

CHINA VIHUNG VALVE CO., LTD.



COMPANY PROFILE

VIHUNG VALVE specialises in the supply of valves for the Oil, Gas, Chemical, Petrochemical, Pipeline and Water Industries Worldwide. Our valves are used in Offshore, Onshore and Sub-Sea applications.

The Management of the Company has many years experience in the Valve Industry. The organisation and flexibility of the Company allows VIHUNG VALVE to offer short lead-times, even on non-standard valves.

All valves are supplied to the highest quality standards and are fully tested before leaving the factory.

The aim of VIHUNG VALVE is to provide valves and services, which meet or exceed our Customers' requirements, at a realistic price and reliable manufacturing time and in so doing remain a market leader supplying a worldwide base of industry leading clients.

VIHUNG VALVE QUALITY SYSTEM

VIHUNG VALVE quality system is Lloyds approved to BS: EN ISO ISO 9001:2015 and API Q1 9th Edition which ensures that our product is controlled through each stage of manufacture. Valves are supplied with full chemical and mechanical material test certificates to BS EN 10204: 2004 3.1. Hydrostatic and pneumatic test certificates are also supplied with each valve.

VIHUNG VALVE is part of the Federal International (2000) Ltd Group. This long standing relationship coupled with our own experience has allowed VIHUNG VALVE to grow and develop into our current and ever improving place within the market.

As part of a large multi-national group, **VIHUNG VALVE** has the benefit and experience of our The PR. of China based operations together with worldwide access to our parent company resources and our numerous sister companies.

These valuable resources afford us global reach, whilst allowing local access and understanding of both global and local markets, allowing us to provide local technical support in almost any region.

Our key position within the group enables us to offer full management and supply of valves, services and subsidiary equipment. We also offer access to a large and continuously replenished inventory of our core in-house designed products and all others available within the group.

We can supply large quantities of varying product ranges almost instantly or equally manufacture at our various VIHUNG VALVE controlled manufacturing sites with short lead times and impeccable quality.

REFERENCE STANDARDS

AMERICAN STANDARD	AMERICAN STANDARDS (ANSI, ASME)						
ANSI / ASME B16.5 Pipe flanges and flanged fittings.							
ANSI / ASME B16.10	Face - to -face and end - to - end dimension of valves						
ANSI / ASME B16.25	Butt -weld ends.						
ANSI / ASME B16.34	Valves -flanged, thread and weld ends.						
ASME B16.11	Forged Fittings, Socket Welding and Threaded						
ASME B1.20.1	Pipe Threads, General Purpose, Inch						

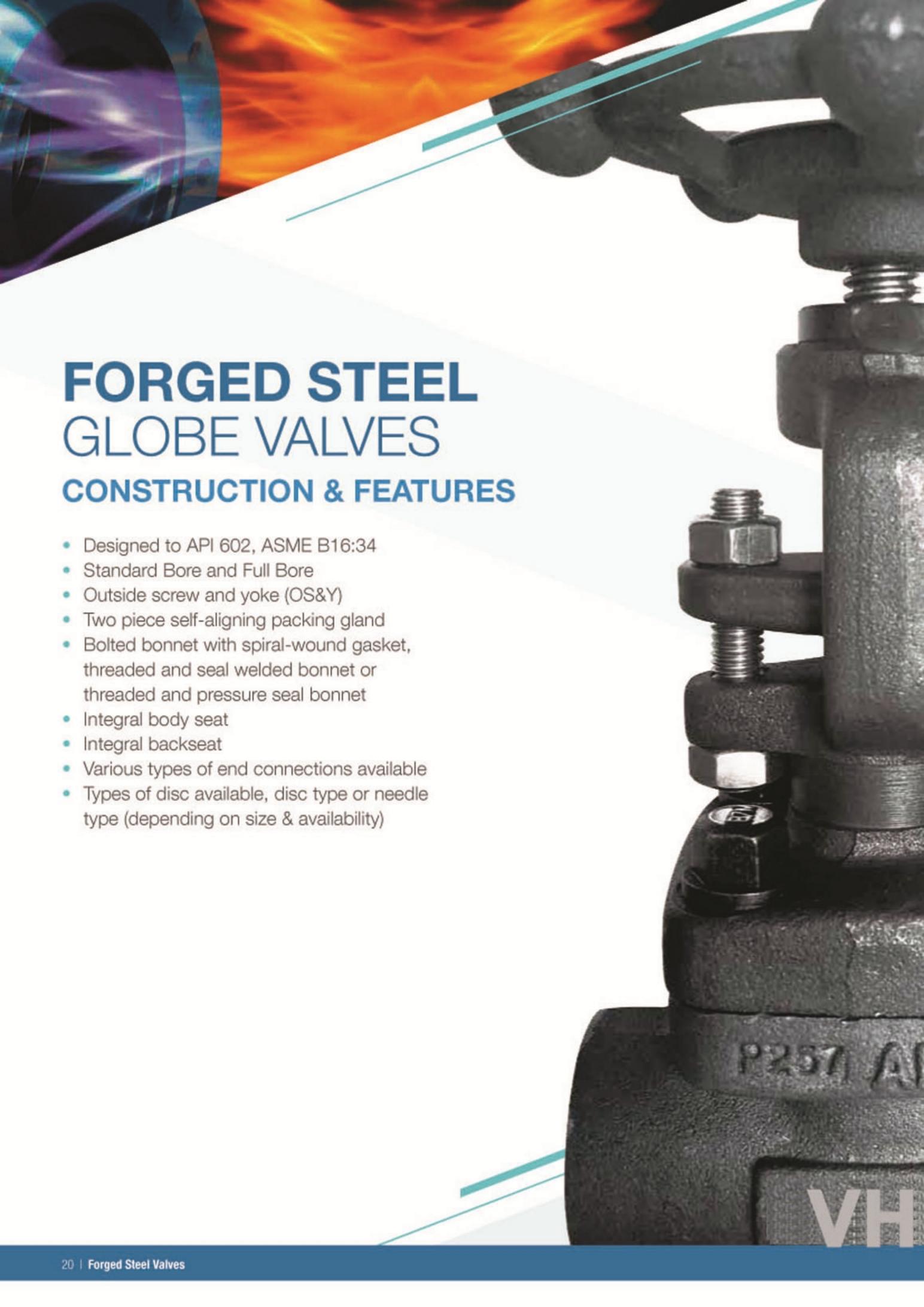
ASTM Material specifications of material used.

