

DHC CO., LTD.



Cast Steel / Stainless steel Globe valves



GLOBE VALVE, BB, CS

Design

The cast steel globe valves are designed and manufactured to provide maximum service life and dependability. All globe valves are full ported and meet the design requirements of American Petroleum Institute standard BS1873, BS EN 13709 and generally conform to American Society of Mechanical Engineers standard ASME B16.34. Valves are available in a complete range of body/bonnet materials and trims

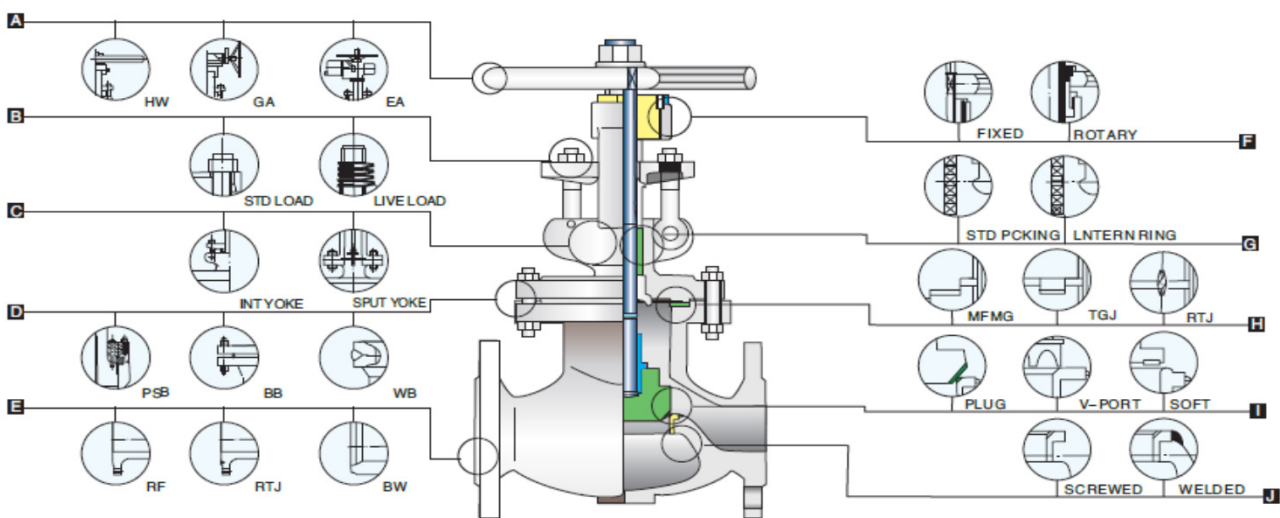
Ranges of materials

Standard body/bonnet materials include nine grades of carbon, low alloy and stainless steels. For special applications they can be supplied in other grades of alloy and stainless steel. There's a full range of trim materials to match any service. Optional packing and gasket materials are available for a full range of service conditions

Available Modifications for Cast Steel Valves

Trim Changes
End connection Modifications
Packing and Gasket Changes
Operator Mounting
Handwheel Extensions

Pressure Equalizing
By-Pass
Customer Specified Coatings
Weld End Bore Changes
Oxygen & Chlorine Clearing & Packaging



A Operation

Large handwheels for easy operation also available with gearing, motor actuator, pneumatic or hydraulic actuator for more difficult services

B Live Load Packing

In services requiring frequent cycling or with high pressure/temperature variations live loading extends the service life between maintenance periods packing glands, adjustments, Belleville spring are employed to provide constant packing gland stress.

C OS&Y

Outside screw and yoke. Cast steel globe valve yoke integral with bonnet for 10" and smaller.

D BB

Bolted bonnet welding bonnet and pressure seal bonnet in services requiring frequent cycling or with high pressure/temperature variations

E End Connections

A choice of flanged, RTJ flanged or buttwelding end for piping flexibility

F Yoke Sleeve

Furnished in aluminium bronze to reduce operating torque. Most size furnished with ball bearing yoke sleeves.

