tools

Training centre :

Module 1 : Introduction to valves technologies

Module 2 : Appropriate valves selection

Module 3 : Quality / Control

Module 4 : Advanced quality / control

Module 5 : Advanced appropriate valves selection

Module 6 : Maintenance

Module 7 : Advanced quality / Control or specific valves

Modules S1 / S2 : Safety Valves

SNRI and VVS work together to meet the customers needs

HIGH PRESSURE VALVES FOR OIL & GAS INDUSTRIES POWER & COGENERATION PLANTS



WEDGE AND PARALLEL SLIDE GATE VALVES :

Design	ASME B16-34 / EN 12516 ... Flanged or Butt Welded
Size range	2" up to 36", according to your request
Pressure rating	Class 900 - 1500 - 2500#
Temperature range	up to 575 °C
Materials	ASTM / EN ...



GLOBE VALVES :

Design	ASME B16-34 / EN 12516 ... Flanged or Butt Welded
Size range	2" up to 30", according to your request
Pressure rating	Class 900 - 1500 - 2500#
Temperature range	up to 575 °C
Materials	ASTM / EN ...



CHECK VALVES :

Design	ASME B16-34 / EN 12516 ... Flanged or Butt Welded
Size range	2" up to 42", according to your request
Pressure rating	Class 900 - 1500 - 2500#
Temperature range	up to 575 °C
Materials	ASTM / EN ...

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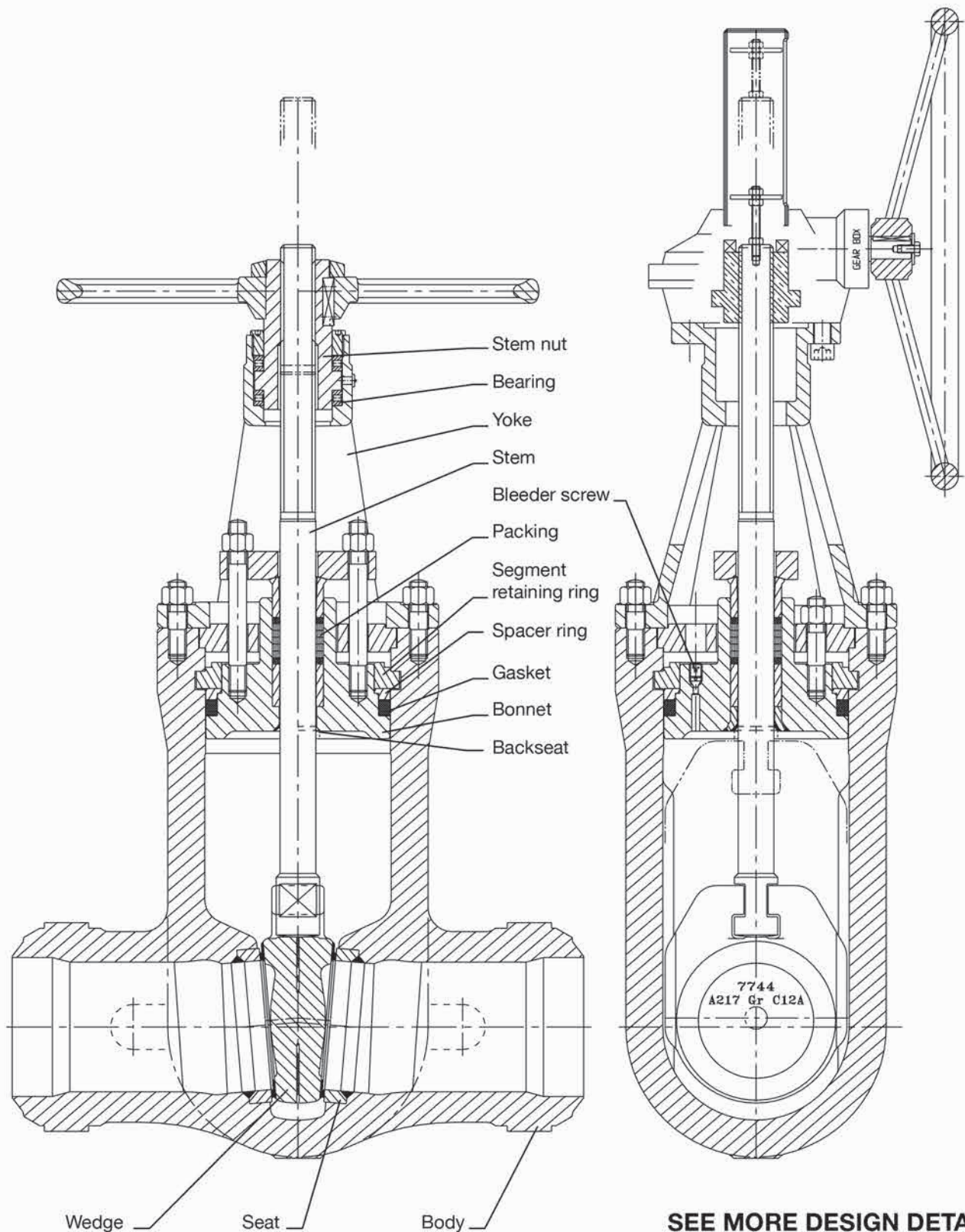
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FLEXIBLE WEDGE GATE VALVE



SEE MORE DESIGN DETAILS :

- > Wedge (Gate and Slide)
- > Pressure seal bonnet gasket
- > Yoke and Bleeder screw
- > Packing

FLEXIBLE WEDGE TYPE "RENFLEX"

DESIGN :

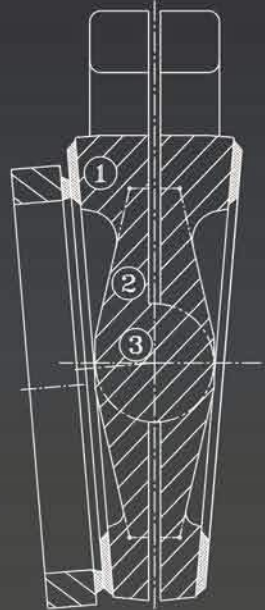
Reinforced flexible wedge. Sealing ensured by the elasticity of the wedge

ADVANTAGES :

Sealing ensured whatever the temperature conditions
Easy closing and opening due to the low friction design
Stellite thickness over 2,5 mm to meet your requirements
This wedge can be easily repaired
Used on all applications (Petrochemical, Energy, Gas, cryogenic)

DESCRIPTION :

- > Permanent contact with the seat, (Area 1) : Flat and rigid contact surface to ensure good sealing
- > Flexible characteristics, "spring effect", (Area 2) : Split wedge to ensure good flexibility, deformations due to thermal expansion are compensated.
- > Swiveling characteristics, (Area 3) : Perfect contact between the seat and the wedge made possible by the swiveling functionality.



RECOMMENDATIONS :

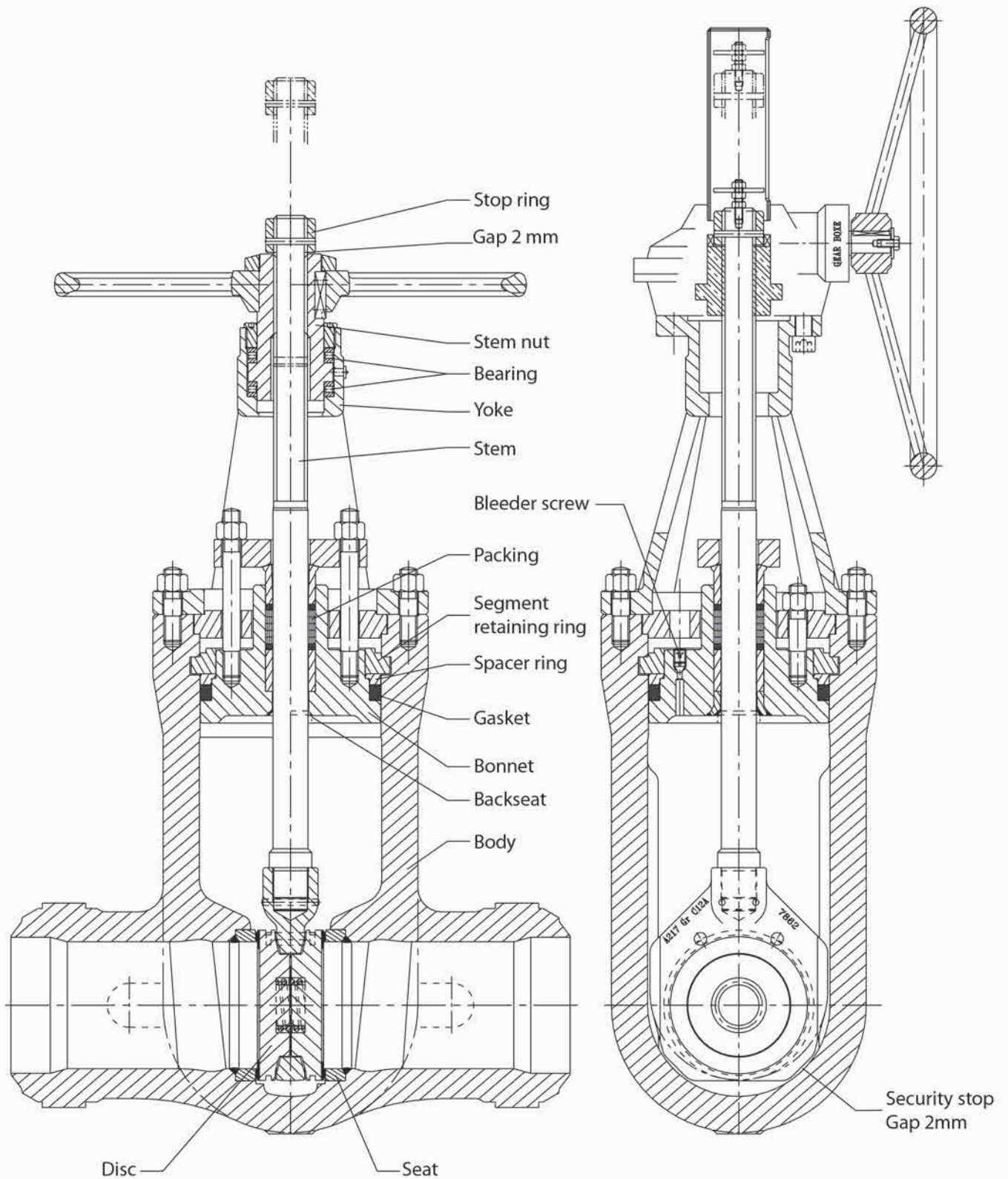
To ensure a good operation, motorized vaves shall be stopped either in the opening or closing position.

SOME EXAMPLES THAT DEMONSTRATE OUR EFFICIENCY :

- > Power station : ENRON Teesside (England), KEPCO Yonghung (Korea), Alstom Medupi (South Africa), Kusile & Shoaiba (Saudi Arabia)
- > Furnace : EXXON KEMMYA (S.A), CHIYODA (Singapore)
- > Boiler, Cogeneration : CMI (...)
- > Petrochemical : SHELL, TOTAL, SONATRACH OURHOUD, UDHE SAFCO ... PETROFAC, BECHTEL JAMNAGAR ...
- > Gas : AIR LIQUIDE IPG (Singapore HP cl 600 to 2500#)



PARALLEL SLIDE GATE VALVE



SEE MORE DESIGN DETAILS :

- > Wedge (Gate and Parallel)
- > Pressure seal bonnet gasket
- > Yoke and Bleeder screw
- > Packing

PARALLEL SEATS

DESIGN :

Reinforced disc :

The force applied on the disc permits a good sealing on the opposite side.

ADVANTAGES :

Very good adaptation to temperature variations.

Free expansion of the internal parts : stem, disc, therefore no jamming.

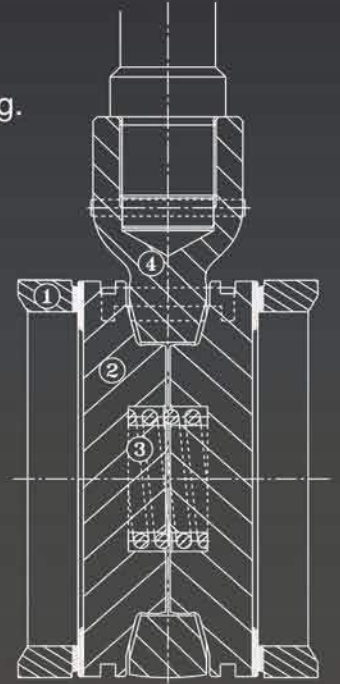
Stellite deposit can be over 2,5 mm.

The disc can be easily repaired.

Steam services (Nuclear and conventional plants).

DESCRIPTION :

- > Parallel slide discs (2) and seats (1) :
The contact between the discs and the seats is ensured by a spring (3) generally made of inconel.
- > The collar (4) guides the discs (2) during the opening and closing procedures.
- > The stroke is limited by two security stops to prevent any damage on the discs.



RECOMMENDATIONS :

To ensure a good operation, motorized valves shall be

stopped by switches in the opened or closed position.