API STANDARDS	(API)	
API 6D	Specification for pipeline valves.	
API 602	Specification for Steel Gate Globe Check valves for Size NPS 4 and Smaller.	
API 6FA	Specification for fire test for valves.	
API 607	Fire test for soft - seated quarter - turn valves.	
API 598	Valve inspection and testing.	
API 5L	Specification for line pipe.	

BRITISH STANDARDS (BS)							
BS 5351	Steel ball valves for the petroleum, petrochemical and allied instrument.						
BS 6755	Testing of valves. Specification for fire-type testing requirements.						

MSS STANDARDS (MSS SP)						
SP 25	Standard marking system for valves, fittings, flanges and unions.					
SP 55	Quality Standards for Steel Casting, Visual Method					

INTERNATIONAL STANDARDS						
ISO 5208	Industrial Valves - Pressure Testing of Metallic Valves					
ISO 5211	Industrial Valves - Part Turn Actuator Attachments					
EN ISO 17292	Metal Ball Valves for Petroleum, Petrochemical and allied industries.					
EN 10204	Types of inspection documents.					
NACE MR 01-75	Sulphide stress cracking resistant materials.					



MAIN COMPONENT

& PARTS

1. BODY:

Strong and Robust in ASTM forged steel material. Designed to the requirements of API 602 and ASME B16.34. Available in Standard and Full Bore design. Y pattern design available upon request.

2. SEAT:

Part of the valve trim to API 602, the body seat is an integral weld overlay to the valve body.

3. DISC:

Part of the valve trim to API 602, the disc is in ASTM forged steel material. Swivel Plug type disc design as standard.

4. STEM:

Part of the valve trim to API 602, the stem is in ASTM forged steel material and designed to the basic dimensional requirements of API 602. Comes with an integral backseat shoulder that seals with the integral backseat of the bonnet.

5. GASKET:

Spiral Wound Type body gasket as standard.

6. BONNET:

Strong and Robust in ASTM forged steel material. Designed to the requirements of API 602 and ASME B16.34. Comes with an integral backseat and stuffing box.

7. GLAND PACKING:

Graphite packing as standard. Other materials available upon request.

8. GLAND:

Alloy steel material to ASTM standards.

9. GLAND FLANGE:

The gland and gland flange is designed as a separate two piece assembly. This self aligning feature allows the gland flange to be tightened unevenly while the gland maintains its parallel alignment with the stem and stuffing box.

10. GLAND BOLT/NUT:

Stainless Steel Material to ASTM standards. The gland bolt/nut assembly is a stud, double nut arrangement. This allows complete removal during servicing of the valve.

