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Valves, Automation & Controls

Series 45116 150# FLANGED STAINLESS STEEL GLOBE VALVE

Design Features

- Outside screw and yoke
- Bolted bonnet
- Welded Seat
- Yoke Integrated with Bonnet
- Loose Disc
- Rising stem and non-rising hand-wheel

Applicable Standards

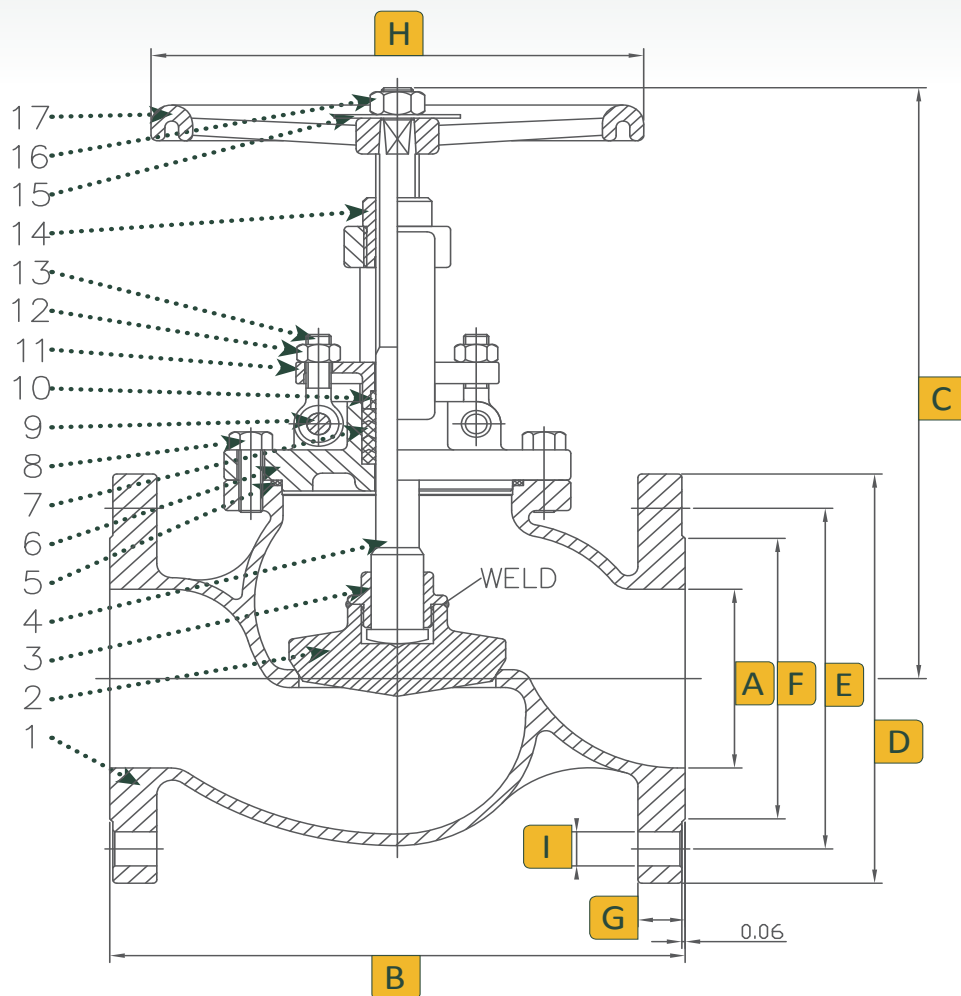
- Steel valves ANSI B16.34
- Face to face ANSI B16.10
- End flanges ANSI B16.5
- Butt-weld ends ANSI B16.25
- Inspection and test API 598



Series 45116

150# FLANGED STAINLESS STEEL GLOBE VALVE

½"- 12" Dimensions, Parts & Materials



No.	Part Name	Material
1	Body	316 Stainless Steel ASTM A351 CF8M
2	Disc	316 Stainless Steel ASTM A351 CF8M
3	Disc Cover	316 Stainless Steel ASTM A351 CF8M
4	Stem	316 Stainless Steel
5	Gasket	PTFE (Grafoil + 316 Sheet*)
6	Bonnet	CF8M
7	Gland Packing	PTFE (Graphite*)
8	Bonnet Bolt	304 Stainless Steel
9	Pin	304 Stainless Steel
10	Gland Sleeve	PTFE
11	Gland	CF8M
12	Nut	304 Stainless Steel
13	Eye Bolt	304 Stainless Steel
14	Yoke Sleeve	Ductile Iron
15	Name Plate	304 Stainless Steel
16	Nut	304 Stainless Steel
17	Hand-wheel	Ductile Iron