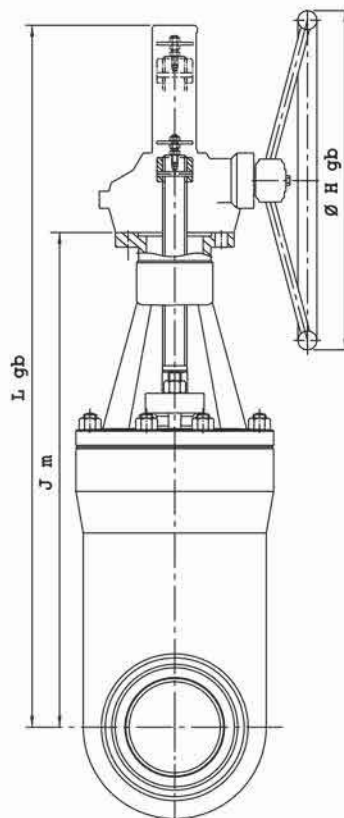
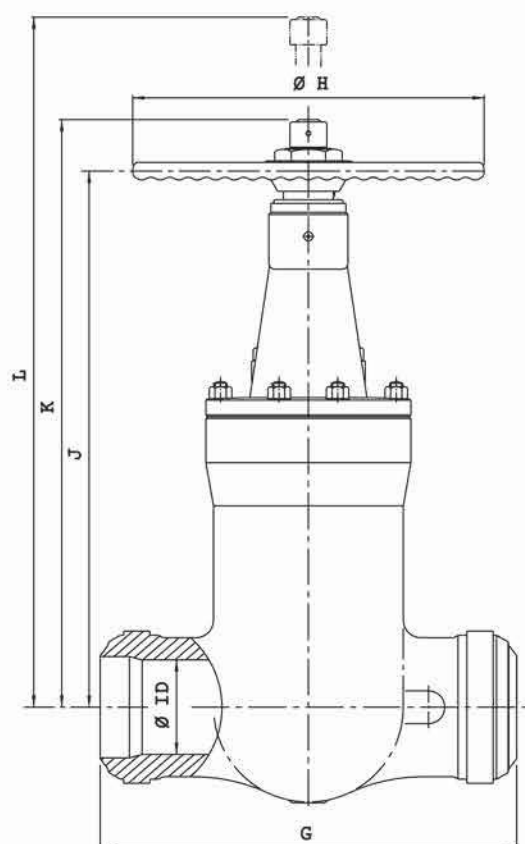
In the closed position, the collar (4) is not in contact with the body.

SOME EXAMPLES THAT DEMONSTRATE OUR EFFICIENCY :

- > Power station : EDF France, EDF Vietnam, Alstom, ...
- > Furnace :
- > Boiler, Cogeneration : CMI (...)
- > Petrochemical : SHELL, TOTAL, ...
- > Gas



WEDGE OR PARALLEL SLIDE GATE VALVES DIMENSIONS



VALVES CLASS 600 # :

Only per request, the PSB design is not recommended for this pressure level.

VALVES CLASS 900

Size								Gearbox				
Inch	mm	Ø ID	G	H	J	K	L	Jm	Hgb	Lgb	Weight	CV
2"	50	45	216	350	454	551	604	448	75	130		
2 1/2"	65	66	254	500	508	605	677	496			80	240
3"	80	66	305	500	508	605	677	496			84	300
4"	100	90	356	500	601	698	794	589			110	660
5"	125	110	432	500	695	804	922	686			120	1200
6"	150	133	508			778	924	648	300	968	230	1760
8"	200	173	660			953	1134	790	300	1160	395	3360
10"	250	216	788			1221	1455	1054	400	1510	647	7500
12"	300	256	914			1310	1585	1150	560	1662	1145	11900
14"	350	282	991			1446	1741	1252	560	1920	1370	14400
16"	400	322	1092			1535	1882	1359	560	2077	1795	18950
18"	450	377	1219			1765	2162	1538	560	2337	2144	26000
20"	500	402	1321			1912	2331	1655	560	2454	2694	29700
22"	550	480	1321			2325	2831	2002	710	2989	3558	42300
24"	600	480	1549			2325	2831	2002	710	2989	3793	42300

VALVES CLASS 1500

Size								Gearbox				
Inch	mm	Ø ID	G	H	J	K	L	Jm	H gb	L gb	Weight	CV
2"	50	45	216	350	454	551	604	448			75	130
2 1/2"	65	66	254	500	508	605	677	496			80	240
3"	80	66	305	500	508	605	677	496			84	300
4"	100	83	406	500	587	686	779	574			117	560
5"	125	125	483			826	959	715	300	1035	265	1020
6"	150	125	559			826	959	715	300	1035	270	1550
8"	200	162	711			1043	1215	876	560	1282	495	2940
10"	250	199	864			1284	1504	1075	560	1537	835	6700
12"	300	238	991			1327	1587	1092	560	1604	1445	9170
14"	350	262	1067			1390	1670	1180	560	1798	2120	12460
16"	400	300	1194			1587	1910	1340	560	2039	2594	16430
18"	450	336	1346			1624	1986	1361	560	2163	2743	20600
20"	500	376	1473			1905	2310	1651	710	2538	4168	26000
22"	550	450	1473			2280	2750	1965	710	2953	5430	37300
24"	600	450	1549			2280	2750	1965	710	2953	5550	37300

Valves Class 2500

Size								Gearbox				
Inch	mm	ØID	G	H	J	K	L	Jm	Hgb	Lgb	Weight	CV
2"	50	36	279	350	417	514	553	410			60	80
2"1/2	65	53	330	500	489	592	650	477			82	160
3"	80	53	369	500	489	592	650	477			85	190
4"	100	66	457	500	570	683	755	560			133	300
5"	125	102	533			923	1044	762	400	1124	465	600
6"	150	102	610			923	1044	762	400	1124	495	1020
8"	200	133	762			1016	1165	838	560	1250	685	1760
10"	250	168	914			1280	1467	1073	400	1600	820	3160
12"	300	199	1042			1398	1618	1209	560	1786	1734	6390
14"	350	219	1118			1428	1670	1215	630	1868	2294	7750
16"	400	250	1245			1553	1820	1338	630	1991	3594	11340
18"	450	282	1397			2030	2338	1403	630	2155	4343	14400
20"	500	312	1366			1860	2210	1580	630	2417	4966	17660
22"	550	376	1366			2075	2500	1775	800	2781	8470	26000
24"	600	376	1600			2075	2500	1775	800	2781	8870	26000

EXAMPLES OF GATE VALVES WITH LINEAR ACTUATORS

GAS APPLICATION :

Valves size : 10" Class 1500 #
HAMWORTHY COMBUSTION project



FURNACE APPLICATION :

Valves size : 20" Class 2500 #
CHIYODA Singapore project

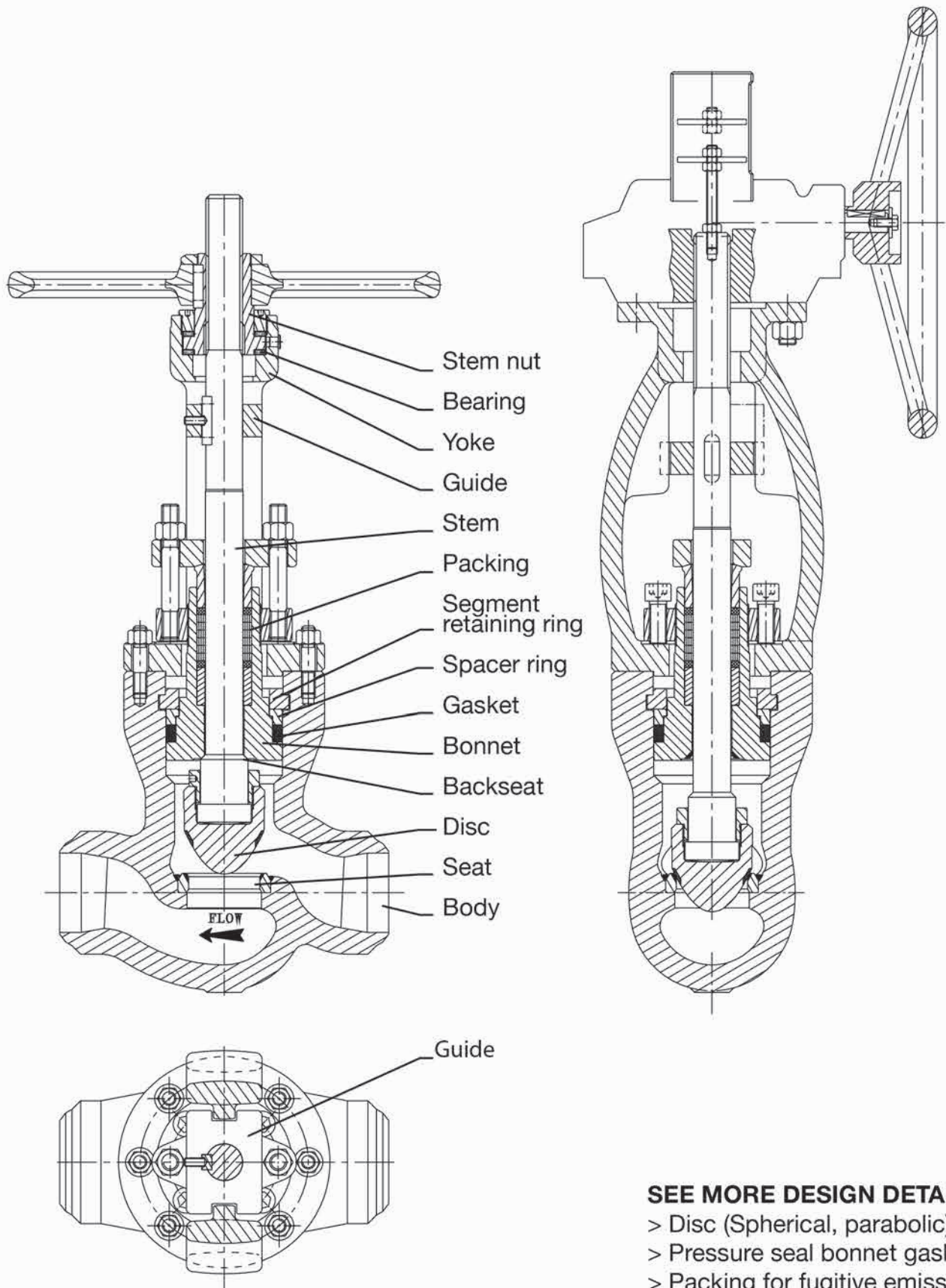


POWER APPLICATION :

Valves size : 18" Class 900 #
ALSTOM project



GLOBE VALVE SIZE 2"- 3"- 4"



SEE MORE DESIGN DETAILS :

- > Disc (Spherical, parabolic)
- > Pressure seal bonnet gasket
- > Packing for fugitive emissions
- > Live loading device

DESIGN AND DISC DETAIL

DESIGN :

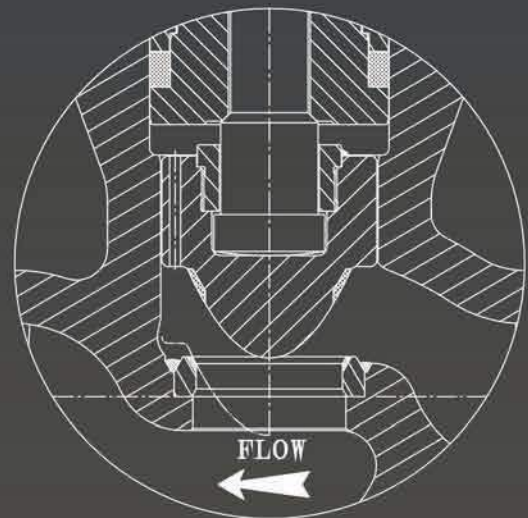
Non rotative rising stem, parabolic disc as standard.

ADVANTAGES :

Robust, swivelling disc with parabolic form for more precise flow control.
Direction of flow over the disc, sealing ensured regardless of the temperature variations.

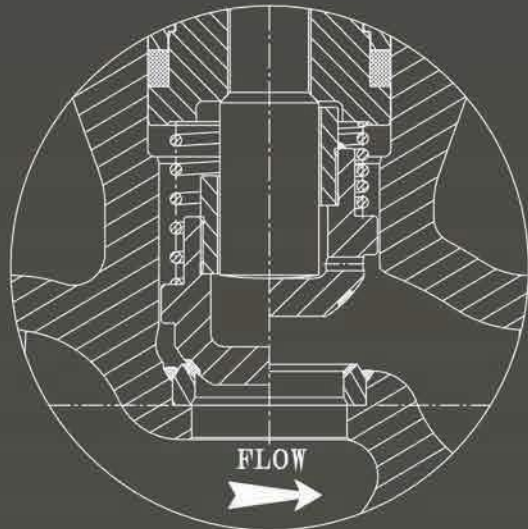
GUIDED DISC DETAIL :

- > For severe service conditions.
- > Disc guided within the body, reduces disc vibrations.
- > Equalizing device by hole thru the disc.
- > The guiding can be stellited as an option.