11. BONNET BOLT:

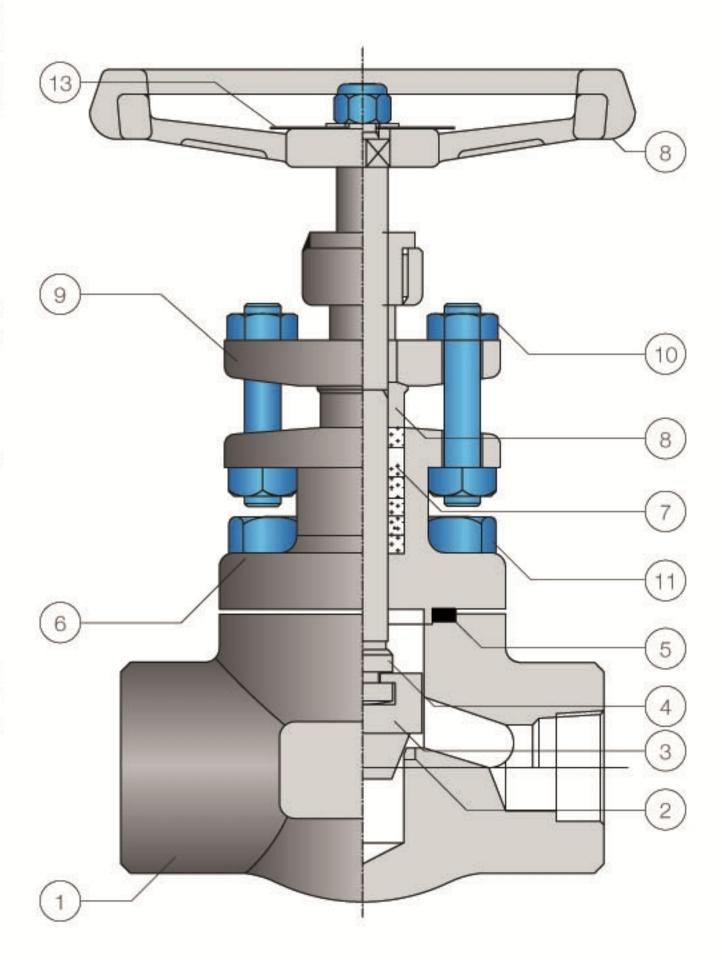
Alloy steel material to ASTM standards.

12. HANDWHEEL:

Durable and Robust design. Ease of operation with the appropriate sizing.

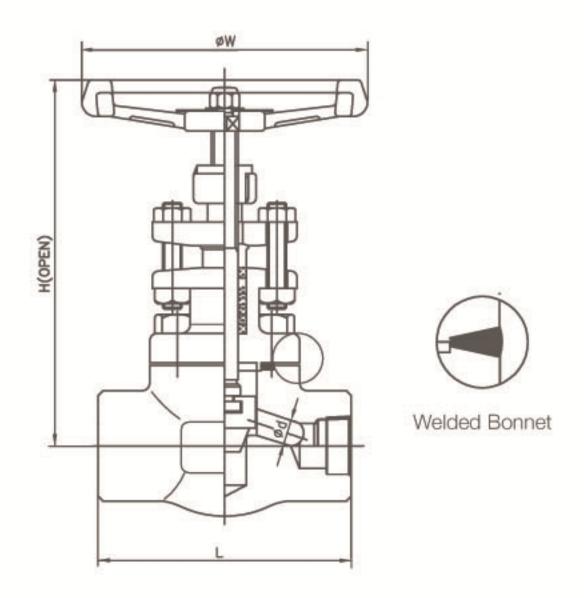
13. NAMEPLATE:

Allows full traceability.



CLASS 800# GLOBE VALVES

Socket Weld & Threaded Ends Standard Bore.



STANDARD COMPONENT MATERIALS

NO	DESCRIPTION	A105N /HF	LF2/HF	F304(L) /HF	F316(L) /HF	F51/HF			
1	BODY	A105N	LF2	F304(L)	F316(L)	F51			
2	SEAT			HF					
3	DISC		HF						
4	STEM	F6A	F6A	F304(L)	F316(L)	F51			
5	GASKET	SPW 316 + GRAPHITE		SPW 304 + GRAPHITE		316 + PHITE			
6	BONNET	A105N	LF2	F304(L)	F316(L)	F51			
7	GLAND PACKING		GRAPHITE						
8	GLAND	410	410	F304(L)	F316(L)	F51			
9	GLAND FLANGE	cs	LTCS	SS	SS	SS			
10	GLAND BOLT/NUT	B8/8							
11	BONNET BOLT	B7	L7	B8	B8	B8			
12	HANDWHEEL	A197							
13	NAME PLATE			SS					

NOTE: (L) Refers to Material available in Low Carbon as an option as well. Other materials available to customer requirement.

