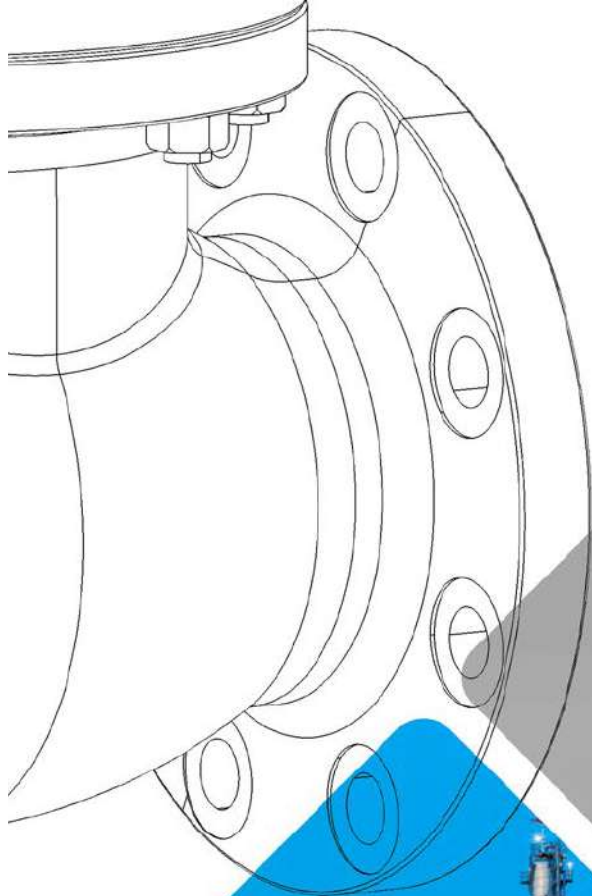
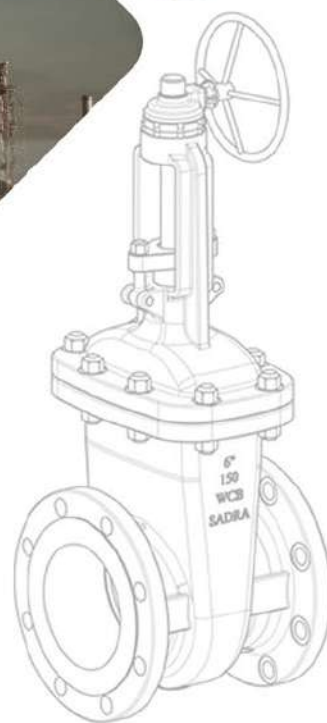


SADRA VALVE

Sadra Petro Valve

2021



Introduction

Sadra Petro Valve Company named "Sadra" Arising from a knowledge-based movement, it has been a pioneer in the Valve industrial. This company was established in 2017 with the approach of using up-to-date knowledge and equipment, based on the 30-year credit of its group's industrial activity.

Pishgam Industrial Group was established in 1992, relying on the power of localization and knowledge development. The increasing development of valve knowledge in the country caused specialized activities to be carried out in each of the groups of this group with the aim of completing the product portfolio.

Sadra Company was established with the mission of developing commercial products and mass production of valves. The production of this company started based on the maximum use of up-to-date technology and construction machinery.

Having about 1500 sqm workshop, storage, and office; Sadra conforms with all necessary standards for work environment; creating a suitable area for business. Benefiting from highly qualified technical and engineering team and holding.

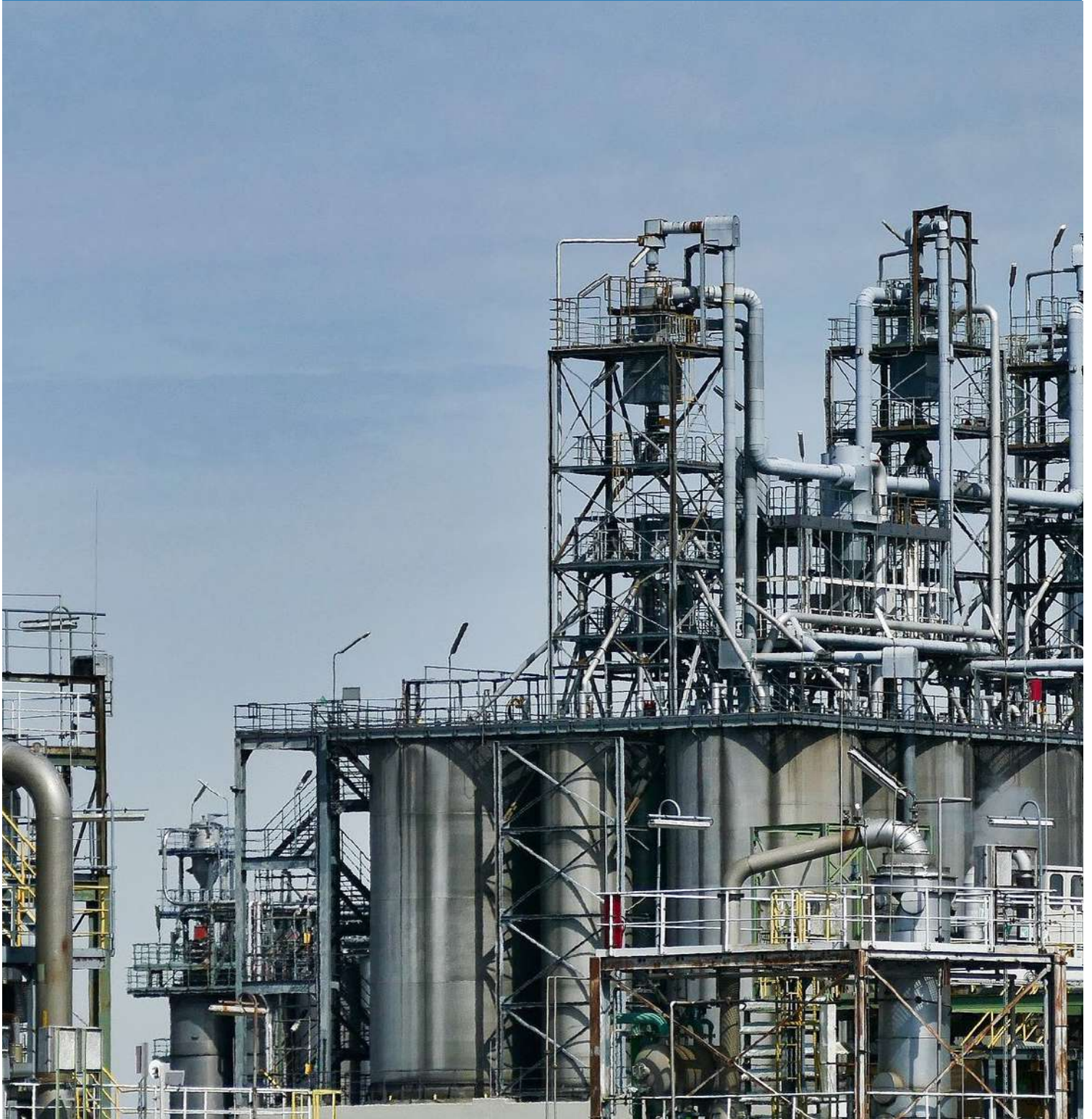
In 2012, due to market development and the need for more production space, Sadra Company has built a new factory in the company of international companies active in the field of valve manufacturing.

To increase its production capacity to 100,000 valves in various valves up to 42 inches in size.

Sadra is using a combination of technologies, processes, and education to produce valves part. The production CNC machine, automatic and semi-automatic welding machines. Both using these machines and qualified Person continuously strives to reach the excellent of the quality in its products both for the technical characteristics and the reliability in their use.

The entire manufacturing process follows procedures as laid down in the Company Quality Assurance Manual.