G Lantern Ring And Double Packing set

lantern ring with leak-off fitting connection and double packing stack is optionally available for critical services

H Body-to-Bonnet Joint

A male and female joint or tongue and groove joint is used 150Lb to 600Lb valves, ring joint is used in the body to bonnet connection in 900Lb & higher rated valves

I Disc

Plug disc is stem guided on all size. Disc has a differential angle front the seat to provide a line contact for maximum sealing. The bottom of v-port disc is guided by the body seat ring for maximum disc stability in throttling applications, the soft teflon ring is excellent for lower temperature service where tight shut off required.

J Seat Rings

Separate heavy duty, full ported rings for easy maintenance. Screwed or welded connection into body.

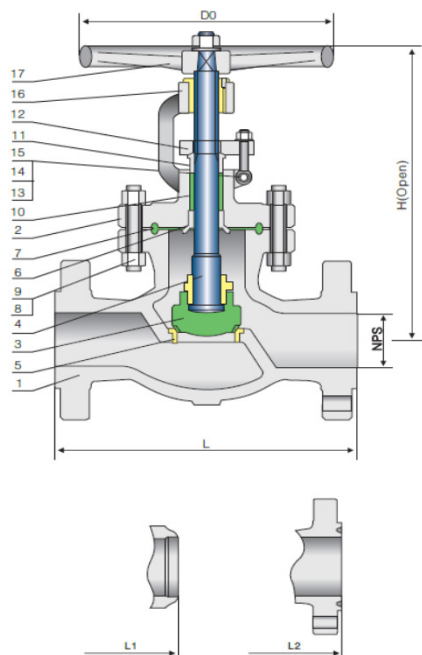
CAST STEEL GLOBE VALVE 150Lb/300Lb

Applicable Standards:

- > STEEL GLOBE VALVES BS EN 13709/BS1873
- > STEEL VALVES, ASME B16.34
- > FACE TO FACE, ASME B16.10
- > END FLANGES, ASME B16.5
- > BUTTWELDING ENDS, ASME B16.25
- > INSPECTION AND TEST API598

Design descriptions:

- > STRAIGHT PATTERN BODY DESIGN
- > OS&Y OUTSIDE SCREW AND YOKE
- > BB.BOLTED BONNET
- > YOKE INTEGRAL WITH BONNET
- > RISING STEM AND HANDWHEEL
- > LOOSE DISC, CHOICE OF PLUG OR BALL
- > IMPACT HANDWHEEL FOR 10" AND ABOVE
- > HORIZONTAL SERVICE
- > FLANGED OR BUTTWELDING ENDS
- > AVAILABLE WITH BG OPERATOR



Materials of Parts

No	Part Name	Carbon Steel	ASTM Material 1.1/4cr - 1/2Mo	Carbon Steel
1	Body	A216-WCB	A217-WC6	A352-LCB
2	Bonnet	A216-WCB	A217-WC6	A352-LCB
3	Disc	A105+CR13	A182-F11+HF	A352-LF2+CR13
4	Stem	A182-F6a	A182-F6a	A182-F6a
5	Seat ring	A105+HF	A182-F11+HF	A350-LF2+HF
6	Stem Backseat	A276-420	A276-304	A276-420
7	Bonnet Gasket	Steel Ring	304SS Ring	Steel Ring
8	Bonnet Stud	A193-B7	A193-B16	A320-L7
9	Bonnet Stud Nut	A194-2H	A194-7	A194-4
10	Packing	Graphite		
11	Gland	A276-420	A276-304	A276-420
12	Gland Flange	A216-WCB	A217-WC6	A352-LCB
13	EyeBolt Pin	Carbon Steel	A276-420	Carbon Steel
14	Eyebolt	Carbon Steel	A193-B7	Carbon Steel
15	Eyebolt Nut	Carbon Steel	A194-2H	Carbon Steel
16	Yoke Sleeve		Aluminum-Bronze ¹	
17	Handwheel		Malleable Iron	