SPECIFICATION

Valve Body Pressure Rating

Class 800, Max 1975 psig @ 100 F (Carbon Steel)

Temperature Rating

As per ASME B16.34

Body Construction

Bolted Bonnet, Outside Screw and Yoke

Welded Bonnet, Outside Screw and Yoke

Pup Piece welding or

Extended ends available upon request.

Other Constructions: Bellow Seals, Extended stem,

Live Loading Packing, Y Pattern, etc. available upon request.

Body Bolts

ASTM A193 Gr B7 or B8 (N/A to Welded Bonnet) (Other Options available upon request)

Seats

Integral Body Seat
Full/Half HF (Hardfaced Stellite #6) seats or
Non HF seats available

Operation

Manual - Handwheel Operator

Seat / Seal Leakage

Conform to API 598.

Design Specification

API 602

ASME B16.34

Socket Weld Ends to ASME B16.11

Threaded Ends to ASME B1.20.1

End to End (L) dimensions are to manufacturer standard

NACE MR-01-75 material (when required)

Materials to ASTM standards

Special Materials are available to customer requirements

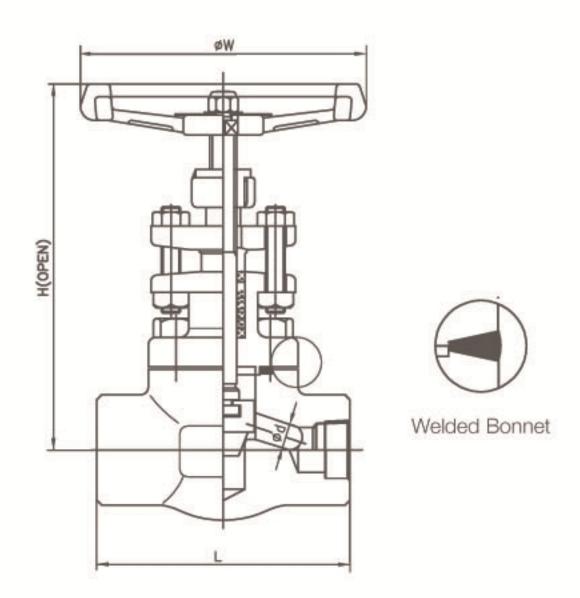
DIMENSION TABLE (UNIT:- mm)

SIZE	Ĺ	d	н	w	WEIGHT(kg) (Approx.)	CV FACTORS
1/2"	79	9.5	169	100	2	1.5
3/4"	92	12.5	169	100	2.2	3.8
1"	111	17.5	209	120	3.7	6.8
1 1/4"	118	23	232	150	5.2	11
1 1/2"	140	28.6	239	150	5.95	14.3
2"	172	36.5	288	180	9.7	25

NOTE: Other Sizes and Full Bore Options available upon request.

CLASS 1500# GLOBE VALVES

Socket Weld & Threaded Ends Standard Bore.



STANDARD COMPONENT MATERIALS

NO	DESCRIPTION	A105N /HF	LF2/HF	F304(L) /HF	F316(L) /HF	F51/HF		
1	BODY	A105N	LF2	F304(L)	F316(L)	F51		
2	SEAT			HF				
3	DISC			HF				
4	STEM	F6A	F6A	F304(L)	F316(L)	F51		
5	GASKET	SPW 316 + GRAPHITE		SPW 304 + GRAPHITE		316 + PHITE		
6	BONNET	BONNET A105N LF2		F304(L)	F316(L)	F51		
7	GLAND PACKING			GRAPHITE				
8	GLAND	410	410	F304(L)	F316(L)	F51		
9	GLAND FLANGE	CS	LTCS	SS	SS	SS		
10	GLAND BOLT/NUT			B8/8				
11	BONNET BOLT	B7	L7	B8	B8	B8		
12	HANDWHEEL	A197						
13	NAME PLATE			SS				

NOTE: (L) Refers to Material available in Low Carbon as an option as well. Other materials available to customer requirement.

SPECIFICATION

Valve Body Pressure Rating

Class 1500, Max 3705 psig @ 100 F (Carbon Steel)

Temperature Rating

As per ASME B16.34

Body Contsruction

Bolted Bonnet, Outside Screw and Yoke

Welded Bonnet, Outside Screw and Yoke

Pup Piece welding or

Extended ends available upon request.

Other Constructions: Bellow Seals, Extended stem,

Live Loading Packing, Y Pattern, etc. available upon request.

Body Bolts

ASTM A193 Gr B7 or B8 (N/A to Welded Bonnet) (Other Options availabe upon request)

Seats

Integral Body Seat

Full/Half HF (Hardfaced Stellite #6) seats or

Non HF seats available

Operation

Manual - Handwheel Operator

Seat / Seal Leakage

Conform to API 598.