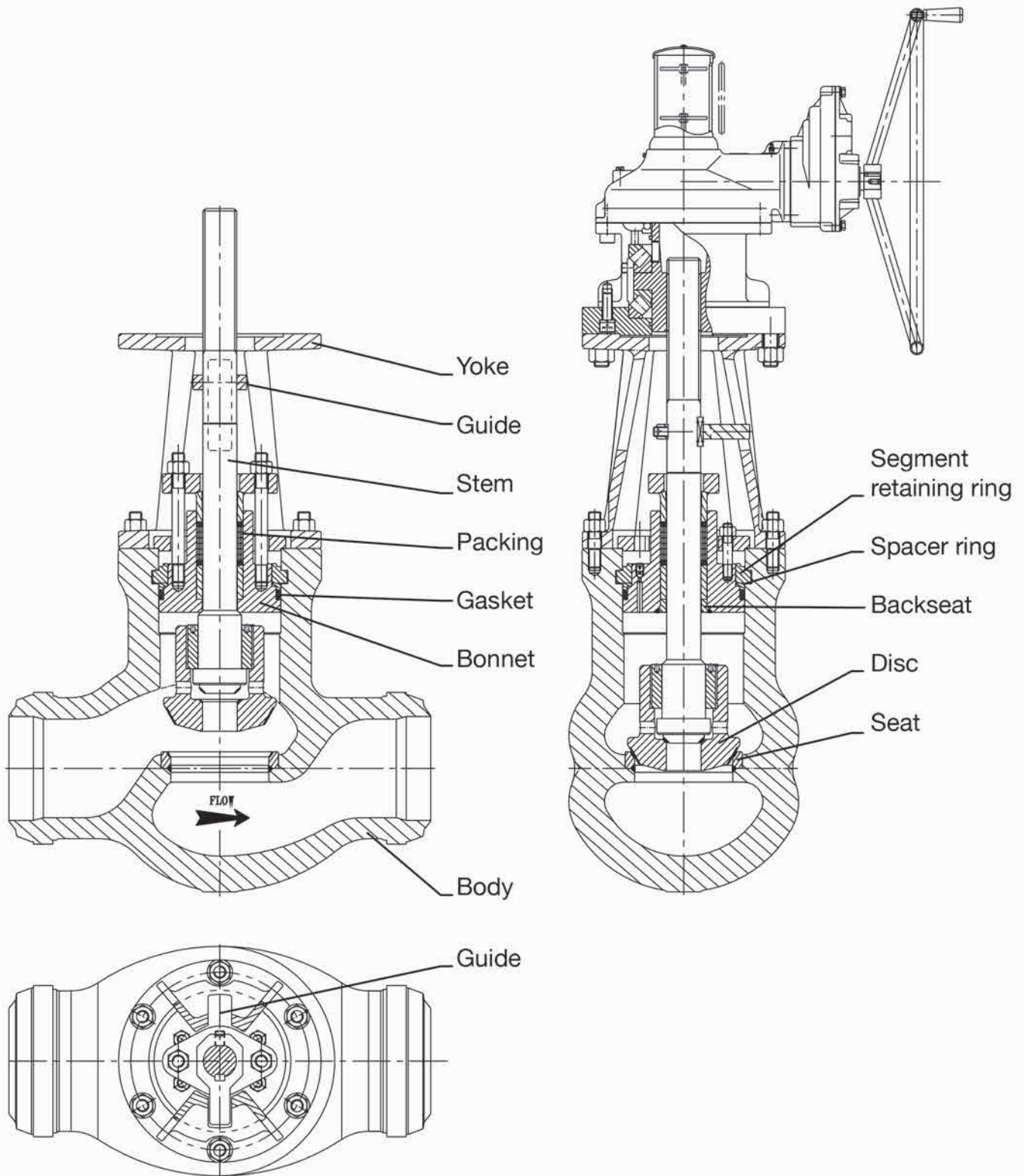


ALTERNATIVE, STOP PISTON CHECK VALVE :

- > The disc can be stopped in closed position.
- > Closure facilitated by preloaded spring.
- > Disc guided within the body and by the stem.
- > The guiding can be stellited as an option.



GLOBE VALVE SIZE 6" and higher



SEE MORE DESIGN DETAILS :

- > Disc (Spherical, parabolic)
- > Pressure seal bonnet gasket
- > Yoke and Bleeder screw
- > Packing

INTERNAL BYPASS DEVICE

DESIGN :

Non rotative rising stem, parabolic disc with equalizing device by means of an internal by-pass.

ADVANTAGES :

Low opening torque achieved by internal by-pass device, lower actuator sizing.

OPERATING :

The internal bypass is opened with the internal rising of the stem.

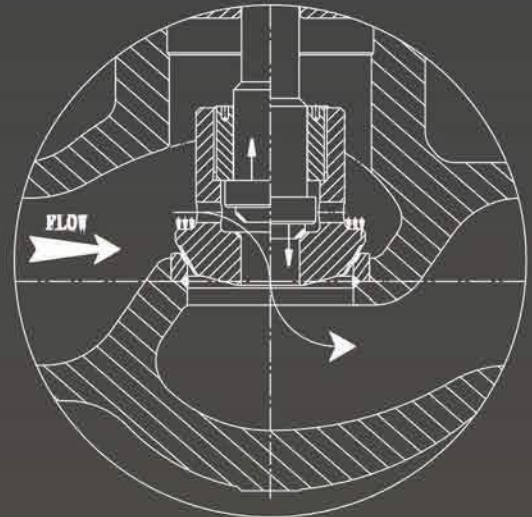
The contact between the seat and the disc is ensured by the pressure.

Continued rising of the stem , will open the valve.

The inlet pressure decreases rapidly at the opening of the bypass, so the opening operation is easier.

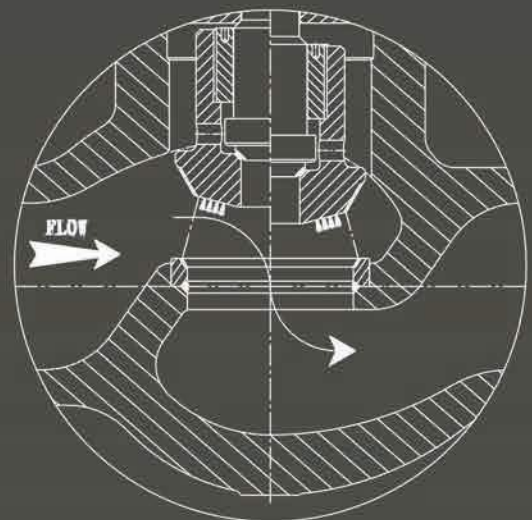
BYPASS DETAILS :

- > Bypass size > 1".
- > The disc is still in contact with the seat.

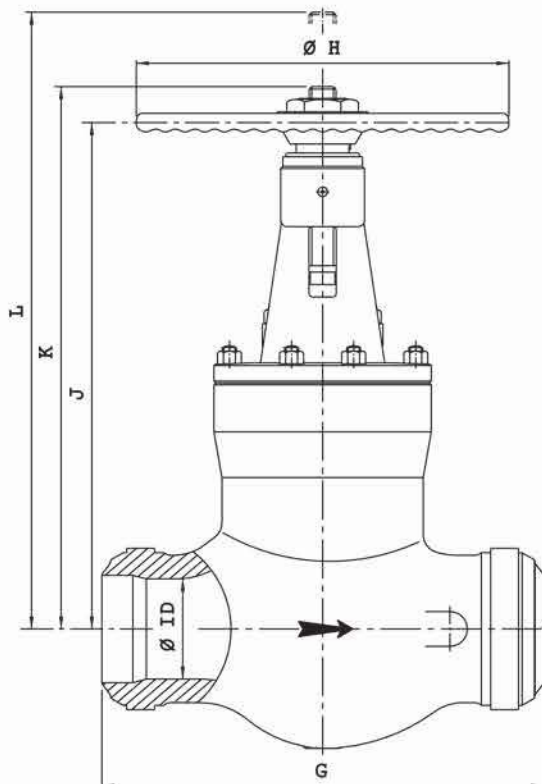


RATING FLOW :

- > Whatever the adjusted position, the disc is still in contact with the stem head.



GLOBE VALVES DIMENSIONS



VALVES CLASS 600 # :

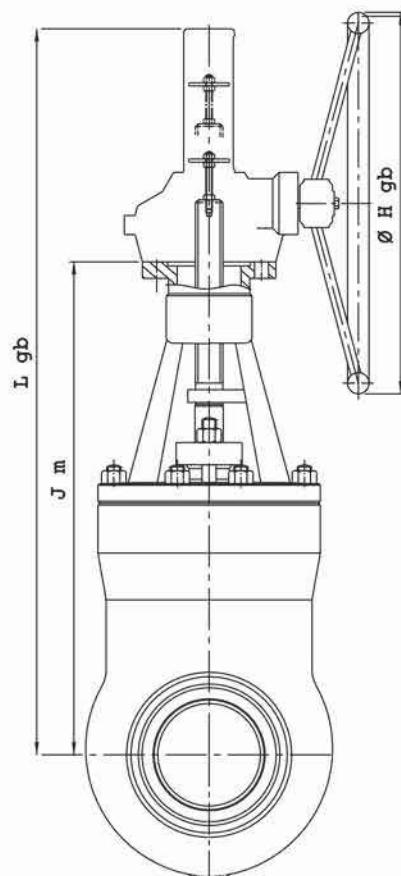
Only per request, the PSB design is not recommended for this pressure level.

VALVES CLASS 900

Size								Gearbox			Weight	CV
Inch	mm	Ø ID	G	H	J	K	L	Jm	H gb	L gb		
2"	50	50	369	350	508	547	578				72	50
2 1/2"	65	66	305	400	564	612	647	547			80	50
3"	80	66	305	400	564	612	647	547			80	85
4"	100	90	356	500	600	644	696	574			105	160
5"	125	90	432	500	600	644	696	574			110	160
6"	150	133	610			768	831	632	400	888	385	350
8"	200	172	737			734	804	634	400	1052	410	595
10"	250	242	838			960	1072	820	560	1288	733	920
12"	300	280	965			1109	1226	965	630	1517	1205	1470
14"	350	280	1092			1109	1226	965	710	1517	1263	2426
16"	400	280	1092			1109	1226	965	710	1517	1263	2426

VALVES CLASS 1500

Size								Gearbox			Weight	CV
Inch	mm	Ø ID	G	H	J	K	L	Jm	H gb	L gb		
2"	50	50	369	350	508	547	578				72	50
2 1/2"	65	66	305	400	564	612	647	547			80	50
3"	80	66	305	400	564	612	647	547			80	85
4"	100	90	406	500	600	644	696	574			115	160
5"	125	90	483	500	600	644	696	574			120	160
6"	150	133	705			726	790	632	560	1000	450	350
8"	200	162	832			896	978	790	630	1239	714	515
10"	250	202	864			1045	1146	890	630	1442	943	805
12"	300											
14"	350											
16"	400											



VALVES CLASS 2500

Size								Gearbox			Weight	CV
Inch	mm	Ø ID	G	H	J	K	L	Jm	H gb	L gb		
2"	50	46	279	500	623	667	700	597			105	50
2 1/2"	65	46	330	500	623	667	700	597			110	50
3"	80	50	369			690	722	610	300	830	138	50
4"	100	66	457			712	755	631	400	887	167	85
5"	125	83	533			673	723	579	500	873	245	139
6"	150	100	610			743	799	649	630	905	535	195
8"	200	133	762			800	879	672	710	1121	719	350
10"	250	168	914			1048	1148	895	710	1350	1245	555
12"	300	198	1041			1305	1465	1145	710	1665	1820	770
14"	350											
16"	400											
18"	450	314	1397			1430	1589	1250	710	1700	3720	1940

EXAMPLES OF SPECIAL GLOBE VALVES

POWER APPLICATION :

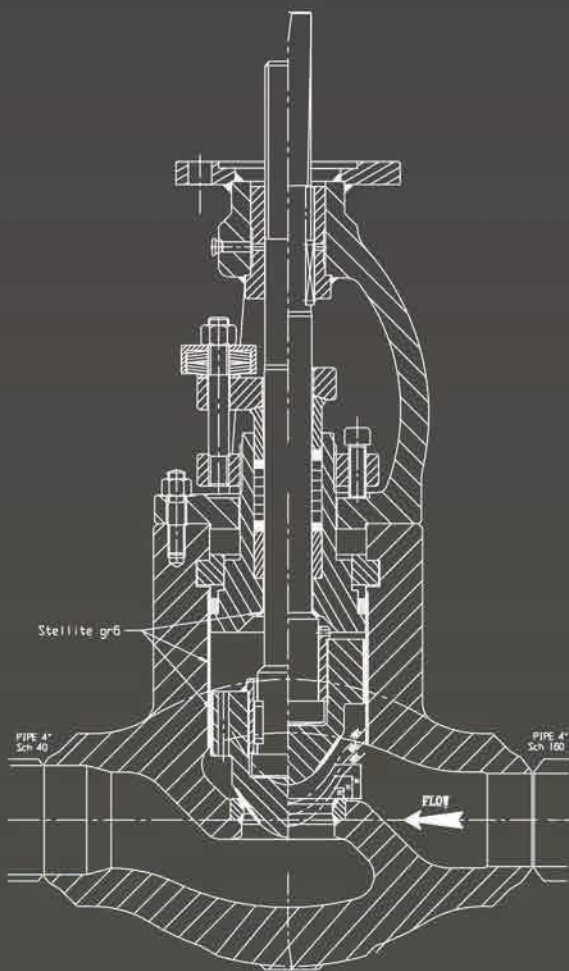
Valves size : 4" Class 2500 # " SKY VALVE "

Service : Steam 576°C / 152 b

Used to adjust steam pressure on boiler

Body guide and disc with stellite overlay

CMI Project : MARMARA , TURKEY 1998



MARINE APPLICATION :