MANUFACTURING RANGE

Gate

Standards	Sizes	Features Design - Materials
ANSI B16.34 API 600 API 6D BS - 1414	- 72" ANSI 150 - 64" ANSI 300 - 48" ANSI 600/900 - 36" ANSI 1500/2500 - 24" ANSI 4500	Bolted bonnet Pressure seal Cast and forged Solid Wedge Flexible
API 6A	2-1/16" to 7-1/16" class 2000 2-1/16" to 7-1/16" class 3000 2-1/16" to 9" class 5000 1-13/16" to 7-1/16" class 10000 1-13/16" to 5-1/8" class 15000	Split Wedge Parallel Slide Through conduit Special Designs Double Block and Bleed



Globe

Standards	Sizes	Features Design - Materials
ANSI B16-34 BS-1873	- 48" ANSI 150/300 - 36" ANSI 600/900 - 24" ANSI 1500/2500 - 12" ANSI 4500	Bolted Bonnet Pressure seal Cast and forged Zero stem leakage Non return "V" pattern globe Bellows seal globe Stop check globe Angle globe valve



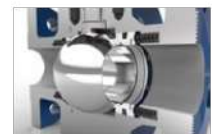
Check

Standards	Sizes	Features Design - Materials
API 6D BS-1868 ANSI B16-34	- 64" ANSI 150 / 300 - 48" ANSI 600/900 - 36" ANSI 1500/2500 - 24" ANSI 4500	Bolted bonnet Pressure seal Cast and forged Piston check Tilting disc Swing
API 6A	2-1/16" to 11" class 2000 2-1/16" to 11" class - 3000 2-1/16" to 11" class - 5000 1-13/16" to 7-1/16" class 10000 1-13/16" to 4-1/16" class 15000	check Emergency assisted Duo Check



Ball

Standards	Sizes	Features Design - Materials
API 6D	56" ANSI 150 to 600 36" ANSI 1500 / 2500	Floating type Trunnion mounted Top Entry and Side Entry design 3-Way Metal to Metal or Soft Seated Bolted of fully welded design 2-piece and 3-piece design
API 6A	2-1/16" to 7-1/16" class 2000 2-1/16" to 7-1/16" class 3000 2-1/16" to 9" class 5000 1-13/16" to 7-1/16" class 10000 1-13/16" to 5-1/8" class 15000	



Engineering & Design

We are a company with a unique valve engineering know-how and more than 20 year of international experience: a well-known company in the world on the Oil & Gas market.

We produces valves for onshore and offshore applications designed in accordance with the main international specifications like API 602/ISO 15761, API 600, BS 1868, BS 1873, BS 1414, API 6D and API 6A, BS 5351/ISO 17292, BS 6364.

Our product range is constantly expanding: we implemented an optimized manufacturing cycle and the highest quality standards in our range of gate (bolted , welded and pressure seal bonnet, wedge and through conduit), globe (including Y pattern, angle and needle), check (swing, piston and ball) and ball (floating and trunnion) valves.

All these valves are available for forged and cast steels to meet all sorts of customer requirements and specifications.

We specialize in high pressure applications (up to 20,000psi) and extreme service conditions typical of highly sour services, toxic (bellows seal) cryogenic (down to -196°C) and high temperature (up to 750°C).

Our engineering division works with parametric 3D software and the latest FEA utilities to validate the design.

An in-house R&D group perform intense test activities to prove the design before the product is commercialized.

Our products have been type tested at the presence of major end users and third party inspection authorities and our design activities are audited and certified to PED, API6D and API6A standards.



Quality & Testing

We will strive to offer you the best possible service and bring you the highest quality products.

The quality of our products and services is the main goal: we do this through a total commitment to continuous improvement of our processes and investments in staff, training, facilities, equipment's, software, and business practices.

The main quality certifications Sadra Valves achieved are:

- **ISO 9001 since 1990**
- **API 6A**
- **API 6D**
- **API 6DSS**
- **API 602**
- **SIL Level II and Level III for ball valves again with TUV.**

Internal qualified personnel:

• Penetrant Test, Ultrasonic Test, Leak Test, Magnetic Test and Visual Test according to SNT-TC-1A

Test capabilities on valves:

- Hydraulic-pneumatic test according to API 6A, API 598, API 6D, API 6DSS
- High-temperature test
- Fugitive Emissions test according to ISO 15848-1 and ISO 15848-2
- Fugitive Emissions test according to API 624
- Functional test with torque measurement from
- Bellows Seal performance test API 602-ISO 15761



Non-Destructive Examinations include:

- Dimensional control
- Dye penetrant (PT)
- Magnetic particle (MT) examination (dry, wet, or fluorescent methods done by yoke or prods)
- Ultrasonic test (UT)
- PMI using Spectro Test CCD
- Electronic profilometer instrument to measure roughness
- Paint test (WFT, DFT, holiday, adhesion, MEK, ...)

Destructive tests conducted in external qualified laboratories:

- Mechanical tests, hardness test and Impact Test down to -196 °C

- Chemical analysis
- Corrosion tests
- Macro and Micro examinations
- Ferrite check according to E562
- Paint test (pull-off, ...)

Our quality targets are met through the selection of high-quality suppliers in the domestic market and controls carried out by our through qualified NDE operators, skilled Quality Control inspectors and Quality Control professional.

We invested in a wide selection of the last generation inspection and test equipment's to allow us to guarantee the highest quality control levels both in the manufacturing processes and in the final product.



Certificate



Certificate



Certificate



Material Guide

Material	ASTM Casting SPEC	Service
Carbon Steel	ASTM A216 Grade WCB	Non-corrosive applications including water, oil and gases at temperatures between -20°F (-30°C) and +800°F (+425°C)
Low Temp Carbon Steel	ASTM A352 Grade LCB	Low temperature applications to -50°F (-46°C). Not for use above +650°F (+340°C).
Low Temp Carbon Steel	ASTM A352 Grade LC1	Low temperature applications to -75°F (-59°C). Not for use above +650°F (+340°C).
Low Temp Carbon Steel	ASTM A352 Grade LC2	Low temperature applications to -100°F (-73°C). Not for use above +650°F (+340°C).
3% Nickel Steel	ASTM A352 Grade LC3	Low temperature applications to -150°F (-101°C). Not for use above +650°F (+340°C).
1% Chrome 1/2% Moly Steel	ASTM A217 Grade WC6	Non-corrosive applications including water, oil and gases at temperatures between -20°F (-30°C) and +1100°F (+593°C).
2% Chrome	ASTM A217 Grade C9	Non-corrosive applications including water, oil and gases at temperatures between -20°F (-30°C) and +1100°F (+593°C).
5% Chrome 1/2% Moly	ASTM A217 Grade C5	Mild corrosive or erosive applications as well as non-corrosive applications at temperatures between -20°F (-30°C) and +1200°F (+649°C).
9% Chrome 1% Moly	ASTM A217 Grade C12	Mild corrosive or erosive applications as well as non-corrosive applications at temperatures between -20°F (-30°C) and +1200°F (+649°C).
12% Chrome Steel	ASTM A487 Grade CA6NM	Corrosive application at temperatures between -20°F (-30°C) and +900°F (+482°C).
12% Chrome	ASTM A217 Grade CA15	Corrosive application at temperatures up to +1300°F (+704°C)
316SS	ASTM A351 Grade CF8M	Corrosive or either extremely low or high temperature non-corrosive services between -450°F (-268°C) and +1200°F (+649°C). Above +800°F (+425°C) specify carbon content of 0.04% or greater.
347SS	ASTM 351 Grade CF8C	Primarily for high temperature, corrosive applications between -450°F (-268°C) and +1200°F (+649°C). Above +1000°F (+540°C) specify carbon content of 0.04% or greater.
304SS	ASTM A351 Grade CF8	Corrosive or extremely high temperatures non-corrosive services between -450°F (-268°C) and +1200°F (+649°C). Above +800°F (+425°C) specify carbon content of 0.04% or greater.
304L SS	ASTM A351 Grade CF3	Corrosive or non-corrosive services to +800°F (+425°C).
316L SS	ASTM A351 Grade CF3M	Corrosive or non-corrosive services to +800°F (+425°C).
Alloy-20	ASTM A351 Grade CN7M	Good resistance to hot sulfuric acid to +800°F (+425°C).
Monel	ASTM 713 Grade M3-35-1	Weldable grade. Good resistance to corrosion by all common organic acids and salt water. Also highly resistant to most alkaline solutions to +750°F (+400°C).
Hastelloy B	ASTM A743 Grade N-12M	Is well suited for handling hydrofluoric acid at all concentrations and temperatures. Good resistance to sulphuric and phosphoric acids to +1200°F (+649°C).
Hastelloy C	ASTM A743 Grade CW-12M	Good resistance to span oxidation conditions. Good properties at high temperatures. Good resistance to sulphuric and phosphoric acids to +1200°F (+649°C).
Inconel	ASTM A743 Grade CY-40	Very good for high temperature service. Good resistance to sparily corrosive media and atmosphere to +800°F (+425°C).
Bronze	ASTM B62	Water, oil or gas: up to 400°F. Excellent for brine and seawater service.