Design Specification

API 602

ASME B16.34

Socket Weld Ends to ASME B16.11

Threaded Ends to ASME B1.20.1

End to End (L) dimensions are to manufacturer standard

NACE MR-01-75 material (when required)

Materials to ASTM standards

Special Materials are available to customer requirements

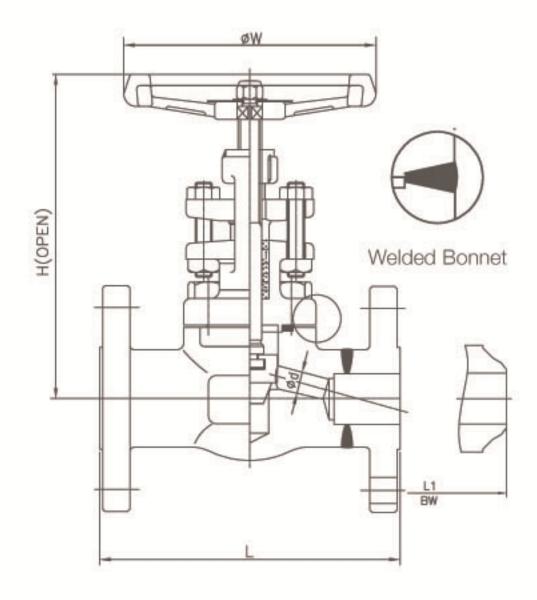
DIMENSION TABLE (UNIT - mm)

SIZE	Ļ	d	н	w	WEIGHT(kg) (Approx.)	CV FACTORS
1/2"	92	9.5	179	100	2.25	1.5
3/4"	111	12.5	209	120	3.95	3.8
1"	118	17.5	233	150	5.5	6.8
1 1/4"	140	23	239	150	8.3	11
1 1/2"	172	28.5	285	180	12.5	14.3
2"	180	36.5	312	200	19.3	25

NOTE: Other Sizes and Full Bore Options available upon request.

CLASS 150# - 300# - 600#GLOBE VALVES

Socket Weld & Threaded Ends Standard Bore.



STANDARD COMPONENT MATERIALS

NO	DESCRIPTION	A105N /HF	LF2/HF	F304(L) /HF	F316(L) /HF	F51/HF			
1	BODY	A105N	LF2	F304(L)	F316(L)	F51			
2	SEAT		HF						
3	DISC	DISC HF							
4	STEM	F6A	F6A	F304(L)	F316(L)	F51			
5	GASKET	SPW 316 + GRAPHITE		SPW 304 + GRAPHITE		316 + PHITE			
6	BONNET	BONNET A105N LF2 F304(F304(L)	F316(L)	F51			
7	GLAND PACKING			GRAPHITE					
8	GLAND	410	410	F304(L)	F316(L)	F51			
9	GLAND FLANGE	cs	LTCS	SS	SS	SS			
10	GLAND BOLT/NUT	B8/8							
11	BONNET BOLT	B7	L7	B8	B8	B8			
12	HANDWHEEL	A197							
13	NAME PLATE	SS							

NOTE: (L) Refers to Material available in Low Carbon as an option as well.

Other materials available to customer requirement.

SPECIFICATION

Valve Body Pressure Rating

Class 150, Max 285 psig @ 100 F (Carbon Steel) Class 300, Max 740 psig @ 100 F (Carbon Steel) Class 600, Max 1480 psig @ 100 F (Carbon Steel)

Temperature Rating

As per ASME B16.34

Body Contsruction

Bolted Bonnet, Outside Screw and Yoke
Welded Bonnet, Outside Screw and Yoke
Integral and Welded Flange available
depending on size and rating.
Other Constructions: Bellow Seals, Extended stem,

Live Loading Packing, Y Pattern, etc. available upon request.

Body Bolts

ASTM A193 Gr B7 or B8 (N/A to Welded Bonnet) (Other Options available upon request)

Seats

Integral Body Seat.
Full/Half HF (Hardfaced Stellite #6) seats or
Non HF seats available

Operation

Manual - Handwheel Operator

Seat / Seal Leakage

Conform to API 598.