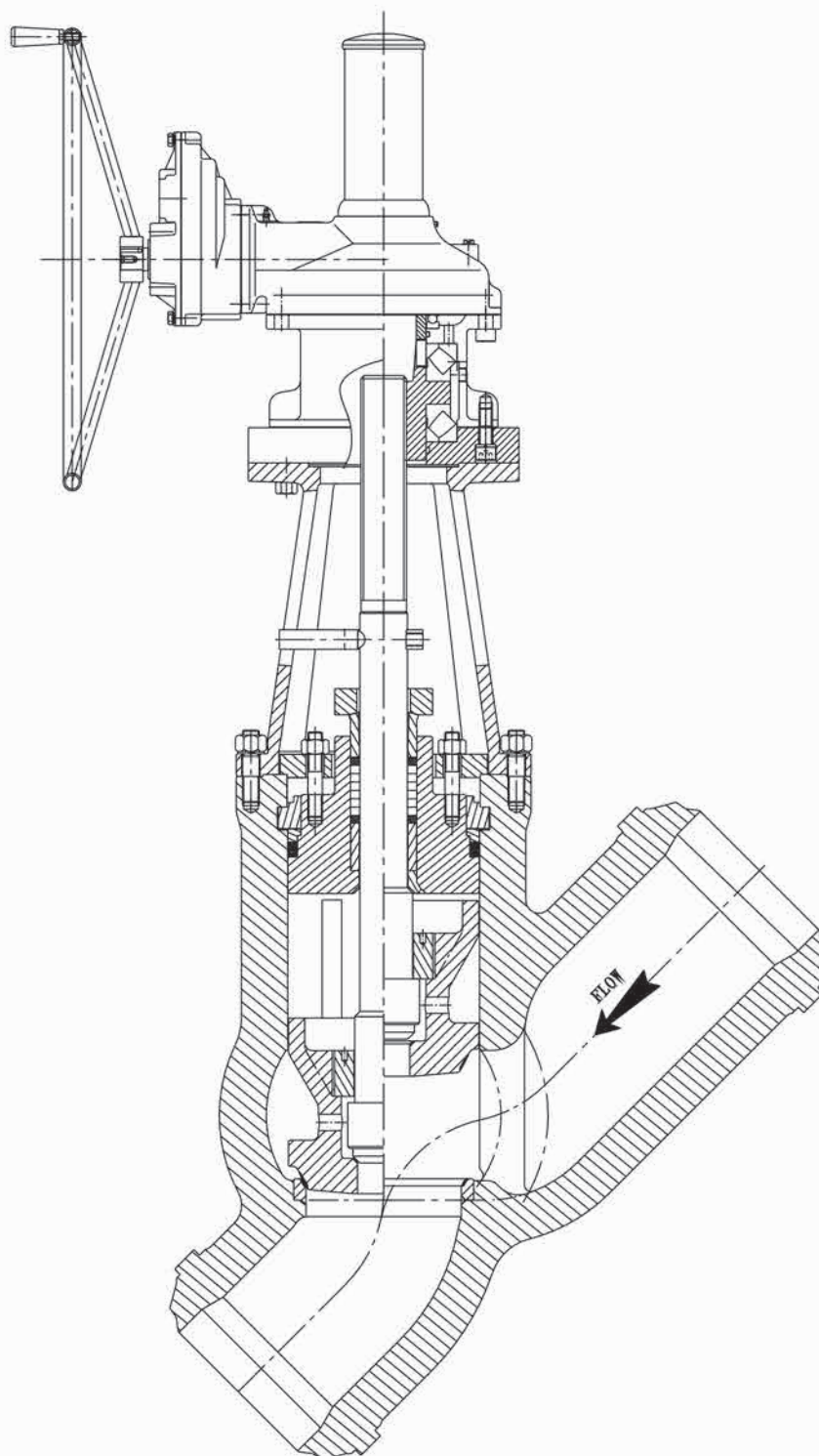
Valves size : 16" Class 900 #,

Hydraulic actuator



GLOBE VALVES AND PISTON STOP CHECK VALVES “Y” PATTERN

Example of Y globe valve : 14” CI 2500 # for Power application.
Guided disc with internal bypass, seat and disc with stellite gr6 overlay.



GLOBE VALVES AND PISTON STOP CHECK VALVES " Y " PATTERN

Examples of "Y" stop check valves :

Size : 3" CI 1500#



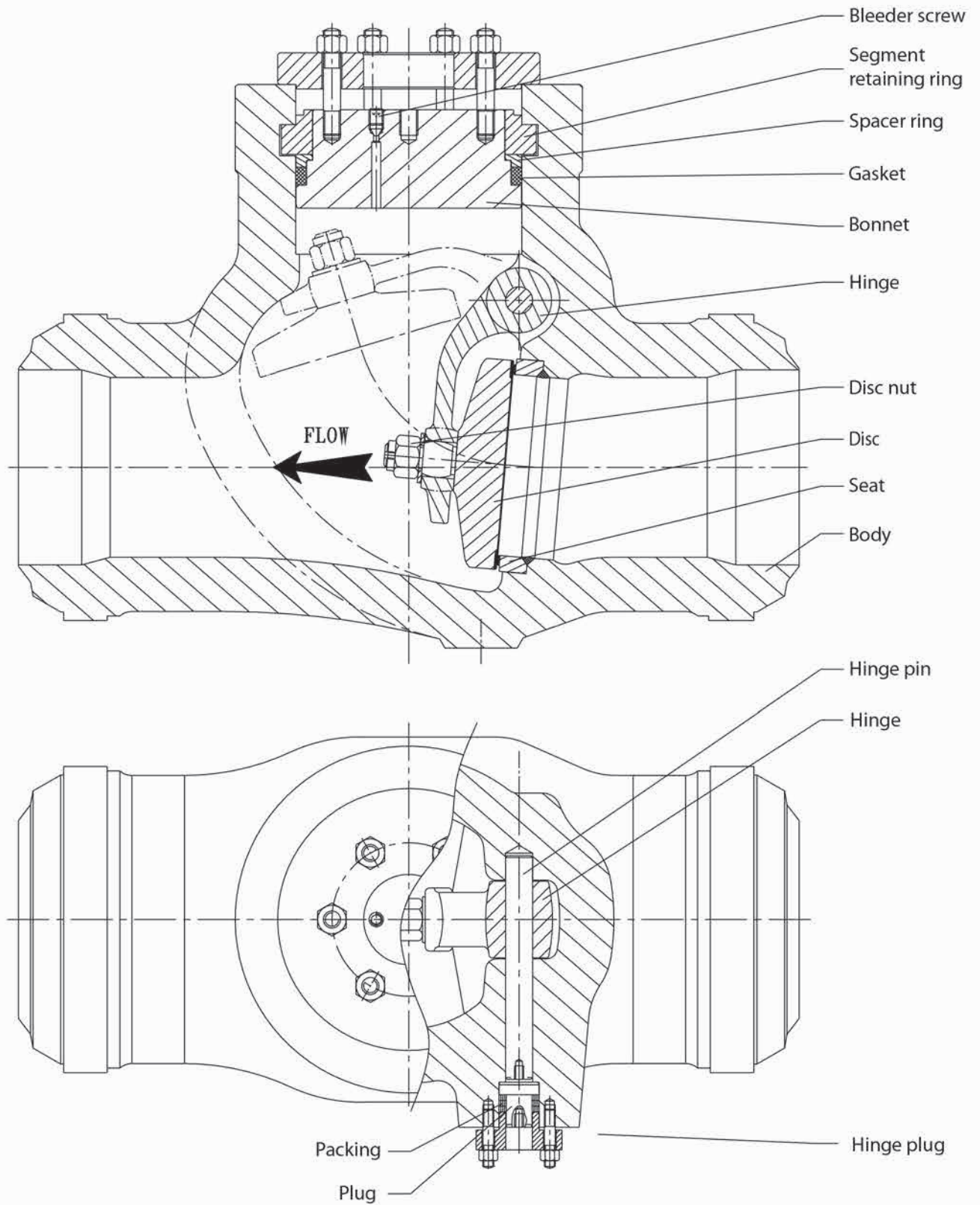
Size : 18" CI 1500#



Size : 14" CI 2500#



SWING CHECK VALVE



SEE MORE DESIGN DETAILS :

- > Bonnet sealing
- > Hinge pin sealing
- > Bleeder screw

DESIGN AND DETAILS

DESIGN :

Inclined seat, full port opening , bleeder screw, pressure seal hinge plug, secure disc nut.

ADVANTAGES :

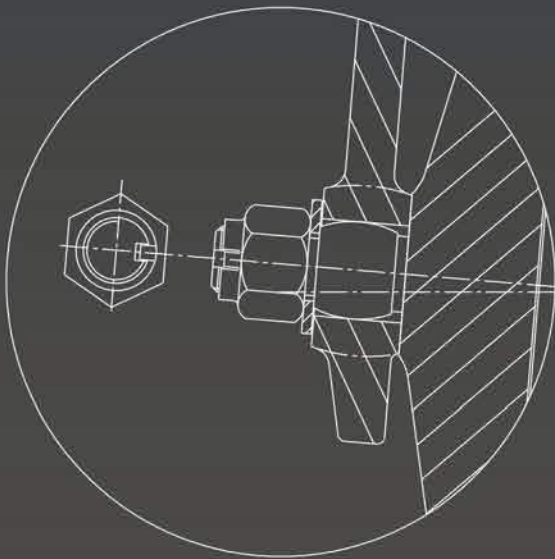
Full opening possible, less pressure drop.

Pressure seal bonnet and plug pressure seal for greater safety.

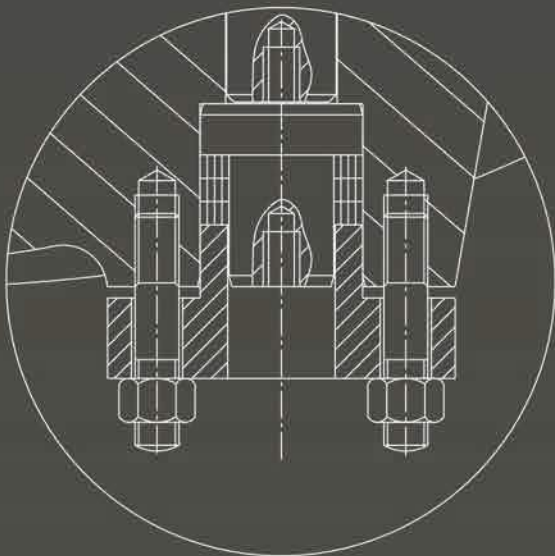
Seat and disc with stellite overlay thickness of more than 2,5 mm.

Bonnet with bleeder screw to bleed the valve.

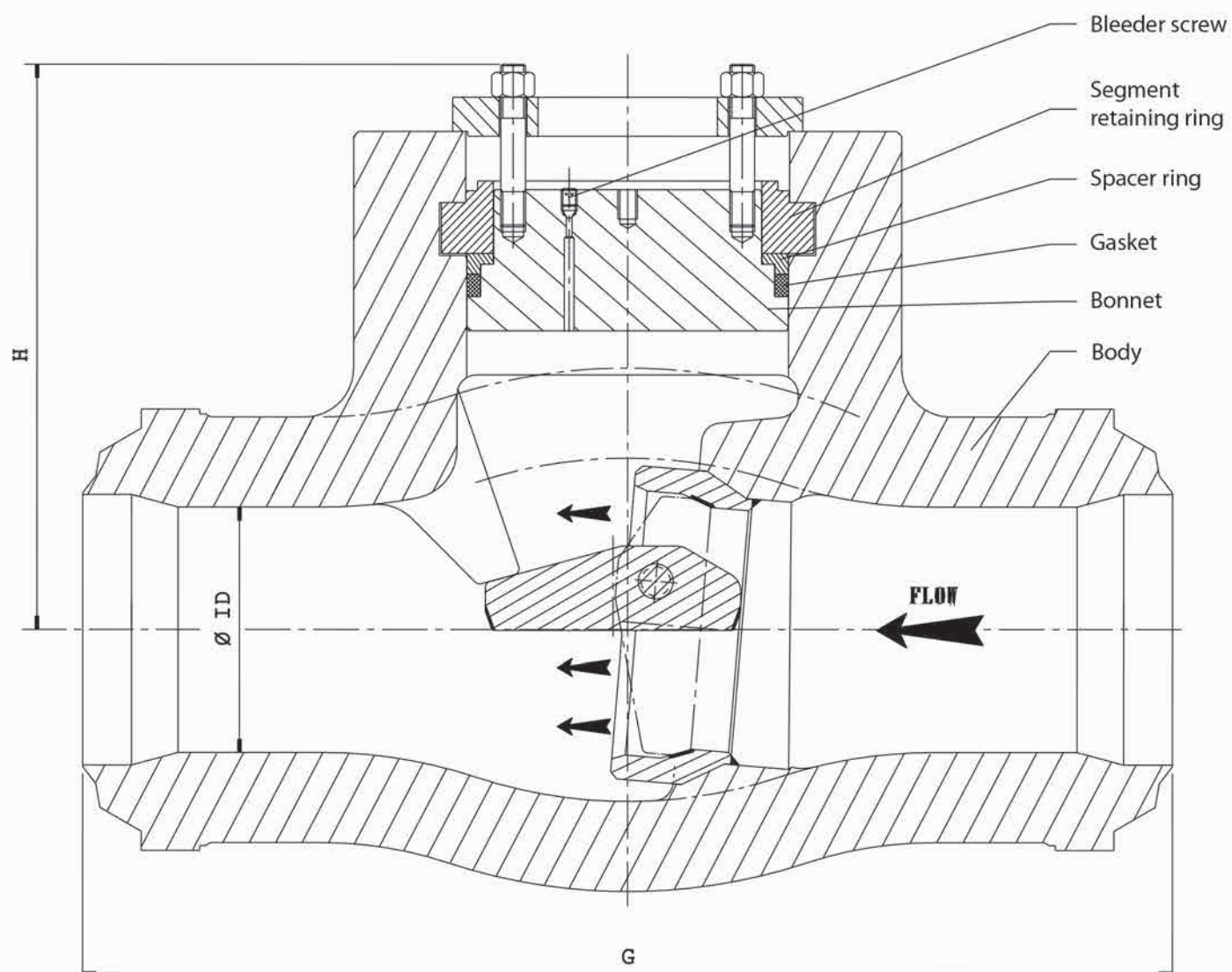
SECURE DISC NUT



HINGE PLUG DETAIL



NON-SLAM TILTING DISC CHECK VALVE



SEE MORE DESIGN DETAILS :

