

*GWC Valve International*



PROVEN TECHNOLOGY FOR INDIVIDUAL VALVE SOLUTIONS - WORLDWIDE



**FORGED STEEL VALVES**

**Pressure Class: 150 - 2500**

**Size Range: 1/4" - 2"**

**API 602**

**ASME B16.34**



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## Example: 2" Figure #5411-A-8

5 4 1 1 - A - 8  
 1.    2.    3.    4.                    5.                    6.

2" Gate Valve, API 602 Class 800, Screwed End, Bolted Bonnet, Reduced Port, A105 Body, 13Cr 1/2 +STL.#6 Trim

### 1. MODEL

- |  |   |
|--|---|
| 5 - API 602 GATE VALVE                     | 9 - API 602/ASME B16.34 SWING CHECK VALVE |
| 7 - API 602/ASME B16.34 GLOBE VALVE        | 10 - API 602/ASME B16.34 BALL CHECK VALVE |
| 8 - API 602/ASME B16.34 PISTON CHECK VALVE |   |

### 2. RATING

- |               |                |
|---------------|----------------|
| 1 - CLASS 150 | 5 - CLASS 1500 |
| 2 - CLASS 300 | 6 - CLASS 2500 |
| 3 - CLASS 600 | 9 - CLASS 900  |
| 4 - CLASS 800 |                |

### 3. END CONNECTION

- |                           |                 |
|---------------------------|-----------------|
| 0 - RF FLANGED            | 7 - BUTTWELD    |
| 1 - SCREWED               | 9 - RTJ FLANGED |
| 2 - SOCKET WELD           | X - OTHER       |
| 3 - SCREWED x SOCKET WELD |                 |

### 4. BASIC CONSTRUCTION

- |                                  |   |
|----------------------------------|---|
| 1 - BOLTED BONNET - REDUCED PORT | 4 - WELDED BONNET - FULL PORT           |
| 2 - WELDED BONNET - REDUCED PORT | 5 - PRESSURE SEAL BONNET - REDUCED PORT |
| 3 - BOLTED BONNET - FULL PORT    |   |

### 5. MATERIAL (BODY & BONNET/CAP)

- |           |              |           |
|-----------|--------------|-----------|
| A - A105N | M - F304     | S - F51   |
| D - LF2   | N - F316     | T - F53   |
| I - F11   | O - F304L    | U - F55   |
| J - F22   | P - F316L    | X - OTHER |
| K - F5    | Q - F347     |           |
| L - F9    | R - ALLOY 20 |           |

### 6. MATERIAL (TRIM)

- |                          |                            |                           |
|--------------------------|----------------------------|---------------------------|
| 1 - 13CR                 | 12 - 316SS 1/2 STELLITE    | 17H - 347SS 1/2 STELLITE  |
| 8 - 13CR 1/2 STELLITE    | 16 - 316SS FULL STELLITE   | 17S - 347SS FULL STELLITE |
| 5 - 13CR FULL STELLITE   | 9 - MONEL                  | 21 - F51                  |
| 2 - 304SS                | 11 - MONEL 1/2 STELLITE    | 22 - F53                  |
| 2S - 304SS 1/2 STELLITE  | 13 - ALLOY 20              | 23 - F55                  |
| 15 - 304SS FULL STELLITE | 14 - ALLOY 20 1/2 STELLITE | O - OTHER                 |
| 10 - 316SS               | 17 - 347SS                 |                           |

### 7. SPECIAL REQUIREMENT

- |                                 |                      |
|---------------------------------|----------------------|
| N - NACE MR-01-75               | EB - EXTENDED BONNET |
| S - SUPPLY COMPLETE INFORMATION | Y - "Y" PATTERN      |

# FORGED STEEL GATE VALVES

## STANDARD PARTS & MATERIALS

NO.	PART NAME	A105 / Trim #8	LF2 / Trim #8	F5 / Trim #8	F9 / Trim #8	F11 / Trim #8	F22 / Trim #8	F304 / Trim #2S	F316 / Trim #12	
1	BODY	A105	LF2	F5	F9	F11	F22	F304	F316	
2	SEAT	410 HF	410 HF	410 HF	410 HF	410 HF	410 HF	304 HF	316 HF	
3	WEDGE	420	420	410	410	410	410	F304	F316	
4	STEM	410	410	410	410	410	410	304	316	
5	GASKET	304+GRAPHITE							316 + G	
6	BONNET	A105	LF2	F5	F9	F11	F22	F304	F316	
7	BOLT	B7	L7	B16	B16	B16	B16	B8	B8	
8	PIN	410	410	410	410	410	410	304	316	
9	GLAND	410	410	410	410	410	410	304	316	
10	GLAND EYEBOLT	B7	L7	B16	B16	B16	B16	B8	B8	
11	GLAND FLANGE	A105	LF2	F5	F9	F11	F22	F304	F316	
12	HEX NUT	2H	2H	2H	2H	2H	2H	8	8	
13	STEM NUT	410	410	410	410	410	410	410	410	
14	LOCKING NUT	35	35	35	35	35	35	35	35	
15	NAME PLATE	AL	AL	AL	AL	AL	AL	AL	AL	
16	HANDWHEEL	A197	A197	A197	A197	A197	A197	A197	A197	
17	LUBRICATING GASKET	410	410	410	410	410	410	410	410	
18	PACKING	Braided Graphite / Graphoil / Braided Graphite								
19	*STOP NUT	35	35	35	35	35	35	35	35	
23	*SEAL GASKET	420	420	304	304	304	304	304	316	
24	*P.S. RING	304	304	304	304	304	304	304	316	
25	*P.S. SEAT	420	420	304	304	304	304	304	316	
26	*NUT PAD	410	410	410	410	410	410	410	410	
27	*PACKING NUT	2H	2H	2H	2H	2H	2H	2H	2H	
37	**SCREWED STUD	B7	L7	B16	B16	B16	B16	B8	B8	
38	**NUT	2H	8	8	8	8	8	8	8	
39	**METAL RING	304	304	304	304	304	304	304	316	

\* Pressure seal bonnet only

\*\* Ring join bonnet gasket only

## MODEL 5411 / 5421 / 5413 / 5423

Forged steel gate valve, Outside screw and yoke, Bolted bonnet, Rising stem, non-rising handwheel, Solid wedge, Threaded or Socket weld ends, Full or Reduced bore, Designed to API-602.

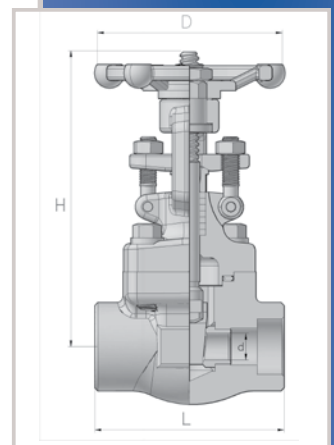
### DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 602 Class 800

### CLASS 800

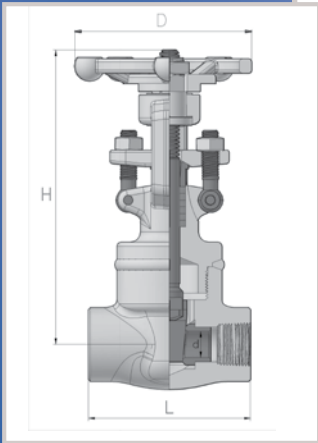
Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"
Face to Face (L)	3.11	3.11	3.62	4.37	4.72	4.72	5.51	7.01	7.09	7.09
Handwheel Diameter (D)	3.94	3.94	3.94	4.92	6.3	6.3	7.09	7.87	8.66	8.66
Height (H)	6.34	6.34	6.42	7.72	8.78	9.88	11.42	13.11	14.57	14.57
Port Dimension (d)	0.31	0.41	0.53	0.71	0.94	1.14	1.44	1.91	2.01	2.01
Weight (lbs.)	5.06	5.06	5.28	9.33	12.54	15.51	23.98	36.96	52.8	52.8



# FORGED STEEL GATE VALVES

## MODEL 5412 / 5422 / 5414 / 5424



Forged steel gate valve, Outside screw and yoke, Welded bonnet, Rising stem, non-rising handwheel, Solid wedge, Threaded or Socket weld ends, Full or Reduced bore, Designed to API-602.

### DIMENSIONS

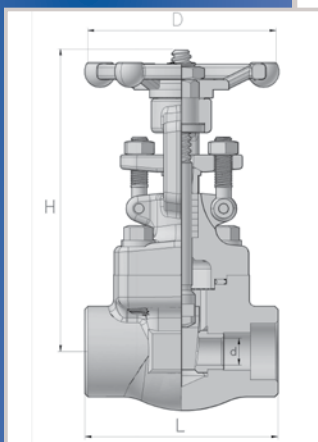
Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 602 Class 800

### CLASS 800

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"
Face to Face (L)	3.11	3.11	3.62	4.37	4.72	4.72	5.51	7.01	7.09	7.09
Handwheel Diameter (D)	3.94	3.94	3.94	4.92	6.3	6.3	7.09	7.87	8.66	8.66
Height (H)	6.34	6.34	6.42	7.72	8.78	9.88	11.42	13.11	14.57	14.57
Port Dimension (d)	0.31	0.41	0.53	0.71	0.94	1.14	1.44	1.91	2.01	2.01
Weight (lbs.)	5.06	5.06	5.28	9.33	12.54	15.51	23.98	36.96	52.8	52.8

## MODEL 5511 / 5521 / 5513/ 5523



Forged steel gate valve, Outside screw and yoke, Bolted bonnet, Rising stem, non-rising handwheel, Solid wedge, Threaded or Socket weld ends, Full or Reduced bore, Designed to API-602.

### DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500

### CLASS 1500

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)	3.62	4.37	4.37	4.72	4.72	5.51	7.01	7.09	7.09
Handwheel Diameter (D)	3.94	4.92	4.92	6.3	6.3	7.09	7.87	8.66	8.66
Height (H)	7.52	7.52	7.56	8.62	9.57	11.65	12.44	14.57	14.57
Port Dimension (d)	0.31	0.41	0.53	0.71	0.94	1.14	1.44	1.77	1.77
Weight (lbs.)	5.28	9.68	9.68	13.2	0.44	25.08	35.2	50.6	50.6

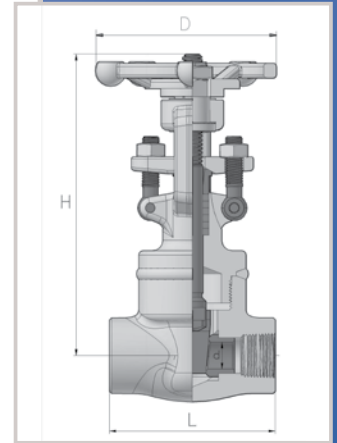
# FORGED STEEL GATE VALVES

## MODEL 5512 / 5522 / 5514/ 5524

Forged steel gate valve, Outside screw and yoke, Welded bonnet, Rising stem, non-rising handwheel, Solid wedge, Threaded or Socket weld ends, Full or Reduced bore, Designed to API-602

### DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500



### CLASS 1500

Dimensions in inches

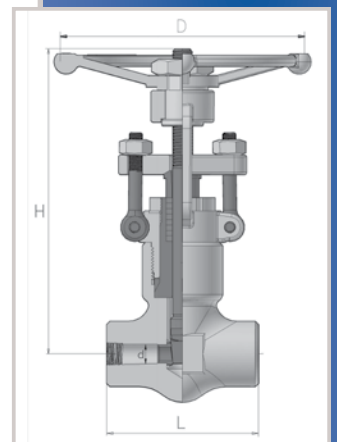
Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)	3.62	4.37	4.37	4.72	4.72	5.51	7.01	7.09	
Handwheel Diameter (D)	3.94	4.92	4.92	6.3	6.3	7.09	7.87	8.66	
Height (H)	7.52	7.52	7.56	8.62	9.57	11.65	12.44	14.57	
Port Dimension (d)	0.31	0.41	0.53	0.71	0.94	1.14	1.44	1.77	
Weight (lbs.)	5.28	9.68	9.68	13.2	0.44	25.08	35.2	50.6	

## MODEL 5625

Forged steel gate valve, Outside screw and yoke, Pressure seal bonnet, Rising stem, non-rising handwheel, Solid wedge, Threaded or Socket weld ends, Reduced Bore, Designed to ASME B16.34

### DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 2500



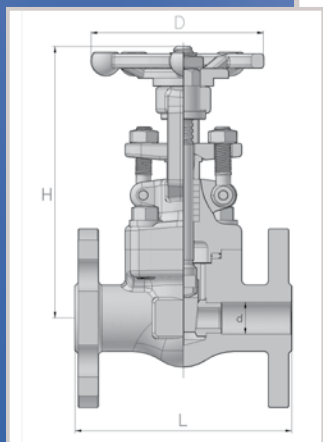
### CLASS 2500

Dimensions in inches

Valve Size	RED. BORE	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)	7.32	7.32	7.32	7.32	9.13	9.13	10.98	
Handwheel Diameter (D)	7.87	7.87	7.87	7.87	11.02	11.02	11.81	
Height (H)	12.8	12.8	12.8	12.87	18.39	18.43	21.26	
Port Dimension (d)	0.55	0.55	0.55	0.75	0.98	1.18	1.44	
Weight (lbs.)	27.06	27.06	25.52	23.76	57.2	62.48	132	

# FORGED STEEL GATE VALVES

## MODEL 5101 / 5201 / 5301 / 5901 / 5501



Forged steel gate valve, Outside screw and yoke, Bolted bonnet, Rising stem, non-rising handwheel, Solid wedge, Integral flanged raised face, Reduced bore, Designed to API-602.

### DIMENSIONS

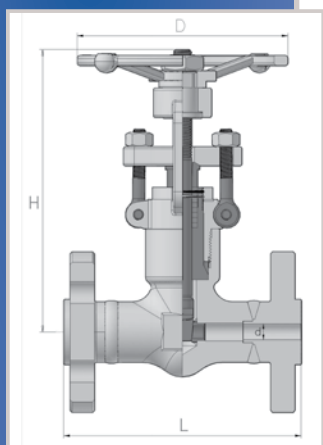
Face to Face	ASME B16.10
End Flange	ASME B16.5
Rating	ASME Class 150, 300, 600, 900, 1500

## CLASS 150 / 300 / 600 / 900 / 1500

Dimensions in inches

Valve Size	RED. BORE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L) CL 150		4.25	4.61	5	5.51	6.5	7.01
Face to Face (L) CL 300		5.51	5.98	6.5	7.01	7.48	8.5
Face to Face (L) CL 600		6.5	7.48	8.5	9.02	9.49	11.5
Face to Face (L) CL 900/1500 RF		8.5	9.02	10	10.98	12.01	14.49
Face to Face (L) CL 900/1500 RTJ		8.5	9.02	10	10.98	12.01	14.61
Handwheel Diameter (D) CL 150		6.93	7.24	8.54	8.9	9.84	11.42
Handwheel Diameter (D) CL300 / 600		6.34	6.42	7.72	8.9	9.84	11.42
Handwheel Diameter (D) CL 900/1500		4.92	4.92	6.3	7.09	7.87	8.66
Height (H) CL 150/300/600		3.94	3.94	4.92	6.3	6.3	7.09
Height (H) CL 900/1500		7.52	7.56	8.62	10.12	11.65	12.44
Port Diameter (d) CL 150/300/600		0.39	0.53	0.71	0.94	1.14	1.44
Port Diameter (d) CL 900/1500		0.53	0.71	0.94	1.14	1.44	1.77
Weight (lbs.) CL150		7.48	8.76	13.46	15.84	22.88	34.1
Weight (lbs.) CL300		8.29	10.76	15.91	21.12	27.81	39.6
Weight (lbs.) CL600		9.24	12.76	19.36	26.62	34.32	42.9
Weight (lbs.) CL 900/1500		15.84	25.3	34.32	35.64	49.72	62.04

## MODEL 5605



Forged steel gate valve, Outside screw and yoke, Pressure seal bonnet, Rising stem, non-rising handwheel, Solid wedge, Flanged raised face, Reduced bore, Designed to ASME B16.34

### DIMENSIONS

Face to Face	ASME B16.10
End Flange	ASME B16.5
Rating	ASME Class 2500

## CLASS 2500

Dimensions in inches

Valve Size	RED. BORE	1/2"	3/4"	1"	1-1/2"	2"
Face to Face (L) RF		10.39	10.75	12.13	15.12	17.76
Face to Face (L) RTJ		10.39	10.75	12.13	15.24	17.87
Handwheel Diameter (D)		7.87	7.87	7.87	11.02	11.81
Height (H)		12.8	12.8	12.87	18.82	21.26
Port Dimension (d)		0.53	0.53	0.75	1.18	1.44
Weight (lbs.)		10.12	14.96	16.72	33	48.18