Material Guide

API Trim No	NOMINAL TRIM	TRIM CODE	STEM AND OTHER TRIM PARTS	DISC/WEDGE	SEAT SURFACE	TRIM MATERIAL GRADE	SERVICE
No.1	410	F6	410 (13Cr) (200-275 HBN)	F6 (13Cr) (200 HBN)	410 (13Cr) (250 HBN min)	13Cr-0.75Ni-1Mn	For oil and oil vapors and general services with heat treated seats and wedges. General very low erosive or non-corrosive service between -100°C and 320°C. This stainless-steel material lends itself readily to hardening by heat treatment and is excellent for contacting parts such as stems, gates, and discs. Steam, gas, and general service to 370°C. Oil and Oil vapor 480°C.
No.2	304	304	304	304 (18Cr-8Ni)	304 (18Cr-8Ni)	19Cr-9.5Ni-2Mn-0.08C	For moderate pressure in corrosive, low erosive service between -265°C and 450°C.
No.3	310	310	(25Cr-20Ni)	310 (25Cr-20Ni)	310 (25Cr-20Ni)	25Cr-20.5Ni-2Mn	For moderate pressure in corrosive or non-corrosive service between -265°C and 450°C.
No.4	410 - Hard	F6H	410 (13Cr) (200-275 HBN)	F6 (13Cr) (200-275 HBN)	F6 (13Cr) (275 HBN min)	13Cr-0.75Ni-1Mn	Seats 275 BHN min. As trim 1 but for medium pressure and more corrosive service.
No.5	410 - Full Hard faced	F6HF	410 (13Cr) (200-275 HBN)	F6+St Gr6 (CoCr Alloy) (350 HBN min)	410+St Gr6 (CoCr Alloy) (350 HBN min)	13Cr-0.5Ni-1Mn/Co-Cr-A	High pressure slightly erosive and corrosive service between -265°C and 650°C and higher pressure. Premium trim service to 650°C. Excellent for high pressure water and steam service.
No.5A	410 - Full Hard faced	F6HF	410 (13Cr) (200-275 HBN)	F6+Hardf. NiCr Alloy (350 HBN min)	F6+Hardf. NiCr Alloy (350 HBN min)	13Cr-0.5Ni-1Mn/Co-Cr-A	As trim 5 where Co is not allowed.
No.6	410 and Ni-Cu	410 (13Cr) (200-275 HBN)	Monel 400* (NiCu Alloy) (250 HBN min)	Monel 400* (NiCu Alloy) (175 HBN min)	13Cr-0.5Ni-1Mn/Ni-Cu	13Cr-0.5Ni-1Mn/Ni-Cu	As trim 1 and more corrosive service.
No.7	410 - Very Hard	F6HF+	410 (13Cr) (200-275 HBN)	F6 (13Cr) (250 HBN min)	F6 (13Cr) (750 HB)	13Cr-0.5Ni-1Mo/13Cr-0.5Ni-Mo	Seats 750 BHN min. As trim 1 but for higher pressure and more corrosive/erosive service
No.8	410 - Hard faced	F6HFS	410 (13Cr) (200-275 HBN)	410 (13Cr) (250 HBN min)	410+St Gr6 (CoCr Alloy) (350 HBN min)	13Cr-0.75Ni-1Mn/1/2Co-Cr-A	Universal trim for general service requiring long service life up to 593°C. As trim 5 for moderate pressure and more corrosive service. Steam, gas and general service to 540°C. Standard trim for gate valves.
No.8A	410 - Hard faced	F6HFS	410 (13Cr) (200-275 HBN)	F6 (13Cr) (250 HBN min)	410+Hardf. NiCr Alloy (350 HBN min)	13Cr-0.75Ni-1Mn/1/2Co-Cr-A	As trim 5A for moderate pressure and more corrosive service.
No.9	Monel®	Monel®	Monel® (NiCu Alloy)	Monel 400* (NiCu Alloy)	Monel 400* (NiCu Alloy)	70Ni-30Cu	For corrosive service to 450°C such as acids, alkalis, salt solutions, etc. Very corrosive fluids. Erosive-corrosive service between -240°C and 480°C. Resistant to sea water, acids, alkalis. Has excellent corrosion resistance in chlorine and alkylation service
No.10	316	316	316 (18Cr-Ni-Mo)	316 (18Cr-Ni-Mo)	316 (18Cr-Ni-Mo)	18Cr-12Ni-2.5Mo-2Mn	For superior resistance to corrosion for liquids and gases which are corrosive to 410 stainless steel up to 455°C. As trim 2 but a higher level of corrosive service. Provides excellent resistance to corrosive media at high temperatures and toughness for service at low temperatures. Low temperature service standard for 316SS valves.
No.11	Monel - Hard faced	MonelH FS	Monel® (NiCu Alloy)	Monel® (NiCu Alloy)	Monel 400*+St Gr6 (350 HBN min)	70Ni-30Cu/1/2Co-Cr-A	As trim 9 but for medium pressure and more corrosive service.
No.11A	Monel - Hard faced	MonelH FS	Monel® (NiCu Alloy)	Monel® (NiCu Alloy)	Monel 400T+HF NiCr Alloy (350 HBN min)	70Ni-30Cu/1/2Co-Cr-A	As trim 9 but for medium pressure and more corrosive service.
No.12	316 - Hard faced	316HFS	316 (Cr-Ni-Mo)	316 (18Cr-8Ni-Mo)	316+St Gr6 (350 HBN min)	18Cr-12Ni-2.5Mo-2Mn/1/2Co-Cr-A	As trim 10 but for medium pressure and more corrosive service.
No.12A	316 - Hard faced	316HFS	316 (Cr-Ni-Mo)	316 (18Cr-8Ni-Mo)	316 Hardf. NiCr Alloy (350 HBN min)	18Cr-12Ni-2.5Mo-2Mn/1/2Co-Cr-A	As trim 10 but for medium pressure and more corrosive service.
No.13	Alloy 20	Alloy 20	Alloy 20 (19Cr-29Ni)	Alloy 20 (19Cr-29Ni)	Alloy 20 (19Cr-29Ni)	29Ni-19Cr-2.5Mo-0.07C	Very corrosive service. For moderate pressure between -45°C and 320°C.
No.14	Alloy 20 - Hard faced	Alloy 20HFS	Alloy 20 (19Cr-29Ni)	Alloy 20 (19Cr-29Ni)	Alloy 20 St Gr6 (350 HBN min)	29Ni-19Cr-2.5Mo-0.07C/1/2Co-Cr-A	As trim 13 but for medium pressure and more corrosive service.
No.14A	Alloy 20 - Hard faced	Alloy 20HFS	Alloy 20 (19Cr-29Ni)	Alloy 20 (19Cr-29Ni)	Alloy 20 Hardf. NiCr Alloy (350 HBN min)	29Ni-19Cr-2.5Mo-0.07C/1/2Co-Cr-A	As trim 13 but for medium pressure and more corrosive service.
No.15	304 - Full Hard faced	304HS	304 (18Cr-8Ni-Mo)	304St Gr6	304+St Gr6 (350 HBN min)	19Cr-9.5Ni-2Mn-0.08C/1/2Co-Cr-A	As trim 2 but more erosive service and higher pressure.
No.16	316 - Full Hard faced	316HF	316 HF (18Cr-8Ni-Mo)	316+St Gr6 (320 HBN min)	316+St Gr6 (350 HBN min)	18Cr-12Ni-2.5Mo-2Mn/Co-Cr-Mo	As trim 10 but more erosive service and higher pressure.
No.17	347 - Full Hard faced	347HF	347 HF (18Cr-10Ni-Cb)	347+St Gr6 (350 HBN min)	347+St Gr6 (350 HBN min)	18Cr-10Ni-Cb/Co-Cr-A	As trim 13 but more corrosive service and higher pressure. Combines good corrosion resistance with high temperature resistance up to 800°C.
No.18	Alloy 20 - Full Hardfaced	Alloy 20 HF	Alloy 20 (19Cr-29Ni)	Alloy 20+St Gr6 (350 HBN min)	Alloy 20+St Gr6 (350 HBN min)	19 Cr-29Ni/Co-Cr-A	As trim 13 but more corrosive service and higher pressure. Water, gas or low pressure steam to 230°C.
No.18	Alloy 20 - Full Hardfaced	Alloy 20 HF	Alloy 20 (19Cr-29Ni)	Alloy 20+St Gr6 (350 HBN min)	Alloy 20+St Gr6 (350 HBN min)	19 Cr-29Ni/Co-Cr-A	As trim 13 but more corrosive service and higher pressure. Water, gas or low pressure steam to 230°C.
Bronze	Bronze	Bronze	410 (CR13)	Bronze	Bronze	...	Water, oil, gas, or low pressure steam to 232°C.

Gate Valve

Application

Gate valves are isolating valves designed for full closing or opening of working media flow. If the gate valves are used for regulating or throttling purposes, the manufacturer does not guarantee tightness of the gate valves.

- **Working medium**
- **water**
- **non-corrosive liquids steam**
- **air**
- **gases of group 1 and 2**
- **petroleum and petroleum products**

Technical description

The body and the bonnet are made of castings and are connected by a flanged joint. The seating surfaces of the seats and the wedge are made in compliance with API 600. The seat rings are welded into the body. The gate valves are equipped with a back seat.