Note: 1) Special material like Super duplex, alloy and other material as customer's requirement.
2) Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensional datas of ANSI Class 150Lb

NPS (DN)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		Do		WT (kg)	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	RF	BW
2"	50	8.00	203	8.00	203	15.00	380	7.00	180	18	14
2.1/2"	65	8.50	216	8.50	216	21.00	535	10.00	240	30	22
3"	80	9.50	241	9.50	241	17.50	445	11.00	280	41	33
4"	100	11.50	292	11.50	292	20.25	515	11.00	280	64	43
6"	150	16.00	406	16.00	406	22.00	560	13.00	320	86	72
8"	200	19.50	495	19.50	495	24.25	615	13.00	320	110	88
10"	250	24.50	622	24.50	622	32.00	815	16.00	400	280	245
12"	300	27.50	698	27.50	698	35.88	910	18.00	450	380	345
14"	350	31.00	787	31.00	787	48.38	1230	20.00	500	510	450
16"	400	36.00	914	36.00	914	57.00	1450	24.00	600	740	665

Dimensional datas of ANSI Class 300Lb

NPS (DN)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		Do		WT (kg)	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	RF/RJT	BW
2"	50	10.50	267	11.12	282	16.75	425	8.00	200	25	20
2.1/2"	65	11.50	292	12.12	308	19.00	485	10.00	240	32	22
3"	80	12.50	318	13.12	333	19.88	505	11.00	280	38	27
4"	100	14.00	356	14.62	371	22.50	570	13.00	320	56	41
6"	150	17.50	444	18.12	460	25.25	640	16.00	400	96	75
8"	200	22.00	559	22.62	575	33.25	845	18.00	450	150	117
10"	250	24.50	622	25.12	638	35.50	900	20.00	500	360	310
12"	300	28.00	711	28.62	727	38.62	980	24.00	600	550	492
14"	350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16"	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Dimension, design and material are subject to change without notice.

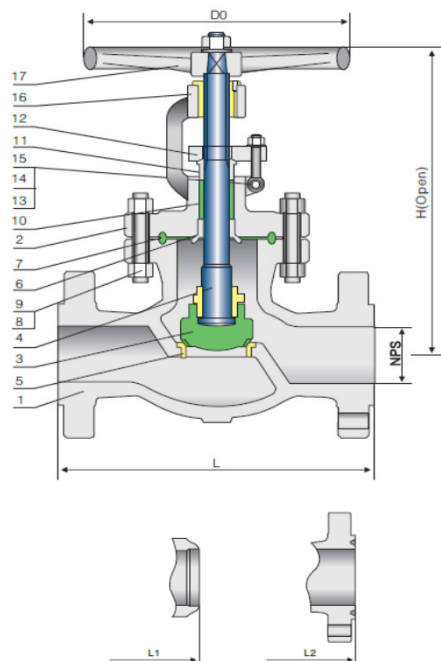
CAST STEEL GLOBE VALVE 600Lb/900Lb

Applicable Standards:

- > STEEL GLOBE VALVES BS EN 13709/BS1873
- > STEEL VALVES, ASME B16.34
- > FACE TO FACE, ASME B16.10
- > END FLANGES, ASME B16.5
- > BUTTWELDING ENDS, ASME B16.25
- > INSPECTION AND TEST API598

Design descriptions:

- > STRAIGHT PATTERN BODY DESIGN
- > OS&Y OUTSIDE SCREW AND YOKE
- > BB.BOLTED BONNET
- > YOKE INTEGRAL WITH BONNET
- > RISING STEM AND HANDWHEEL
- > LOOSE DISC, CHOICE OF PLUG OR BALL
- > IMPACT HANDWHEEL FOR 10" AND ABOVE
- > HORIZONTAL SERVICE
- > FLANGED OR BUTTWELDING ENDS
- > AVAILABLE WITH BG OPERATOR



