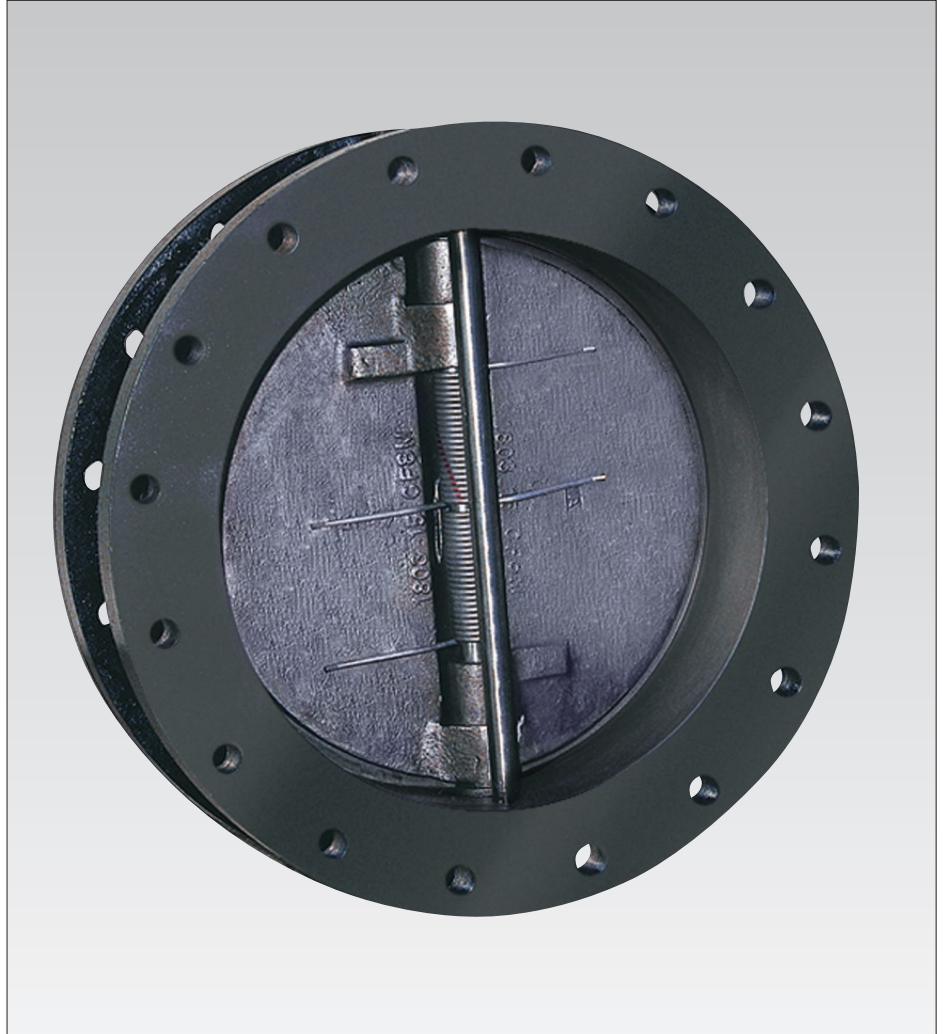


# Gulf Valve

Double door, spring loaded, wafer check valve designed to protect your gas or liquid piping systems.

## Features

- Light weight, versatile design, 80 to 90% lighter than conventional full-body check valves.
- Reduces pipe supports, simplifies piping, easier, less costly installation.
  - Reduced thermal and seismic considerations.
  - No need for additional expensive support.
  - Optimum space utilization; simplified piping.
- Spring-loaded, double door design has low cracking pressure.
- Discs open 85° to ensure positive closing.
- Materials and trims available for all services within temperature range.
- Extended leg springs prevent seat wear caused by scrubbing.
- Springs are precisely calculated to increase the responsiveness of the disc, thus reducing damaging effects of water hammer.
- Resilient or metal-to-metal seat available.
- BUNA-N, Viton®, EPDM (and other materials as required) molded into the body.



## General Applications

- General service piping systems.

## Industry Standards

- ASME B16.1, B16.5, B16.24, B16.34, B16.47 and B31.1
- API 594 and 598
- NACE MR-01-75

## Technical Data

Size range:	2" to 48"
Pressure Classes:	ASME 125 to 900
Temperature Range:	-20°F to 1100°F

# Gulf Model MB Wafer Check

2" to 48"

## The Wafer Check™ Solution

### Sizing and Other Parameters

Gulf Wafer Check can be installed in both horizontal and vertical piping systems. (Contact the factory for vertical DOWN installations.) The accurate sizing of check valves is crucial to ensure an acceptable pressure drop and a long service life. The pressure drop of the Gulf Wafer Check can be calculated, for liquid or gas, using the charts and calculations shown on page 3. It is a known fact that all check valve discs flutter. The higher the velocity and turbulence of the media (liquid or gas) moving through the piping system, the greater the flutter and wear. Once again, the Gulf Valve technological know-how has met the challenge. Gulf Wafer Check is designed to provide long service life if the velocity is kept within the flow rate ranges shown in table, and if a minimum of 5 pipe diameters is maintained downstream from a likely cause of turbulence (i.e., pump discharge, reducers, or elbows).

## The Importance of Reducing Water Hammer

### What is Water Hammer?

Water hammer is a term used to describe hydraulic noise caused by a sudden change in the velocity of a flowing liquid. The resultant noise is just a symptom of a series of potentially destructive pressure waves traveling through the piping system.

### Swing Check Problems

Conventional swing check valves are notorious for causing water hammer in piping systems. Because the single disc in a swing check valve has a greater distance to travel and because all check valve discs lag behind a change in velocity, backflow is usually necessary to seat the disc. The sudden stoppage of a liquid flow converts the velocity's kinetic energy into a pressure shock wave. This destructive force causes the pipe to both expand and contract alternately until friction in the pipeline eliminates the pressure wave. The magnitude of a pressure wave depends upon the velocity of the backflow and the mass of the liquid at the time the valve closes. The longer the check valve is open with backflow, the greater the pressure wave shock.