The gate valves are a bi-directional sealing valve. The body-bonnet joint and the packing chamber are sealed with asbestos-free gasket and packing which guarantee a long life service.

Operation

The gate valves are delivered with a handwheel, a manual bevel gear, an electric actuator or bare stem ready for connection to an actuator. The standard connecting dimensions for connection to a manual gear or an electric actuator meet the requirements of ISO 5210.

Installation

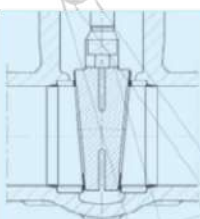
The gate valves may be installed into the piping in vertical or horizontal position. In case of gate valves equipped with an electric actuator or a pneumatic actuator, must you follow instructions of the manufacturer of actuators.



Wedge Gate Valves

Solid Wedge Design

The wedge is made in one solid piece being the downstream side the one which seals the valve when upstream pressure push the wedge against the downstream seat.

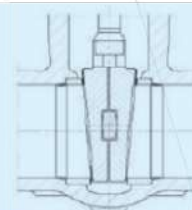


Split Wedge Design

The wedge is made in two separate parts providing high ability to seal. This design is recommended when high thermal or mechanical deformations are expected due to working conditions.

Flexible Wedge Design

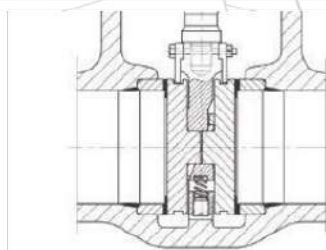
The wedge has a machined groove in its central part providing flexibility at the disc.



Parallel Gate Valves

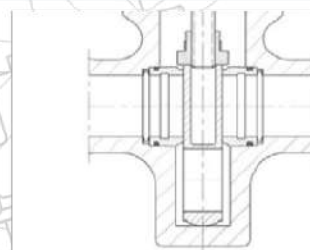
Parallel Slide Gate Valves

For those applications when large temperature variations are expected or fast shut-off is required, this is the most ideal design. The seats are parallel and the disc has no contact with the seats during the stroke of the valve. Only at the end of the stroke the disc mechanism ensures the contact between seats and disc.



Through Conduit

When full port gate valve is required or double block and bleed valve is mandatory this design must be used. Through conduit gate valves are designed to API 6D or API 6A. Seats are floating and sealing is made by the upstream seat which is energized by upstream pressure against the disc. These valves are pigable and normally used for oil and gas application. Both, soft seated and metal seated valves are available.



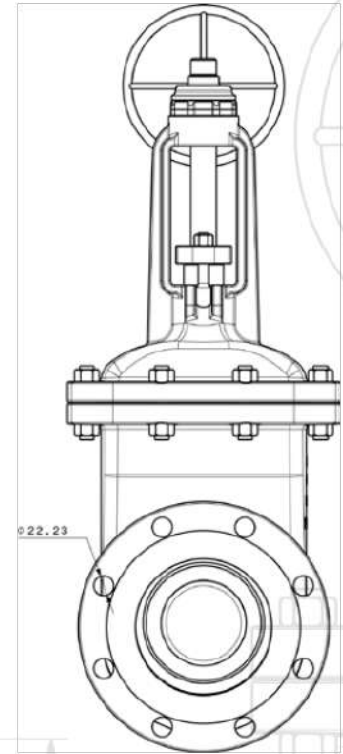
Double Expanding Gate

Metal to Metal seated, double block and bleed are available to API 6D & API 6A.



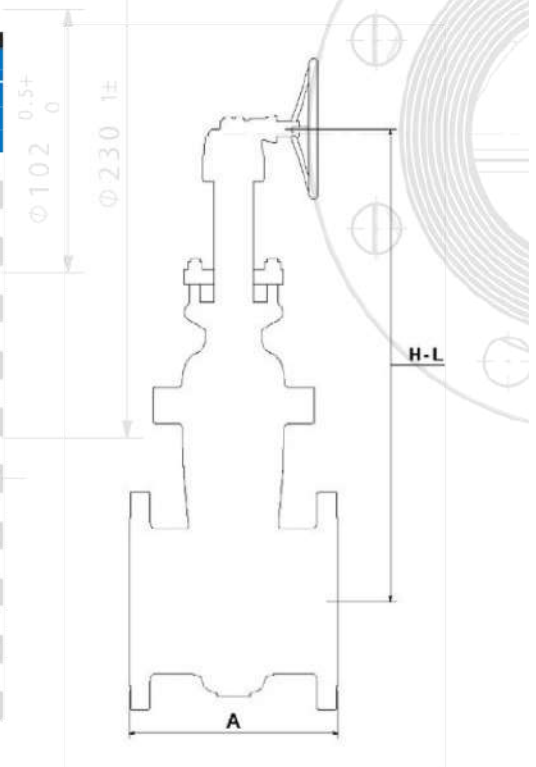
Gate Valve Class 150 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	178	191	216	296	261	-	200	16
3"	203	216	282	533	457	-	710	40
4"	229	241	305	645	538	-	1300	52
6"	267	279	403	850	693	-	3100	90
8"	292	305	419	1079	863	-	5720	145
10"	330	343	457	1308	1036	-	8940	225
12"	356	368	502	1447	1130	-	13350	310
14"	381	394	572	1651	1272	-	16275	445
16"	406	419	610	1879	1447	-	21560	540
18"	432	444	660	2184	1701	-	28720	800
20"	457	470	711	2431	1795	-	35760	990
24"	508	521	813	2837	2189	-	52165	1600
26"	559	-	864	3086	2387	-	63500	1850
28"	610	-	914	3327	2590	-	74800	2100
30"	610	-	914	3606	2819	-	86235	2700
32"	610	-	965	3708	2870	-	103000	3100
36"	711	-	1016	3924	2997	-	129500	3950
40"	812	-	1066	4318	3302	-	175850	4650
42"	812	-	1143	4546	3479	-	223300	5100
48"	1066	-	1371	5181	3962	-	335500	6500



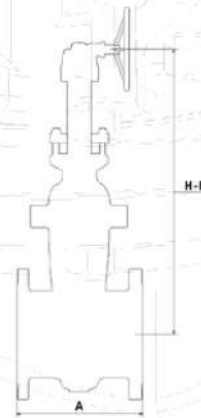
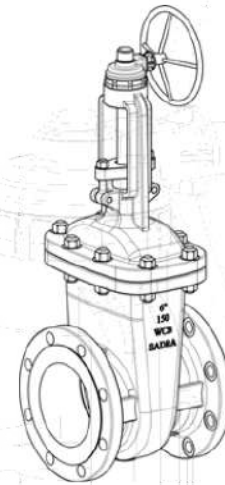
Gate Valve Class 300 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	216	232	216	312	277	-	200	18
3"	282	298	282	596	520	-	710	52
4"	305	321	305	716	609	-	1300	85
6"	403	419	403	984	825	-	3100	150
8"	419	435	419	1219	1009	-	5720	240
10"	457	473	457	1460	1193	-	8940	380
12"	502	518	502	1600	1282	-	13350	430
14"	762	778	762	1790	1422	-	16275	730
16"	838	854	838	1968	1549	-	21560	930
18"	914	930	914	2273	1803	-	28790	1300
20"	991	1010	991	2482	1955	-	34840	1625
24"	1143	1165	1143	3054	2425	-	51050	2800
26"	1245	1269	1245	3219	2540	-	62011	3100
28"	1346	1371	1346	3378	2641	-	73046	3600
30"	1397	1422	1397	3530	2743	-	84765	4200
32"	1524	1552	1524	3695	2857	-	100580	4850
36"	1727	1755	1727	3987	3048	-	125825	5900
40"	1955	1983	1955	4445	-	3713	171740	8100
42"	2032	-	2032	4699	-	3916	217000	9750
48"	2986	-	2986	5435	-	4501	326000	13050



Gate Valve Class 600 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	292	295	292	327	292	-	200	23
3"	356	358	356	609	533	-	710	85
4"	432	434	432	755	647	-	1300	120
6"	559	561	559	1073	914	-	3100	230
8"	660	663	660	1301	1092	-	5500	390
10"	787	790	787	1441	1181	-	8485	620
12"	838	841	838	1644	1333	-	12850	880
14"	889	892	889	1841	1473	-	15370	1350
16"	991	993	991	2070	1651	-	20170	1700
18"	1092	1095	1092	2184	1727	-	26200	2140
20"	1194	1200	1193	2540	2019	-	32100	2450
24"	1397	1406	1397	2755	-	2383	46750	4550
26"	1448	1460	1448	2921	-	2500	56300	5260
28"	1549	1562	1549	3136	-	2663	65900	5960
30"	1651	1664	1651	3327	-	2840	75520	6700
32"	1778	1794	1778	3581	-	3100	85180	8312
36"	2083	2098	2083	4013	-	3450	114250	10125
40"	2149	-	2149	4241	-	3600	156127	14300
42"	2260	-	2260	4322	-	3950	197272	16460
48"	2667	-	2667	5461	-	4600	296300	22900