# FORGED STEEL GLOBE VALVES

## STANDARD PARTS & MATERIALS

NO.	PART NAME	A105 / Trim #8	LF2 / Trim #8	F5 / Trim #8	F9 / Trim #8	F11 / Trim #8	F22 / Trim #8	F304 / Trim #2S	F316 / Trim #12	
1	BODY	A105 HF	LF2 HF	F5 HF	F9 HF	F11 HF	F22 HF	F304 HF	F316 HF	
3	DISC	420	420	410	410	410	410	F304	F316	
4	STEM	410	410	410	410	410	410	304	316	
5	GASKET	304+GRAPHITE							316 + G	
6	BONNET	A105	LF2	F5	F9	F11	F22	F304	F316	
7	BOLT	B7	L7	B16	B16	B16	B16	B8	B8	
8	PIN	410	410	410	410	410	410	304	316	
9	GLAND	410	410	410	410	410	410	304	316	
10	GLAND EYEBOLT	B7	L7	B16	B16	B16	B16	B8	B8	
11	GLAND FLANGE	A105	LF2	F5	F9	F11	F22	F304	F316	
12	HEX NUT	2H	2H	2H	2H	2H	2H	8	8	
13	STEM NUT	410	410	410	410	410	410	410	410	
14	LOCKING NUT	35	35	35	35	35	35	35	35	
15	NAME PLATE	AL	AL	AL	AL	AL	AL	AL	AL	
16	HANDWHEEL	A197	A197	A197	A197	A197	A197	A197	A197	
17	LUBRICATING GASKET	410	410	410	410	410	410	410	410	
18	PACKING	Braided Graphite / Graphoil / Braided Graphite								
19	*STOP NUT	35	35	35	35	35	35	35	35	
23	*SEAL GASKET	420	420	304	304	304	304	304	316	
24	*P.S. RING	304	304	304	304	304	304	304	316	
25	*P.S. SEAT	420	420	304	304	304	304	304	316	
26	*NUT PAD	410	410	410	410	410	410	410	410	
27	*PACKING NUT	2H	2H	2H	2H	2H	2H	2H	2H	
37	**SCREWED STUD	B7	L7	B16	B16	B16	B16	B8	B8	
38	**NUT	2H	8	8	8	8	8	8	8	
39	**METAL RING	304	304	304	304	304	304	304	316	

\* Pressure seal bonnet only

\*\* Ring join bonnet gasket only

## MODEL 7411 / 7421 / 7413 / 7423

Forged steel globe valve, Outside screw and yoke, Bolted bonnet, Rising stem, Rising handwheel, Solid disc, Threaded or Socket weld ends, Full or Reduced bore, Designed to ASME B16.34

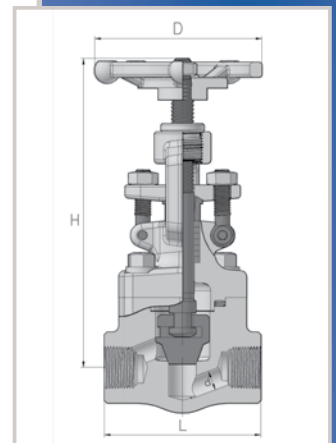
### DIMENSIONS

Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 602 Class 800

### CLASS 800

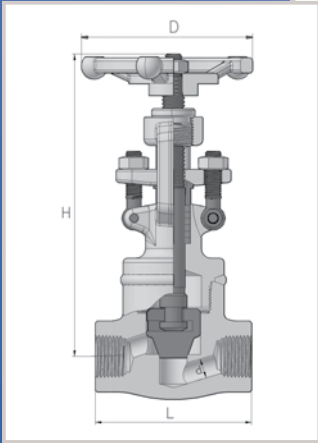
Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)	3.11	3.11	3.62	4.37	4.72	5.98	6.77	7.87	
Handwheel Diameter (D)	3.94	3.94	3.94	4.92	6.3	6.3	7.09	7.87	
Height (H)	6.46	6.46	6.46	7.99	8.82	10.24	11.81	13.98	
Port Dimension (d)	0.28	0.35	0.51	0.69	0.91	1.18	1.38	1.81	
Weight (lbs.)	4.18	5.02	5.21	9.46	12.65	17.16	27.5	38.5	



# FORGED STEEL GLOBE VALVES

## MODEL 7412 / 7422 / 7414 / 7424



Forged steel globe valve, Outside screw and yoke, Welded bonnet, Rising stem, Rising handwheel, Solid disc, Threaded or Socket weld ends, Full or Reduced bore, Designed to ASME B16.34

### DIMENSIONS

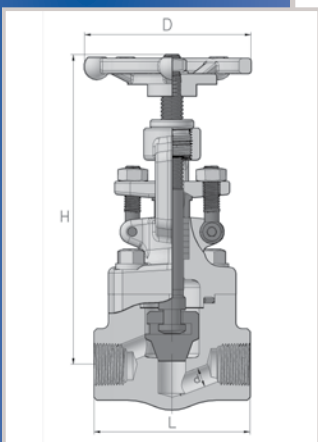
Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 602 Class 800

### CLASS 800

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)		3.11	3.11	3.62	4.37	4.72	5.98	6.77	7.87
Handwheel Diameter (D)		3.94	3.94	3.94	4.92	6.3	6.3	7.09	7.87
Height (H)		6.46	6.46	6.46	7.99	8.82	10.24	11.81	13.98
Port Dimension (d)		0.28	0.35	0.51	0.69	0.91	1.18	1.38	1.81
Weight (lbs.)		3.74	3.74	4.18	7.26	11.44	14.96	23.32	30.36

## MODEL 7511 / 7521



Forged steel globe valve, Outside screw and yoke, Bolted bonnet, Rising stem, Rising handwheel, Solid disc, Threaded or Socket weld ends, Reduced bore, Designed to ASME B16.34

### DIMENSIONS

Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500

### CLASS 1500

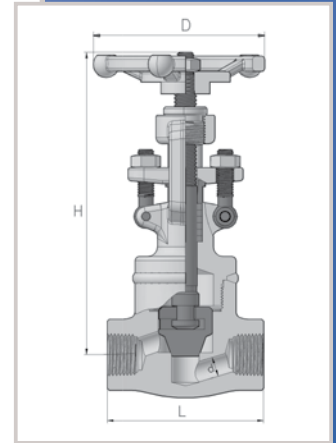
Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)		3.62	4.37	4.37	4.72	5.98	6.77	7.87	7.87
Handwheel Diameter (D)		3.94	4.92	4.92	6.3	6.3	7.09	7.87	9.45
Height (H)		6.73	8.15	8.15	9.45	10.16	12.99	13.98	14.57
Port Dimension (d)		0.28	0.47	0.59	0.79	1.1	1.26	1.57	1.77
Weight (lbs.)		5.06	8.14	8.58	14.96	16.72	25.52	33	48.18

# FORGED STEEL GLOBE VALVES

## MODEL 7512 / 7522

Forged steel globe valve, Outside screw and yoke, Welded bonnet, Rising stem, Rising handwheel, Solid disc, Threaded or Socket weld ends, Reduced bore, Designed to ASME B16.34



### DIMENSIONS

Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500

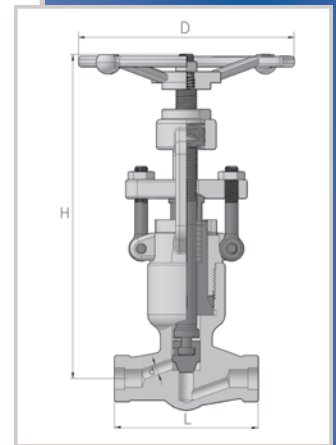
### CLASS 1500

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)	3.62	4.37	4.37	4.72	5.98	6.77	7.87	7.87	7.87
Handwheel Diameter (D)	3.94	4.92	4.92	6.3	6.3	7.09	7.87	9.45	
Height (H)	6.73	8.15	8.15	9.45	10.16	12.99	13.98	14.57	
Port Dimension (d)	0.28	0.47	0.59	0.79	1.1	1.26	1.57	1.77	
Weight (lbs.)	4.4	7.48	7.7	13.2	14.52	22.66	31.24	39.6	

## MODEL 7625

Forged steel globe valve, Outside screw and yoke, Pressure seal bonnet, Rising stem, Rising handwheel, Solid disc, Threaded or Socket weld ends, Designed to ASME B16.34



### DIMENSIONS

Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 2500

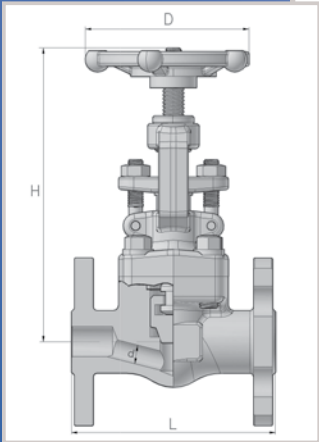
### CLASS 2500

Dimensions in inches

Valve Size	RED. BORE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)		7.32	7.32	7.32	9.13	9.13	10.98
Handwheel Diameter (D)		7.87	7.87	7.87	11.02	11.02	11.81
Height (H)		14.76	14.88	14.96	19.29	19.29	21.26
Port Dimension (d)		0.43	0.55	0.75	0.98	1.1	1.38
Weight (lbs.)		27.06	27.5	28.6	57.2	62.48	132

# FORGED STEEL GLOBE VALVES

## MODEL 7101 / 7201 / 7301 / 7901 / 7501



Forged steel globe valve, Outside screw and yoke, Bolted bonnet, Rising stem, Rising handwheel, Solid disc, Integral flanged raised face, Reduced bore, Designed to ASME B16.34

### DIMENSIONS

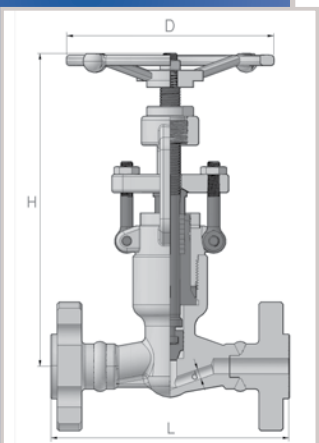
Face to Face	ASME B16.10
End Flange	ASME B16.5
Rating	ASME Class 150, 300, 600, 900, 1500