### Gulf Wafer Check Solutions

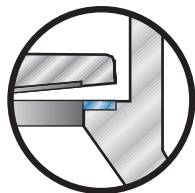
Gulf Valve has addressed the water hammer issue and has been successful in reducing the problem through innovative design solutions. Gulf Wafer Check valves produce significantly less water hammer than single disc check valves.

The extremely light weight dual discs, with the assistance of spring torque, move to the closed (or near closed) position prior to flow reversal, thus reducing water hammer.

## High Performance and Long Service Life

Gulf Wafer Check's spring-loaded dual discs, hinged on the side in horizontal piping, do not depend solely upon backflow or gravity for closure. Springs are precisely calculated to increase the response of the disc, which substantially reduces any damaging effects of water hammer. Gulf Wafer Check's discs are relatively stable and wear is minimal in a wide flow range. Extended leg springs prevent the occurrence of seat wear caused by scrubbing. This is accomplished by the springs' torque placement beyond the center point of mass and a calculated clearance between the hinge pin and the discs' lug.

A broad, flat seating surface, located on the valve body, is out of the direct flow. Both metal and soft seats are available to assure fluid and temperature compatibility.

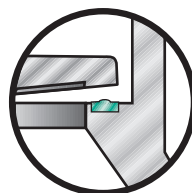


#### Metal-to-Metal Seat

Including full penetrant weld overlays of 316 and 410 Stainless Steel.

#### Soft Seat

BUNA-N, Viton®, EPDM (and other materials as required) molded into the body.

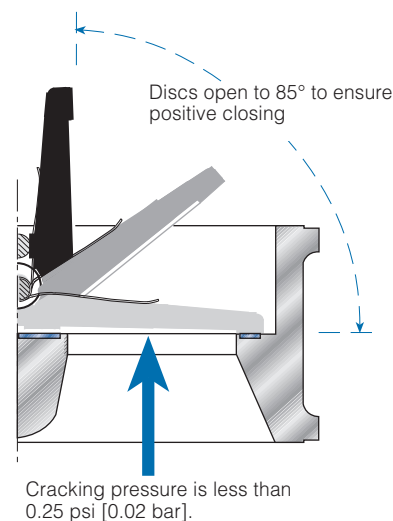


## Recommended Flow Rate Ranges

### Horizontal Installation Only

Media	Flow Rate
Liquid	3 to 11 feet/second 0.91 to 3.35 m/second
Gas	20 to 250 feet/second 6.1 to 76.2 m/second

Contact your sales representative for Gulf Wafer Check in vertical installation.



## Pressure Drop Calculations for Gas

Pressure drop for gas media across the Gulf Wafer Check, in horizontal installation, can be determined using the following equation and  $C_v$  and Cracking Pressure shown for each valve size. Additional equations may be necessary in order to calculate the pressure drop. Contact your local sales representative for Gulf Wafer Check in vertical installation.

### American Standard

$$\Delta P = \frac{GT}{P} \left( \frac{Q}{1360 C_v} \right)^2 + P_c$$

$$SCFH = ACFH \left( \frac{P}{14.7} \right) \left( \frac{520}{T} \right)$$

#### Where:

- $C_v$  = Flow Coefficient (from table below)
- G = Specific Gravity of Gas
- P = Inlet Pressure, in psia (psig + 14.7)
- $P_c$  = Cracking Pressure (from table below)
- Q = Gas Flow Rate, in SCFH
- $\Delta P$  = Pressure Drop Across Valve, in psi
- T = Temperature, Absolute ( $^{\circ}F + 460$ )

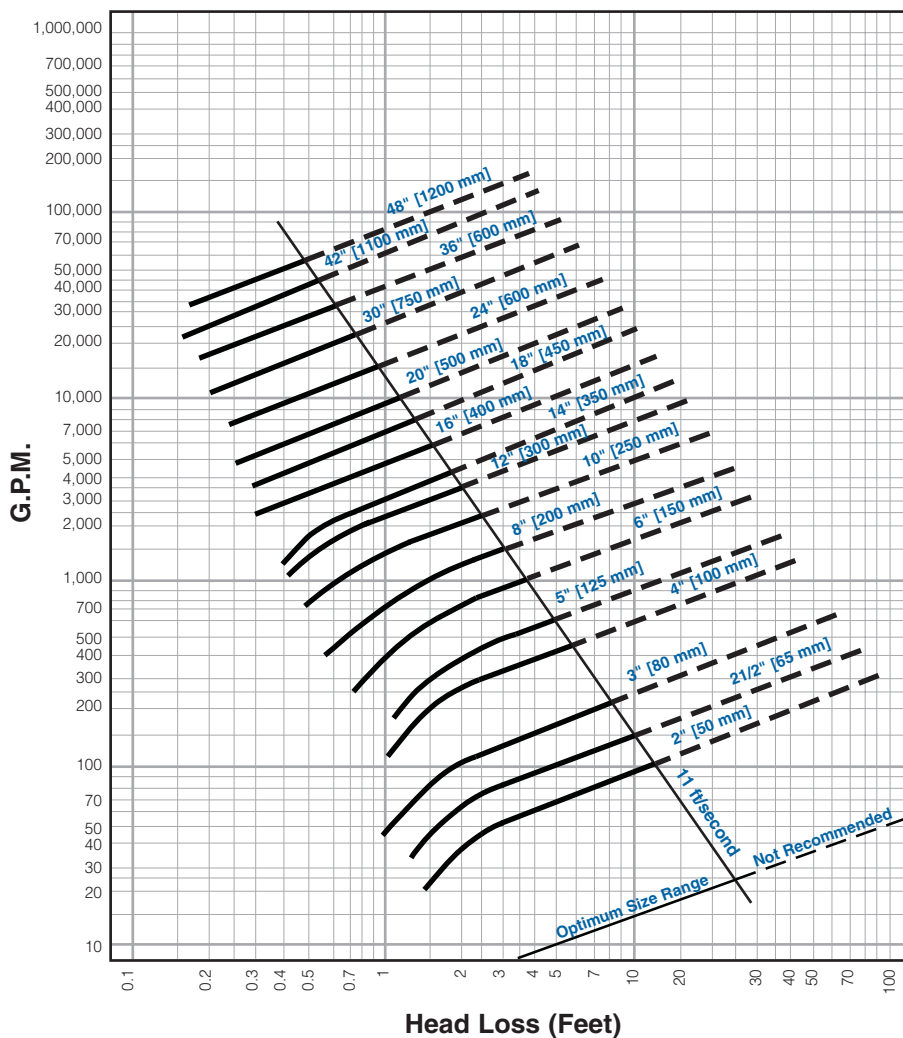
#### Where:

- ACFH = Actual Cubic Feet per Hour
- SCFH = Standard Cubic Feet per Hour

### $C_v$ and Cracking Pressure

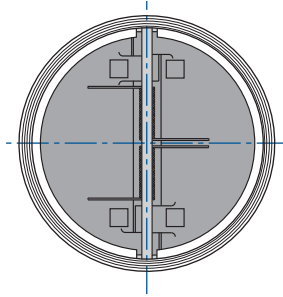
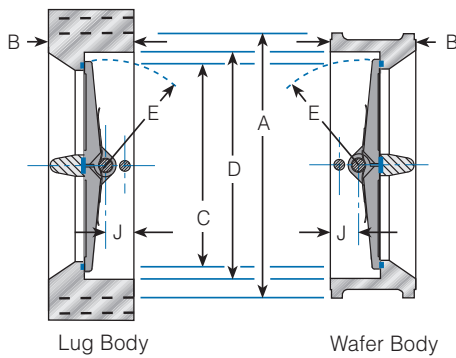
Size	$C_v$	Cracking Pressure (psi)
2"	48	0.228
2.5"	77	0.183
3"	135	0.098
4"	270	0.174
5"	450	0.198
6"	720	0.208
8"	1400	0.152
10"	2600	0.235
12"	3850	0.242
14"	5000	0.237
16"	7250	0.219
18"	10,000	0.148
20"	12,400	0.123
24"	20,400	0.093
30"	38,000	0.099
36"	60,000	0.097
42"	89,000	0.089
48"	124,000	0.066

### Water Standard Conditions

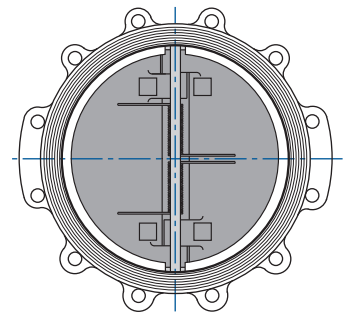


# Gulf Model MB Wafer Check

2" to 48"



Wafer Body, 2" to 48"



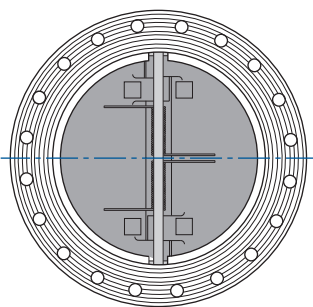
Lug Body, 2" to 16"

## Series 125 Dimensions and Weights

Size	A	B	C	D	E	J	Wafer				Lug/Flanged			
							Weight Lbs.	Stud <sup>1</sup> Length	Stud Dia.	No. Reqd.	Weight Lbs.	Bolt <sup>1</sup> Length	Bolt Dia.	No. Reqd.
2"	4 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	7	5 <sup>1</sup> / <sub>2</sub>	5/ <sub>8</sub>	4	16	1 <sup>3</sup> / <sub>4</sub>	5/ <sub>8</sub>	8
2.5"	4 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>32</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>32</sub>	1	9	6	5/ <sub>8</sub>	4	14	2	5/ <sub>8</sub>	8
3"	5 <sup>3</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>25</sup> / <sub>32</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	9	6 <sup>1</sup> / <sub>2</sub>	5/ <sub>8</sub>	4	15	2	5/ <sub>8</sub>	8
4"	6 <sup>7</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	3 <sup>23</sup> / <sub>32</sub>	4 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	14	6 <sup>1</sup> / <sub>2</sub>	5/ <sub>8</sub>	8	29	2	5/ <sub>8</sub>	16
5"	7 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>11</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	23	7 <sup>1</sup> / <sub>4</sub>	3/ <sub>4</sub>	8	36	2 <sup>1</sup> / <sub>4</sub>	3/ <sub>4</sub>	16
6"	8 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>9</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>32</sub>	1 <sup>11</sup> / <sub>16</sub>	29	8	3/ <sub>4</sub>	8	41	2 <sup>1</sup> / <sub>4</sub>	3/ <sub>4</sub>	16
8"	11	5	7 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>16</sub>	49	9 <sup>1</sup> / <sub>2</sub>	3/ <sub>4</sub>	8	88	2 <sup>1</sup> / <sub>2</sub>	3/ <sub>4</sub>	16
10"	13 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	85	10 <sup>1</sup> / <sub>4</sub>	7/ <sub>8</sub>	12	136	2 <sup>1</sup> / <sub>2</sub>	7/ <sub>8</sub>	24
12"	16 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	12 <sup>7</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	149	12	7/ <sub>8</sub>	12	248	2 <sup>3</sup> / <sub>4</sub>	7/ <sub>8</sub>	24
14"	17 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	12 <sup>5</sup> / <sub>8</sub>	14	6 <sup>7</sup> / <sub>8</sub>	3	183	12 <sup>3</sup> / <sub>4</sub>	1	12	271	3	1	24
16"	20 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	14 <sup>11</sup> / <sub>16</sub>	16	7 <sup>23</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>2</sub>	213	13	1	16	441	3	1	32
18"	21 <sup>5</sup> / <sub>8</sub>	8	16 <sup>9</sup> / <sub>16</sub>	18 <sup>5</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	305	14	1 <sup>1</sup> / <sub>8</sub>	16	419	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	32
20"	23 <sup>7</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>8</sub>	18 <sup>9</sup> / <sub>16</sub>	20	9 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	338	14 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	20	488	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	40
24"	28 <sup>1</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	21 <sup>5</sup> / <sub>8</sub>	24	11 <sup>5</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	522	15 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	20	657	3 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	40
30"	34 <sup>3</sup> / <sub>4</sub>	12	28 <sup>7</sup> / <sub>16</sub>	30 <sup>3</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>4</sub>	3 <sup>15</sup> / <sub>16</sub>	1135	21 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	28	1273	4 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	56
36"	41 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>2</sub>	34 <sup>3</sup> / <sub>8</sub>	36	17 <sup>13</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	1457	25 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	32	1811	5 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	64
42"	48	17	40 <sup>9</sup> / <sub>16</sub>	42	20 <sup>27</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>4</sub>	2700	28 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	36	3179	6	1 <sup>1</sup> / <sub>2</sub>	72
48"	54 <sup>1</sup> / <sub>2</sub>	20 <sup>5</sup> / <sub>8</sub>	44 <sup>3</sup> / <sub>16</sub>	48	23 <sup>19</sup> / <sub>32</sub>	8 <sup>5</sup> / <sub>8</sub>	3900	33 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	44	4711	6 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	88