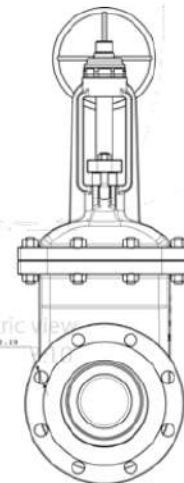


Gate Valve Class 900 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	368	371	368	468	433	-	155	70
3"	381	384	381	685	609	-	650	105
4"	457	460	457	774	673	-	1200	140
6"	610	612	610	1016	863	-	2850	300
8"	737	739	737	1282	1079	-	5025	530
10"	838	841	838	1485	1231	-	7850	950
12"	965	968	965	1682	1384	-	11500	1400
14"	1029	1038	1029	1924	1574	-	13900	1800
16"	1130	1140	1130	-	-	2159	18150	2400
18"	1219	1232	1219	-	-	2362	23910	3000
20"	1321	1333	1321	-	-	2463	29550	3800
24"	1549	1568	1549	-	-	3048	42570	4900
26"	1574	-	1574	-	-	3436	52167	6160
28"	1663	-	1663	-	-	3787	60500	7728
30"	1778	-	1778	-	-	4100	69452	10080
32"	1854	-	1854	-	-	4270	79092	12320
36"	2032	-	2032	-	-	4712	103212	15120

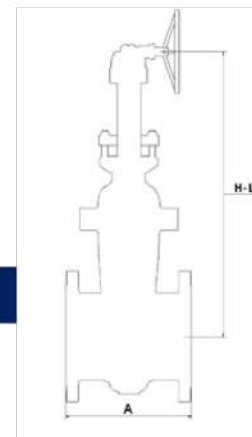
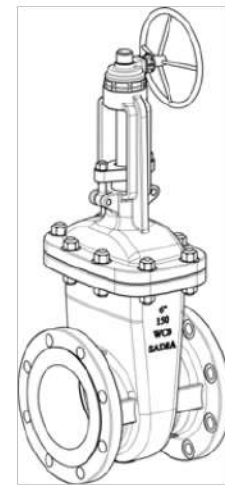
Left view
Scale: 3:10

Isometric view
Scale: 1:10



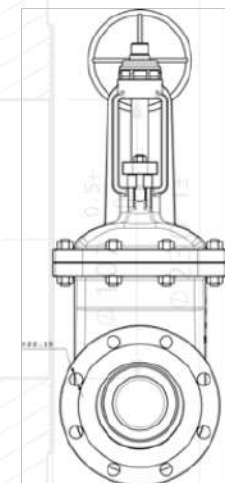
Gate Valve Class 1500 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	368	371	368	468	433	-	200	70
3"	470	472	470	781	711	-	600	130
4"	546	549	546	876	774	-	1070	200
6"	705	711	705	1104	965	-	2500	410
8"	832	841	832	1422	1244	-	4370	720
10"	991	1000	991	1784	1562	-	6850	1400
12"	1130	1146	1130	-	-	1955	9980	2500
14"	1257	1276	1257	-	-	2057	12000	3200
16"	1384	1406	1384	-	-	2311	15675	3800
18"	1537	1559	1537	-	-	2438	20640	4400
20"	1664	1686	1664	-	-	2590	25880	5200
24"	1943	1971	1943	-	-	2946	31175	9500
26"	3032	-	3032	-	-	3253	45514	10235
28"	2209	-	2209	-	-	3573	53320	11500
30"	2286	-	2286	-	-	3933	61095	15525
32"	2413	-	2413	-	-	4313	73478	18400
36"	2565	-	2565	-	-	4705	96862	21735



Gate Valve Class 2500 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	451	454	451	460	425	-	164	80
3"	578	584	578	696	625	-	275	275
4"	673	683	673	819	733	-	460	460
6"	914	927	914	1000	877	-	1100	1100
8"	1022	1038	1022	-	-	1567	1970	1970
10"	1270	1292	1270	-	-	1680	3130	3130
12"	1422	1444	1422	-	-	1840	4535	4535
14"	1526	-	1526	-	-	1974	8368	5500
16"	1699	-	1699	-	-	2080	10955	7210
18"	1908	-	1908	-	-	2214	14481	9415
20"	2012	-	2012	-	-	2427	17587	11450
24"	2220	-	2220	-	-	2672	21338	16575



Section view A-A
Scale: 3:10

Gate Valves

API 6A - 2000, 3000, 5000PSI

2000 FLANGED END DIMENSIONS

Size (Inch)	øA	H	L RJ	B	øV	Weight RJ (Kg)
2" 1/16	52,3 2.06"	485 19,1"	295,1 11,62"	133 5,25"	254 10"	59
2" 9/16	65 2,56"	514 20,25"	333,2 13,12"	155 6,1"	330 13"	80
3" 1/8	79,2 3,12"	584 23"	358,6 14,12"	190,5 7,5"	406 16"	111
4" 1/16	103,1 4,06"	676 26,6"	434,8 17,12"	235 9,25"	406 16"	164
5" 1/8	130,2 5,12"	730 28,7"	562 22,12"	285 11,2"	508 20"	270
7" 1/16	179,3 7,06"	880 34,6"	664 26,12"	390 15,3"	508 20"	450

3000 FLANGED END DIMENSIONS

Size (Inch)	øA	H	L RJ	B	øV	Weight RJ (Kg)
2" 1/16	52,3 2.06"	498 19,6"	371,3 14,62"	150 5,5"	330 13"	82
2" 9/16	65 2,56"	524 20,6"	422,1 16,62"	165 6,5"	406 16"	115
3" 1/8	79,2 3,12"	584 23"	434,8 17,12"	190,5 7,5"	406 16"	127
4" 1/16	103,1 4,06"	676 26,6"	511 20,12"	235 9,25"	508 20"	236
5" 1/8	130,2 5,12"	730 28,7"	613 24,12"	290 11,4"	508 20"	290
7" 1/16	179,3 7,06"	880 34,6"	714 28,12"	400 15,74"	610 24"	480

5000 FLANGED END DIMENSIONS

Size (Inch)	øA	H	L RJ	B	øV	Weight RJ (Kg)
2" 1/16	52,3 2.06"	498 19,6"	371,3 14,62"	140 5,5"	330 13"	82
2" 9/16	65 2,56"	524 20,6"	422,1 16,62"	165 6,5"	406 16"	115
3" 1/8	79,2 3,12"	584 23"	473 18,62"	197 7,75"	406 16"	145
4" 1/16	103,1 4,06"	676 26,6"	549,1 21,62"	241 9,5"	508 20"	236
5" 1/8 *	130,2 5,12"	685 31,3"	727 28,62"	315 12,2"	610 24"	520
7" 1/16 *	179,3 7,06"	980 38,6"	813 32"	400 15,75"	760 30"	1430

Left view
Scale: 3:10

Isometric view
Scale: 3:10

GLOBE VALVES

globe valves includes:

- Straight pattern globe valves.
- Y-pattern globe valves.
- Angle (90°) globe valves.
- Stop check globe valves.
- Positive and adjustable chokes to API 6A.
- Globe control valves.
- Extended bonnet for cryogenic services.

In all cases globe valves can be provided for ON/OFF services as well as for throttling or control applications.

Standards	Sizes	Features Design - Materials
ANSI B16-34 BS - 1873	- 48" ANSI 150/300 - 36" ANSI 600/900 - 24" ANSI 1500/2500	Bolted Bonnet Pressure seal Cast and forged Zero steam leakage Non return "Y" pattern globe Bellows seal globe Stop check globe Angle globe valve



Globe Valves Configurations

Straight Pattern

This is the most commonly used design (standard T-Pattern), providing large pressure drop across the valve.

Y-Pattern

When lower pressure drop across the valve is required Y-Pattern is recommended.

Angle (90°)-Pattern

This design is used when two perpendicular pipes must be connected.