## CLASS 150 / 300 / 600 / 900 / 1500

Dimensions in inches

Valve Size	RED. BORE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L) CL 150		4.25	4.61	5	5.51	6.5	7.99
Face to Face (L) CL 300		5.98	7.01	7.99	8.5	9.02	10.51
Face to Face (L) CL 600		6.5	7.48	8.5	9.02	9.49	11.5
Face to Face (L) RF CL 900 / 1500		8.5	9.02	10	10.98	12.01	14.49
Face to Face (L) RTJ CL 900 / 1500		8.5	9.02	10	10.98	12.01	14.61
Handwheel Diameter (D) CL 150		3.94	3.94	4.92	6.3	6.3	7.09
Handwheel Diameter (D) CL300 / 600		7.09	7.24	8.54	8.82	10.24	11.81
Handwheel Diameter (D) CL 900 / 1500		4.92	4.92	6.3	6.3	7.09	7.87
Height (H) CL 150 / 300 / 600		6.46	6.46	7.99	8.82	10.24	11.81
Height (H) CL 900 / 1500		8.15	8.15	9.06	10.24	11.81	13.19
Port Diameter (d) CL 150 / 300 / 600		0.35	0.51	0.69	0.91	1.18	1.38
Port Diameter (d) CL 900 / 1500		0.47	0.59	0.79	1.1	1.26	1.57
Weight (lbs.) CL150		7.59	8.8	13.62	21.12	23.1	37.4
Weight (lbs.) CL300		8.36	11.22	15.84	26.4	29.7	43.34
Weight (lbs.) CL600		12.32	17.16	27.5	37.4	51.7	85.36
Weight (lbs.) CL 900 / 1500		24.2	29.04	38.28	41.8	53.9	68.2

## MODEL 7605



Forged steel globe valve, Outside screw and yoke, Pressure seal bonnet, Rising stem, Rising handwheel, Solid disc, Flanged raised face, Reduced bore, Designed to ASME B16.34

### DIMENSIONS

Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 2500

## CLASS 2500

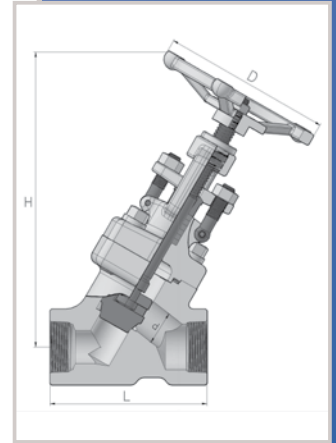
Dimensions in inches

Valve Size	RED. BORE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L) RF		10.39	10.75	12.13	13.74	15.12	17.76
Face to Face (L) RTJ		10.39	10.75	12.13	13.74	15.24	17.87
Handwheel Diameter (D)		7.87	7.87	11.02	11.02	11.02	11.81
Height (H)		12.6	12.6	12.6	17.32	17.32	19.29
Port Dimension (d)		0.43	0.55	0.75	0.98	1.1	1.38
Weight (lbs.)		47.3	54.34	66.88	105.82	127.82	286

# FORGED STEEL GLOBE VALVES

## MODEL 7411 / 7421/ 7413/ 7423 "Y"

Forged steel globe valve, Outside screw and yoke, "Y" pattern, Bolted bonnet, Rising stem, Rising handwheel, Solid disc, Threaded or Socket weld ends, Full or Reduced bore, Designed to ASME B16.34



### DIMENSIONS

Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 602 Class 800

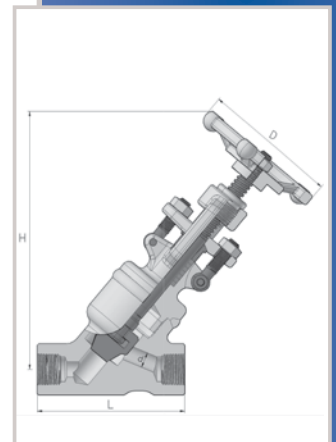
### CLASS 800

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)	3.86	3.86	3.86	4.37	5.51	5.51	6.1	6.69	
Handwheel Diameter (D)	3.94	3.94	3.94	4.92	6.3	6.3	7.09	7.87	
Height (H)	7.09	7.09	7.09	7.4	11.02	11.02	11.61	13.78	
Port Dimension (d)	0.28	0.35	0.51	0.69	0.91	1.18	1.38	1.81	
Weight (lbs.)	5.72	5.72	8.36	10.12	20.46	20.68	30.8	43.12	

## MODEL 7412 / 7422 / 7414 / 7424 "Y"

Forged steel globe valve, Outside screw and yoke, "Y" pattern, Welded bonnet, Rising stem, Rising handwheel, Solid disc, Threaded or Socket weld ends, Full or Reduced bore, Designed to ASME B16.34



### DIMENSIONS

Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 601 Class 800

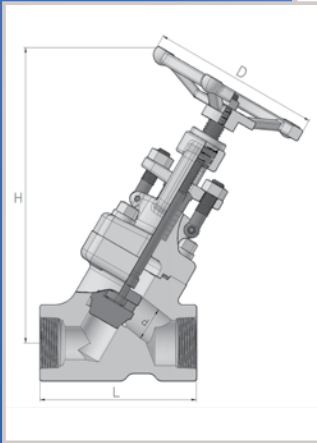
### CLASS 800

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)	3.86	3.86	3.86	4.37	5.51	5.51	6.1	6.69	
Handwheel Diameter (D)	3.94	3.94	3.94	4.92	6.3	6.3	7.09	7.87	
Height (H)	7.09	7.09	7.09	7.4	11.02	11.02	11.61	13.78	
Port Dimension (d)	0.28	0.35	0.51	0.69	0.91	1.18	1.38	1.81	
Weight (lbs.)	3.96	3.96	4.4	7.7	17.6	19.8	26.4	35.2	

# FORGED STEEL GLOBE VALVES

## MODEL 7511 / 7521 "Y"



Forged steel globe valve, Outside screw and yoke, "Y" pattern, Bolted bonnet, Rising stem, Rising handwheel, Solid disc, Threaded or Socket weld ends, Reduced bore, Designed to ASME B16.34

### DIMENSIONS

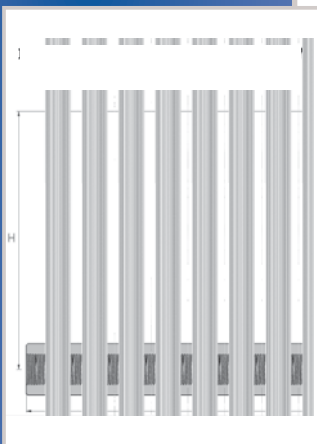
Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500

### CLASS 1500

Dimensions in inches

Valve Size	FULL BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)		3.86	4.37	4.37	5.51	5.51	6.1	6.69
Handwheel Diameter (D)		3.94	4.92	4.92	6.3	6.3	7.09	7.87
Height (H)		6.89	6.89	8.46	8.46	10	12.01	12.01
Port Dimension (d)		0.35	0.47	0.59	0.79	1.1	1.26	1.57
Weight (lbs.)		5.72	10.12	10.34	20.46	20.68	30.8	43.12

## MODEL 7512 / 7522 "Y"



Forged steel globe valve, Outside screw and yoke, "Y" pattern, Welded bonnet, Rising stem, Rising handwheel, Solid disc, Threaded or Socket weld ends, Reduced bore, Designed to ASME B16.34

### DIMENSIONS

Face to Face	GWC Standards
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500

### CLASS 1500

Dimensions in inches

Valve Size	FULL BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)		3.86	4.37	4.37	5.51	5.51	6.1	6.69
Handwheel Diameter (D)		3.94	4.92	4.92	6.3	6.3	7.09	7.87
Height (H)		6.89	6.89	8.46	8.46	10	12.01	12.01
Port Dimension (d)		0.35	0.47	0.59	0.79	1.1	1.26	1.57
Weight (lbs.)		5.72	10.12	10.34	20.46	20.68	30.8	43.12

# FORGED STEEL CHECK VALVES

## STANDARD PARTS & MATERIALS

NO.	PART NAME	A105 / Trim #8	LF2 / Trim #8	F5 / Trim #8	F9 / Trim #8	F11 / Trim #8	F22 / Trim #8	F304 / Trim #2S	F316 / Trim #12	
1	BODY	A105 HF	LF2 HF	F5 HF	F9 HF	F11 HF	F22 HF	F304 HF	F316 HF	
3	DISC/PISTON	420	420	410	410	410	410	F304	F316	
5	GASKET	304+GRAPHITE							316 + G	
6	BONNET	A105	LF2	F5	F9	F11	F22	F304	F316	
7	BOLT	B7	L7	B16	B16	B16	B16	B8	B8	
15	NAME PLATE	AL	AL	AL	AL	AL	AL	AL	AL	
19	*STOP NUT	35	35	35	35	35	35	35	35	
23	*SEAL GASKET	420	420	420	304	304	304	304	316	
24	*P.S. RING	304	304	304	304	304	304	304	316	
25	*P.S. SEAT	420	420	420	304	304	304	316	316	
26	*NUT PAD	410	410	410	410	410	410	410	410	
27	*PACKING NUT	CAST STEEL								
32	RIVIT	AL	AL	AL	AL	AL	AL	AL	AL	
34	DISC NUT	2H	2H	8	8	8	8	8	8	
35	HINGE	410	410	410	304	304	304	316	316	
36	PIN	410	410	410	304	304	304	316	316	
37	**SCREWED STUD	B7	B7	L7	B16	B8	B8	B8	B8	
38	**NUT	2H	2H	8	8	8	8	8	8	
39	**METAL RING	304	304	304	304	304	304	316	316	