## Series 150 Dimensions and Weights

Size	A	B	C	D	E	J	Wafer				Lug/Flanged			
							Weight Lbs.	Stud <sup>1</sup> Length	Stud Dia.	No. Reqd.	Weight Lbs.	Bolt <sup>1</sup> Length	Bolt Dia.	No. Reqd.
2"	4 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>32</sub>	7/ <sub>8</sub>	7	5 <sup>3</sup> / <sub>4</sub>	5/ <sub>8</sub>	4	19	1 <sup>3</sup> / <sub>4</sub>	5/ <sub>8</sub>	8
2.5"	4 <sup>7</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub>	10	6 <sup>1</sup> / <sub>4</sub>	5/ <sub>8</sub>	4	27	2	5/ <sub>8</sub>	8
3"	5 <sup>3</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	10	6 <sup>3</sup> / <sub>4</sub>	5/ <sub>8</sub>	4	15	2	5/ <sub>8</sub>	8
4"	6 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	3 <sup>11</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	15	6 <sup>3</sup> / <sub>4</sub>	5/ <sub>8</sub>	8	29	2	5/ <sub>8</sub>	16
5"	7 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>11</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	21	7 <sup>1</sup> / <sub>4</sub>	3/ <sub>4</sub>	8	41	2 <sup>1</sup> / <sub>4</sub>	3/ <sub>4</sub>	16
6"	8 <sup>3</sup> / <sub>4</sub>	3 <sup>7</sup> / <sub>8</sub>	5 <sup>9</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>32</sub>	1 <sup>11</sup> / <sub>16</sub>	30	8	3/ <sub>4</sub>	8	55	2 <sup>1</sup> / <sub>4</sub>	3/ <sub>4</sub>	16
8"	11	5	7 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>16</sub>	56	9 <sup>1</sup> / <sub>2</sub>	3/ <sub>4</sub>	8	91	2 <sup>1</sup> / <sub>2</sub>	3/ <sub>4</sub>	16
10"	13 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	9 <sup>7</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	93	10 <sup>1</sup> / <sub>2</sub>	7/ <sub>8</sub>	12	156	2 <sup>1</sup> / <sub>2</sub>	7/ <sub>8</sub>	24
12"	16 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	12 <sup>7</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	158	12	7/ <sub>8</sub>	12	252	2 <sup>3</sup> / <sub>4</sub>	7/ <sub>8</sub>	24
14"	17 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	12 <sup>5</sup> / <sub>8</sub>	14	6 <sup>7</sup> / <sub>8</sub>	3	215	12 <sup>3</sup> / <sub>4</sub>	1	12	291	3	1	24
16"	20 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	14 <sup>11</sup> / <sub>16</sub>	16	7 <sup>23</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>2</sub>	214	13	1	16	464	3	1	32
18"	21 <sup>5</sup> / <sub>8</sub>	8	16 <sup>9</sup> / <sub>16</sub>	18 <sup>5</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	338	14	1 <sup>1</sup> / <sub>8</sub>	16	431	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	32
20"	23 <sup>7</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	18 <sup>7</sup> / <sub>16</sub>	20	9 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>	357	15	1 <sup>1</sup> / <sub>8</sub>	20	501	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	40
24"	28 <sup>1</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	21 <sup>5</sup> / <sub>8</sub>	24	11 <sup>5</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	635	15 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	20	682	3 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	40
30"	34 <sup>3</sup> / <sub>4</sub>	12	28 <sup>7</sup> / <sub>16</sub>	30 <sup>3</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>4</sub>	3 <sup>15</sup> / <sub>16</sub>	1100	21 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	28	1321	4 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	56
36"	41 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>2</sub>	34 <sup>3</sup> / <sub>8</sub>	36	17 <sup>13</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	1520	25 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	32	1898	5 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	64
42"	48	17	40 <sup>9</sup> / <sub>16</sub>	42	20 <sup>27</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>4</sub>	2800	28 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	36	3236	6	1 <sup>1</sup> / <sub>2</sub>	72
48"	54 <sup>1</sup> / <sub>2</sub>	20 <sup>5</sup> / <sub>8</sub>	44 <sup>3</sup> / <sub>16</sub>	48	23 <sup>19</sup> / <sub>32</sub>	8 <sup>5</sup> / <sub>8</sub>	4400	33 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	44	4899	6 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	88



Flanged Body, 18" to 48"

### Notes:

1. Stud and bolt length are for Gulf Wafer Check with raised face connections. Contact your sales representative for other information on body styles. Bolt length is for threaded lug/flange body.
2. Weights are approximate.
3. Threaded and Through-Bolt Lug Body available.
4. "C" Dimension is minimum flange bore.
5. "A" Dimensions for 30" and larger steel valves per ASME B16.47 Series A and MSS-SP-44.