- > Bonnet sealing
- > Bleeder screw

DESIGN AND DETAILS

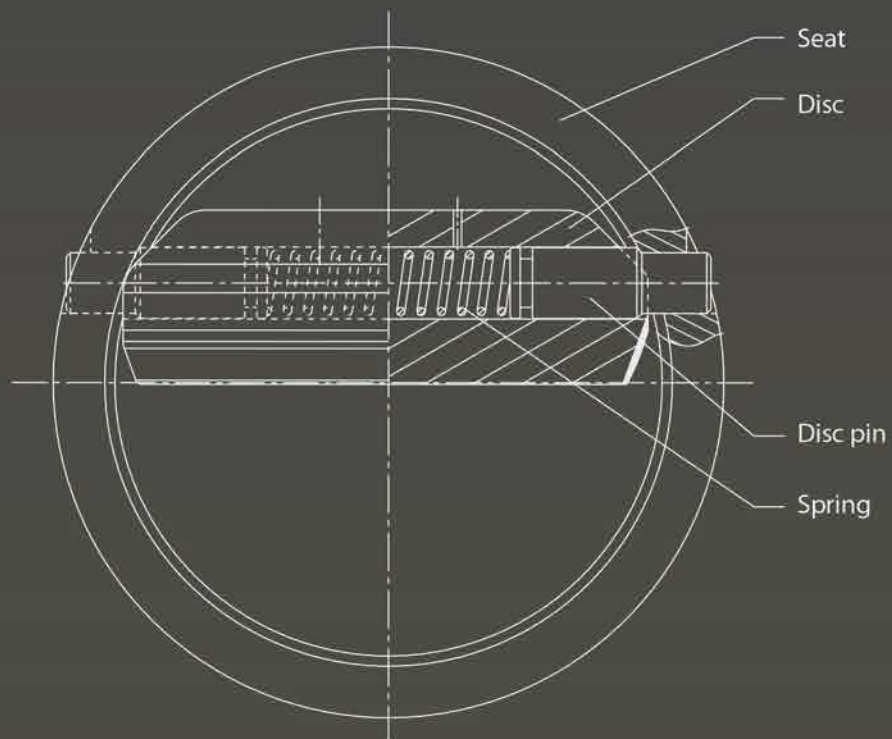
DESIGN :

Disc balanced, non slam tilting disc.
Inclined seat, full opening , bleeder screw.
Pipe horizontal or vertical.

ADVANTAGES :

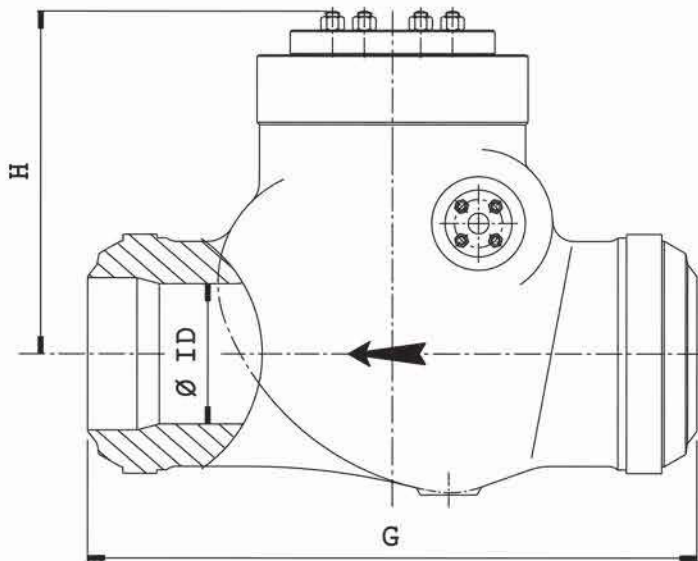
Full opening possible.
Pressure seal bonnet, for greater safety.
Seat and disc stellite overlay thickness more than 2,5 mm.
Bonnet with bleeder screw to bleed the valve.

DISC PIN ASSEMBLY DETAIL



CHECK VALVES DIMENSIONS

SWING CHECK VALVES



VALVES CLASS 600

Only per request, the PSB design is not recommended for this pressure class.

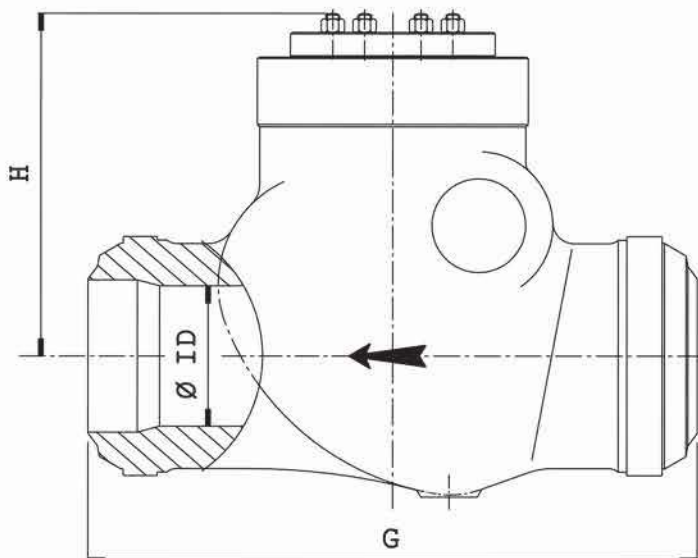
VALVES CLASS 900

Size		Ø ID	G	H	Weight	CV
Inch	mm					
2"	50	48	368,3	218	45	90
2"1/2	65	65	305	248	50	182
3"	80	73	305	248	55	275
4"	100	89	355,6	280	65	850
6"	150	132	508	377	185	1620
8"	200	166	660,4	396	275	2560
10"	250	222	787,4	464	390	4500
12"	300	263	914,4	548	620	6400
14"	350	280	991	570	715	7250
16"	400	334	1092	675	1115	9850
18"	450	374	1219	750	1350	13000
20"	500	445	1320,8	796	2350	14000
24"	600	480	1346	820	3200	21400

VALVES CLASS 1500

Size		Ø ID	G	H	Weight	CV
Inch	mm					
2"	50	48	368,3	218	45	90
2"1/2	65	65	305	248	50	182
3"	80	73	305	248	55	275
4"	100	98	406,4	292	75	850
6"	150	132	558,5	377	245	1620
8"	200	166	711	396	325	2560
10"	250	197	863,5	512	415	3500
12"	300	263	990,6	548	705	6100
14"	350	298	1067	565	845	8050
16"	400	298	1193,8	565	1450	7800
18"	450	334	1537	675	1925	10200
20"	500	374	1664	710	2700	12150
24"	600	450	1549	835	4050	17600

NON-SLAM CHECK VALVES



VALVES CLASS 2500

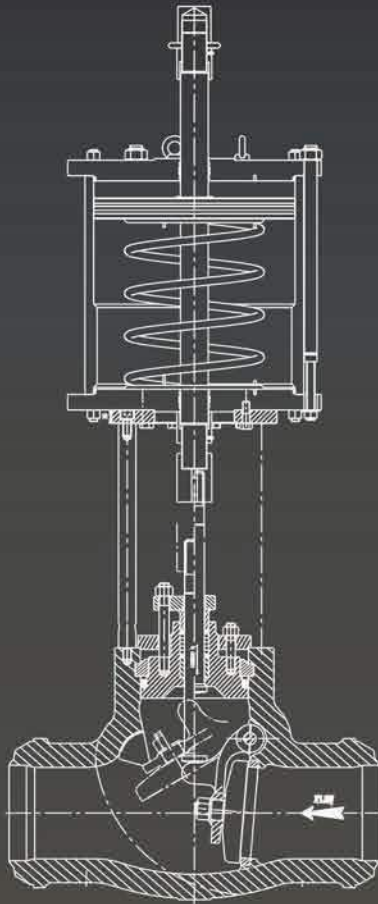
Size		Ø ID	G	H	Weight	CV
Inch	mm					
2"	50	48	450,8	250	65	90
2"1/2	65	48	450,8	250	75	110
3"	80	57	368,3	230	85	135
4"	100	73	457	268	285	275
6"	150	98	609,5	320	375	850
8"	200	146	762	471	550	1980
10"	250	184	914	488	1250	3100
12"	300	220	1041,4	601	1250	4200
14"	350	242	1117,6	607	1800	5200
16"	400	248	1244,6	637	1900	5700
18"	450	280	1397	707	2750	6900
20"	500	310	1422	710	3800	8460
24"	600	374	1549	750	4200	12200

EXAMPLES OF SPECIAL CHECK VALVES

POWER APPLICATION :

Swing check valve, size : 14" CI 1500#
with assisted closing device by linear
actuator.

CMI project : North Bangkok power
station 2008.

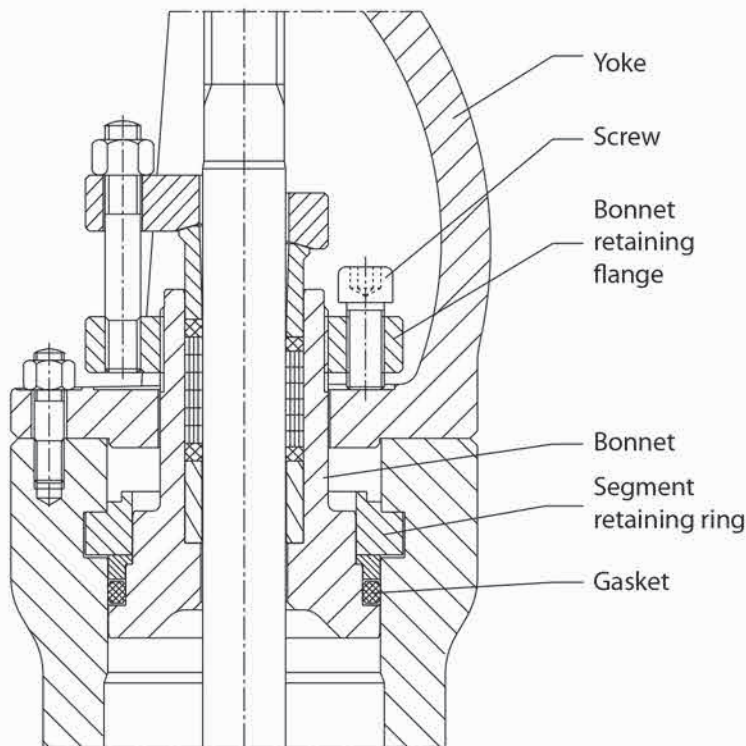


PIPELINE APPLICATION :

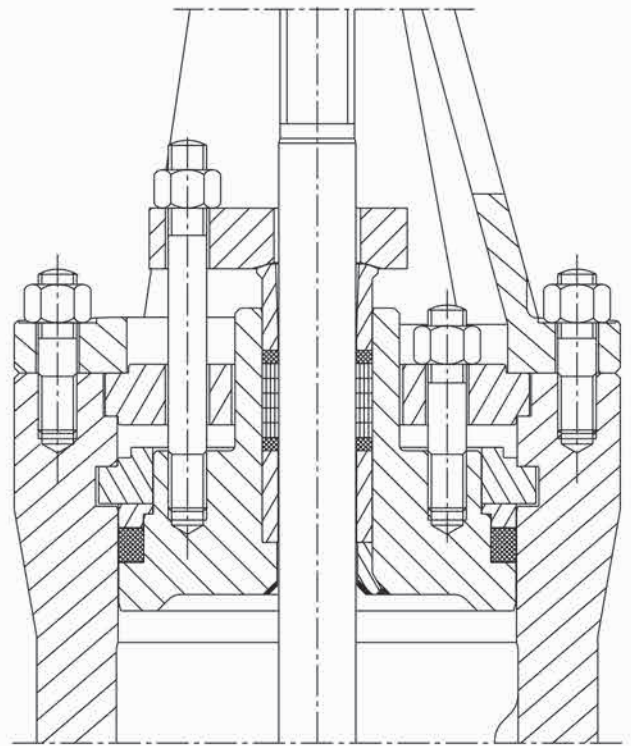
Swing check valve, size : 48" CI 900#
with damper and manual opening device.
DAELIM project : Pipeline , Malaysia 1996



DESIGN FOR VALVES SIZE UP TO 4"