\* Pressure seal bonnet only

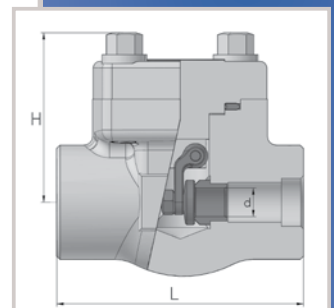
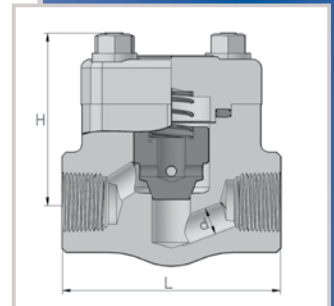
\*\* Ring join bonnet gasket only

## MODEL 8411 / 8421/ 8413 / 8423 MODEL 9411 / 9421/ 9413 / 9423

Forged steel check valve, Piston or Swing check, Bolted cover, Horizontal or Vertical lines, Threaded or Socket weld ends, Full or Reduced bore, Designed to ASME B16.34

### DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 602 Class 800



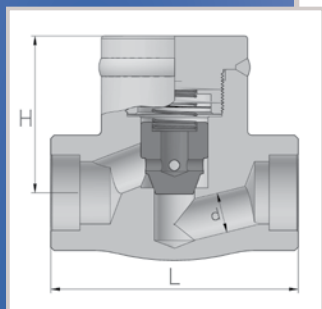
### CLASS 800

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L) (Piston)	3.11	3.11	3.62	4.37	4.72	5.98	6.77	7.87	
Face to Face (L) (Swing)	3.11	3.11	3.62	4.37	4.72	4.72	5.51	7.01	
Height (H) (Piston)	2.4	2.4	2.4	3.07	3.31	3.31	4.65	5.2	
Height (H) (Swing)	2.4	2.4	2.4	3.07	3.31	3.31	4.72	5.24	
Port Diameter (d) (Piston)	0.28	0.35	0.51	0.69	0.91	1.18	1.38	1.81	
Port Diameter (d) (Swing)	0.28	0.35	0.51	0.69	0.91	1.14	1.44	1.77	
Weight (lbs.) (Piston)	2.64	3.3	3.74	7.26	9.24	9.24	23.1	27.5	
Weight (lbs.) (Swing)	3.08	3.3	3.74	7.26	9.24	9.24	18.7	23.98	

# FORGED STEEL CHECK VALVES

**MODEL 8412 / 8422/ 8414/ 8424**  
**MODEL 9412 / 9422/ 9414 / 9424**



Forged steel check valve, Piston or Swing check, Welded cover, Horizontal or Vertical lines, Threaded or Socket weld ends, Full or Reduced bore, Designed to ASME B16.34

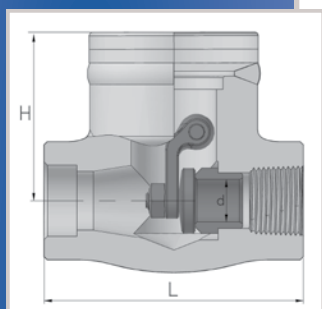
## DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 602 Class 800

## CLASS 800

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	
Face to Face (L) (Piston)		3.11	3.11	3.62	4.37	4.72	5.98	6.77	7.87
Face to Face (L) (Swing)		3.11	3.11	3.62	4.37	4.72	4.72	5.51	7.01
Height (H) (Piston)		2.4	2.4	2.4	3.07	3.31	4.06	4.65	5.2
Height (H) (Swing)		2.4	2.4	2.4	3.07	3.31	3.31	4.72	5.24
Port Diameter (d) (Piston)		0.28	0.35	0.51	0.69	0.91	1.18	1.38	1.81
Port Diameter (d) (Swing)		0.28	0.35	0.51	0.69	0.91	1.14	1.44	1.77
Weight (lbs.) (Piston)		2.64	2.86	3.3	6.6	8.58	13.2	22	26.4
Weight (lbs.) (Swing)		3.08	3.3	3.74	7.26	9.24	9.24	18.7	23.98



**MODEL 8511 / 8521**  
**MODEL 9511 / 9521**

Forged steel check valve, Piston or Swing check, Bolted cover, Horizontal or Vertical lines, Threaded or Socket weld ends, Reduced bore, Designed to ASME B16.34

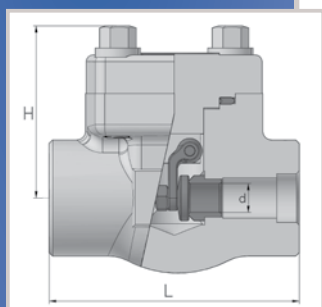
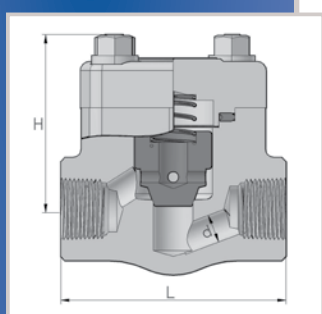
## DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500

## CLASS 1500

Dimensions in inches

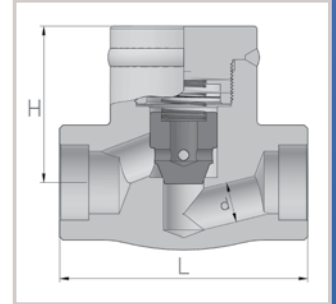
Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L) (Piston)		3.62	4.37	4.37	4.72	5.98	6.77	7.87
Face to Face (L) (Swing)		3.62	4.37	4.37	4.72	4.72	5.51	7.01
Height (H) (Piston)		2.4	3.07	3.07	3.31	4.06	4.65	5.2
Height (H) (Swing)		2.4	3.07	3.07	3.31	3.98	4.72	5.24
Port Diameter (d) (Piston)		0.28	0.47	0.59	0.79	1.02	1.26	1.57
Port Diameter (d) (Swing)		0.28	0.47	0.59	0.79	0.94	1.14	1.77
Weight (lbs.) (Piston)		3.3	7.48	7.92	9.24	13.86	23.1	27.5
Weight (lbs.) (Swing)		3.3	7.48	7.92	9.24	11	18.7	23.98



# FORGED STEEL CHECK VALVES

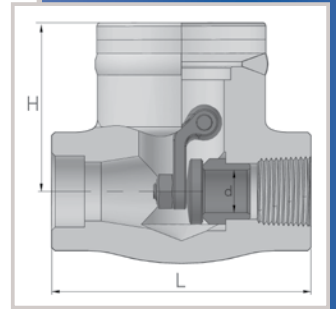
**MODEL 8512 / 8522**  
**MODEL 9512 / 9522**

Forged steel check valve, Piston or Swing check, Welded cover, Horizontal or Vertical lines, Threaded or Socket weld ends, Reduced bore, Designed to ASME B16.34



## DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500



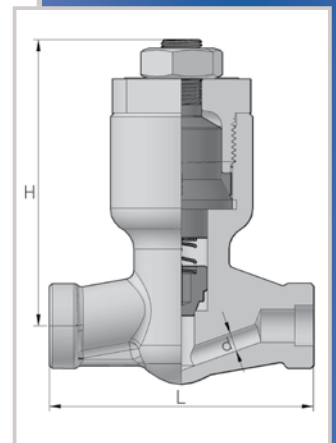
## CLASS 1500

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L) (Piston)		3.62	4.37	4.37	4.72	5.98	6.77	7.87
Face to Face (L) (Swing)		3.62	4.37	4.37	4.72	4.72	5.51	7.01
Height (H) (Piston)		2.4	3.07	3.07	3.31	4.06	4.65	5.2
Height (H) (Swing)		2.4	3.07	3.07	3.31	3.98	4.72	5.24
Port Diameter (d) (Piston)		0.28	0.47	0.59	0.79	1.1	1.26	1.57
Port Diameter (d) (Swing)		0.28	0.47	0.59	0.79	0.94	1.14	1.77
Weight (lbs.) (Piston)		2.86	6.82	6.82	8.58	12.76	22	25.3
Weight (lbs.) (Swing)		2.86	6.82	6.82	8.58	11	18.7	23.98

## MODEL 8625

Forged steel Piston check valve, Pressure seal cover, Horizontal or Vertical lines, Threaded or Socket weld ends, Reduced bore, Designed to ASME B16.34



## DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 2500

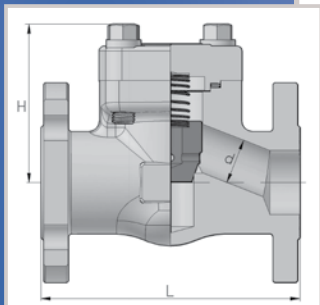
## CLASS 2500

Dimensions in inches

Valve Size	RED. BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)		5.91	5.91	5.91	5.91	8.27	9.25	9.25	9.25
Height (H)		6.54	6.54	6.73	8.15	9.45	10.16	12.99	13.98
Port Dimension (d)		0.3	0.41	0.43	0.55	0.75	0.98	1.1	1.38
Weight (lbs.)		4.18	5.06	37.4	1023	136.4	160.6	173.8	187

# FORGED STEEL CHECK VALVES

**MODEL 8101 / 8201 / 8301 / 8901 / 8501**  
**MODEL 9101 / 9201 / 9301 / 9901 / 9501**



Forged steel check valve, Piston or Swing check, bolted cover, Horizontal or Vertical lines, Integral flanged raised face, Reduced bore, Designed to ASME B16.34

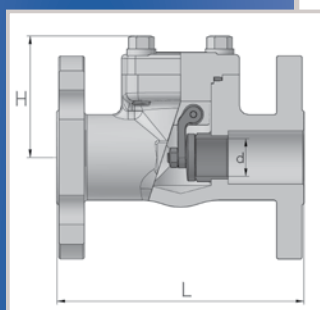
## DIMENSIONS

Face to Face	ASME B16.10
End Flange	ASME B16.5
Rating	ASME Class 150, 300, 600, 900, 1500

## CLASS 150 / 300 / 600 / 900 / 1500

Dimensions in inches

Valve Size	RED. BORE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L) CL 150		4.25	4.65	5	5.51	6.54	7.99
Face to Face (L) CL 300		6.02	7.01	7.99	8.5	9.02	10.51
Face to Face (L) CL 600		6.5	7.52	8.5	9.02	9.49	11.5
Face to Face (L) RF CL 900 / 1500		8.5	9.02	10	11.02	12.01	14.49
Face to Face (L) RTJ CL 900 / 1500		8.5	9.02	10	11.02	12.01	14.61
Height (H) CL 150 / 300 / 600		2.4	3.07	3.31	3.98	4.72	5.24
Height (H) CL 900 / 1500		3.19	3.66	3.74	3.98	4.65	5.12
Port Diameter (d) CL 150 / 300 / 900		0.39	0.51	0.69	0.91	1.18	1.38
Port Diameter (d) CL 900 / 1500		0.47	0.59	0.79	1.1	1.26	1.57
Weight (lbs.) CL150		7.9	10.1	18.7	20.2	27.5	32.6
Weight (lbs.) CL300		8.1	10.6	19.4	21.1	30.1	39.2
Weight (lbs.) CL600		8.8	12.8	20.9	22.9	34.3	53.9
Weight (lbs.)		11.4	15	23.1	61.6	39.6	52.8



## MODEL 8605

Forged steel Pison check valve, bolted cover, Horizontal or Vertical lines, Flanged raised face, Reduced bore, Designed to ASME B16.34

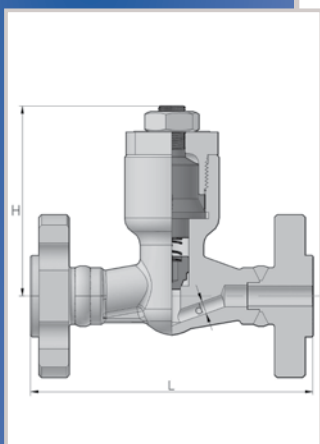
## DIMENSIONS

Face to Face	ASME B16.10
End Flange	ASME B16.5
Rating	ASME Class 2500

## CLASS 2500

Dimensions in inches

Valve Size	RED. BORE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L) RF		10.39	10.75	12.13	13.74	15.12	17.72
Face to Face (L) RTJ		10.39	10.75	12.13	13.86	15.24	17.87
Height (H)		3.19	3.27	3.74	3.98	4.65	5.12
Port Diameter (d)		0.47	0.59	0.79	1.1	1.26	1.57
Weight (lbs.)		37.4	46.2	61.6	75.9	127.6	187



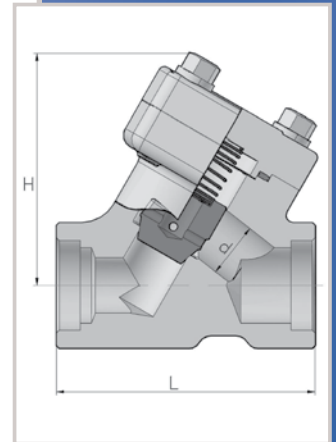
# FORGED STEEL CHECK VALVES

## MODEL 8411 / 8421/ 8413/ 8423 "Y"

Forged steel Piston check valve, Bolted cover, "Y" pattern, Horizontal or Vertical lines, Threaded or Socket weld ends, Full or Reduced bore, Designed to ASME B16.34

### DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 602 Class 800



### CLASS 800

Dimensions in inches

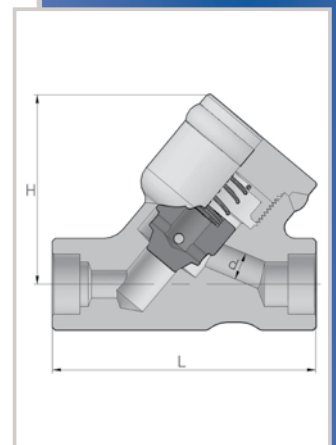
Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)	3.86	3.86	3.86	4.37	5.51	5.51	6.1	6.69	
Height (H)	2.76	2.76	2.76	3.94	3.94	4.72	4.72	5.91	
Port Dimension (d)	0.28	0.39	0.51	0.69	0.91	1.18	1.38	1.81	
Weight (lbs.)	4.84	4.84	5.06	9.24	19.8	20.46	22	40.92	

## MODEL 8412 / 8422/ 8414/ 8424 "Y"

Forged steel Piston check valve, Welded cover, "Y" pattern, Horizontal or Vertical lines, Threaded or Socket weld ends, Full or Reduced bore, Designed to ASME B16.34

### DIMENSIONS

Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	API 602 Class 800



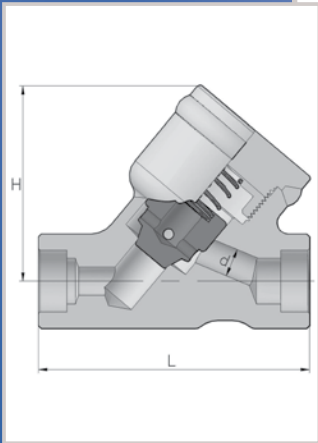
### CLASS 800

Dimensions in inches

Valve Size	RED. BORE	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
	FULL BORE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)	3.11	3.11	3.62	3.94	5.51	5.51	6.1	6.69	
Height (H)	2.56	2.56	2.56	3.74	4.13	4.33	4.33	5.51	
Port Dimension (d)	0.28	0.39	0.51	0.69	0.91	1.18	1.38	1.81	
Weight (lbs.)	3.96	3.96	44	7.7	17.6	17.6	26.4	35.2	

# FORGED STEEL CHECK VALVES

## MODEL 8511 / 8521 "Y"



Forged steel Piston check valve, Bolted cover, "Y" pattern, Horizontal or Vertical lines, Threaded or Socket weld ends, Reduced bore, Designed to ASME B16.34

### DIMENSIONS

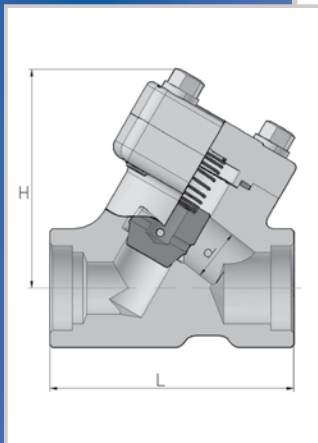
Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500

### CLASS 1500

Dimensions in inches

Valve Size	RED. BORE	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)		3.86	4.37	4.37	5.51	5.51	6.1	6.69
Height (H)		2.76	2.76	3.94	4.33	4.33	4.72	5.91
Port Dimension (d)		0.35	0.47	0.59	0.79	1.1	1.26	1.57
Weight (lbs.)		4.62	9.24	19.8	20.24	22	40.92	44

## MODEL 8512 / 8522 "Y"



Forged steel Piston check valve, Welded cover, "Y" pattern, Horizontal or Vertical lines, Threaded or Socket weld ends, Reduced bore, Designed to ASME B16.34

### DIMENSIONS

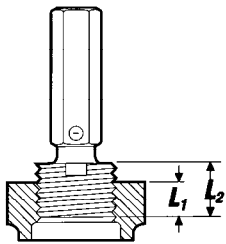
Face to Face	GWC Standard
Threaded	ASME B1.20.1
Socket Weld	ASME B16.1.1
Rating	ASME Class 1500

### CLASS 1500

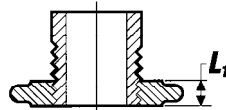
Dimensions in inches

Valve Size	RED. BORE	3/4"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Face to Face (L)		3.62	3.94	3.94	5.51	5.51	6.1	6.69
Height (H)		2.56	2.56	2.56	4.13	4.33	4.33	5.51
Port Dimension (d)		0.35	0.47	0.59	0.79	1.26	1.42	1.57
Weight (lbs.)		4.4	7.7	7.7	17.6	26.4	26.4	39.6

## PIPE THREADS - ASME B1.20.1



Gauging Internal Taper Threads  
Tolerance on Product  
Notch flush with face of fitting (if chambered, notch flush with bottom of chamber). One turn large or small from notch.