Cage Guided

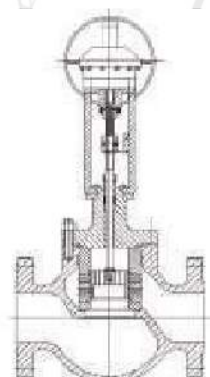
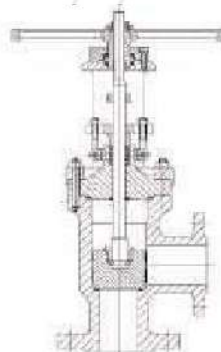
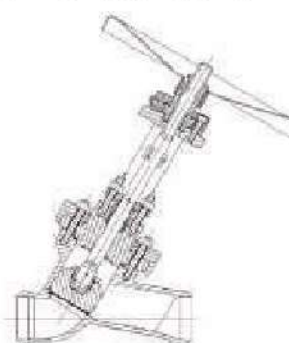
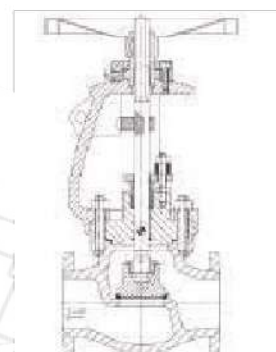
In those cases when valve is intended for control or throttling service, cage guided design is required. There are different types of cages and trims designed to provide different valve characteristics and Cv-values.

Bellows-Sealed Valves (Zero Stem Leakage) For those applications when emissions to the atmosphere are strictly forbidden, valve is provided with metallic bellows which ensures no leakage through the stem packing to the atmosphere.

Control Valves

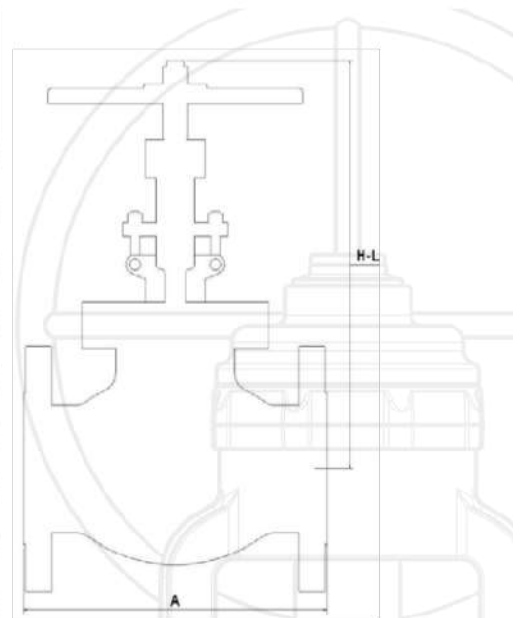
RV offers a wide range of control valves for the most severe applications.

In those cases when valve is intended for control or throttling service, cage guided design is required. There are different types of cages and trims designed to provide different valve characteristics and Cv-values.



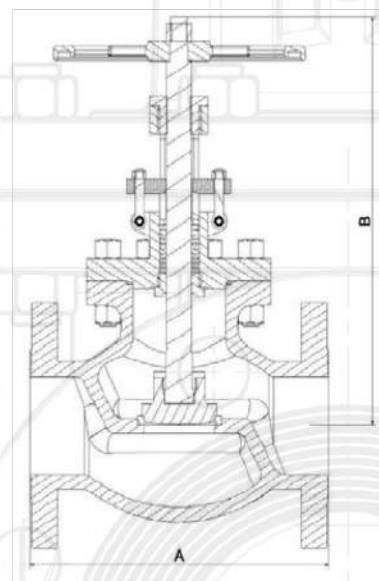
GLOBE VALVE Class 150 DIMENSIONS

SIZE	FACE TO FACE (A)			H	L	K	CV	Approx. Weight RF (Kg.)
	RF	RTJ	BW					
2"	203	216	203	320	285	-	38,3	18
3"	241	254	241	400	355	-	100	36
4"	292	305	292	457	406	-	185	55
6"	406	419	406	609	546	-	440	104
8"	495	508	495	698	622	-	810	200
10"	622	635	622	762	685	-	1260	300
12"	698	711	698	876	774	-	1890	390
14"	787	800	787	990	889	-	2441	610
16"	914	927	914	1104	977	-	3234	880
18"	978	991	978	1206	1066	-	4308	1150
20"	978	991	978	1270	1117	-	5364	1650
24"	1295	1308	1295	1498	1295	-	7825	2200
26"	1295	-	1295	-	-	1560	9857	2545
28"	1448	-	1448	-	-	1680	11480	2887
30"	1524	-	1524	-	-	1800	13228	3712
32"	1626	-	1626	-	-	1920	15098	4262
36"	1956	-	1956	-	-	2160	19211	5431



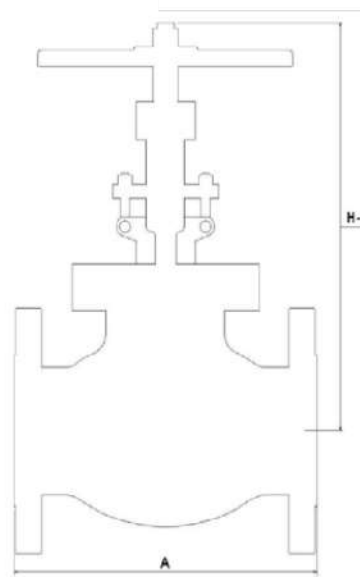
Globe Valve Class 300 Dimensions

SIZE	FACE TO FACE (A)			H	L	K	CV	Approx. Weight RF (Kg.)
	RF	RTJ	BW					
2"	267	283	267	350	315	-	38,3	26
3"	318	333	318	450	406	-	100	52
4"	356	371	356	584	533	-	185	88
6"	444	460	444	660	584	-	440	160
8"	559	574	559	762	673	-	810	259
10"	622	638	622	850	762	-	1260	420
12"	711	727	711	1187	1092	-	1890	595
14"	838	854	838	1085	990	-	2441	876
16"	863	879	863	-	-	1371	3234	1200
18"	977	994	977	-	-	1473	4183	1600
20"	1016	1035	1016	-	-	1574	5226	2100
24"	1346	1368	1346	-	-	1803	7657	3150
26"	1397	1422	1397	-	-	1950	9663	3720
28"	1524	1549	1524	-	-	2048	11271	4320
30"	1626	1651	1626	-	-	2140	13002	5040
32"	1727	1755	1727	-	-	2240	14858	5820
36"	2083	2111	2083	-	-	2416	18940	7080



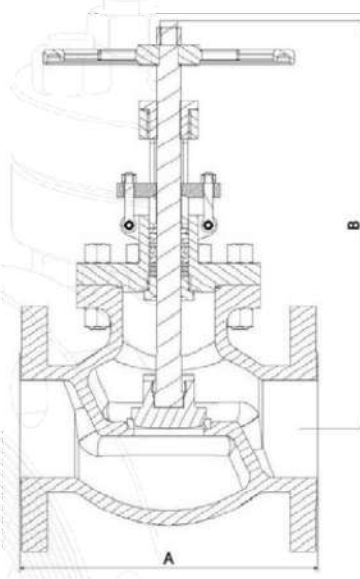
Globe Valve Class 600 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	292	295	292	350	315	-	38,3	28
3"	356	358	356	546	508	-	100	93
4"	432	433	432	711	635	-	185	160
6"	559	561	559	965	914	-	440	310
8"	660	663	660	1117	1016	-	780	560
10"	787	790	787	1320	1219	-	1200	875
12"	838	841	838	-	-	1570	1810	1350
14"	889	892	889	-	-	2025	2356	2025
16"	991	994	991	-	-	2277	3094	2550
18"	1092	1095	1092	-	-	2402	4030	3210
20"	1194	1200	1194	-	-	2794	4930	3675
24"	1397	1407	1397	-	-	3030	7164	6825



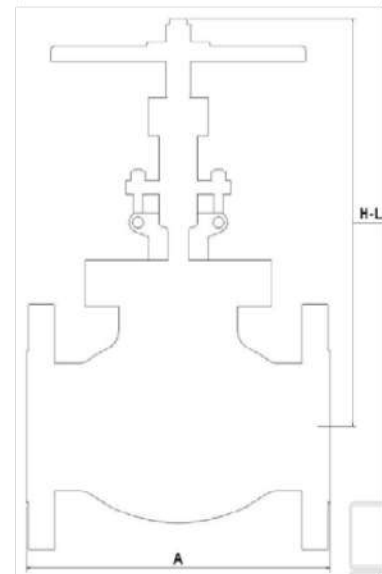
Globe Valve Class 900 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	368	371	368	420	385	-	24	55
3"	381	384	381	685	635	-	90	120
4"	457	460	457	838	774	-	170	200
6"	610	612	610	1117	1041	-	400	410
8"	737	739	737	1422	1333	-	710	790
10"	838	741	838	-	-	1625	1100	1400
12"	965	968	965	-	-	1850	1758	1912
14"	1029	1039	1029	-	-	2116	2134	2625
16"	1130	1140	1130	-	-	2375	2787	3300
18"	1219	1232	1219	-	-	2598	3672	4050
20"	1321	1334	1321	-	-	2709	4533	4950
24"	1549	1568	1549	-	-	3353	6528	6336