### Series 250 Dimensions and Weights

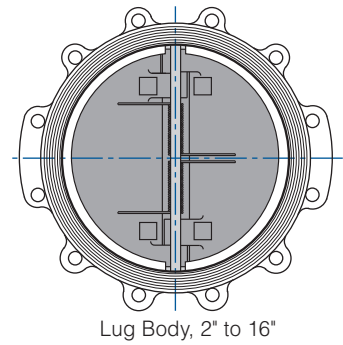
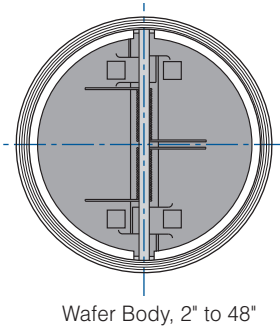
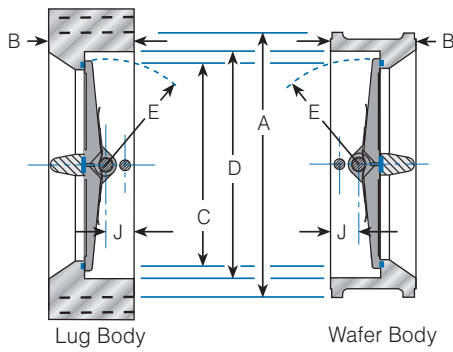
Size	A	B	C	D	E	J	Wafer				Lug/Flanged			
							Weight Lbs.	Stud <sup>1</sup> Length	Stud Dia.	No. Req'd.	Weight Lbs.	Bolt <sup>1</sup> Length	Bolt Dia.	No. Req'd.
2"	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	7	5 <sup>3</sup> / <sub>4</sub>	5 <sup>8</sup> / <sub>8</sub>	8	18	2	5 <sup>8</sup> / <sub>8</sub>	16
2.5"	5 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>32</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>32</sub>	1	10	6 <sup>1</sup> / <sub>2</sub>	3 <sup>4</sup> / <sub>4</sub>	8	26	2 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	16
3"	5 <sup>7</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>25</sup> / <sub>32</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	11	7	3 <sup>4</sup> / <sub>4</sub>	8	26	2 <sup>1</sup> / <sub>2</sub>	3 <sup>4</sup> / <sub>4</sub>	16
4"	7 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	3 <sup>23</sup> / <sub>32</sub>	4 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	16	7 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	8	36	2 <sup>1</sup> / <sub>2</sub>	3 <sup>4</sup> / <sub>4</sub>	16
5"	8 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>11</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	24	8 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	8	44	2 <sup>3</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	16
6"	9 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>9</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>32</sub>	1 <sup>11</sup> / <sub>16</sub>	35	8 <sup>3</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	12	78	2 <sup>3</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	24
8"	12 <sup>1</sup> / <sub>8</sub>	5	7 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>16</sub>	67	10 <sup>3</sup> / <sub>4</sub>	7 <sup>8</sup> / <sub>8</sub>	12	141	3	7 <sup>8</sup> / <sub>8</sub>	24
10"	14 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	107	12	1	16	236	3 <sup>1</sup> / <sub>2</sub>	1	32
12"	16 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	12 <sup>7</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	166	14	1 <sup>1</sup> / <sub>8</sub>	16	330	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	32
14"	19 <sup>1</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>4</sub>	12 <sup>7</sup> / <sub>16</sub>	14	6 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>	285	16	1 <sup>1</sup> / <sub>8</sub>	20	504	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	40
16"	21 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>2</sub>	16	7 <sup>23</sup> / <sub>32</sub>	3	375	16 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	20	761	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	40
18"	23 <sup>1</sup> / <sub>2</sub>	10 <sup>3</sup> / <sub>8</sub>	16 <sup>3</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	470	18 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	24	623	4	1 <sup>1</sup> / <sub>4</sub>	48
20"	25 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	18 <sup>9</sup> / <sub>16</sub>	20	9 <sup>3</sup> / <sub>4</sub>	3 <sup>7</sup> / <sub>8</sub>	590	19 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	24	757	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	48
24"	30 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>2</sub>	20 <sup>11</sup> / <sub>16</sub>	24	11 <sup>5</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	690	21 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	24	981	4 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	48
30"	37 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub>	27 <sup>5</sup> / <sub>8</sub>	30 <sup>3</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	1400	26 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	28	1883	5 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	56
36"	44	19	33 <sup>1</sup> / <sub>2</sub>	36	17 <sup>13</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>8</sub>	3050	32 <sup>1</sup> / <sub>4</sub>	2	32	3811	6 <sup>1</sup> / <sub>2</sub>	2	64
42"	50 <sup>3</sup> / <sub>4</sub>	22 <sup>3</sup> / <sub>8</sub>	39 <sup>1</sup> / <sub>2</sub>	42	20 <sup>27</sup> / <sub>32</sub>	7	3830	37	2	36	4651	7 <sup>1</sup> / <sub>4</sub>	2	72
48"	58 <sup>3</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>4</sub>	42 <sup>1</sup> / <sub>4</sub>	48	23 <sup>19</sup> / <sub>32</sub>	10 <sup>3</sup> / <sub>4</sub>	5500	40 <sup>1</sup> / <sub>2</sub>	2	40	6477	7 <sup>3</sup> / <sub>4</sub>	2	80