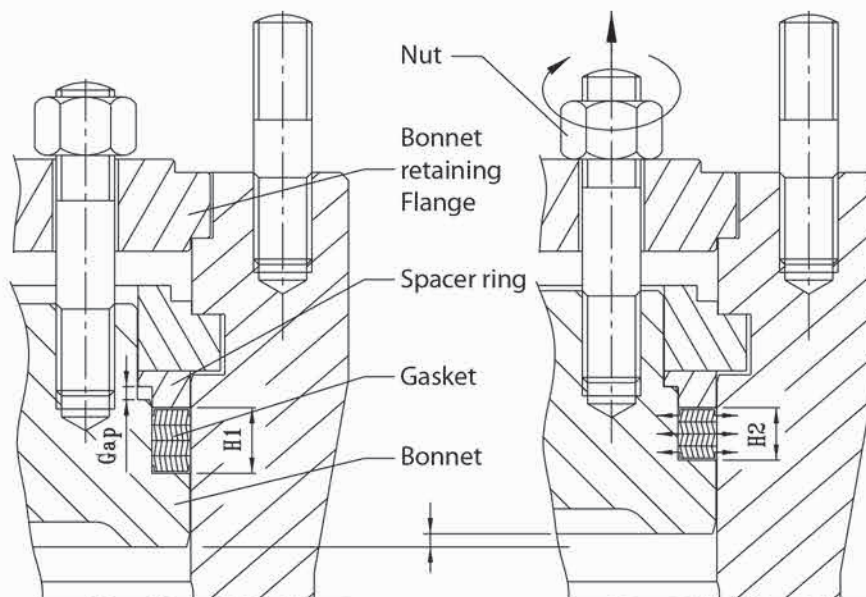
DESIGN FOR VALVES SIZE > 4"



BONNET SEALING DESIGN

DESIGN :

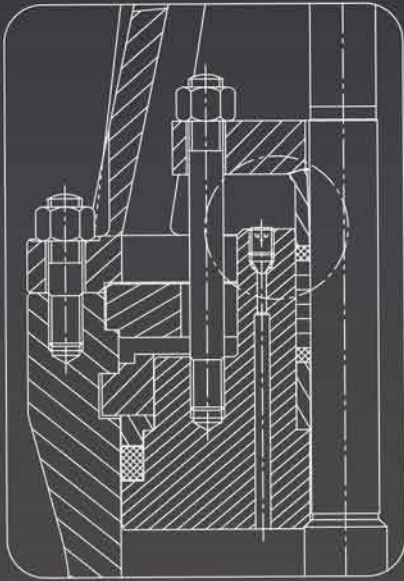
Expanded graphite gasket with two stainless steel 316L backup rings.
Ring with compression limiter, therefore gasket joint keeps its elasticity.
The sealing is ensured whatever the temperature conditions.
Segment split and heel for easy assembly/disassembly.



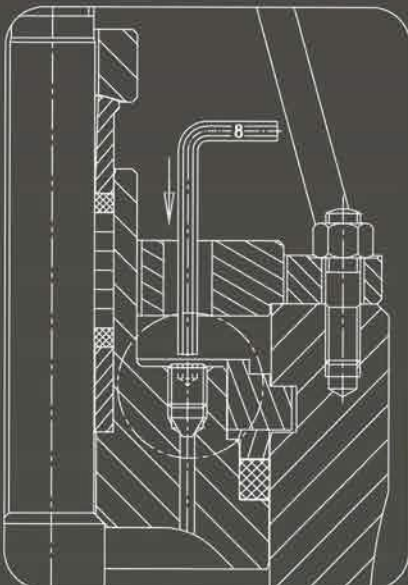
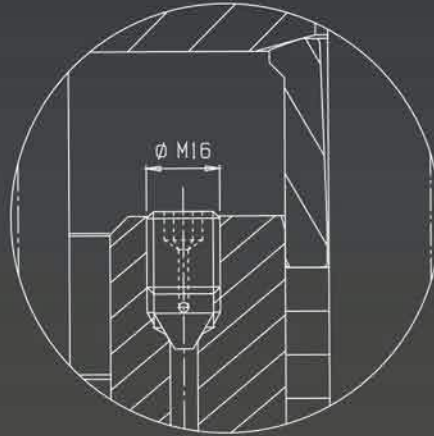
DESIGN AND DETAILS

DESIGN :

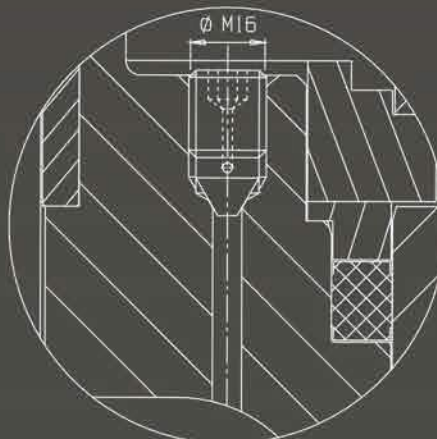
A bleeder screw has been fitted near the stuffing box or segment for valves with NPS > 4". It enables bleeding the air out of the valves to perform tests during manufacture or on site. This is a straight forward system consisting of only one bleeder screw. Bleeding requires just a simple loosening and then retightening after bleeding (tightening torque 60 Nm).



BLEEDER SCREW DETAIL



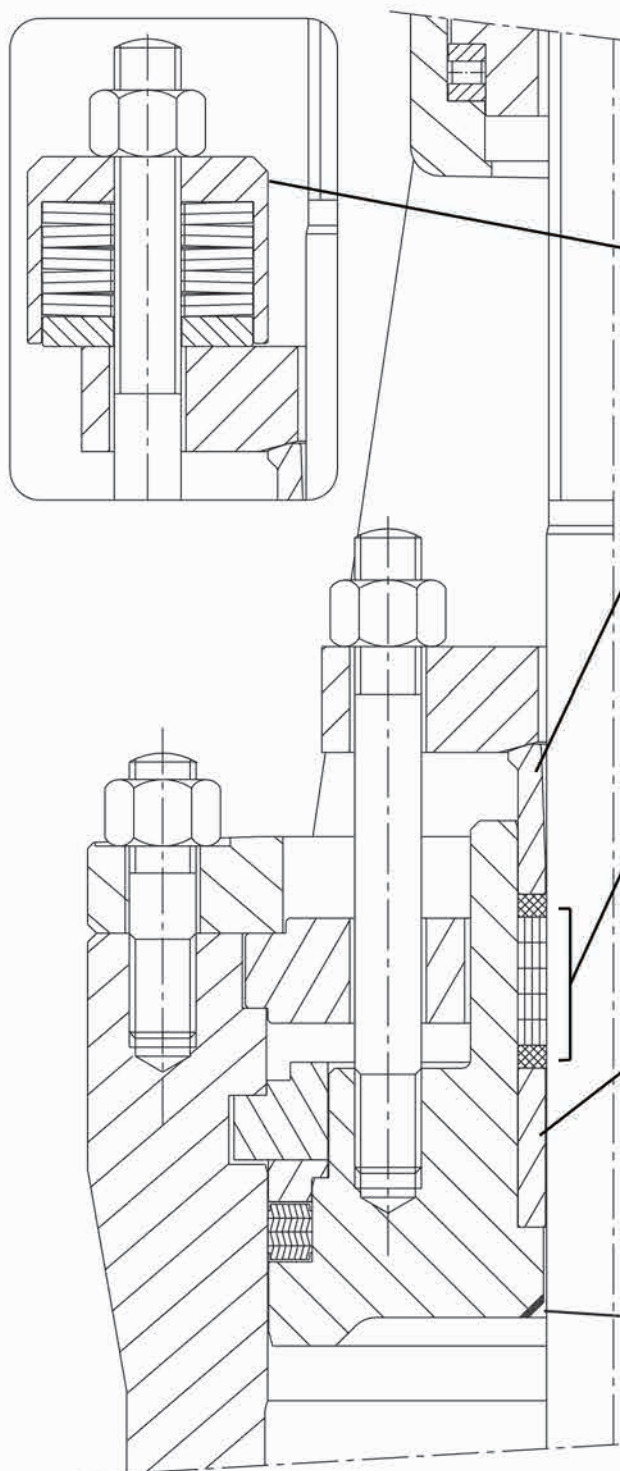
BLEEDER SCREW DETAIL



STUFFING BOX



OPTIONAL DESIGN



SEALING DESIGN

Our design can meet your most severe sealing requirements.

- Fugitive emissions class A - B
- Certified : ISO EN 15848 1 - 2
- Shell (Mesc SPE 77/300-312)
- Gas, H₂S, Oxygen
- SANTOTHERM service

Live loading design :

- Compensate the packing wear
- Sealing maintained for longer
- Less maintenance

Gland follower :

- Reduced clearances
- Better Centering and guiding
- Low friction, AISI 316L 160 HB maxi

Standard packing graphite :

- 2 Braided graphite, top and bottom
- ± 5 packing rings, pure expanded graphite

Optional , special design for :

- Severe service conditions

Backup ring :

- Stem guide, reduced clearances
- Low friction, AISI 316L 160 HB maxi

Bonnet backseating :

- Standard one-piece CR13
- Optional : Stellite gr6 overlay, or ring
AISI 316L + Stellite gr6 overlay

Stem backseating :

- Standard : one-piece, stem material
- Optional : Stellite gr6 overlay

LIVE LOADING DETAIL



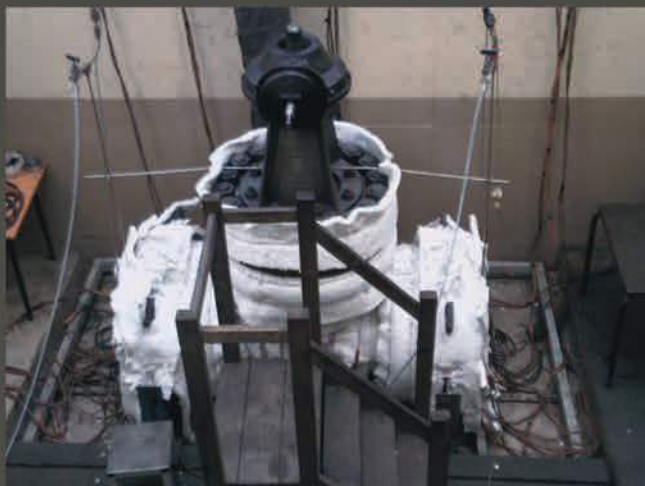
MESURING DEVICES

Testing benches :
Nitrogen and Helium 0 to 690 bars
Mass spectrometer Adixen ASM 142
(sniffing sensibility : 1.10^{-7} mbar.1s-1)

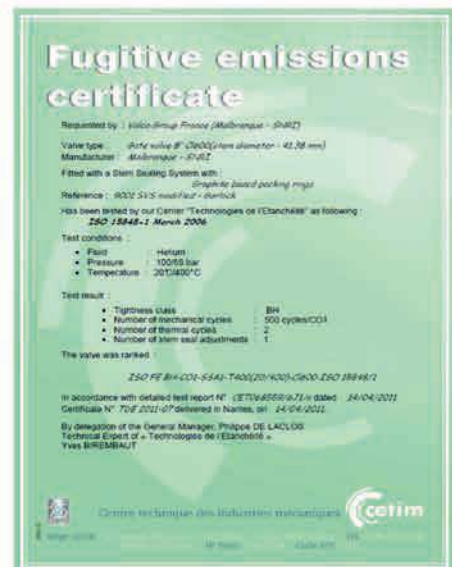


TESTS

Valve tested up to 400°C
Fugitive emissions class A
TAT SHELL 2009

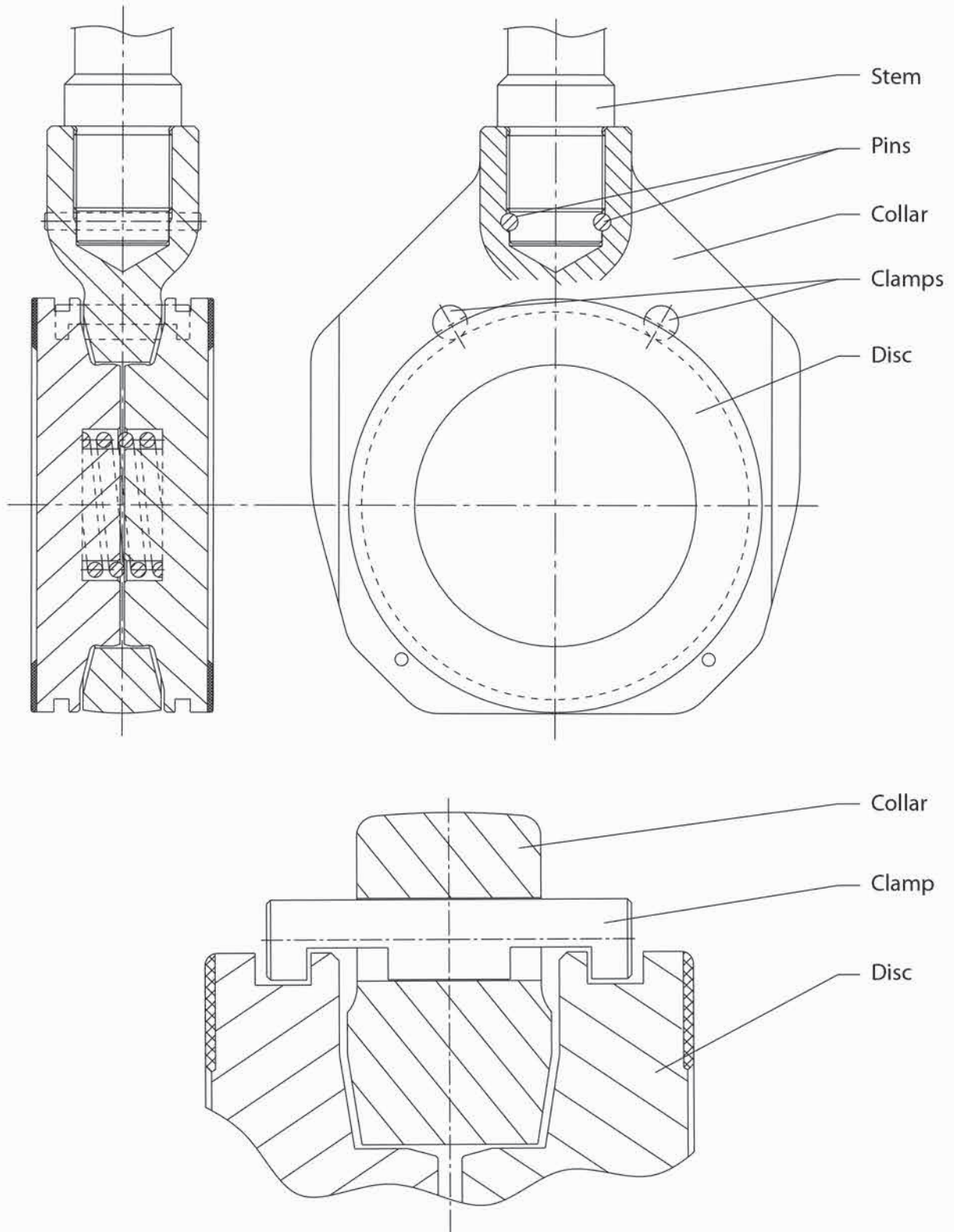


CERTIFICATE



PARALLEL SLIDE GATE VALVE : STEM / COLLAR / DISC ASSEMBLY

- > Screw the stem into the collar, then lock the stem with the two pins and secure by spot weld.
- > Place the collar on the first disc, then the two clamps, followed by the spring.
- > Place the second disc, then clamp the assembly.