Design Specification

API 602

ASME B16.34

Flange Ends to ASME B16.5 Butt Weld Ends to ASME B16.25

Face to Face to ASME B16.10

NACE MR-01-75 material (where required)

Materials to ASTM standards

Special Materials are available to customer requirements

DIMENSION TABLE

(UNIT - mm)

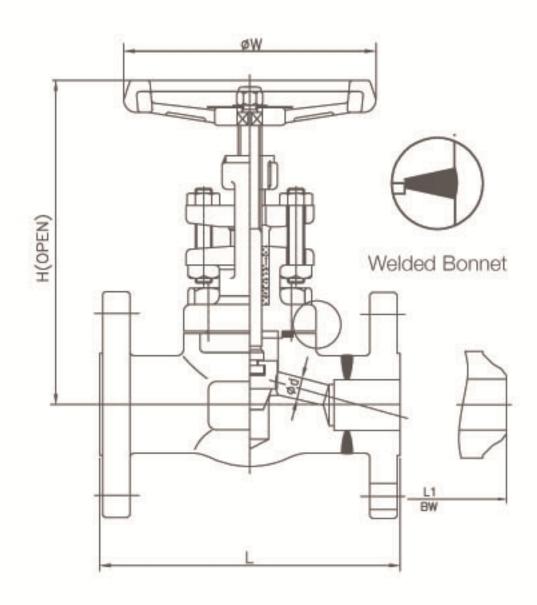
NOTE: 1/2" to 2" Integral Flange

SIZE	L,L1			H			WEIGHT(kg) (Approx.)					014		
	322 (4.2%	01.200	01.000	d	01.450	CL 300	W	CL	150	CL	300	CL	600	CV Factors
	CL 150	CL 300	CL 600		CL 150	CL 600		RF	BW	RF	BW	RF	BW	- Charles
1/2"	108	152	165	9.5	157	157	100	2.6	2.0	3.3	2.8	3.5	2.9	1.5
3/4"	117	178	190	12.5	160	160	100	3.3	2.8	5	4.0	4.8	4.0	3.8
1"	127	203	216	17.5	193	193	120	5.0	4.2	6.7	5.7	7.2	6.2	6.8
1 1/4"	140	216	229	23	232	232	150	8.4	7.8	9.6	8.2	9.6	8.1	11
1 1/2"	165	229	241	28.5	239	239	150	8.9	8.8	12.55	9.8	13.5	11.7	14.3
2"	203	267	292	36.5	288	288	180	14.5	13.0	17.0	14.7	18.5	15.1	25

NOTE: Other Sizes and Full Bore Options available upon request.

CLASS 1500# GLOBE VALVES

Socket Weld & Threaded Ends Standard Bore.



STANDARD COMPONENT MATERIALS

NO	DESCRIPTION	A105N /HF	LF2/HF	F304(L) /HF	F316(L) /HF	F51/HF		
1	BODY A105		LF2	F304(L)	F316(L)	F51		
2	SEAT			HF				
3	DISC			HF				
4	STEM	F6A	F6A	F304(L)	F316(L)	F51		
5	GASKET	SPW 316 + GRAPHITE		SPW 304 + GRAPHITE		316 + PHITE		
6	BONNET	A105N	LF2	F304(L)	F316(L)	F51		
7	GLAND PACKING			GRAPHITE				
8	GLAND	410	410	F304(L)	F316(L)	F51		
9	GLAND FLANGE	CS	LTCS	SS	SS	SS		
10	GLAND BOLT/NUT	B8/8						
11	BONNET BOLT	B7	L7	B8	B8	B8		
12	HANDWHEEL	A197						
13	NAME PLATE			SS				

NOTE: (L) Refers to Material available in Low Carbon as an option as well. Other materials available to customer requirement.

SPECIFICATION

Valve Body Pressure Rating

Class 1500, Max 3705 psig @ 100 F (Carbon Steel)

Temperature Rating

As per ASME B16.34

Body Contsruction

Bolted Bonnet, Outside Screw and Yoke Welded Bonnet, Outside Screw and Yoke

Integral and Welded Flange available

depending on size and rating.

Other Constructions: Bellow Seals, Extended stem,

Live Loading Packing, Y Pattern, etc. available upon request.

Body Bolts

ASTM A193 Gr B7 or B8 (N/A to Welded Bonnet) (Other Options availabe upon request)

Seats

Integral Body Seat.

Full/Half HF (Hardfaced Stellite #6) seats or

Non HF seats available

Operation

Manual - Handwheel Operator

Seat / Seal Leakage

Conform to API 598.