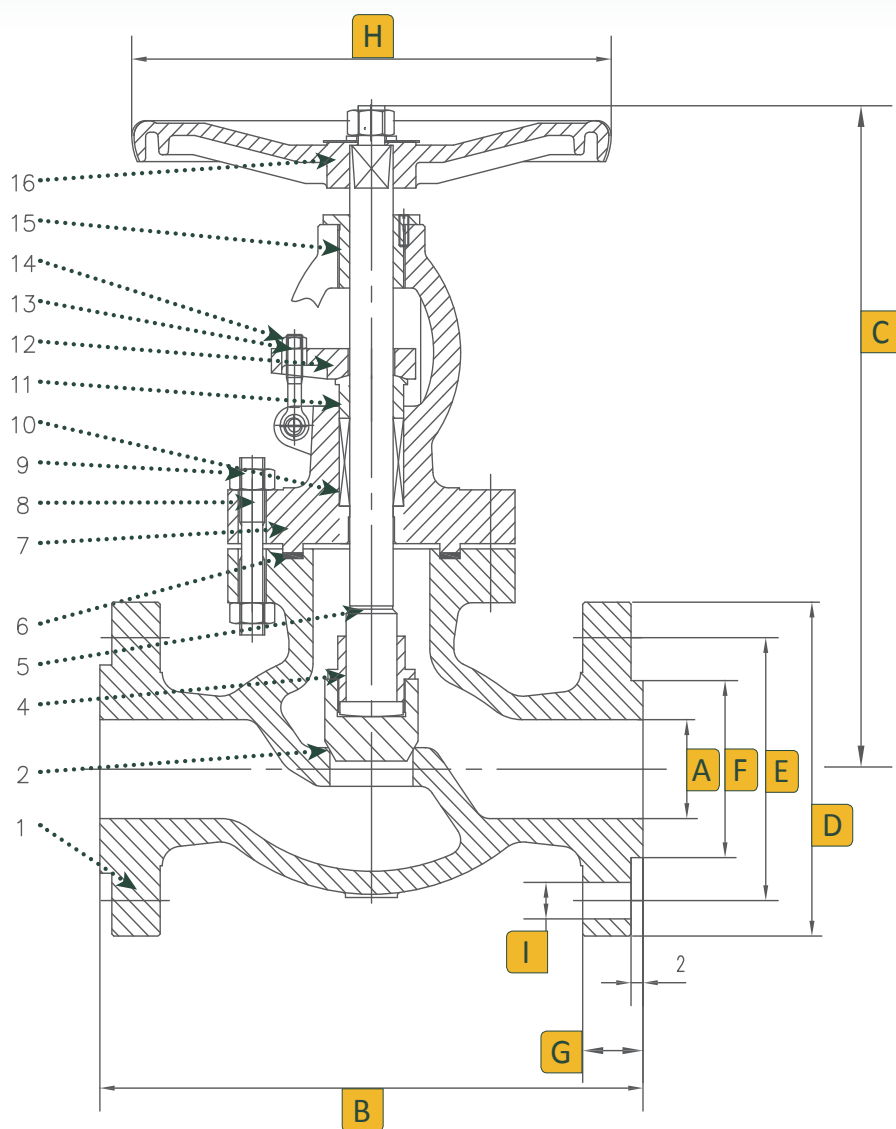
*Optional

Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
1/2	0.59	4.25	7.32	3.50	2.38	1.38	0.43	5.51	0.625	4
3/4	0.79	4.61	7.32	3.88	2.75	1.69	0.43	5.51	0.625	4
1	0.98	5.00	8.35	4.25	3.12	2.00	0.43	5.51	0.625	4
1-1/2	1.57	6.50	9.69	5.00	3.88	2.88	0.56	6.29	0.625	4
2	1.97	7.99	9.92	6.00	4.75	3.62	0.62	7.87	0.75	4
2-1/2	2.56	8.50	12.12	7.00	5.50	4.12	0.69	7.87	0.75	4
3	3.15	9.49	12.87	7.50	6.00	5.00	0.75	9.84	0.75	4
4	3.94	11.50	15.12	9.00	7.50	6.19	0.94	9.84	0.75	8
6	5.91	15.98	21.53	11.00	9.50	8.50	1.00	13.78	0.875	8
8	7.87	19.49	26.34	13.50	11.75	10.62	1.12	13.78	0.875	8
10	9.84	24.49	32.44	16.00	14.25	12.75	1.19	19.69	1.00	12
12	12.00	27.50	31.30	19.00	17.00	15.00	1.25	18.11	1.00	12

14"- 16" Dimensions, Parts & Materials

Series 45116 150# FLANGED STAINLESS STEEL GLOBE VALVE



No.	Part Name	Material
1	Body	316 Stainless Steel ASTM A351 CF8M
2	Disc	316 Stainless Steel ASTM A351 CF8M
4	Disc Cover	316 Stainless Steel
5	Stem	A182 F316
6	Gasket	PTFE (Grafoil + 316 Sheet*)
7	Bonnet	316 Stainless Steel
8	Bonnet Bolt	B8 Stainless Steel
9	Bonnet Nut	Grade 8 Nut
10	Stem Packing	Graphite
11	Gland	316 Stainless Steel
12	Gland Flange	316 Stainless Steel
13	Gland Eyebolt	B8 Stainless Steel
14	Gland Nut	Grade 8 Nut
15	Yoke Sleeve	Brass
16	Hand Wheel	Ductile Iron

*Optional

Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
14	13.27	15.00	33.50	21.00	18.75	16.25	1.38	18.11	1.125	12
16	15.24	16.00	35.12	23.50	21.25	18.25	1.44	18.11	1.125	16



Valves, Automation & Controls

Series 45116

150# FLANGED STAINLESS STEEL GLOBE VALVE

Technical Information

Temperature °F*	Working Pressure psi
-20 to 100	275
200	235
300	215
400	195
500	170
600	140
650	125
700	110
750	95
800	80
850	65
900	50
950	35
1000	20

*Standard PTFE seals limited to 450°F, over 450°F use graphite.

How to Order

Size	Series	Class	Ends	Body Material	Options
2	45	1	1	6	60
2-1/2			2		6
3					
4					
6					
8*					
10*					
12*					
14*					
16*					

*POA

Example: 3 - 45 - 1 - 1 - 4 = 3-45-1-1-4

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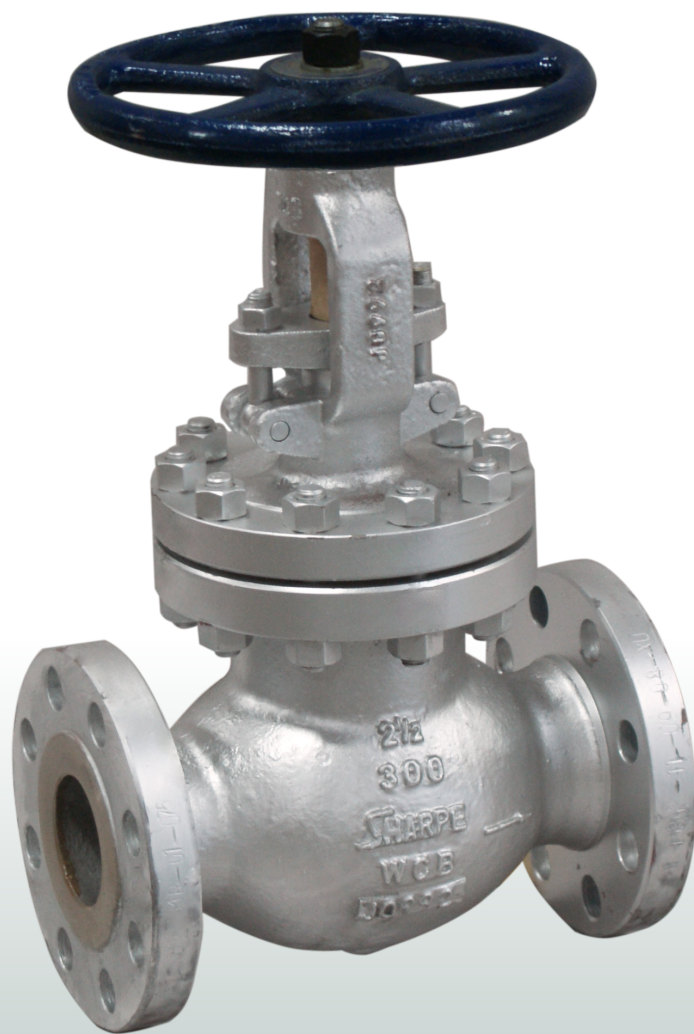
Series 45314 300# FLANGED CAST STEEL GLOBE VALVE

Design Features

- Outside screw and yoke
- Bolted bonnet
- Welded Seat
- Yoke Integrated with Bonnet
- Loose Disc
- Rising stem and non-rising hand-wheel