Materials of Parts

No	Part Name	Carbon Steel	ASTM Material 1.1/4cr - 1/2Mo	Carbon Steel
1	Body	A216-WCB	A217-WC6	A352-LCB
2	Bonnet	A216-WCB	A217-WC6	A352-LCB
3	Disc	A105+CR13	A182-F11+HF	A352-LF2+CR13
4	Stem	A182-F6a	A182-F6a	A182-F6a
5	Seat ring	A105+HF	A182-F11+HF	A350-LF2+HF
6	Stem Backseat	A276-420	A276-304	A276-420
7	Bonnet Gasket	Steel Ring	304SS Ring	Steel Ring
8	Bonnet Stud	A193-B7	A193-B16	A320-L7
9	Bonnet Stud Nut	A194-2H	A194-7	A194-4
10	Packing	Graphite		
11	Gland	A276-420	A276-304	A276-420
12	Gland Flange	A216-WCB	A217-WC6	A352-LCB
13	EyeBolt Pin	Carbon Steel	A276-420	Carbon Steel
14	Eyebolt	Carbon Steel	A193-B7	Carbon Steel
15	Eyebolt Nut	Carbon Steel	A194-2H	Carbon Steel
16	Yoke Sleeve		Aluminum-Bronze ¹	
17	Handwheel		Malleable Iron	

- Note:
- 1) Special material like Super duplex, alloy and other material as customer's requirement.
 - 2) Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensional datas of ANSI Class 600Lb

NPS (DN)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		Do		WT (kg)	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	RF/RTJ	BW
2"	50	11.50	292	11.62	295	17.50	445	10.00	240	35	27
2.1/2"	65	13.00	330	13.12	333	19.75	502	11.00	280	50	34
3"	80	14.00	356	14.12	359	21.00	533	13.00	320	60	42
4"	100	17.00	432	17.12	435	24.50	622	16.00	400	110	84
6"	150	22.00	559	22.12	562	29.50	750	18.00	450	230	192
8"	200	26.00	660	26.12	663	36.50	927	20.00	500	410	350
10"	250	31.00	787	31.12	790	44.88	1140	24.00	600	770	680
12"	300	33.00	838	33.12	841	53.12	1350	24.00	600	1140	1030

Dimensional datas of ANSI Class 900Lb

NPS (DN)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		Do		WT (kg)	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	RF/RTJ	BW
2"	50	14.50	368	14.62	371	22.00	560	11.00	280	57	41
2.1/2"	65	16.50	419	16.62	422	23.25	590	13.00	320	82	53
3"	80	15.00	381	15.12	384	25.25	640	16.00	400	91	58
4"	100	18.00	457	18.12	460	31.88	810	18.00	450	168	117
6"	150	24.00	610	24.12	613	41.38	1050	20.00	500	365	238
8"	200	29.00	737	29.12	740	53.50	1360	24.00	600	665	538
10"	250	33.00	838	33.12	841	61.88	1570	24.00	600	1250	1060
12"	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Dimension, design and material are subject to change without notice.

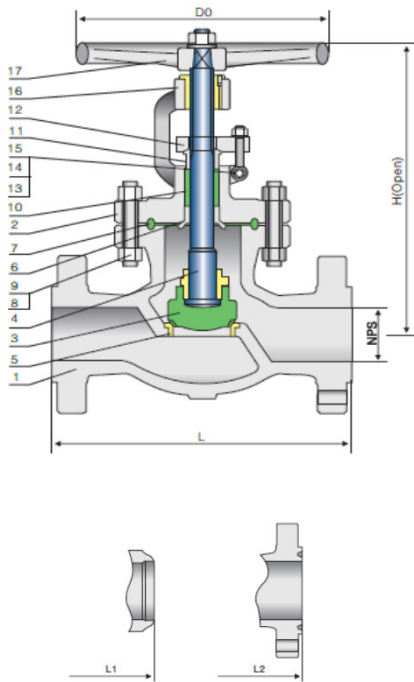
CAST STEEL GLOBE VALVE 1500Lb/2500Lb

Applicable Standards:

- > STEEL GLOBE VALVES BS EN 13709/BS1873
- > STEEL VALVES, ASME B16.34
- > FACE TO FACE, ASME B16.10
- > END FLANGES, ASME B16.5
- > BUTTWELDING ENDS, ASME B16.25
- > INSPECTION AND TEST API598

Design descriptions:

- > STRAIGHT PATTERN BODY DESIGN
- > OS&Y OUTSIDE SCREW AND YOKE
- > BB.BOLTED BONNET
- > YOKE INTEGRAL WITH BONNET
- > RISING STEM AND HANDWHEEL
- > LOOSE DISC, CHOICE OF PLUG OR BALL
- > IMPACT HANDWHEEL FOR 10" AND ABOVE
- > HORIZONTAL SERVICE
- > FLANGED OR BUTTWELDING ENDS
- > AVAILABLE WITH BG OPERATOR



Materials of Parts

No	Part Name	Carbon Steel	ASTM Material 1.1/4cr - 1/2Mo	Carbon Steel
1	Body	A216-WCB	A217-WC6	A352-LCB
2	Bonnet	A216-WCB	A217-WC6	A352-LCB
3	Disc	A105+CR13	A182-F11+HF	A352-LF2+CR13
4	Stem	A182-F6a	A182-F6a	A182-F6a
5	Seat ring	A105+HF	A182-F11+HF	A350-LF2+HF
6	Stem Backseat	A276-420	A276-304	A276-420
7	Bonnet Gasket	Steel Ring	304SS Ring	Steel Ring
8	Bonnet Stud	A193-B7	A193-B16	A320-L7
9	Bonnet Stud Nut	A194-2H	A194-7	A194-4
10	Packing	Graphite		
11	Gland	A276-420	A276-304	A276-420
12	Gland Flange	A216-WCB	A217-WC6	A352-LCB
13	EyeBolt Pin	Carbon Steel	A276-420	Carbon Steel
14	Eyebolt	Carbon Steel	A193-B7	Carbon Steel
15	Eyebolt Nut	Carbon Steel	A194-2H	Carbon Steel
16	Yoke Sleeve		Aluminum-Bronze ¹	
17	Handwheel		Malleable Iron	

- Note:
- 1) Special material like Super duplex, alloy and other material as customer's requirement.
 - 2) Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensional datas of ANSI Class 1500Lb

NPS (DN)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		Do		WT (kg)	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	RF/RTJ	BW
2"	50	14.50	368	14.62	371	22.00	560	13.00	320	68	57
2.1/2"	65	16.50	419	16.62	422	23.25	590	16.00	400	97	81
3"	80	18.50	470	18.62	473	29.50	750	18.00	450	116	95
4"	100	21.50	546	21.62	549	36.00	915	20.00	500	215	184
6"	150	27.75	705	28.00	711	48.62	1235	24.00	600	445	347
8"	200	32.75	832	33.12	841	65.00	1650	28.00	700	795	635

Dimension, design and material are subject to change without notice.

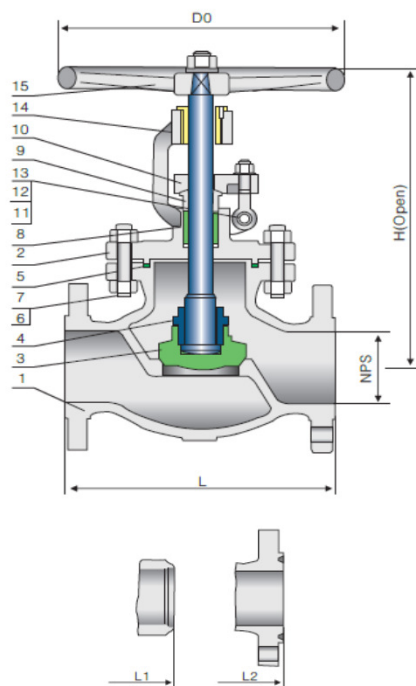
API603 CORROSION-RESISTANT VALVES CAST STAINLESS STEEL GLOBE VALVES 150Lb

Applicable Standards:

- > STEEL GLOBE VALVES API 603
- > STEEL VALVES, ASME B16.34
- > FACE TO FACE, ASME B16.10
- > END FLANGES, ASME B16.5
- > BUTTWELDING ENDS, ASME B16.25
- > INSPECTION AND TEST API598

Design descriptions:

- > STRAIGHT PATTERN BODY DESIGN
- > OS&Y OUTSIDE SCREW AND YOKE
- > BB.BOLTED BONNET
- > YOKE INTEGRAL WITH BONNET
- > RISING STEM AND HANDWHEEL
- > LOOSE DISC, CHOICE OF PLUG OR BALL
- > SEAT RINGS INTEGRAL WITH BODY
- > IMPACT HANDWHEEL FOR 10" AND ABOVE
- > HORIZONTAL SERVICE
- > FLANGED OR BUTTWELDING ENDS
- > AVAILABLE WITH BG OPERATOR



Materials of Parts

No	Part Name	18Cr-18Ni	ASTM Material 18Cr-9Ni-2Mo	17Cr-9Ni-2Mo
1	Body	A351-CF8	A351-CF8M	A351-CF3M
2	Bonnet	A351-CF8	A351-CF8M	A351-CF3M
3	Disc	A351-CF8	A351-CF8M	A351-CF3M
4	Stem	A182-F304	A182-F316	A182-F316L
5	Bonnet Gasket ¹	Graphite+304	Graphite+316	Graphite+316L
6	Bonnet Stud	A193-B8	A193-B8M	A193-B8M
7	Bonnet Stud Nut	A194-8	A194-8M	A194-8M
8	Packing ²	Graphite		
9	Gland	A276-304	A276-316	A276-316L
10	Gland Flange	A351-CF8	A351-CF8M	A351-CF8M
11	EyeBolt Pin	A276-304	A276-316	A276-316
12	Eyebolt	A193-B8	A193-B8	A193-B8
13	Eyebolt Nut	A194-8	A194-8	A194-8
14	Yoke Sleeve	Aluminum-Bronze ³		
15	Handwheel	Malleable Iron		

Note:

- 1) Spiral wound construction. Teflon optional
- 2) Teflon optional
- 3) Ductile Ni-resist optional
- 4) Disc and seat(integral with body)may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensional datas of ANSI Class 150Lb

NPS (DN)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		Do	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2"	50	8.00	203	8.50	216	15.00	380	7.00	180
2.1/2"	65	8.50	216	9.00	229	21.00	535	10.00	240
3"	80	9.50	241	10.00	254	17.50	445	11.00	280
4"	100	11.50	292	12.00	305	20.25	515	11.00	280
6"	150	16.00	406	16.50	419	22.00	560	13.00	320
8"	200	19.50	495	20.00	508	24.25	615	13.00	320
10"	250	24.50	622	25.00	635	32.00	815	16.00	400
12"	300	27.50	698	28.00	711	35.88	910	18.00	450
14"	350	31.00	787	31.50	800	48.38	1230	20.00	500
16"	400	36.00	914	36.50	927	57.00	1450	24.00	600

Dimension, design and material are subject to change without notice.

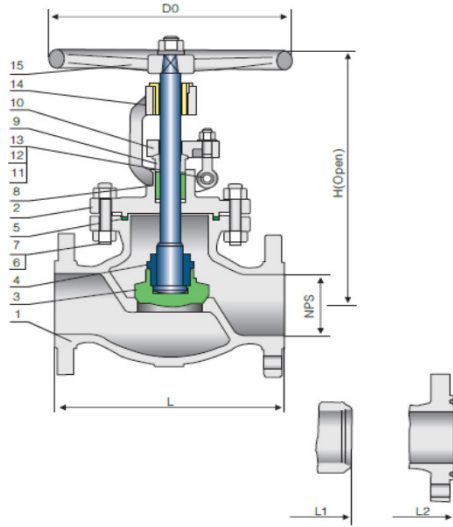
API603 CORROSION-RESISTANT VALVES CAST STAINLESS STEEL GLOBE VALVES 300Lb/600Lb

Applicable Standards:

- > STEEL GLOBE VALVES API 603
- > STEEL VALVES, ASME B16.34
- > FACE TO FACE, ASME B16.10
- > END FLANGES, ASME B16.5
- > BUTTWELDING ENDS, ASME B16.25
- > INSPECTION AND TEST API598

Design descriptions:

- > STRAIGHT PATTERN BODY DESIGN
- > OS&Y OUTSIDE SCREW AND YOKE
- > BB.BOLTED BONNET
- > YOKE INTEGRAL WITH BONNET
- > RISING STEM AND HANDWHEEL
- > IMPACT HANDWHEEL FOR 10" AND ABOVE
- > HORIZONTAL SERVICE
- > FLANGED OR BUTTWELDING ENDS
- > AVAILABLE WITH BG OPERATOR
- > LOOSE DISC, CHOICE OF PLUG OR BALL
- > SEAT RINGS INTEGRAL WITH BODY



Materials of Parts

No	Part Name	18Cr-18Ni	ASTM Material 18Cr-9Ni-2Mo	17Cr-9Ni-2Mo
1	Body	A351-CF8	A351-CF8M	A351-CF3M
2	Bonnet	A351-CF8	A351-CF8M	A351-CF3M
3	Disc	A351-CF8	A351-CF8M	A351-CF3M
4	Stem	A182-F304	A182-F316	A182-F316L
5	Bonnet Gasket ¹	Graphite+304	Graphite+316	Graphite+316L
6	Bonnet Stud	A193-B8	A193-B8M	A193-B8M
7	Bonnet Stud Nut	A194-8	A194-8M	A194-8M
8	Packing ²	Graphite		
9	Gland	A276-304	A276-316	A276-316L
10	Gland Flange	A351-CF8	A351-CF8M	A351-CF8M
11	EyeBolt Pin	A276-304	A276-316	A276-316
12	Eyebolt	A193-B8	A193-B8	A193-B8
13	Eyebolt Nut	A194-8	A194-8	A194-8
14	Yoke Sleeve	Aluminum-Bronze ³		
15	Handwheel	Malleable Iron		

- Note:
- 1) Spiral wound construction. Teflon optional
 - 2) Teflon optional
 - 3) Ductile Ni-resist optional
 - 4) Disc and seat(integral with body)may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

Dimensional datas of ANSI Class 300Lb

NPS (DN)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		Do	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2"	50	10.50	267	11.12	282	16.75	425	8.00	200
2.1/2"	65	11.50	292	12.12	308	19.00	485	10.00	240
3"	80	12.50	318	13.12	333	19.88	505	11.00	280
4"	100	14.00	356	14.62	371	22.50	570	13.00	320
6"	150	17.50	444	18.12	460	25.25	640	16.00	400
8"	200	22.00	559	22.62	575	33.25	845	18.00	450
10"	250	24.50	622	25.12	638	35.50	900	20.00	500
12"	300	28.00	711	28.62	727	38.62	980	24.00	600

Dimensional datas of ANSI Class 600Lb

NPS (DN)		L/L1 (RF/BW)		L2 (RTJ)		H (Open)		Do	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2"	50	11.50	292	11.62	295	17.50	445	10.00	240
2.1/2"	65	13.00	330	13.12	333	19.75	502	11.00	280
3"	80	14.00	356	14.12	359	21.00	533	13.00	320
4"	100	17.00	432	17.12	435	24.50	622	16.00	400
6"	150	22.00	559	22.12	562	29.50	750	18.00	450
8"	200	26.00	660	26.12	663	36.50	927	20.00	500
10"	250	31.00	787	31.12	790	44.88	1140	24.00	600
12"	300	33.00	838	33.12	841	53.12	1350	24.00	600

Dimension, design and material are subject to change without notice.



DHC CO., LTD.

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