Design Specification

API 602

ASME B16.34

Flange Ends to ASME B16.5

Butt Weld Ends to ASMEI B16.25

Face to Face to Manufacturer's standard

NACE MR-01-75 material (when required)

Materials to ASTM standards

Special Materials are available to customer requirements

DIMENSION TABLE

(UNIT - mm)

NOTE: 1/2" to 2" Integral Flange

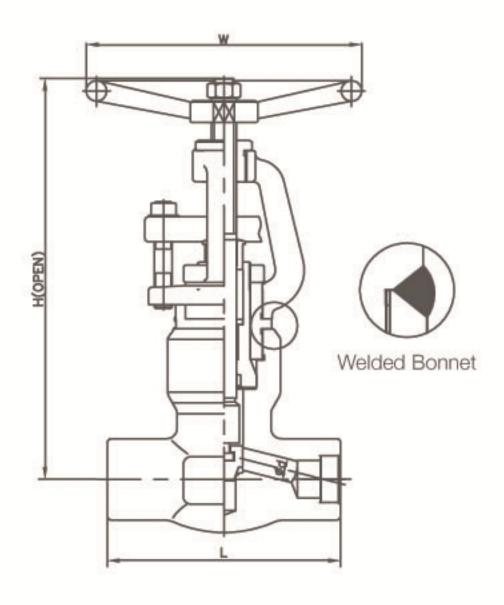
CITE	L				w	WEIGHT(kg)	CV Factors
SIZE	L(RF), L1(BW)	L(RTJ)	a a	Н	W.C	(Approx.)	CV Factors
1/2"	216	216	9.5	179	100	6.85	1.5
3/4"	229	229	12.5	209	120	9.7	3.8
1"	254	254	17.5	233	150	14.05	6.8
1 1/4"	279	279	23	239	150	21.35	11
1 1/2"	305	305	28.5	285	180	23.4	14.3
2"	368	371	36.5	312	266	37.75	25

NOTE: Other Sizes and Full Bore Options available upon request.

CLASS 2500#

HIGH PRESSURE GLOBE VALVES

Pressure Seal Bonnet, Socket Weld & Threaded Ends.



STANDARD COMPONENT MATERIALS

NO	DESCRIPTION	A105N /HF	LF2/HF	F304(L) /HF	F316(L) /HF	F51/HF
1	BODY	A105N	LF2	F304(L)	F316(L)	F51
2	SEAT			HF		
3	DISC			HF		
4	STEM	F6A	F6A	F304(L)	F316(L)	F51
5	PRESSURE SEAL RING			SS		
6	GASKET			SS		
7	BONNET	A105N	LF2	F304(L)	F316(L)	F51
8	GLAND PACKING			GRAPHITE		
9	GLAND	410	410	F304(L)	F316(L)	F51
10	GLAND FLANGE	cs	LTCS	SS	SS	SS
11	GLAND BOLT/NUT			B8/8		
12	HANDWHEEL			A197		
13	NAME PLATE			SS		

NOTE: (L) Refers to Material available in Low Carbon as an option as well.

Other materials available to customer requirement.

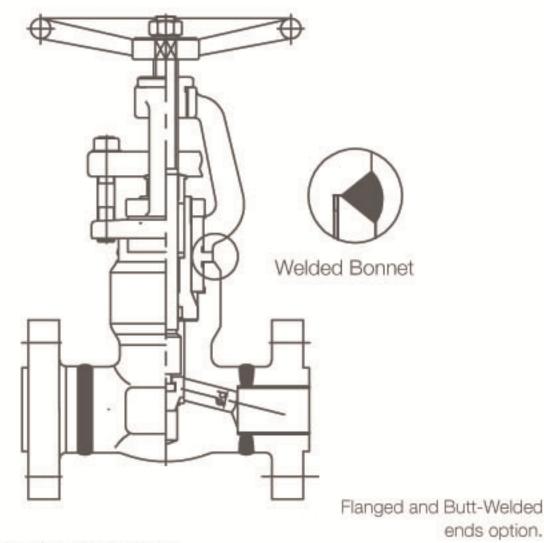
DIMENSION TABLE

(UNIT - mm)

SIZE	L.	d	н	w	WEIGHT(kg) (Approx.)
1/2"	264	10	295	200	11
3/4"	273	12	295	200	11.5
1"	308	17.5	320	250	14.35
1 1/4"	349	22.5	491	300	41.5
1 1/2"	384	28.5	491	300	43.6
2"	451	35	544	300	59.1

NOTE: Dimensions are for information only.

Order Specific arrangement drawing dimensions will be final.



SPECIFICATION

Valve Body Pressure Rating

Class 2500, Max 6170 psig @ 100 F (Carbon Steel)

Temperature Rating

As per ASME B16.34

Body Contsruction

Pressure Seal Bonnet, Outside Screw and Yoke

(Welded Bonnet Option)

Other Constructions: Bellow Seals, Extended stem,

Live Loading Packing, etc.. available upon request.

Pup Piece welding or Extended ends available upon request.

Welded Flange Option available upon request.

Seats

Integral Body Seat.

Full/Half HF (Hardfaced Stellite #6) seats or

Non HF seats available

Operation

Manual - Handwheel Operator

Seat / Seal Leakage

Conform to API 598.