Applicable Standards

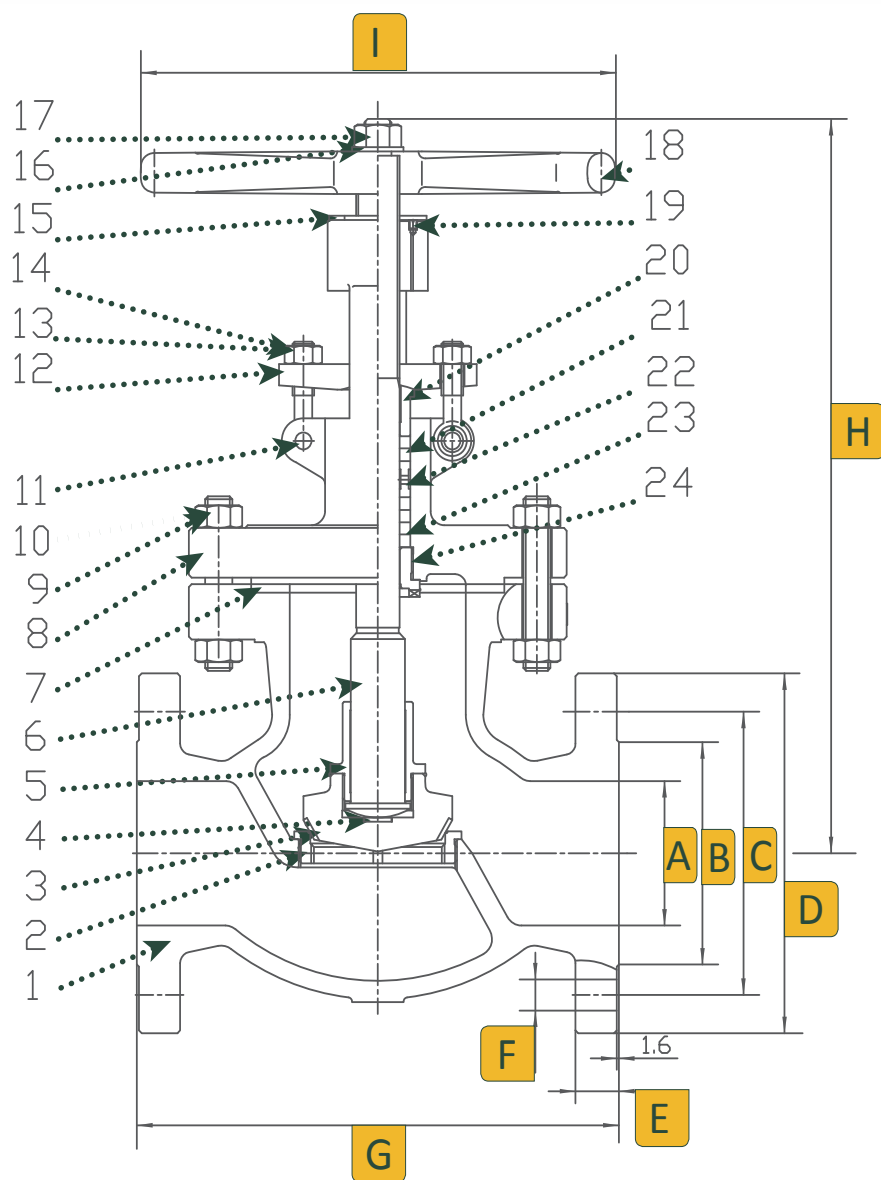
- | | |
|-----------------------|-------------|
| • Steel valves | ANSI B16.34 |
| • Face to face | ANSI B16.10 |
| • End flanges | ANSI B16.5 |
| • Butt-weld ends | ANSI B16.25 |
| • Inspection and test | API 598 |
| • NACE | MR-0175 |



Series 45314

300# FLANGED CAST STEEL GLOBE VALVE

2"- 6" Dimensions, Parts & Materials



No.	Part Name	Material
1	Body	Carbon Steel ASTM A216 - WCB
2	Seat	A105 & STL.6
3	Disc	A105 & 410 Stainless Steel
4	Thrust Plate	410 Stainless Steel
5	Disc Cover	410 Stainless Steel
6	Stem	A182 F6a
7	Gasket	304 Stainless Steel & Flexible Graphite
8	Bonnet	Carbon Steel ASTM A216 - WCB
9	Bolt	B7 Steel A193
10	Nut	2H Steel A194
11	Pin	Carbon Steel
12	Gland Flange	Carbon Steel
13	Eye Bolt	B7 Steel A193
14	Eye Nut	2H Steel A194
15	Stem Nut	D-2
16	Gasket	410 Stainless Steel
17	Nut	Carbon Steel
18	Hand-wheel	Ductile Iron
19	Screw	Carbon Steel
20	Gland	410 Stainless Steel
21	Packing	304 Stainless Steel & Graphite
22	Distance Ring	410 Stainless Steel
23	Packing	Flexible Graphite
24	Back Seat	410 Stainless Steel

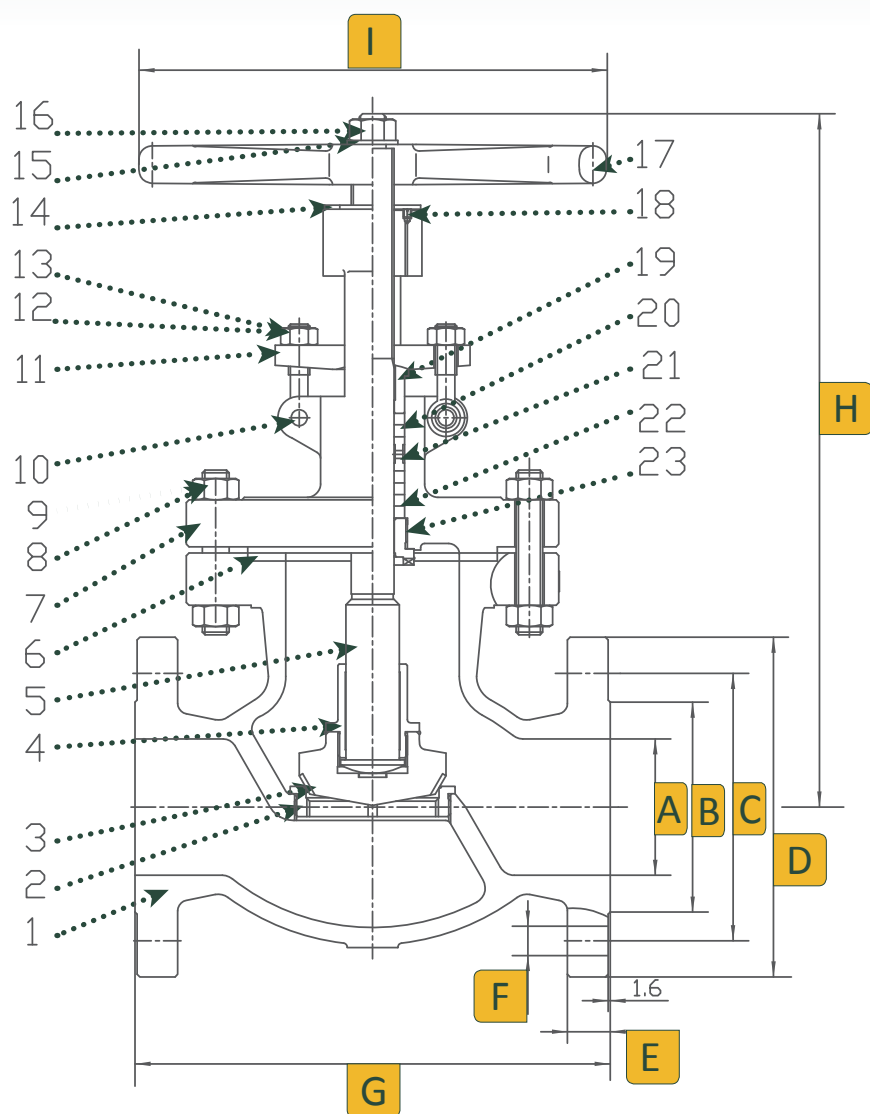
Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
2	2.00	3.62	5.00	6.50	0.87	0.75	10.50	13.74	7.87	8
2-1/2	2.50	4.12	5.88	7.50	1.00	0.875	11.50	15.43	9.84	8
3	3.00	5.00	6.62	8.25	1.12	0.875	12.50	16.93	9.84	8
4	4.00	6.19	7.88	10.00	1.25	0.875	14.00	19.13	11.80	8
6	6.00	8.50	10.62	12.50	1.44	0.875	17.50	24.33	15.75	12