Flush by Hand

$$E_0 = D - (0.050D + 1.1)p$$

$$L_2 = (0.80D + 6.8)p$$

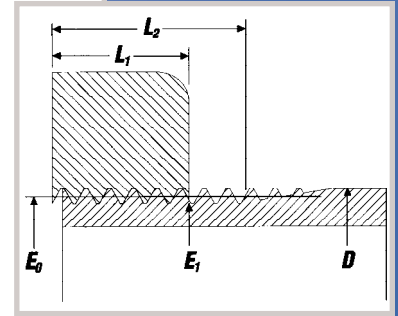
$$\text{Height of Thread } (h) = 0.80p$$

$$\text{Taper of thread} = 1 \text{ in } 16 \text{ measured on diameter}$$

$$*E_1 = E_0 + 0.0625L_1$$

$$p = \text{Pitch}$$

Gauging External Taper Threads  
Tolerance on Product One Turn  
Large or Small from notch on plug gauge of face of ring gauge.



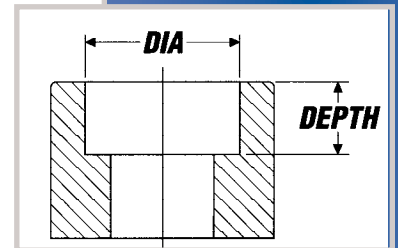
Nominal pipe size	D Outside diameter of pipe	n Number of threads per inch	p Pitch of thread	$E_0$ Pitch diameter at beginning of external thread	$E_1^n$ Handtight engagement diameter	$L_1^\circ$ Handtight engagement Length	$L_2^=$ Length of effective external thread	h Height of thread
1/4	0.540	18	0.05556	0.47739	0.49163	0.2278	0.4018	0.04444
3/8	0.675	18	0.05556	0.61201	0.62701	0.240	0.4078	0.04444
1/2	0.840	14	0.07143	0.75843	0.77843	0.320	0.5337	0.05714
3/4	1.050	14	0.07143	0.96768	0.98887	0.339	0.5457	0.05714
1	1.315	11.5	0.08696	1.21363	1.23863	0.400	0.6828	0.06957
1-1/4	1.660	11.5	0.08696	1.55713	1.58338	0.420	0.7068	0.06957
1-1/2	1.900	11.5	0.08696	1.79609	1.82234	0.420	0.7235	0.06957
2	2.375	11.5	0.08696	2.26902	2.29627	0.436	0.7565	0.06957

<sup>n</sup> Also pitch diameter at gauging notch.

<sup>=</sup> Also length of plug gauge.

• Also length of ring gauge, and length from gauging notch to small end of plug gauge.

## SOCKET WELD - ASME B16.11



Nominal Pipe Size		Socket Bore Diameter				Socket Depth Min	
		Inches		Millimeters			
NPS	DN	Max.	Min.	Max.	Min.	Inch	mm
1/4	8	0.575	0.555	14.60	14.20	0.38	9.5
3/8	10	0.710	0.690	18.00	17.60	0.38	9.5
1/2	15	0.875	0.855	22.20	21.80	0.38	9.5
3/4	20	1.085	1.065	27.60	27.20	0.50	12.5
1	25	1.350	1.330	34.30	33.90	0.50	12.5
1 1/4	32	1.695	1.675	43.10	42.70	0.50	12.5
1 1/2	40	1.935	1.915	49.20	48.80	0.50	12.5
2	50	2.426	2.406	61.70	61.20	0.62	16.0

# PRESSURE-TEMPERATURE RATINGS

## WORKING PRESSURE BY CLASS, PSIG

### CLASS 150 / 300 / 600 / 800

Material	A105 & A350-LF2				F5				F11				F22				F304 F304H				F316 F316H				F304L F316L							
Class	150	300	600	800	150	300	600	800	150	300	600	800	150	300	600	800	150	300	600	800	150	300	600	800	150	300	600	800	150	300	600	800
-20 to 100	285	740	1480	1975	290	750	1500	2000	290	750	1500	2000	290	750	1500	2000	275	720	1440	1920	275	720	1440	1920	230	600	1200	1600				
200	260	675	1350	1800	260	745	1490	2000	260	750	1500	1900	260	750	1500	1910	230	600	1200	1600	235	620	1240	1655	195	505	1015					
300	230	655	1315	1750	230	715	1430	1940	230	720	1445	1795	230	730	1455	1805	205	540	1080	1410	215	560	1120	1495	175	455	910	1210				
400	200	635	1270	1690	200	705	1410	1880	200	695	1385	1755	200	705	1410	1730	190	495	995	1255	195	515	1025	1370	160	415	825	1100				
500	170	600	1200	1595	170	665	1330	1775	170	665	1330	1710	170	665	1330	1705	170	465	930	1165	170	480	955	1275	145	380	765	1020				
600	140	550	1095	1460	140	605	1210	1615	140	605	1210	1615	140	605	1210	1615	140	435	875	1105	140	450	900	1205	140	360	720	960				
650	125	535	1075	1430	125	590	1175	1570	125	590	1175	1570	125	590	1175	1570	125	430	860	1090	125	445	890	1185	125	350	700	935				
700	110	535	1065	1420	110	570	1135	1515	110	570	1135	1515	110	570	1135	1515	110	425	850	1075	110	430	870	1150	110	345	685	915				
750	95	505	1010	1345	95	530	1055	1420	95	530	1065	1420	95	530	1065	1420	95	415	830	1060	95	425	855	1130	95	335	670	895				
800	80	410	825	1100	80	510	1015	1325	80	510	1015	1355	80	510	1015	1355	80	405	805	1050	80	420	845	1105	80	330	660	875				
850	65	270	535	715	65	485	965	1170	65	485	975	1300	65	485	975	1300	65	395	790	1035	65	420	835	1080	65	320	645	860				
900	50	170	345	460	50	370	740	940	50	450	900	1200	50	450	900	1200	50	390	780	1025	50	415	830	1050								
950					35	275	550	695	35	320	640	1005	35	375	755	1005	35	380	765	1000	35	385	775	1030								
1000					20	200	400	510	20	215	430	595	20	260	520	715	20	320	640	860	20	350	700	970								
1050						145	290	375		145	290	365		175	350	530		310	615	825		345	685	960								
1100						100	200	275		95	190	225		110	220	300		255	515	685		305	610	860								
1150						60	125	185		60	125	140		70	135	275		200	400	520		235	475	735								
1200						35	70	120		40	75	95		40	80	145		155	310	415		185	370	550								
1250																		115	225	295		145	295	485								
1300																		85	170	220		115	235	365								