### Series 300 Dimensions and Weights

Size	A	B	C	D	E	J	Wafer				Lug/Flanged			
							Weight Lbs.	Stud <sup>1</sup> Length	Stud Dia.	No. Req'd.	Weight Lbs.	Bolt <sup>1</sup> Length	Bolt Dia.	No. Req'd.
2"	4 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>32</sub>	7 <sup>8</sup> / <sub>8</sub>	8	6	5 <sup>8</sup> / <sub>8</sub>	8	19	2	5 <sup>8</sup> / <sub>8</sub>	16
2.5"	5 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub>	11	6 <sup>3</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	8	27	2 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	16
3"	5 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	13	7 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	8	27	2 <sup>1</sup> / <sub>2</sub>	3 <sup>4</sup> / <sub>4</sub>	16
4"	7 <sup>1</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	3 <sup>11</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	16	7 <sup>1</sup> / <sub>2</sub>	3 <sup>4</sup> / <sub>4</sub>	8	38	2 <sup>1</sup> / <sub>2</sub>	3 <sup>4</sup> / <sub>4</sub>	16
5"	8 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>11</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	20	8 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	8	46	2 <sup>3</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	16
6"	9 <sup>7</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	5 <sup>9</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>32</sub>	1 <sup>11</sup> / <sub>16</sub>	36	9	3 <sup>4</sup> / <sub>4</sub>	12	81	2 <sup>3</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	24
8"	12 <sup>1</sup> / <sub>8</sub>	5	7 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>16</sub>	71	10 <sup>3</sup> / <sub>4</sub>	7 <sup>8</sup> / <sub>8</sub>	12	151	3 <sup>1</sup> / <sub>4</sub>	1	24
10"	14 <sup>1</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	9 <sup>7</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	93	12 <sup>1</sup> / <sub>4</sub>	1	16	251	3 <sup>1</sup> / <sub>2</sub>	1	32
12"	16 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	12 <sup>7</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	139	14	1 <sup>1</sup> / <sub>8</sub>	16	361	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	32
14"	19 <sup>1</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>4</sub>	12 <sup>7</sup> / <sub>16</sub>	14	6 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>	270	16	1 <sup>1</sup> / <sub>8</sub>	20	543	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	40
16"	21 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>2</sub>	16	7 <sup>23</sup> / <sub>32</sub>	3	380	16 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	20	792	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	40
18"	23 <sup>1</sup> / <sub>2</sub>	10 <sup>3</sup> / <sub>8</sub>	16 <sup>3</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	500	18 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	24	790	4	1 <sup>1</sup> / <sub>4</sub>	48
20"	25 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	18 <sup>1</sup> / <sub>16</sub>	20	9 <sup>3</sup> / <sub>4</sub>	3 <sup>7</sup> / <sub>8</sub>	590	19 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	24	780	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	48
24"	30 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>2</sub>	20 <sup>11</sup> / <sub>16</sub>	24	11 <sup>5</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	727	21 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	24	1011	4 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	48
30"	37 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub>	27 <sup>5</sup> / <sub>8</sub>	30 <sup>3</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	1500	26 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	28	1974	5 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	56
36"	44	19	33 <sup>1</sup> / <sub>2</sub>	36	17 <sup>13</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>8</sub>	3200	32 <sup>1</sup> / <sub>4</sub>	2	32	3926	6 <sup>1</sup> / <sub>2</sub>	2	64
42"	45 <sup>7</sup> / <sub>8</sub>	22 <sup>3</sup> / <sub>8</sub>	39 <sup>1</sup> / <sub>2</sub>	42	20 <sup>27</sup> / <sub>32</sub>	7	4000	37	2	36	4830	7 <sup>1</sup> / <sub>4</sub>	2	72
48"	52 <sup>1</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>4</sub>	42 <sup>1</sup> / <sub>4</sub>	48	23 <sup>19</sup> / <sub>32</sub>	10 <sup>3</sup> / <sub>4</sub>	5700	40 <sup>1</sup> / <sub>2</sub>	2	40	6653	7 <sup>3</sup> / <sub>4</sub>	2	80

# Gulf Model MB Wafer Check

2" to 48"



## Series 400 Dimensions and Weights

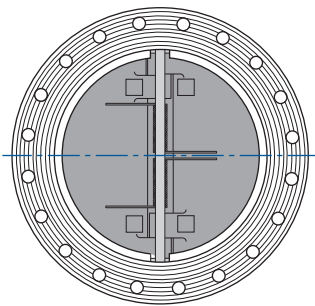
Size	A	B	C	D	E	J	Wafer				Lug/Flanged			
							Weight Lbs.	Stud Length	Stud Dia.	No. Reqd.	Weight Lbs.	Bolt Length	Bolt Dia.	No. Reqd.
2"	4 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>32</sub>	7/ <sub>8</sub>	7	6 <sup>3</sup> / <sub>4</sub>	5/ <sub>8</sub>	8	18	2 <sup>1</sup> / <sub>4</sub>	5/ <sub>8</sub>	16
2.5"	5 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub>	11	7 <sup>1</sup> / <sub>2</sub>	3/ <sub>4</sub>	8	27	2 <sup>1</sup> / <sub>2</sub>	3/ <sub>4</sub>	16
3"	5 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	12	8	3/ <sub>4</sub>	8	27	2 <sup>3</sup> / <sub>4</sub>	3/ <sub>4</sub>	16
4"	7	3 <sup>1</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	16	8 <sup>3</sup> / <sub>4</sub>	7/ <sub>8</sub>	8	47	3	7/ <sub>8</sub>	16
5"	8 <sup>3</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>11</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	40	10	7/ <sub>8</sub>	8	83	3	7/ <sub>8</sub>	16
6"	9 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>4</sub>	6 <sup>5</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	64	11 <sup>1</sup> / <sub>2</sub>	7/ <sub>8</sub>	12	140	3 <sup>1</sup> / <sub>4</sub>	7/ <sub>8</sub>	24
8"	12	6 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	105	13 <sup>1</sup> / <sub>2</sub>	1	12	237	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	24
10"	14 <sup>1</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>16</sub>	210	16	1 <sup>1</sup> / <sub>8</sub>	16	431	4	1 <sup>1</sup> / <sub>8</sub>	32
12"	16 <sup>1</sup> / <sub>2</sub>	9	10 <sup>9</sup> / <sub>16</sub>	12 <sup>7</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	255	17 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	16	451	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	32
14"	19	10 <sup>3</sup> / <sub>4</sub>	11 <sup>15</sup> / <sub>16</sub>	14	6 <sup>15</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>	440	19 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	20	792	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	40
16"	21 <sup>1</sup> / <sub>8</sub>	12	13 <sup>1</sup> / <sub>2</sub>	16	7 <sup>25</sup> / <sub>32</sub>	4 <sup>1</sup> / <sub>4</sub>	510	21	1 <sup>3</sup> / <sub>8</sub>	20	1046	4 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>8</sub>	40
18"	23 <sup>3</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>4</sub>	18 <sup>5</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	710	23 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>8</sub>	24	981	4 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>8</sub>	48
20"	25 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub>	16 <sup>15</sup> / <sub>16</sub>	20	9 <sup>27</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>4</sub>	841	24 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	24	1191	4 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	48
24"	30 <sup>1</sup> / <sub>4</sub>	15 <sup>1</sup> / <sub>2</sub>	20 <sup>5</sup> / <sub>16</sub>	24	11 <sup>13</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>4</sub>	1200	26 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	24	1551	5 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	48
30"	37 <sup>1</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>8</sub>	26 <sup>5</sup> / <sub>8</sub>	30 <sup>3</sup> / <sub>8</sub>	14 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	2500	31 <sup>1</sup> / <sub>2</sub>	2	28	2773	6 <sup>1</sup> / <sub>2</sub>	2	56
36"	44	25	30 <sup>3</sup> / <sub>8</sub>	36	17 <sup>7</sup> / <sub>8</sub>	9 <sup>13</sup> / <sub>16</sub>	4070	39 <sup>1</sup> / <sub>4</sub>	2	32	5241	7	2	64
42"	46 <sup>3</sup> / <sub>8</sub>	27 <sup>5</sup> / <sub>8</sub>	37 <sup>7</sup> / <sub>16</sub>	42	20 <sup>7</sup> / <sub>8</sub>	9 <sup>5</sup> / <sub>8</sub>	5650	43 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>8</sub>	32	6921	7 <sup>3</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>8</sub>	64