Series 45314

300# FLANGED CAST STEEL GLOBE VALVE

**8"- 16" Dimensions,
Parts & Materials**



No.	Part Name	Material
1	Body	Carbon Steel ASTM A216 - WCB
2	Seat	A105 & STL6
3	Disc	A105 & 410 Stainless Steel
4	Disc Cover	410 Stainless Steel
5	Stem	A182 F6a
6	Gasket	304 Spiral Wound, Grafoil Filler
7	Bonnet	Carbon Steel ASTM A216 - WCB
8	Bolt	B7 Steel A193
9	Nut	2H Steel A194
10	Pin	Carbon Steel
11	Gland Flange	Carbon Steel
12	Eye Bolt	B7 Steel A193
13	Eye Nut	2H Steel A194
14	Stem Nut	D-2
15	Gasket	410 Stainless Steel
16	Nut	Carbon Steel
17	Hand-wheel	Ductile Iron
18	Screw	Carbon Steel
19	Gland	410 Stainless Steel
20	Packing	304 Stainless Steel & Graphite
21	Distance Ring	410 Stainless Steel
22	Packing	Flexible Graphite
23	Back Seat	410 Stainless Steel

Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
8	8.00	10.62	13.00	15.00	1.62	1.00	22.00	36.87	19.69	12
10	10.00	12.75	15.25	17.50	1.87	1.125	24.50	37.36	22.05	16
12	12.00	15.00	17.75	20.50	2.00	1.25	28.00	39.17	22.05	16
14	14.00	16.25	20.25	23.00	2.12	1.25	33.00	39.57	25.20	20
16	16.00	18.50	22.50	25.50	2.25	1.375	34.00	40.35	25.20	20



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Series 45314

300# FLANGED CAST STEEL GLOBE VALVE

Technical Information

Temperature °F	Working Pressure psi
-20 to 100	740
200	680
300	655
400	635
500	605
600	570
650	550
700	530
750	505
800	410
850	320
900	230
950	135
1000	85

How to Order

Size	Series	Class		Ends		Body Material		Options	
2	45	3	300	1	Flange Butt-weld*	4	Carbon Steel	60	Gear Operator*
2-1/2				2					
3									
4									
6									
8									
10*									
12*									
14*									
16*									

*POA

Example: 8 - 45 - 3 - 1 - 4 = 8-45-3-1-4

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Series 45614 600# FLANGED CAST STEEL GLOBE VALVE

Design Features

- Outside screw and yoke
- Bolted bonnet
- Welded Seat
- Yoke Integrated with Bonnet
- Loose Disc
- Rising stem and non-rising hand-wheel

Applicable Standards

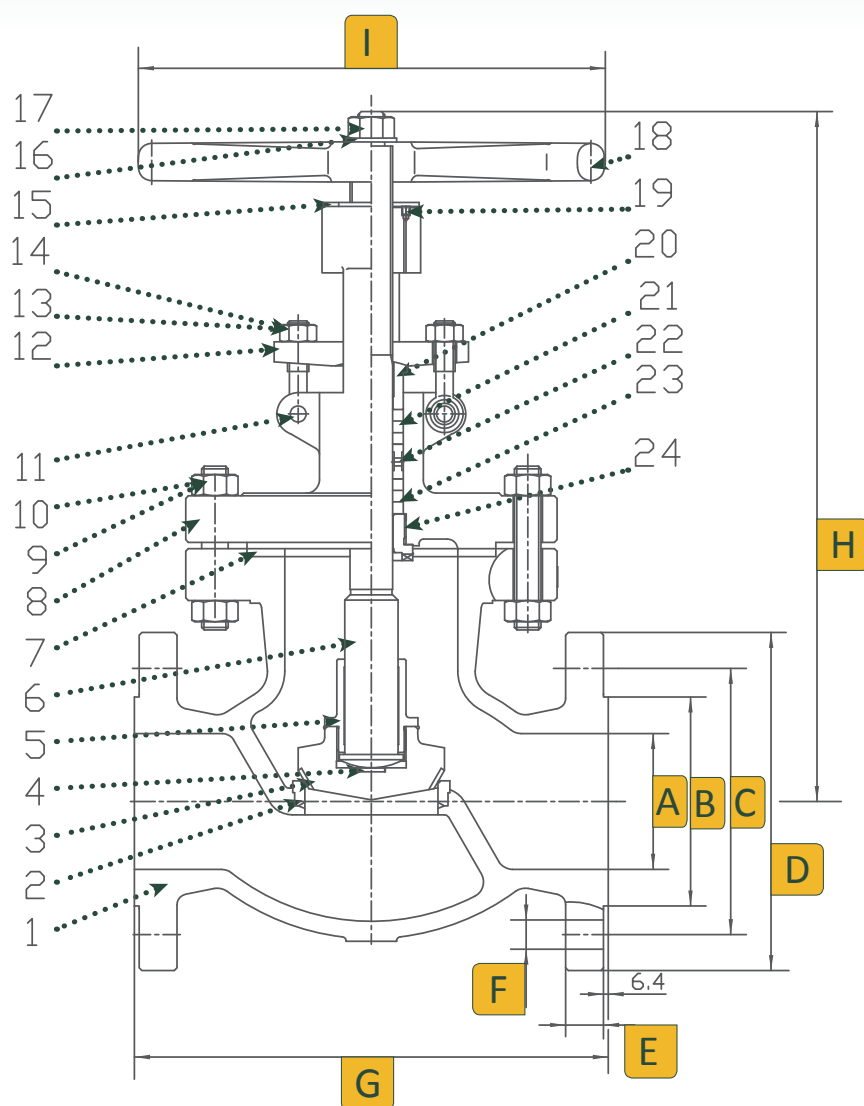
- | | |
|-----------------------|-------------|
| • Steel valves | ANSI B16.34 |
| • Face to face | ANSI B16.10 |
| • End flanges | ANSI B16.5 |
| • Butt-weld ends | ANSI B16.25 |
| • Inspection and test | API 598 |
| • NACE | MR-0175 |