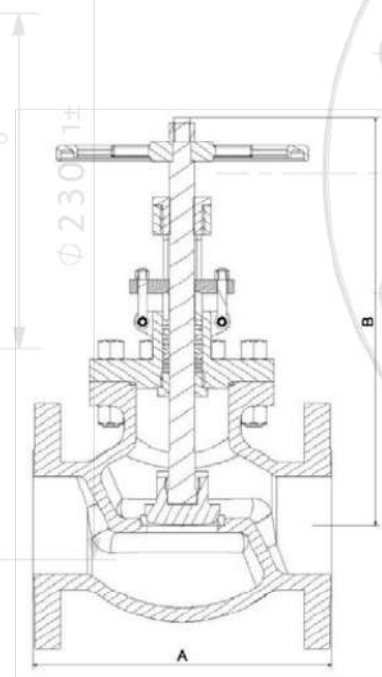
Globe Valve Class 1500 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	368	371	368	420	385	-	24	55
3"	470	473	470	685	635	-	95	122
4"	546	549	546	812	736	-	170	200
6"	705	710	705	1193	1092	-	395	623
8"	832	840	832	-	-	1482	695	1030
10"	991	1000	991	-	-	1482	695	1690
12"	1130	1146	1130	-	-	2150	1529	2730
14"	1257	1276	1257	-	-	2263	1838	3510
16"	1384	1406	1384	-	-	2542	2403	4420
18"	1537	1569	1537	-	-	2682	3164	5330
20"	1664	1686	1664	-	-	2849	3966	6500
24"	1943	1971	1943	-	-	3240	5698	8840



Globe Valve Class 2500 Dimensions

FACE TO FACE (A)								
SIZE	RF	RTJ	BW	H	L	K	CV	Approx. Weight RF (Kg.)
2"	451	454	451	480	445	-	16	75
3"	578	584	578	671	642	-	61	118
4"	673	683	673	788	825	-	102	288
6"	914	927	914	1080	1136	-	253	813
8"	1022	1038	1022	-	-	1577	453	1375
10"	1270	1292	1270	-	-	1810	720	2375
12"	1422	1444	1422	-	-	2045	1057	3500
14"	1574	-	1574	-	-	2160	1283	4625
16"	1726	-	1726	-	-	2278	1680	6000
18"	1878	-	1878	-	-	2424	2221	7500
20"	2030	-	2030	-	-	2658	2698	9375
24"	2182	-	2182	-	-	2871	3909	13250



Section view A-A

Scale: 3:10

CHECK VALVES

check valves include:

- Swing check valves.
- Piston check valves.
- Dual plate check valves.
- Butterfly check valves.
- Emergency assisted check valves.
- Testable check valves.
- Tilting disc check valves.

Standards	Sizes	Features Design - Materials
API 6D	- 64" ANSI 150/300	Bolted bonnet
BS - 1868	- 48" ANSI 600/900	Pressure seal
ANSI B16-34	- 36" ANSI 1500/2500	Cast and forged
API 6A	2-1/16" to 11" class 2000 2-1/16" to 11" class 3000 2-1/16" to 9" class 5000 1-13/16" to 7-1/16" class 10000	Piston check Tilting disc Swing check Emergency assisted Duo Check

Check valves are designed to meet requirements of ANSI B16.34, BS-1868, ANSI B16.5, ANSI B16.10, API 602, API 6D and/or API 6A.



CHECK VALVE Class 150 DIMENSIONS

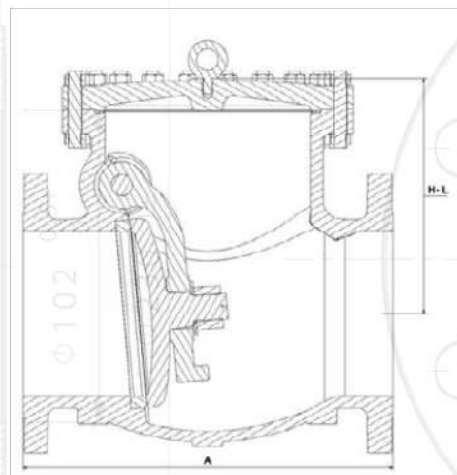
FACE TO FACE (A)						
SIZE	RF	RTJ	BW	H	CV	Approx. Weight RF (Kg.)
2"	203	216	203	140	101	15
3"	241	254	241	152	285	29
4"	292	305	292	190	520	40
6"	356	368	356	228	1245	78
8"	495	508	495	292	2280	140
10"	622	635	622	304	3570	215
12"	698	711	698	342	5300	295
14"	787	800	787	406	6500	408
16"	864	876	864	508	8615	533
18"	978	990	978	584	11500	670
20"	978	990	978	622	14300	1000
24"	1295	1308	1295	711	20865	1950
26"	1295	1308	1295	762	25165	2300
28"	1448	1460	1448	838	29513	2500
30"	1524	1537	1524	889	33910	2600
32"	1727	1740	1727	1016	43130	2800
36"	1956	1968	1956	1092	61570	3200
40"	2159	-	2159	1162	82934	4100
42"	2159	-	2159	1219	112960	4400
48"	2540	-	2540	1320	173000	5250

CHECK VALVE Class 300 DIMENSIONS

FACE TO FACE (A)						
SIZE	RF	RTJ	BW	H	CV	Approx. Weight RF (Kg.)
2"	267	282	267	145	101	19
3"	318	333	318	203	285	45
4"	356	371	356	228	515	65
6"	444	460	444	279	1245	115
8"	533	549	533	342	2285	215
10"	622	638	622	381	3575	310
12"	711	727	711	431	5345	470
14"	838	854	838	482	6510	550
16"	864	879	864	508	8620	870
18"	978	923	978	584	11155	1025
20"	1016	1035	1016	660	13935	1500
24"	1346	1368	1346	762	20420	2500
26"	1346	1371	1346	762	25000	2600
28"	1499	1524	1499	889	28750	3000
30"	1594	1619	1594	977	33910	3400
32"	1727	1755	1727	1016	42230	3700
36"	2083	2111	2083	1143	61570	4300
40"	2159	-	2159	1244	82210	5800
42"	2159	-	2159	1270	111350	6950
48"	2667	-	2667	1422	171500	8100

CHECK VALVE Class 600 DIMENSIONS

FACE TO FACE (A)						
SIZE	RF	RTJ	BW	H	CV	Approx. Weight RF (Kg.)
2"	292	295	292	145	101	20
3"	356	359	356	203	285	48
4"	432	435	432	228	520	67
6"	559	562	559	304	1245	110
8"	660	663	660	406	2210	205
10"	787	790	787	469	3400	325
12"	838	841	838	533	5120	480
14"	889	892	889	609	6150	600
16"	991	994	991	660	8070	800
18"	1092	1092	1092	774	10510	1490
20"	1194	1200	1194	889	12855	1675
24"	1397	1406	1397	965	18680	2300
26"	1448	1460	1448	1016	24600	2710
28"	1600	1612	1600	1066	29950	3125
30"	1651	1666	1651	1168	34680	3710
36"	2083	2098	2083	1320	45308	5800



22.2 0.5+
0

292 ±

CHECK VALVE Class 900 DIMENSIONS

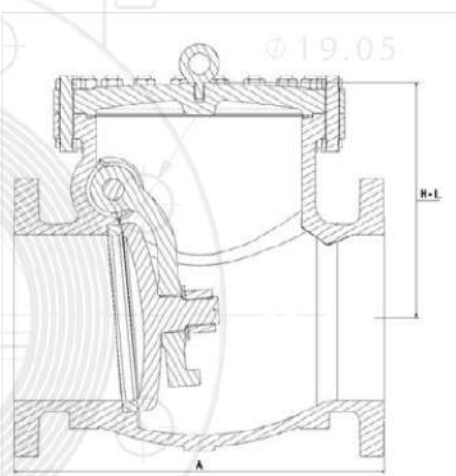
FACE TO FACE (A)						
SIZE	RF	RTJ	BW	H	CV	Approx. Weight RF (Kg.)
2"	368	381	368	170	101	43
3"	381	384	381	304	26	90
4"	457	460	457	335	485	100
6"	610	612	610	442	1140	245
8"	737	739	737	472	2010	425
10"	838	841	838	548	3140	675
12"	965	968	965	700	4590	900
14"	1029	1038	1029	731	5565	1125
16"	1130	1140	1130	822	7270	1600
18"	1219	1232	1219	883	9575	2000
20"	1321	1333	1321	914	11820	2700
24"	1549	1568	1549	1067	17020	4100
26"	1701	-	1701	1219	20866	5100
28"	1828	-	1828	1279	24200	5750
30"	2032	-	2032	1402	27780	6510
36"	2562	-	2562	1625	41285	10180