### CLASS 900 / 1500 / 2500

Material	A105 & A350-LF2F5			F11	F22	F304	F304H	F316	F316H	F304L F316L			F304L F316L			F304L F316L			F304L F316L												
Class	900	1500	2500	900	1500	2500	900	1500	2500	900	1500	2500	900	1500	2500	900	1500	2500	900	1500	2500	900	1500	2500	900	1500	2500	900	1500	2500	
-20 to 100	2220	3705	6170	2250	3750	6250	2250	3750	6250	2250	3750	6250	2160	3600	6000	2160	3600	6000	1800	3000	5000	1800	3000	5000	1800	3000	5000	1800	3000	5000	
200	2025	3375	5625	2235	3725	6205	2250	3750	6250	2250	3750	6250	1800	3000	5000	1860	3095	5160	1520	2530	4220	1520	2530	4220	1520	2530	4220	1520	2530	4220	
300	1970	3280	5470	2150	3580	5965	2165	3610	6015	2185	3640	6070	1620	2700	4500	1680	2795	4660	1360	2270	3780	1360	2270	3780	1360	2270	3780	1360	2270	3780	
400	1900	3170	5280	2115	3530	5880	2080	3465	5775	2115	3530	5880	1490	2485	4140	1540	2570	4280	1240	2065	3440	1240	2065	3440	1240	2065	3440	1240	2065	3440	
500	1795	2995	4990	1995	3325	5540	1995	3325	5540	1995	3325	5540	1395	2330	3880	1435	2390	3980	1145	1910	3180	1145	1910	3180	1145	1910	3180	1145	1910	3180	
600	1640	2735	4560	1815	3025	5040	1815	3025	5040	1815	3025	5040	1310	2185	3640	1355	2255	3760	1080	1800	3000	1080	1800	3000	1080	1800	3000	1080	1800	3000	
650	1610	2685	4475	1765	2940	4905	1765	2940	4905	1765	2940	4905	1290	2150	3580	1330	2220	3700	1050	1750	2920	1050	1750	2920	1050	1750	2920	1050	1750	2920	
700	1600	2665	4440	1705	2840	4730	1705	2840	4730	1705	2840	4730	1275	2125	3540	1305	2170	3620	1030	1715	2860	1030	1715	2860	1030	1715	2860	1030	1715	2860	
750	1510	2520	4200	1585	2640	4400	1595	2660	4430	1595	2660	4430	1245	2075	3460	1280	2135	3560	1010	1680	2800	1010	1680	2800	1010	1680	2800	1010	1680	2800	
800	1235	2060	3430	1525	2540	4230	1525	2540	4230	1525	2540	4230	1210	2015	3360	1265	2110	3520	985	1645	2740	985	1645	2740	985	1645	2740	985	1645	2740	
850	805	1340	2230	1450	2415	4030	1460	2435	4060	1460	2435	4060	1190	1980	3300	1255	2090	3480	965	1610	2680	965	1610	2680	965	1610	2680	965	1610	2680	
900	515	860	1430	1110	1850	3085	1350	2245	3745	1350	2245	3745	1165	1945	3240	1245	2075			3460											
950				825	1370	2285	955	1595	2655	1130	1885	3145	1145	1910	3180	1160	1930			3220											
1000				595	995	1655	650	1080	1800	780	1305	2170	965	1605	2675	1050	1750			2915											
1050				430	720	1200	430	720	1200	525	875	1455	925	1545	2570	1030	1720			2865											
1100				300	495	830	290	480	800	330	550	915	770	1285	2145	915	1525			2545											
1150				185	310	515	185	310	515	205	345	570	595	995	1655	710	1185			1970											
1200				105	170	285	115	190	315	125	205	345	465	770	1285	555	925			1545											
1250													340	565	945	440	735			1230											
1300													255	430	715	350	585			970											

- 1.0 Following grades permissible but not recommended for prolonged use:
  - 1.1 Carbon steel A105, over 850°F
  - 1.2 F11 and F22 over 1100°F
  - 1.3 F304L over 800°F
  - 1.4 F316L over 850°F
- 2.0 Temperature limitation for material grades not listed, see: B16.5, B16.34 and API 602.
- 3.0 Types and grades of material used for bolting and gaskets, also influence temperature limitation.

## Scope

These terms and conditions apply to all GWC valve products, and supersedes all previously published terms and conditions.

Hereafter, GWC Valve International, Inc. shall be referred to as GWC.

Special terms and conditions printed on a buyer's order will only apply insofar as they conform to the terms and conditions detailed on these pages. Terms and conditions of an order that change or modify those on this sheet shall not be binding on GWC.

## Approval

All quotations, contracts, orders, or agreements are subject to approval and/or acceptance by the main office of GWC.

We reserve the right to correct clerical or stenographic errors in quotations, orders, invoices, and other contracts, agreements, or documents.

## Prices

Possession of price lists will not be accepted by GWC as an obligation, or offer to sell the goods listed therein to anyone.

All prices contained therein are subject to change without notice, and supersede all previous lists. All orders will be invoiced at prices in effect at the time of shipment unless quoted in writing.

## Changes

Orders cannot be cancelled or specifications be changed without the consent of GWC, and then only in terms indemnifying GWC against loss.

## Quotations

Goods quoted F.O.B. our service center are subject to prior sale. Prices quoted are valid only for the duration indicated in the quotation. Quoted prices supersede all previous prices, quotations, or contracts, and are subject to change without notice.

## Cancellations

Orders placed with us cannot be cancelled without our prior written consent. A cancellation charge will be applicable as outlined in our quotation.

## Claims

All claims for shortages, corrections, or deductions must be made within 10 days after receipt of goods. Responsibility for goods lost or damaged in transit rests with carrier, and claims should be filed with the carrier by the consignee. Delivery of material to a common carrier shall be considered delivery to the buyer, and shall be at the buyers risk thereafter.

## Delivery Delays

We assume no responsibility for delays in delivery, or defaults resulting from strikes, work stoppages, fires, floods, accidents, war, inability to obtain materials, or any other cause unavoidable and beyond our control.

## Taxes

GWC quotations and/or contracts do not include any municipal, state, or federal sales, excise, use occupational, or other taxes, and any such tax, if paid by us will be charged to the purchaser.

## Catalog Illustrations

Catalog illustrations are actual representations of a certain size of each product line, but do not necessarily represent all sizes in details. We reserve the right to institute changes in materials, designs, and specifications without notice in keeping with our policy of continuing product improvement.

## Catalog Weights

Catalog weights represent average weights of products and are in no sense guaranteed.

## Returns

See Return Goods Policy on next page.

## Special Orders

Orders for special goods must be in writing and accompanied with detailed prints and/or sets of specifications, unless specifications on the orders are definite and complete. Orders will not be entered with the factory unless this is adhered to. Cancellation charges will be as outlined in our quotations.

## Freight Terms

All shipments are F.O.B. our service centers. See current bulletin for freight allowance.

## Warranty

See warranty on reverse side

# RETURN GOODS POLICY

This policy supersedes all other policies for return goods.

- I. Goods returned at customers request:
  - A. Material must be:
    1. Of our manufacture.
    2. In clean, new and saleable condition. It must have been stored inside out of the weather.
    3. Shipped from one of our service centers within the 12 calendar months preceding the request for return, and the return will not cause inventory to exceed maximum allowable levels.
    4. Personally inspected by a GWC representative prior to its return.
    5. Special or non-standard items are non-returnable.
  - B. Return shipments must be prepaid.
  - C. Credit will be allowed at invoice price, less 25% handling cost, and less any freight paid by GWC.
  - D. A Return Goods Card must be furnished by a GWC representative after inspection of the material, and must be returned with the shipment.
  - E. Shipments received without a Return Goods Authorization Card will be refused. Customer will be responsible for any storage and/or return freight.
  - F. Material returned which is not of GWC manufacture, not in clean and saleable condition, or not authorized for return will be returned to the customer freight collect.
- II. Goods returned because of an error by GWC.
  - A. Material must be in a clean, new, saleable condition.
  - B. Return shipment should be made freight collect.
  - C. Full credit will be allowed.
  - D. Customer must receive Return Goods authorization prior to the return of the material.  
Return Goods  
Authorization Card must accompany shipment. Shipments received without Return Goods  
Authorization.  
Card will be refused. Return Goods Authorization Card should be attached to the packing list.

All requests to return material to GWC Valve International, Inc. must be submitted in writing to our National Sales Manager for authorization.

## WARRANTY

GWC Valve International, Inc. warrants each product sold, if the products are of our manufacture, against defects in material and workmanship under normal use and service for a period of one year after date of shipment.

This warranty is made to the buyer only, and does not extend to any other party. The obligation of GWC Valve International, Inc. under this warranty is limited to: (a) replacement of any part or parts proven defective in material or workmanship, (b) repair of the product F.O.B. the factory or service center, (c) refund of the purchase price. In the case of product or parts not wholly of GWC's manufacture, GWC's liability under this warranty shall be limited to the extent of GWC's recovery from the manufacturer of such parts under its warranty to GWC. This warranty does not extend to any claims for labor, consequential damages, down time, or any other loss, damage, or expense of any kind arising out of the defect. We do not allow claims for unauthorized repairs, labor, or material. We are not responsible for loss of use, personal injury, lost profits, or any other damages whatsoever in connection with the warranties set forth.

No warranty shall apply to any product which has been modified or changed in design or function after leaving GWC's facilities or which is misused or operated beyond its design capabilities, or used for other than its intended purpose. Purchasers of GWC products should consult knowledgeable advisors in the selection of product type and material of construction for their specific use. The buyer assumes all risk of this selection.

The buyer shall permit GWC or its authorized representative to inspect the product so that it may determine its obligation. GWC shall be entitled to the return of the defective product or parts. Buyer must notify GWC promptly upon discover of any claimed defect.

No material may be returned without first obtaining written permission from GWC Valve International, Inc.



## **USA HEADQUARTERS**

**GWC Valve International, Inc.  
4301 Yeager Way  
Bakersfield, CA 93313**

## **OVERSEAS DIVISIONS**

**GWC Valve Europe Limited  
Germany  
An der Huelsebeeke 1  
D-31547 Rehburg-Loccum**

**GWC Valve Middle East FZC  
P.O. Box 8885  
SAIF Zone  
Sharjah**

## **MANUFACTURING DIVISIONS**

**GWC Valve Manufacturing  
(Shanghai) Co. Ltd.  
No. 3600 Jihe Road  
Huaxin Town, Qingpu District  
Shanghai, 201708  
People's Republic of China**

**GWC Valve Manufacturing  
(Yancheng) Co. Ltd  
No. 6 Juheng Rd,  
Yancheng Economic Development  
Zone, Jiangsu, 224007  
People's Republic of China**



Group of Companies