Series 45614

600# FLANGED CAST STEEL GLOBE VALVE

2"- 6" Dimensions, Parts & Materials



No.	Part Name	Material
1	Body	Carbon Steel ASTM A216 - WCB
2	Seat	A105 & STL6
3	Disc	A105 & 410 Stainless Steel
4	Thrust Plate	410 Stainless Steel
5	Disc Cover	410 Stainless Steel
6	Stem	A182 F6a
7	Gasket	304 Stainless Steel & Flexible Graphite
8	Bonnet	Carbon Steel ASTM A216 - WCB
9	Bolt	B7 Steel A193
10	Nut	2H Steel A194
11	Pin	Carbon Steel
12	Gland Flange	Carbon Steel
13	Eye Bolt	B7 Steel A193
14	Eye Nut	2H Steel A194
15	Stem Nut	D-2
16	Gasket	410 Stainless Steel
17	Nut	Carbon Steel
18	Hand-wheel	Ductile Iron
19	Screw	Carbon Steel
20	Gland	410 Stainless Steel
21	Packing	304 Stainless Steel & Graphite
22	Distance Ring	410 Stainless Steel
23	Packing	Flexible Graphite
24	Back Seat	410 Stainless Steel

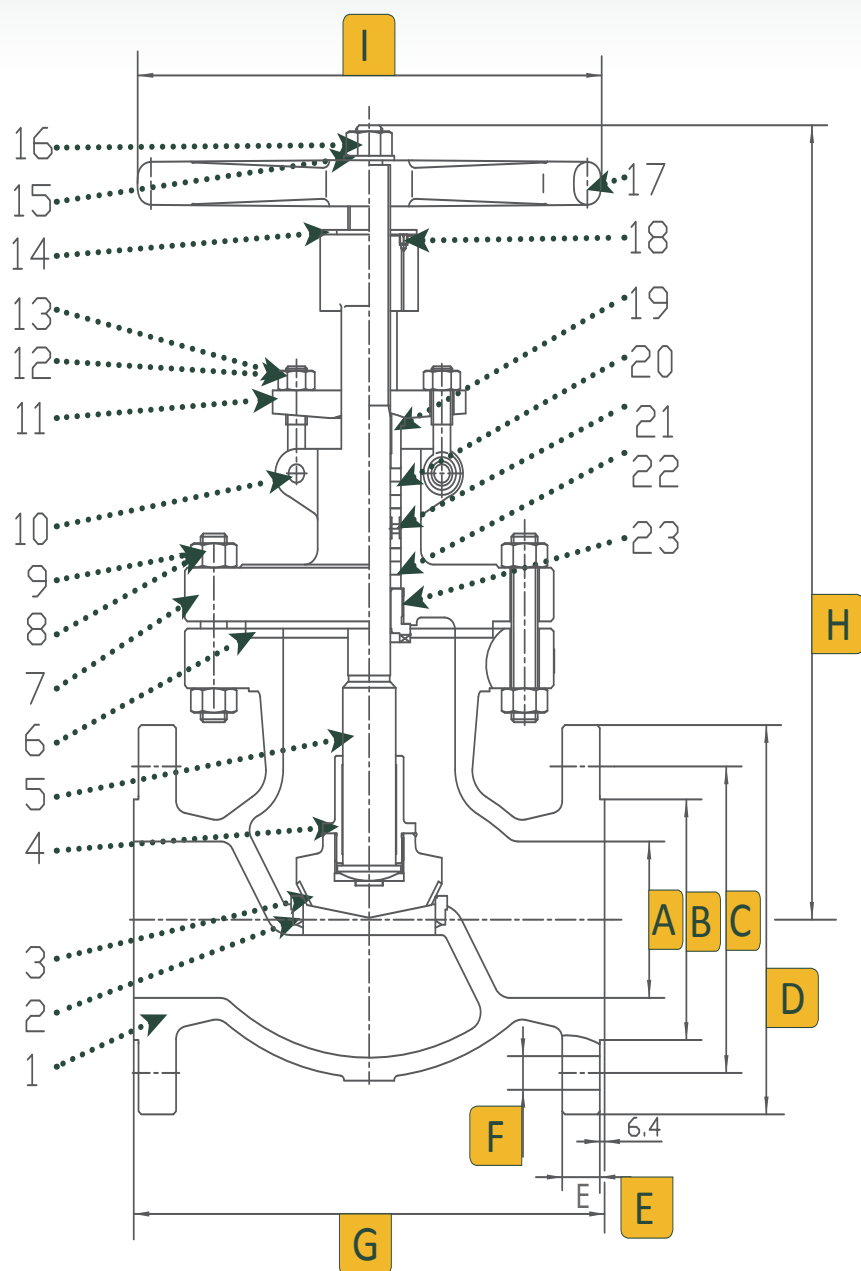
Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
2	2.00	3.62	5.00	6.50	1.00	0.75	11.50	14.65	9.84	8
2-1/2	2.50	4.12	5.88	7.50	1.12	0.875	12.99	18.30	11.81	8
3	3.00	5.00	6.62	8.25	1.25	0.875	14.01	20.51	13.78	8
4	4.00	6.19	8.50	10.75	1.50	1.00	17.00	24.41	15.75	8
6	6.00	8.50	11.50	14.00	1.89	1.125	22.00	24.33	19.69	12

Series 45614

600# FLANGED CAST STEEL GLOBE VALVE

**8"- 12" Dimensions,
Parts & Materials**



No.	Part Name	Material
1	Body	Carbon Steel ASTM A216 - WCB
2	Seat	A105 & STL.6
3	Disc	A105 & 410 Stainless Steel
4	Disc Cover	410 Stainless Steel
5	Stem	A182 F6a
6	Gasket	304 Stainless Steel & Flexible Graphite
7	Bonnet	Carbon Steel ASTM A216 - WCB
8	Bolt	B7 Steel A193
9	Nut	2H Steel A194
10	Pin	Carbon Steel
11	Gland Flange	Carbon Steel
12	Eye Bolt	B7 Steel A193
13	Eye Nut	2H Steel A194
14	Stem Nut	D-2
15	Gasket	410 Stainless Steel
16	Nut	Carbon Steel
17	Hand-wheel	Ductile Iron
18	Screw	Carbon Steel
19	Gland	410 Stainless Steel
20	Packing	304 Stainless Steel & Graphite
21	Distance Ring	410 Stainless Steel
22	Packing	Flexible Graphite
23	Back Seat	410 Stainless Steel

Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
8	7.89	10.62	13.75	16.50	2.19	1.25	26.00	36.70	22.05	12
10	9.76	12.75	17.00	20.00	2.50	1.375	31.00	35.60	25.20	16
12	11.73	15.00	19.25	22.00	2.62	1.375	33.00	44.20	27.56	20



Technical Information

Temperature °F	Working Pressure psi
-20 to 100	1480
200	1350
300	1310
400	1265
500	1205
600	1135
650	1100
700	1060
750	1015
800	825
850	640
900	460
950	275
1000	170