Design Specification

ASME B16.34

NACE MR-01-75 material (where required)

Materials to ASTM standards

Special Materials are available to customer requirements

Socket Weld Ends to ASME B16.11

Threaded Ends to ASME B1.20.1

End to End (L) dimensions are to manufacturer standard

Other End Option

Flange Ends to ASME B16.5

Butt Weld Ends to ASME B16.25

Face to Face to ASME B16.10

Engineering Data

Materials

Cross Reference of ASTM Material Designation Between Cast and Equivalent Forge

ASTM FORGED	ASTM CAST
CARBOI	N STEEL
A105	A216 WCB
LOW TEMPER	ATURE STEEL
A350 LF2	A352 LCB
	A352 LCC
ALLOY	STEEL
A182 F1	A217 WC 1
A182 F11	A217 WC 6
A182 F22	A217 WC 9
A182 F5	A217 C5
A182 F9	A217 C12
STAINLES	SS STEEL
A182 F6	A217 CA15
A182 F304	A351 CF8
A182 F304L	A351 CF3
A182 F316	A351 CF8M
A182 F316L	A351 CF3M
A182 F347	A351 CF8C
DUPLEX ST	EEL STEEL
A182 F51	A890 4A / A351 CD3MN
A182 F53	A351 CD4MCU
A182 F55	A995 CD3MWCuN
NICKEL	ALLOY
INCONEL 825 - B564 N08825	A484 CU 5MCuC
INCONEL 625 - B564 N06625	A494 CW6MC
MONEL 400 - B564 N04400	A494 M35-1

Important Note: Data provided on this chart is for information purposes only. Always refer to current ASTM standards to verify information and cross reference data.

Pressure Temperature

Rating

PRESSURE TEMPERATURE RATING FOR ASTM A105

SERVICE TEMPERATURE		CLASS 150	CLASS 300 CLASS 600		CLASS 800	CLASS 1500	CLASS 2500
°F	°C	psi	psi	psi	psi	psi	psi
-20 to 100	-29 to 38	285	740	1480	1975	3705	6170
200	93	260	680	1360	1810	3395	5655
300	149	230	655	1310	1745	3270	5450
400	204	200	635	1265	1690	3170	5280
500	260	170	605	1205	1610	3015	5025
600	316	140	570	1135	1515	2840	4730
650	343	125	550	1100	1465	2745	4575
700	371	110	530	1060	1415	2665	4425
750	399	95	505	1015	1350	2535	4230
800	427	80	410	825	1100	2055	3430
850	454	65	320	640	850	1595	2655
900	482	50	230	460	615	1150	1915
950	510	35	135	275	365	685	1145
1000	538	20	85	170	225	430	715

Note: ASME B16.34 Group 1.1. For A105, permissible, but not recommended for prolonged use above 800°F

PRESSURE TEMPERATURE RATING FOR ASTM A182 F316

SERVICE TEMPERATURE		CLASS 150	CLASS 150 CLASS 300 CLASS 600	CLASS 800	CLASS 1500	CLASS 2500	
"F	°C	psi	psi	psi	psi	psi	psi
-20 to 100	-29 to 38	275	720	1440	1920	3600	6000
200	93	235	620	1240	1655	3095	5160
300	149	215	560	1120	1495	2795	4660
400	204	195	515	1025	1370	2570	4280
500	260	170	480	955	1275	2390	3980
600	316	140	450	900	1205	2255	3760
650	343	125	440	885	1180	2210	3680
700	371	110	435	870	1160	2170	3620
750	399	95	425	855	1140	2135	3560
800	427	80	420	845	1125	2110	3520
850	454	65	420	835	1115	2090	3480
900	482	50	415	830	1105	2075	3460
950	510	35	385	775	1030	1930	3220
1000	538	20	365	725	970	1820	3030

Note: ASME B16.34 Group 2.2. A182 F316.

PRESSURE TEMPERATURE RATING FOR ASTM A182 F51

SERVICE TEMPERATURE		CLASS 150	CLASS 300	CLASS 600	CLASS 800	CLASS 1500	CLASS 2500
°F	°C	psi	psi	psi	psi	psi	psi
-20 to 100	-29 to 38	290	750	1500	2000	3750	6250
200	93	260	745	1490	1985	3720	6200
300	149	230	665	1335	1780	3335	5560
400	204	200	615	1230	1640	3070	5120
500	260	170	580	1160	1545	2905	4840
600	316	140	555	1115	1485	2785	4640
650	343	125	545	1095	1460	2735	4560
700	371	110	540	1085	1445	2710	4520
750	399	95	530	1065	1420	2660	4430

Note: ASME B16.34 Group 2.8. This steel may become brittle after service at moderately elevated temperatures. Not to be used over 600°F



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