## Series 600 Dimensions and Weights

Size	A	B	C	D	E	J	Wafer				Lug/Flanged			
							Weight Lbs.	Stud Length	Stud Dia.	No. Reqd.	Weight Lbs.	Bolt Length	Bolt Dia.	No. Reqd.
2"	4 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>32</sub>	7/ <sub>8</sub>	8	6 <sup>3</sup> / <sub>4</sub>	5/ <sub>8</sub>	8	18	2 <sup>1</sup> / <sub>4</sub>	5/ <sub>8</sub>	16
2.5"	5 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub>	12	7 <sup>1</sup> / <sub>2</sub>	3/ <sub>4</sub>	8	27	2 <sup>1</sup> / <sub>2</sub>	3/ <sub>4</sub>	16
3"	5 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	12	8	3/ <sub>4</sub>	8	27	2 <sup>3</sup> / <sub>4</sub>	3/ <sub>4</sub>	16
4"	7 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	22	9	7/ <sub>8</sub>	8	51	3	7/ <sub>8</sub>	16
5"	9 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>11</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	49	10 <sup>3</sup> / <sub>4</sub>	1	8	97	3 <sup>1</sup> / <sub>2</sub>	1	16
6"	10 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>4</sub>	6 <sup>5</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	66	12 <sup>1</sup> / <sub>4</sub>	1	12	151	3 <sup>1</sup> / <sub>2</sub>	1	24
8"	12 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>25</sup> / <sub>32</sub>	8 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2 <sup>9</sup> / <sub>16</sub>	115	14 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	12	261	4	1 <sup>1</sup> / <sub>8</sub>	24
10"	15 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>16</sub>	234	17	1 <sup>1</sup> / <sub>4</sub>	16	460	4 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	32
12"	18	9	10 <sup>9</sup> / <sub>16</sub>	12 <sup>7</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	264	18	1 <sup>1</sup> / <sub>4</sub>	20	587	4 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	40
14"	19 <sup>3</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	11 <sup>15</sup> / <sub>16</sub>	14	6 <sup>15</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	430	20 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	20	817	4 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	40
16"	22 <sup>1</sup> / <sub>4</sub>	12	13 <sup>1</sup> / <sub>2</sub>	16	7 <sup>25</sup> / <sub>32</sub>	4 <sup>1</sup> / <sub>4</sub>	504	22 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	20	1058	5 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	40
18"	24 <sup>1</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>4</sub>	18 <sup>5</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	920	25 <sup>1</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>8</sub>	20	1011	5 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	40
20"	26 <sup>7</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>2</sub>	16 <sup>15</sup> / <sub>16</sub>	20	9 <sup>27</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>4</sub>	980	26	1 <sup>5</sup> / <sub>8</sub>	24	1279	5 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>8</sub>	48
24"	31 <sup>1</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>2</sub>	24	11 <sup>13</sup> / <sub>32</sub>	6	1555	30 <sup>1</sup> / <sub>2</sub>	1 <sup>7</sup> / <sub>8</sub>	24	1851	6 <sup>1</sup> / <sub>2</sub>	1 <sup>7</sup> / <sub>8</sub>	48
30"	38 <sup>1</sup> / <sub>4</sub>	19 <sup>7</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	30 <sup>3</sup> / <sub>8</sub>	14 <sup>7</sup> / <sub>8</sub>	7	2640	34 <sup>1</sup> / <sub>4</sub>	2	28	2987	7	2	56
36"	44	25	30 <sup>3</sup> / <sub>8</sub>	36	17 <sup>7</sup> / <sub>8</sub>	9 <sup>13</sup> / <sub>16</sub>	4200	41	2 <sup>1</sup> / <sub>2</sub>	28	5364	8	2 <sup>1</sup> / <sub>2</sub>	56
42"	48	27 <sup>5</sup> / <sub>8</sub>	37 <sup>7</sup> / <sub>16</sub>	42	20 <sup>7</sup> / <sub>8</sub>	9 <sup>5</sup> / <sub>8</sub>	5800	47	2 <sup>1</sup> / <sub>2</sub>	28	7048	9 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	56

# Gulf Model MB Wafer Check

## 2" to 48"



Flanged Body, 18" to 48"

### Notes:

1. Stud and bolt length are for Gulf Wafer Check with raised face connections. Contact your sales representative for other information on body styles. Bolt length is for threaded lug/flange body.
2. Weights are approximate.
3. Threaded and Through-Bolt Lug Body available.
4. "C" Dimension is minimum flange bore.
5. "A" Dimensions for 30" and larger steel valves per ASME B16.47 Series A and MSS-SP-44.