PARALLEL SLIDE GATE VALVE : STEM / COLLAR / DISC ASSEMBLY

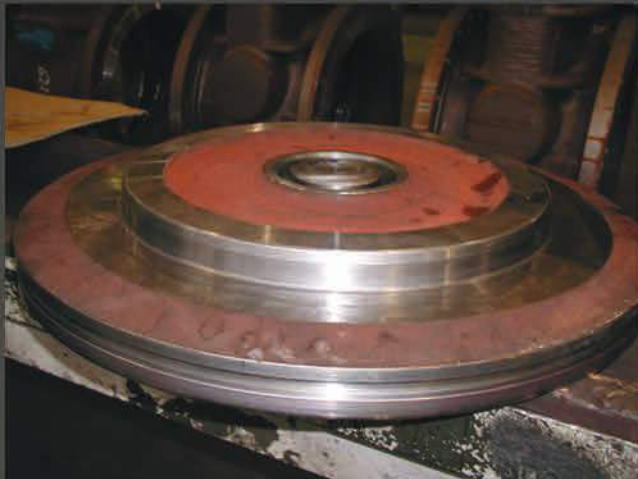
Stem / Collar screwed + 2 pins



Stem / Collar assembly



First disc



Place the collar, the two clamps



Place the spring



Place the second disc



EQUALIZATION DEVICES

PRESENTATIONS :

For steam service, under certain conditions, during the heating of the installation.

The condensation trapped between the valve seats, is converted into steam.

This steam must be evacuated to ensure good functioning of the valve.

The following devices can achieve this :

Wedge with hole drilled, Body with balancing pipe, body with single balancing bypass, body with double bypass, pressure relief valve.

DESIGN WITH HOLE, FLOW IN ONE DIRECTION ONLY :

Simple and low cost design to balance the pressure between body cavity and HP side.

A hole \varnothing 3 to 5 is drilled on one part of the wedge.

An arrow is welded on the body to indicate the flow direction.

A marking indicating the "HP SIDE" can be stamped on the flange.

The wedge must be placed at the correct position.

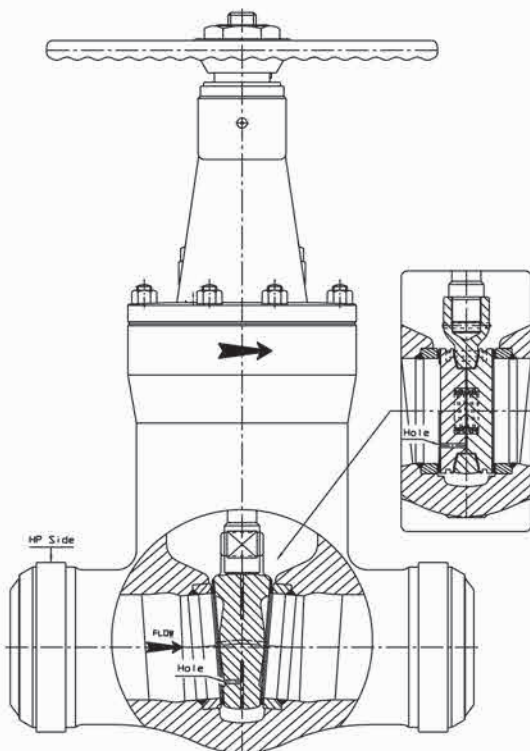
DESIGN WITH BALANCING PIPE, FLOW IN ONE DIRECTION ONLY :

Better indication of the HP side.

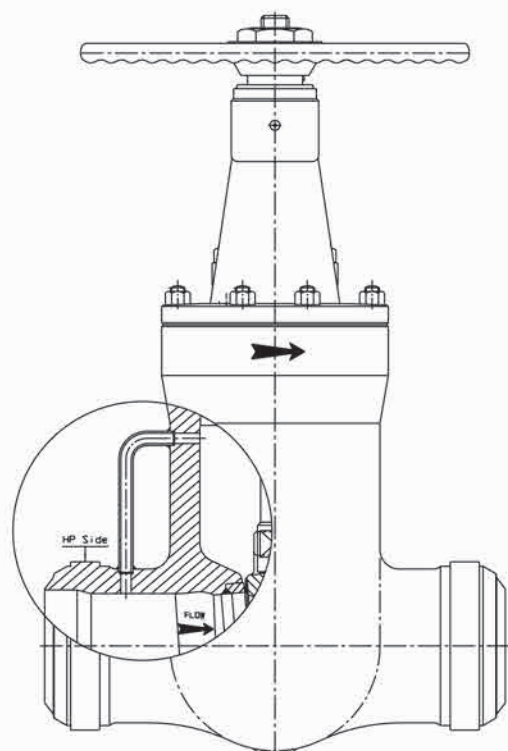
No mistakes possible during gate assembly, even in rotational position.

An arrow is welded on the body to indicate the flow direction.

DESIGN WITH WEDGE HOLE



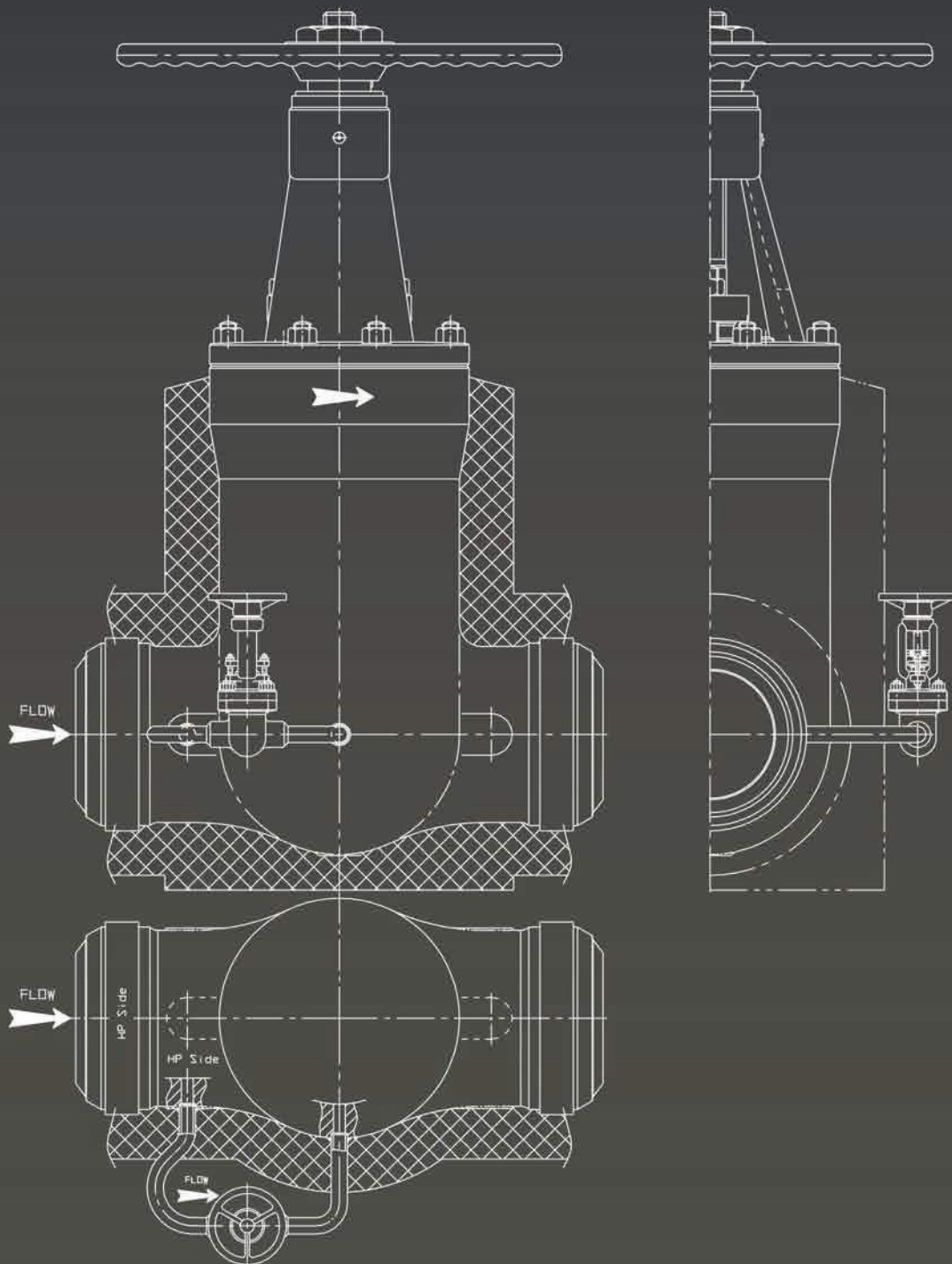
DESIGN WITH BALANCING PIPE



EQUALIZATION DEVICES

DESIGN WITH BALANCING BYPASS, FLOW IN ONLY ONE DIRECTION :

With a by-pass you can choose when you want to balance pressure.
An arrow is welded on the body to indicate the flow direction.
A marking indicating " HP SIDE " can be stamped on the flange.
At the purchase order stage, specify the by-pass position for the right or left side,
and indicate required insulation thickness.



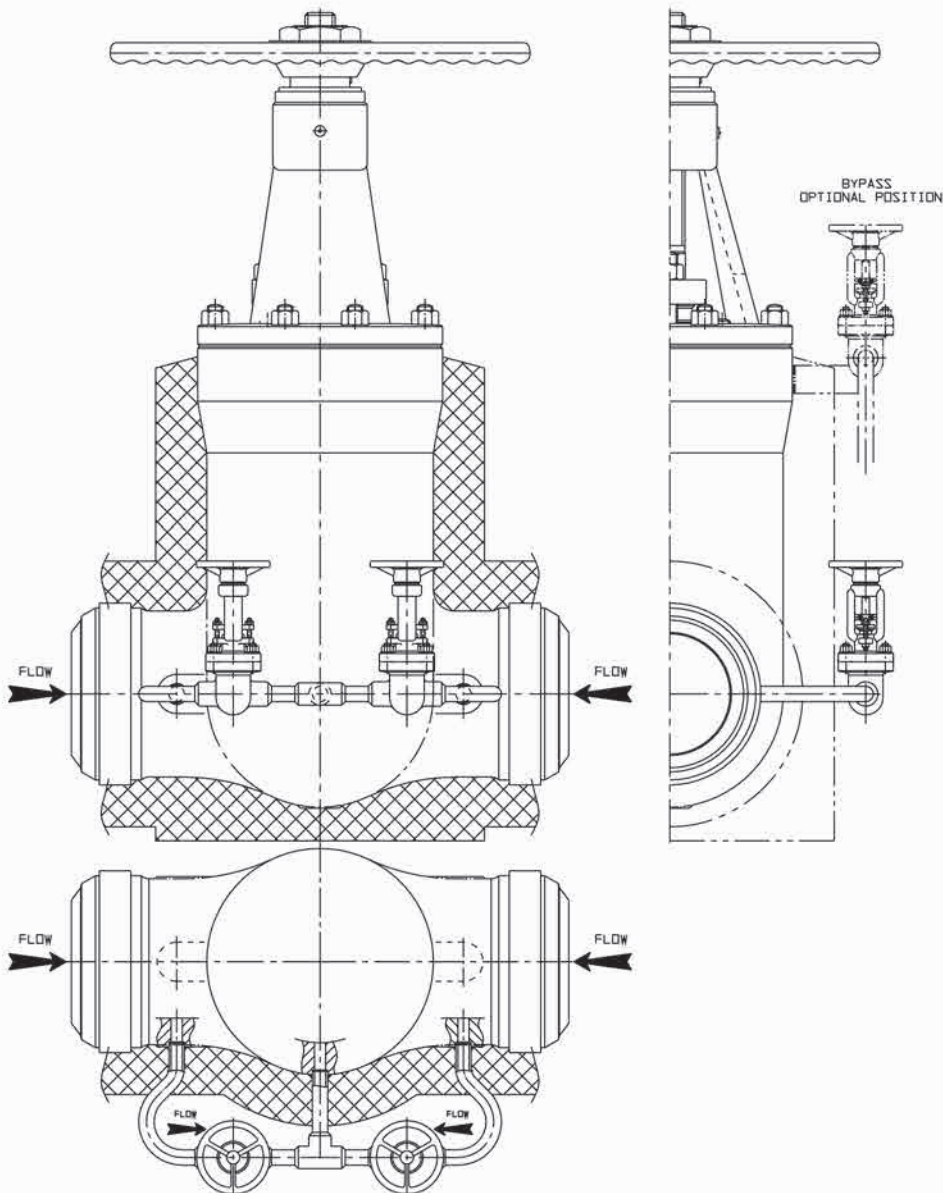
EQUALIZATION DEVICES

DESIGN WITH TWO BYPASS, BIDIRECTIONAL FLOW :

With two bypass valves you can choose which side you need to balance pressure. You can also use the bypass to balance pressure upstream, downstream, or to reheat the installation.