CHECK VALVE Class 1500 DIMENSIONS

FACE TO FACE (A)						
SIZE	RF	RTJ	BW	H	CV	Approx. Weight RF (Kg.)
2"	368	381	368	170	76	43
3"	470	483	470	305	240	70
4"	546	559	546	335	425	115
6"	705	711	705	442	1000	250
8"	832	855	832	578	1750	470
10"	991	1001	991	701	2735	800
12"	1130	1142	1130	701	3990	1350
14"	1257	1276	1257	792	4800	1800
16"	1384	1406	1384	822	6255	2200
18"	1537	1559	1537	914	8255	2600
20"	1664	1686	1664	1005	10350	3400
24"	1943	1971	1943	1158	14865	5160
28"	1956	-	1956	1356	21328	6900
30"	2057	-	2057	1417	24438	9000
36"	2594	-	2594	1644	36285	14070

CHECK VALVE Class 2500 DIMENSIONS

FACE TO FACE (A)						
SIZE	RF	RTJ	BW	H	CV	Approx. Weight RF (Kg.)
2"	451	464	451	170	48	58
3"	578	584	578	305	115	120
4"	673	683	673	335	195	220
6"	914	927	914	442	475	540
8"	1022	1038	1022	640	850	920
10"	1270	1292	1270	762	1350	1629
12"	1422	1444	1422	822	1970	2296
14"	1519	-	1519	883	3638	3000
16"	1691	-	1691	944	4763	3776
18"	1900	-	1900	974	6050	4692
20"	1900	-	1900	1036	7348	5500
24"	2438	-	2438	1220	10546	7000



Ball Valve

Type: ball valve 2way Wafer Type

Size: from DN13(NPS1/2") up to DN125(NPS 6")

Operating pressure: Class 150 to 2500

Temp range: -20°C to +100°C depending on seal material selected (-60°C to +230°C for Stainless steel)



Type: ball valve 2way Floating Type

Size: from DN13(NPS1/2") up to DN125(NPS 6")

Operating pressure: Class 150 to 2500

Temp range: -20°C to +100°C depending on seal material selected (-60°C to +230°C for Stainless steel)



Type: ball valve 2way BS 5351 Type

Size: from DN13(NPS1/2") up to DN75(NPS 3")

Operating pressure: Class 150 to 800

Temp range: -20°C to +100°C depending on seal material selected (-60°C to +230°C for Stainless steel)



Type: ball valve DBB Valve

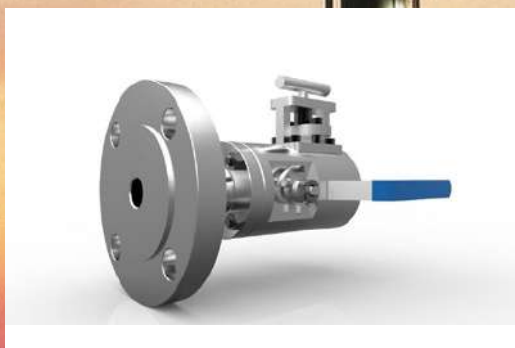
Size: from DN13(NPS1/2") up to DN600(NPS 24")

Operating pressure: Class 150 to 2500

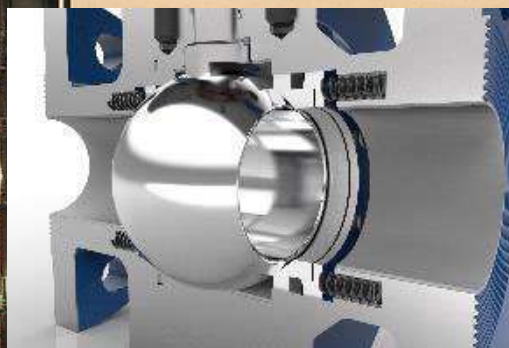
Temp range: -20°C to +100°C depending on seal material selected (-60°C to +230°C for Stainless steel)



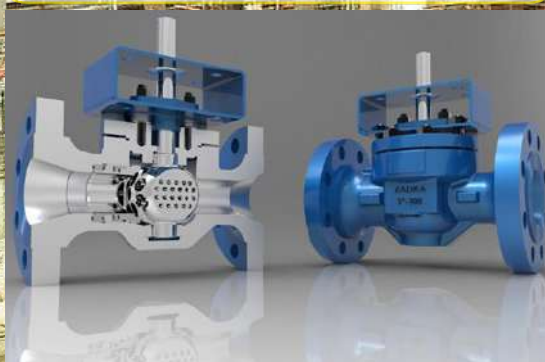
Type: ball valve SIB Valve
Size: from DN13(NPS1/2") up to DN600(NPS 24")
Operating pressure: Class 150 to 2500
Temp range: -20°C to +100°C depending on seal material selected (-60°C to +230°C for Stainless steel)



Type: ball valve 2way Metal Seat Ball Valve
Size: from DN13(NPS1/2") up to DN600(NPS 24")
Operating pressure: Class 150 to 2500
Temp range: -20°C to +350°C depending on seal material selected (-60°C to +230°C for Stainless steel)



Type: ball valve 2way top entry Ball Valve
Size: from DN13(NPS1/2") up to DN600(NPS 24")
Operating pressure: Class 150 to 2500
Temp range: -20°C to +100°C depending on seal material selected (-60°C to +230°C for Stainless steel)

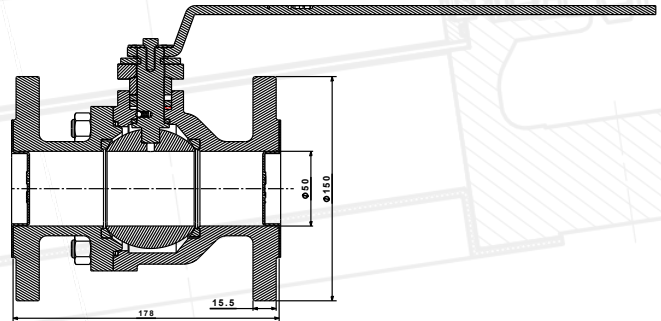
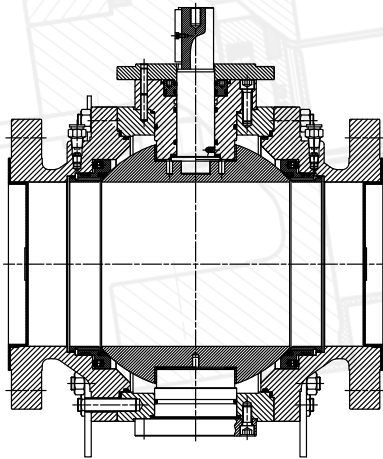


Type: ball valve 3way top entry Ball Valve
Size: from DN13(NPS1/2") up to DN600(NPS 24")
Operating pressure: Class 150 to 2500
Temp range: -20°C to +100°C depending on seal material selected (-60°C to +230°C for Stainless steel)



END to END Ball Valve Dimension

NPS	DN	150 RF	300 RF	600 RF/BW	900 RF/BW	1500 RF/BW	2500 RF/BW
2	50	178	216	292	368	368	451
2 1/2	65	191	241	330	419	419	508
3	80	203	283	356	381	470	578
4	100	229	305	432	457	546	673
6	150	394	403	559	610	705	914
8	200	457	502	660	737	832	1022
10	250	533	568	787	838	991	1270
12	300	610	648	838	965	1130	1422
14	350	686	762	889	1029	1257	
16	400	762	838	991	1130	1384	
18	450	864	914	1092	1219	1537	
20	500	914	991	1194	1321	1664	
22	550	—	1092	1295	—	—	
24	600	1067	1143	1397	1549	—	
26	650	1143	1245	1448	1651	1943	
28	700	1245	1346	1549	—	—	
30	750	1295	1397	1651	1880	—	
32	800	1372	1524	1778	—	—	
34	850	1473	1626	1930	—	—	
36	900	1524	1727	2083	2286	—	



Ordering Specifications



PN (BAR)	CLASS (PSI)
20	150
50	300
68	400
100	600
150	900
250	1500
420	2500

inch	DN	General
1/8	6	
1/4	8	
3/8	10	
1/2	15	
5/8	18	
3/4	20	2
1	25	2/5
1 1/4	32	3
1 1/2	40	4
2	50	5
2 1/2	65	6
3	80	8
3 1/2	90	
4	100	10
4 1/4	115	
5	125	
6	150	15
8	200	20
10	250	
12	300	30
14	350	
16	400	40
18	450	
20	500	
24	600	



Factory: No. 8, mikhak8 St. Hashtrodi Blv
Shams Abad, industrial Park, Tehran, Iran



Telefax: (9821) 91070234
P.O.BOX: 1834179369
Mob: (98) 9933996010
Site: www.sadravalves.ir
E-mail: info@sadravalves.ir
whatsapp: (98) 9933996010

Design: darabi.net