### Series 900 Dimensions and Weights

Size	A	B	C	D	E	J	Wafer				Lug/Flanged			
							Weight Lbs.	Stud <sup>1</sup> Length	Stud Dia.	No. Reqd.	Weight Lbs.	Bolt <sup>1</sup> Length	Bolt Dia.	No. Reqd.
2"	5 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	—	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>16</sub>	14	8 <sup>3</sup> / <sub>4</sub>	7/ <sub>8</sub>	8	26	3	7/ <sub>8</sub>	16
2.5"	6 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	2	2 <sup>7</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>16</sub>	21	9 <sup>3</sup> / <sub>4</sub>	1	8	40	3 <sup>1</sup> / <sub>4</sub>	1	16
3"	6 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>	23	9 <sup>1</sup> / <sub>4</sub>	7/ <sub>8</sub>	8	44	3	7/ <sub>8</sub>	16
4"	8 <sup>1</sup> / <sub>8</sub>	4	3 <sup>1</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	36	11	1 <sup>1</sup> / <sub>8</sub>	8	68	3 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	16
6"	11 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>32</sub>	2 <sup>13</sup> / <sub>16</sub>	115	14	1 <sup>1</sup> / <sub>8</sub>	12	240	4	1 <sup>1</sup> / <sub>8</sub>	24
8"	14 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>8</sub>	252	17	1 <sup>3</sup> / <sub>8</sub>	12	443	4 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>8</sub>	24
10"	17 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	8 <sup>3</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>8</sub>	348	19	1 <sup>3</sup> / <sub>8</sub>	16	661	4 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	32
12"	19 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	12 <sup>7</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	490	21 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	20	981	5 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	40
14"	20 <sup>1</sup> / <sub>2</sub>	14	8 <sup>15</sup> / <sub>16</sub>	14	6 <sup>15</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	926	25	1 <sup>1</sup> / <sub>2</sub>	20	1241	5 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	40
16"	22 <sup>5</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>32</sub>	16	7 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	1152	26 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	20	2074	5 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>8</sub>	40
18"	25 <sup>1</sup> / <sub>8</sub>	17 <sup>3</sup> / <sub>4</sub>	13 <sup>15</sup> / <sub>16</sub>	18 <sup>5</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	1039	30 <sup>3</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>8</sub>	20	1418	6 <sup>1</sup> / <sub>2</sub>	1 <sup>7</sup> / <sub>8</sub>	40
20"	27 <sup>1</sup> / <sub>2</sub>	17 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>16</sub>	20	10	5 <sup>1</sup> / <sub>2</sub>	1421	31 <sup>3</sup> / <sub>4</sub>	2	20	1892	6 <sup>3</sup> / <sub>4</sub>	2	40
24"	33	19 <sup>1</sup> / <sub>2</sub>	20 <sup>15</sup> / <sub>32</sub>	24	11 <sup>7</sup> / <sub>16</sub>	6	1900	37	2 <sup>1</sup> / <sub>2</sub>	20	2786	8 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	40

## Ordering Information

### Size Range, 2" to 48"

#### Type

MB - Wafer

#### Lug/Flange

TL - Threaded Lug (2" to 16")  
 TBL - Through Bolt Lug (2" to 16")  
 TF - Threaded Flange (18" to 48")  
 TBF - Through Bolt Flange (18" to 48")

#### ASME/API Series

12 - 125 Class  
 15 - 150 Class  
 25 - 250 Class  
 30 - 300 Class  
 40 - 400 Class  
 60 - 600 Class  
 90 - 900 Class

#### Body Material

20 - WCB Steel, ASTM A216 Gr. WCB  
 30 - Ductile Iron, ASTM A395 Gr. 60-40-18  
 50 - Cast Iron, ASTM A126 Class B or ASTM A 278 CL. 40  
 60 - 316 SS, ASTM A351 Gr. CF8M  
 X0 - Refer to Modification Number

#### Disc Material

2 - WCB Steel, ASTM A216 Gr. WCB  
 4 - 316 SS, ASTM A351 Gr. CF8M  
 7 - Monel®, ASTM A494, M35-1  
 8 - Aluminum Bronze, ASTM B148 Alloy C95200  
 0 - Ductile Iron, ASTM A395 Gr. 60-40-18  
 X - Refer to Modification Number

#### Seat

1 - BUNA-N  
 2 - Neoprene  
 3 - Teflon®  
 4 - Viton®  
 6 - 316 SS Overlay  
 7 - Metal  
 9 - EPDM  
 X - Refer to Modification Number

#### Spring Material

S - 316 SS  
 W - Inconel®  
 X - Inconel®-X 750

#### End Connections

F - Flat face  
 J - Ring Joint  
 R - Raised Face,  
 spiral serrated per API 594

**EXAMPLE:** Specifications call for 6", ASME 300 Gulf Wafer Check with raised face end connection, carbon steel through-bolt lug body with Monel® discs, Teflon® seat and Inconel®-X spring.

**Model Number: 6MBTBL30-2073-XR**

#### Shaft-Thrust Bearings

316 SS  
 316 SS  
 Monel®  
 316 SS  
 316 SS

#### Operating Temperature

-30° to 250°F  
 -35° to 250°F  
 -40° to 300°F  
 -10° to 400°F  
 Same as body material  
 Same as body material  
 -40° to 300°F

#### Notes:

1. The standard materials of construction for the Shafts-Thrust Bushings are determined by the disc material. Gulf Wafer Checks furnished with other discs not listed above will be supplied with Shafts-Thrust Bushings of similar materials of construction.
2. Ductile iron discs offered on 16" and larger only.
3. 316 SS overlay seat is available in 16" and larger only.
4. 316 Stainless Steel spring(s) are furnished as standard for all elastomer seated valves.
5. Inconel® spring(s) are furnished as standard for metal seated Gulf Wafer Checks.
6. Inconel®-X spring(s) must be used for Gulf Wafer Checks required to comply with NACE MR-01-75.
7. Flat Face End Connections are standard for ASME Class 125 Gulf Wafer Checks.
8. Raised Face-Spiral serrated end connections are standard for all ASME Class 150 through 2500 Gulf Wafer Checks.
9. Temperatures are for general guidance and could vary depending upon application and body/internal trim selection.
10. For Teflon® seated valves, maximum seat leakage is equal to metal-seated rate per API 598.

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