At the purchase order stage, specify the bypass position for the right or left side and indicate required insulation thickness.

The bypass can be installed on the upper valve body as an option.



VALVE WITH TWO BYPASS VALVES



EQUALIZATION DEVICES

INSULATED VALVE AND BYPASS :

Bypass on upper body valve.

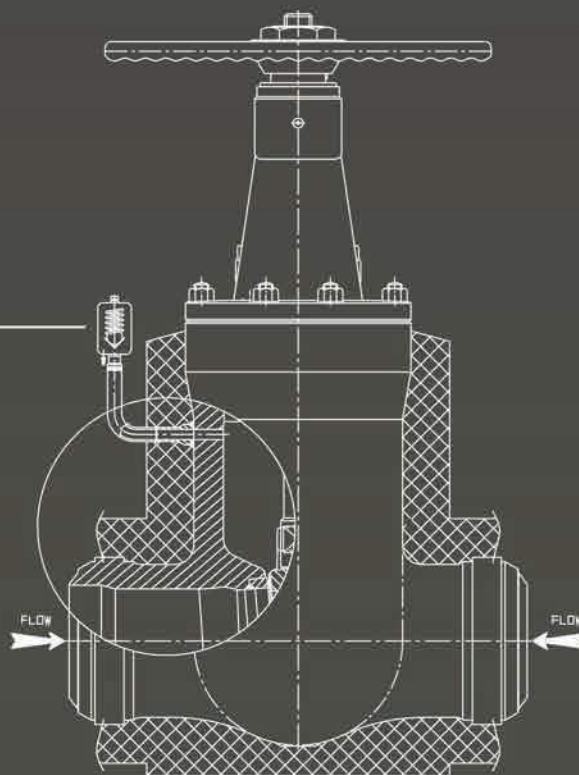
Valve Yoke
Two bypass valves
Insulation box



DESIGN WITH PRESSURE RELIEF VALVE, BIDIRECTIONAL FLOW :

With a pressure relief valve the valve is secure without operator intervention.
The relief valve is set to working condition with a safety factor.
At the purchase order stage, specify the relief valve position, and indicate required insulation thickness.

RELIEF VALVE DETAIL



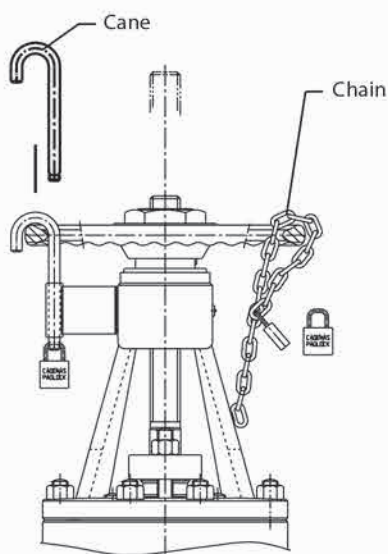
LOCKING DEVICES

BY CHAIN OR CANE AND PADLOCK :

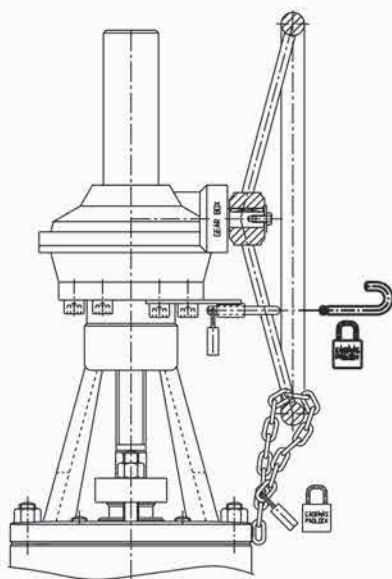
Simple and economical devices :

- > Suitable for all handwheel or gearbox-operated valves.
- > Locking device by chain and padlock.
- > Locking device by cane and padlock.

Valve with handwheel



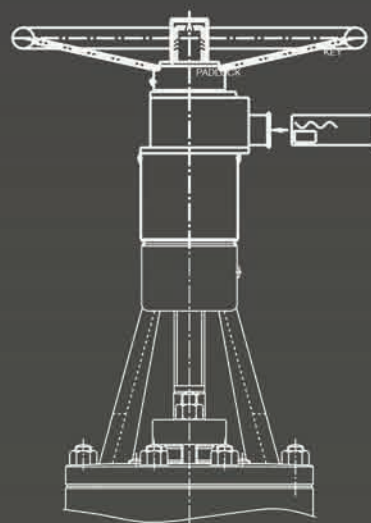
Valve with gearbox



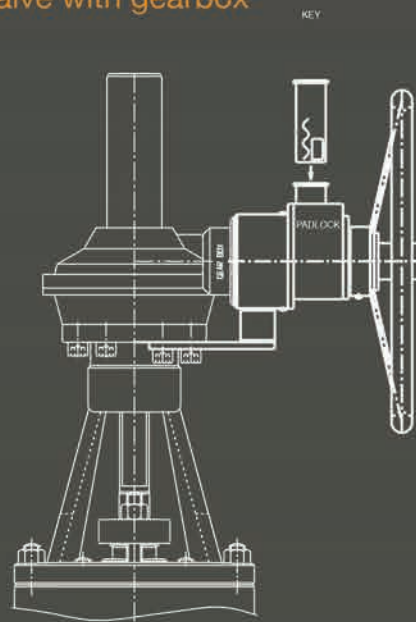
BY MULTI TURN LOCK :

The Multi turn Lock is suitable for all handwheel or gearbox-operated valves . The idea of a mechanical key is the transfer of keys. Each lock is executed with two keys, one for the locked open position and one for the closed position. When the valve is open, the open key is released and can be removed ready to operate the next lock in the sequence which will share the same lock code.

Valve with handwheel



Valve with gearbox



SWITCHING DEVICES

WE CAN ADAPT ALL KINDS OF
LIMIT SWITCHES :

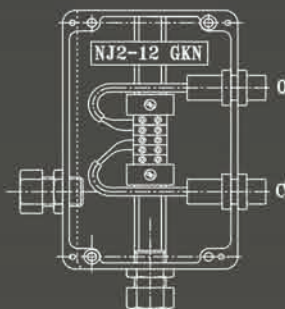
Mechanical switch



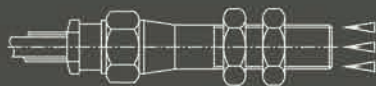
EEx Mechanical switch



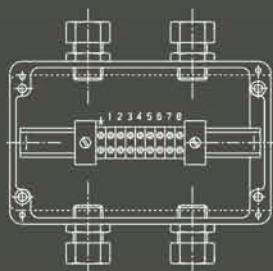
Box with proximity switches



EEx Proximity switch



Junction box

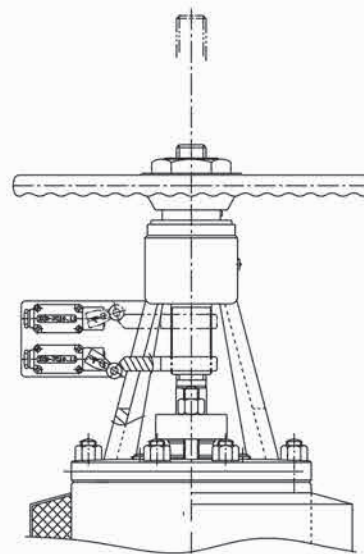


TWO POSSIBILITIES :

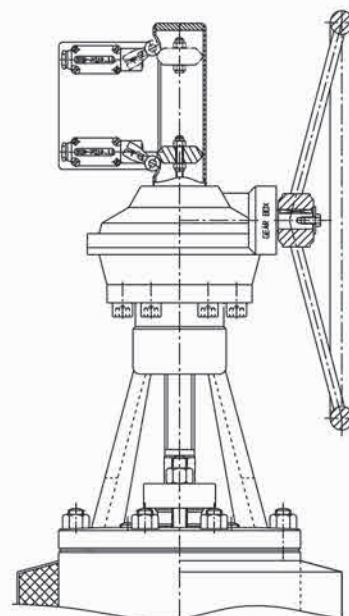
Simple and economical devices :

- > At the yoke position for handwheel valves.
- > On the stem cover for gear box valves.

Valve with handwheel



Valve with gearbox



WE CAN ALSO SUPPLY BOLTED BONNET DESIGN FOR OIL & GAS INDUSTRIES POWER & COGENERATION PLANTS



WEDGE AND PARALLEL SLIDE GATE VALVES :

Design	API 600 / ASME B16-34 / EN 12516 ... Flanged or Butt Welded
Size range	2" up to 42" following request
Pressure rating	Class 900 - 1500 - 2500#
Temperature range	up to 575 °C
Materials	ASTM / EN ...



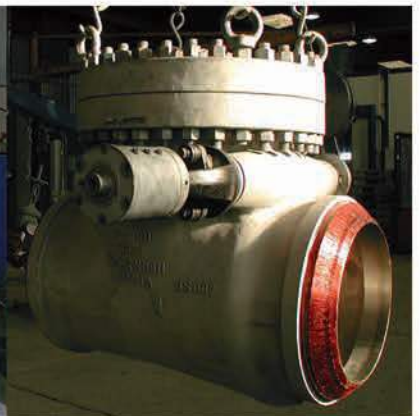
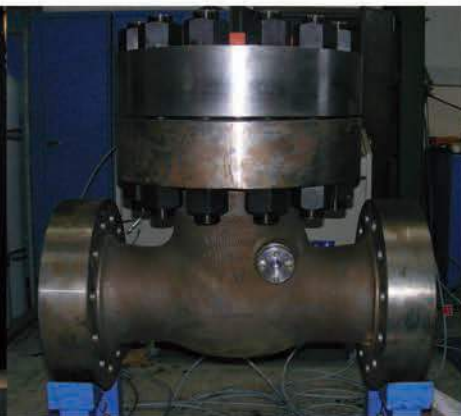
GLOBE VALVES :

Design	BS 1873 / ASME B16-34 / EN 12516 ... Flanged or Butt Welded
Size range	2" up to 16", according to your request
Pressure rating	Class 900 - 1500 - 2500#
Temperature range	up to 575 °C
Materials	ASTM / EN ...



CHECK VALVES :

Design	API 6D / ASME B16-34 / EN 12516 ... Flanged or Butt Welded
Size range	2" up to 42" following request
Pressure rating	Class 900 - 1500 - 2500#
Temperature range	up to 575 °C
Materials	ASTM / EN ...



TEST CAPABILITIES

TEST BENCHES

AT AMBIENT TEMPERATURE

Water tests
Air tests
Helium tests
Nitrogen tests
Pressure test prod (pneumatic)

AT CRYOGENIC TEMPERATURE

Down to -196°C

NDE FACILITIES

Dye penetrant
Ultrasonic testing
X-rays
Magnetic particle examination
Positive material identification
Thickness measurements
Hardness testing

CUSTOMER'S CERTIFICATION

EDF
COGEMA
ALSTOM
AREVA
...





QUALITY CERTIFICATION

ISO 9001 - 2000



CE MARKING



FIRE SAFE DESIGN

BS6755 PART 2

DNV
(MSA R-3637)



KOREAN REGISTER



LLOYD'S REGISTER



BUREAU VERITAS

TÜV



CONSTRUCTION STANDARDS

API 600 - ISO 10434, EN 12516,

ASME B16.34, B31.1,

B16.5, B16.10, B16.25

ASME Section VIII, Section IX

ASTM, EN as per client's request

MSS SP25, SP55, SP61, SP82

As per customer's specifications:

CST EDF, MESC SHELL...



- OUR FACTORY
- OUR SALES OFFICES
- OUR AGENTS



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VALCO

Dedication to delivery

Valco group based in Ruffec, France is made up of 3 brand names (SNRI SAS, Malbranque SAS & Valco Vales Services SAS) dedicated to service & delivery.

Valco Sales Offices in Abu Dhabi, Australia & Malaysia + 1 Sales Office-Factory in South Africa.

Valco Group France produces valves and related products as well as After Sales services for applications world-wide in Marine, Oil & Gas Down-Stream, Energy & Industry fields.

Valco Group France's product range contains well-known and established valve brands mainly manufactured on-site as well as providing complementary parts & spares. Our long experience has demonstrated our capability to integrate in our valve line the combination of high pressure with very low or high temperatures. We also provide valves which cover Sour Service as well as many types of special applications where quality product requirement matters.