How to Order

Size	Series	Class		Ends		Body Material		Options	
2	45	6	600	1	Flange	4	Carbon Steel	60	Gear Operator*
2-1/2				2	Butt-weld*				
3									
4									
6									
8									
10*									
12*									

*POA

Example: 3 - 45 - 6 - 1 - 4 = 3-45-6-1-4

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Series 45114 150# FLANGED CAST STEEL GLOBE VALVE

Design Features

- Outside screw and yoke
- Bolted bonnet
- Welded Seat
- Yoke Integrated with Bonnet
- Loose Disc
- Rising stem and non-rising hand-wheel

Applicable Standards

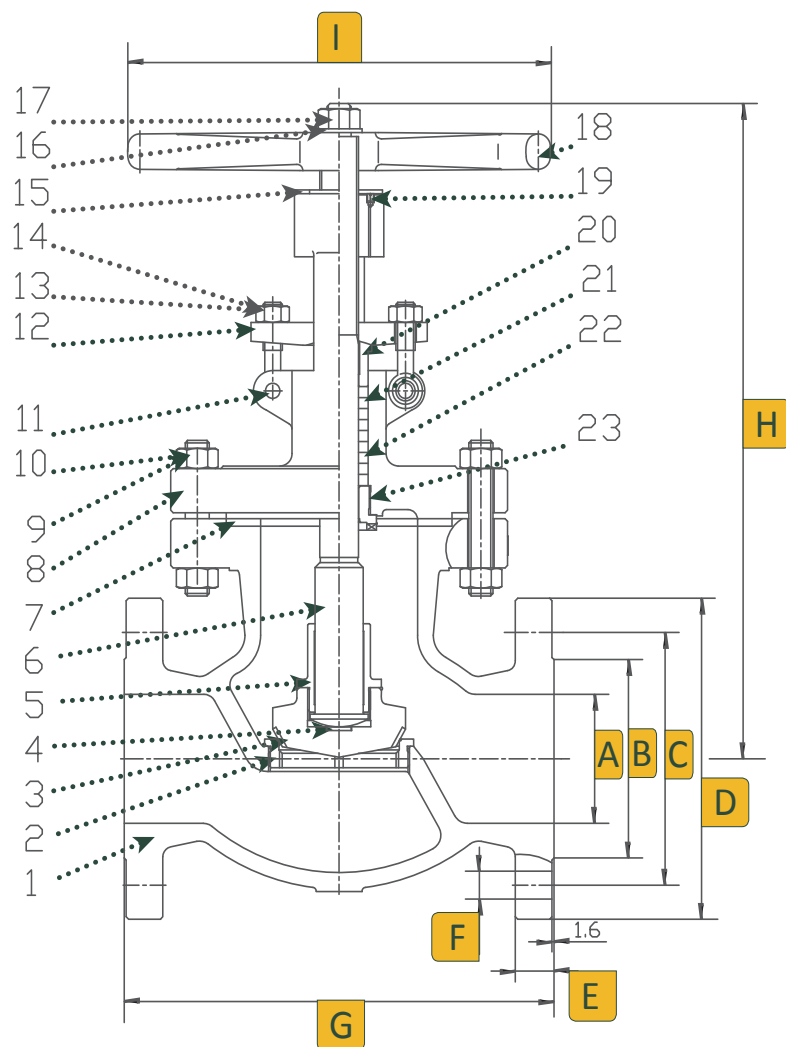
- Steel valves ANSI B16.34
- Face to face ANSI B16.10
- End flanges ANSI B16.5
- Butt-weld ends ANSI B16.25
- Inspection and test API 598
- NACE MR-0175



Series 45114

150# FLANGED CAST STEEL GLOBE VALVE

2"- 6" Dimensions, Parts & Materials



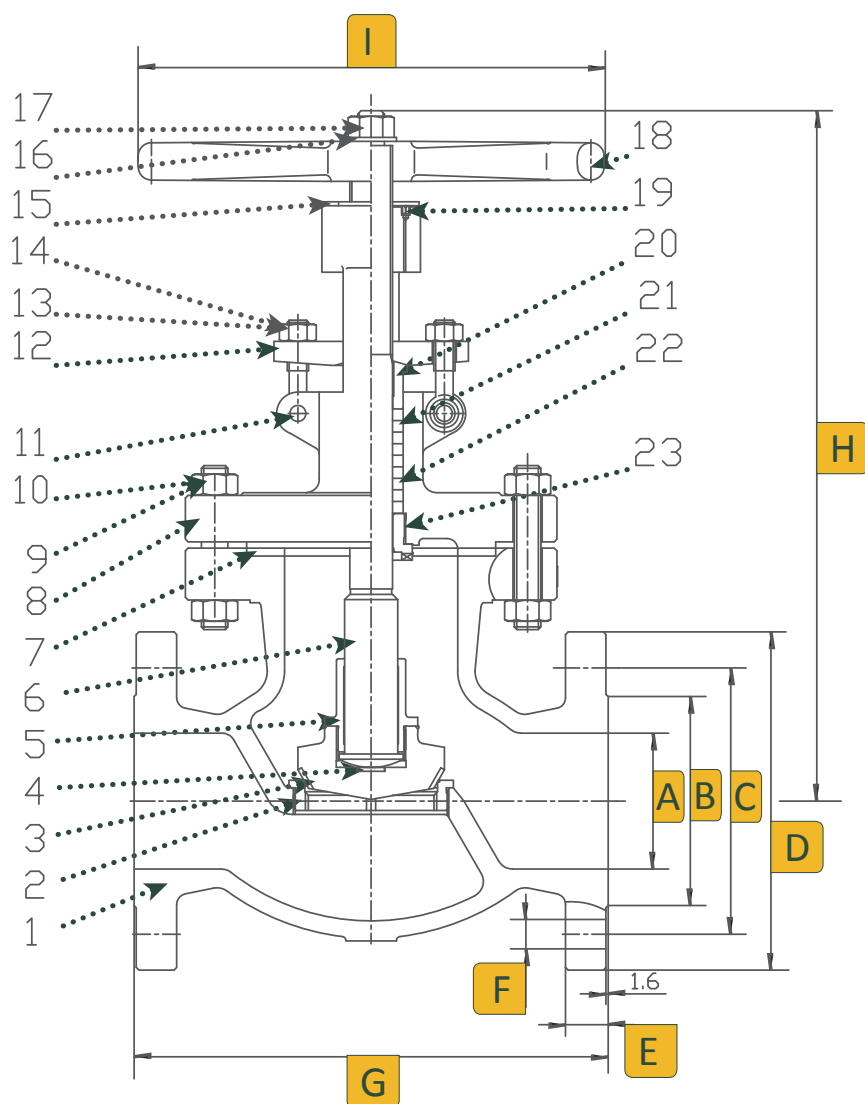
No.	Part Name	Material
1	Body	Carbon Steel ASTM A216 - WCB
2	Seat	A105 & STL6
3	Disc	A105 & 410 Stainless Steel
4	Thrust Plate	410 Stainless Steel
5	Disc Cover	410 Stainless Steel
6	Stem	A182 F6a
7	Gasket	304 Stainless Steel & Flexible Graphite
8	Bonnet	Carbon Steel ASTM A216 - WCB
9	Stud	B7 Steel A193
10	Nut	2H Steel A194
11	Pin	Carbon Steel
12	Gland Flange	Carbon Steel
13	Eye Bolt	B7 Steel A193
14	Eye Nut	2H Steel A194
15	Stem Nut	D-2
16	Gasket	410 Stainless Steel
17	Nut	Carbon Steel
18	Hand-wheel	Ductile Iron
19	Screw	Carbon Steel
20	Gland	410 Stainless Steel
21	Packing	Flexible Graphite
22	Packing	Flexible Graphite
23	Back Seat	410 Stainless Steel

Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
2	2.01	3.62	4.76	6.00	0.75	0.75	8.00	13.43	7.87	4
2-1/2	2.52	4.13	5.51	7.00	0.88	0.75	8.50	14.45	9.84	4
3	2.99	5.00	6.00	7.50	0.94	0.75	9.50	14.76	9.84	4
4	4.02	6.18	7.50	9.00	0.94	0.75	11.50	19.02	11.81	8
6	5.98	8.50	9.50	11.00	1.00	0.875	16.00	20.35	13.78	8

8"- 16" Dimensions, Parts & Materials

Series 45114 150# FLANGED CAST STEEL GLOBE VALVE



No.	Part Name	Material
1	Body	Carbon Steel ASTM A216 - WCB
2	Seat	A105 & STL.6
3	Disc	A105 & 410 Stainless Steel
4	Thrust Plate	410 Stainless Steel
5	Disc Cover	410 Stainless Steel
6	Stem	A182 F6a
7	Gasket	304 Stainless Steel & Flexible Graphite
8	Bonnet	Carbon Steel ASTM A216 - WCB
9	Stud	B7 Steel A193
10	Nut	2H Steel A194
11	Pin	Carbon Steel
12	Gland Flange	Carbon Steel
13	Eye Bolt	B7 Steel A193
14	Eye Nut	2H Steel A194
15	Stem Nut	D-2
16	Gasket	410 Stainless Steel
17	Nut	Carbon Steel
18	Hand-wheel	Ductile Iron
19	Screw	Carbon Steel
20	Gland	410 Stainless Steel
21	Packing	Flexible Graphite
22	Packing	Flexible Graphite
23	Back Seat	410 Stainless Steel

Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
8	8.00	10.62	11.75	13.50	1.12	0.875	19.50	23.23	15.75	8
10	10.00	12.75	14.25	16.00	1.18	1.00	24.50	29.70	17.72	12
12	12.00	15.00	17.00	19.00	1.25	1.00	27.50	37.10	22.05	12
14	13.27	16.25	18.75	21.00	1.37	1.125	31.00	37.40	22.05	12
16	15.21	18.50	21.25	23.50	1.44	1.125	36.00	38.00	25.20	16



Valves, Automation & Controls

Series 45114

150# FLANGED CAST STEEL GLOBE VALVE

Technical Information

Temperature °F	Working Pressure psi
-20 to 100	285
200	260
300	230
400	200
500	170
600	140
650	125
700	110
750	95
800	80
850	65
900	50
950	35
1000	20

How to Order

Size	Series	Class	Ends	Body Material	Options
2	45	1	150	1	Flange
2-1/2			2	2	Butt-weld*
3					
4					
6					
8					
10					
12					
14*					
16*					

*POA

Example: 8 - 45 - 1 - - 1 - 4 = 8-45-1-1-4

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Series 45316 300# FLANGED STAINLESS STEEL GLOBE VALVE

Design Features

- Outside screw and yoke
- Bolted bonnet
- Welded Seat
- Yoke Integrated with Bonnet
- Loose Disc
- Rising stem and non-rising hand-wheel

Applicable Standards

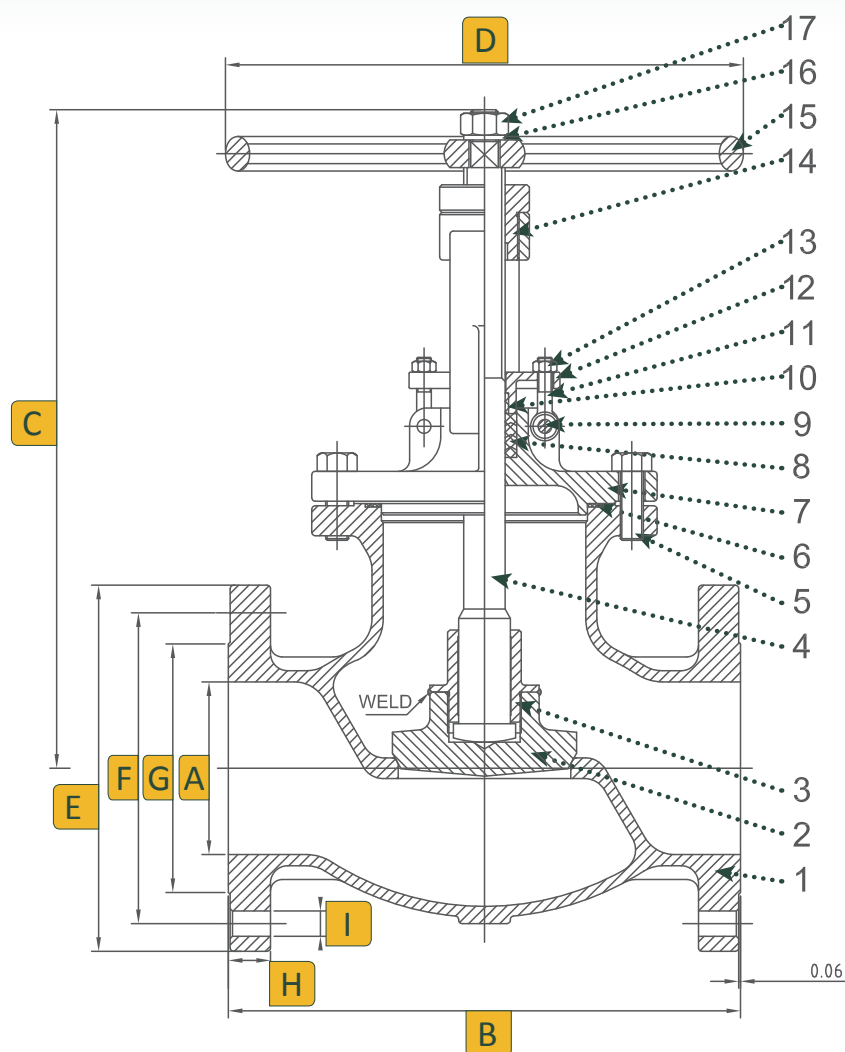
- Steel valves ANSI B16.34
- Face to face ANSI B16.10
- End flanges ANSI B16.5
- Butt-weld ends ANSI B16.25
- Inspection and test API 598



Series 45316

300# FLANGED STAINLESS STEEL GLOBE VALVE

**½" - 6" Dimensions,
Parts & Materials**



No.	Part Name	Material
1	Body	316 Stainless Steel ASTM A351 CF8M
2	Disc	316 Stainless Steel ASTM A351 CF8M
3	Seat Ring	316 Stainless Steel ASTM A351 CF8M
4	Stem	316 Stainless Steel
5	Bonnet Bolt	304 Stainless Steel
6	Gasket	PTFE (Grafoil + 316 Sheet*)
7	Bonnet	316 Stainless Steel
8	Gland Packing	PTFE (Graphite*)
9	Pin	304 Stainless Steel
10	Gland Sleeve	PTFE
11	Eye Bolt	304 Stainless Steel
12	Gland	316 Stainless Steel
13	Nut	304 Stainless Steel
14	Yoke Sleeve	Brass
15	Hand-wheel	Ductile Iron
16	Washer	304 Stainless Steel
17	Nut	304 Stainless Steel

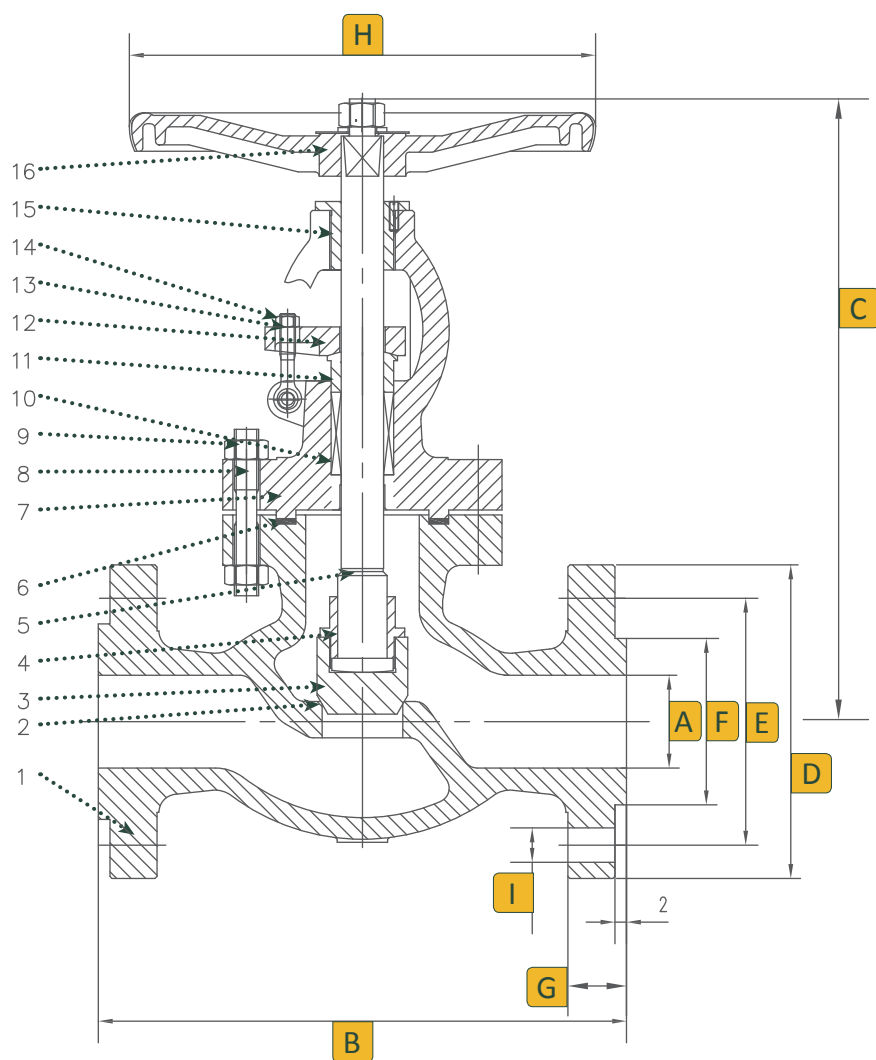
*Optional

Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
1/2	0.59	5.98	9.06	5.51	3.74	2.62	1.38	0.56	0.62	4
3/4	0.79	7.00	9.06	5.51	4.62	3.25	1.69	0.62	0.75	4
1	0.98	7.99	9.06	5.51	4.88	3.50	2.01	0.69	0.75	4
1-1/2	1.57	9.02	12.91	9.84	6.12	4.51	2.88	0.81	0.875	4
2	1.97	10.51	14.88	9.84	6.50	5.00	3.62	0.88	0.75	8
2-1/2	2.56	11.49	16.18	11.81	7.50	5.88	4.12	1.00	0.875	8
3	3.15	12.52	16.77	11.81	8.25	6.62	5.00	1.12	0.875	8
4	3.94	14.02	20.47	11.81	10.00	7.88	6.19	1.25	0.875	8
6	5.91	17.48	26.26	17.72	12.50	10.62	8.50	1.44	0.875	12

8"- 16" Dimensions, Parts & Materials

Series 45316 300# FLANGED STAINLESS STEEL GLOBE VALVE



No.	Part Name	Material
1	Body	316 Stainless Steel ASTM A351 CF8M
2	Seal Facing	316 Stainless Steel
3	Disc	316 Stainless Steel ASTM A351 CF8M
4	Disc Nut	316 Stainless Steel
5	Stem	316 Stainless Steel
6	Gasket	PTFE (Grafoil + 316 Sheet*)
7	Bonnet	316 Stainless Steel
8	Bonnet Bolt	B8 Stainless Steel
9	Bonnet Nut	Grade 8 Nut
10	Stem Packing	Graphite
11	Gland	316 Stainless Steel
12	Gland Flange	316 Stainless Steel
13	Gland Eyebolt	B8 Stainless Steel
14	Gland Nut	Grade 8 Nut
15	Stem Nut	Steel
16	Hand Wheel	Ductile Iron

*Optional

Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	I	Num of Bolt Holes
8	7.87	22.01	32.64	19.68	15.00	13.00	10.62	1.62	1.00	12
10	10.00	24.50	36.61	23.62	17.50	15.25	12.76	1.88	1.125	16
12	12.01	28.00	32.83	18.11	20.50	17.75	15.00	2.00	1.25	16
14	13.27	33.00	36.77	18.11	23.00	20.25	16.26	2.12	1.25	20
16	15.24	34.00	45.28	18.11	25.50	22.50	18.50	2.25	1.375	20



Valves, Automation & Controls

Series 45316

300# FLANGED STAINLESS STEEL GLOBE VALVE

Technical Information

Temperature °F	Working Pressure psi
-20 to 100	720
200	620
300	560
400	515
500	480
600	450
650	440
700	435
750	425
800	420
850	420
900	415
950	385
1000	365

*Standard PTFE seals limited to 450°F, over 450°F use graphite.

How to Order

Size	Series	Class	Ends	Body Material	Options
1/2	45	3	1	6	60
3/4			2		G
1					
1-1/2					
2*					
2-1/2*					
3*					
4*					
6*					
8*					
10*					
12*					
14*					
16*					

Example: 3 - 45 - 3 - 1 - 6 = 3-45-3-1-6

*POA