Grinnell FLOW CONTROL

Wafer and Lug style resilient seated butterfly valves with molded-in seat design.

Features and Benefits

- Molded-in resilient seat provides bubble-tight shutoff to 250 psi.
- Offered in two body styles: wafer and lug. The lugged body is drilled and tapped for isolation and removal of downstream piping at full rated pressure.
- Round, polished disc and hub edge provides 360 degree concentric seating, minimum flow restriction, lower torques and longer seat life.
- Upper and lower inboard bronze bearings ensure longer service life with low operating torques.
- Thru-stem design provides high strength and positive disc control with standardized end connection for operator interchangeability.
- Extended neck allows adequate clearance for flanges and insulation.
- Bi-directional, self-adjusting stem seal, located in the upper journal, is suitable for vacuum and pressure while also preventing external contamination of the stem area.
- Heavy-duty corrosion resistant top bushing, located in the upper journal, absorbs actuator side thrust.
- Cast-in top plate is an integral part of the body and is standardized to allow direct mounting of actuators.
- Each valve is factory tested to 110° of specified pressure rating.

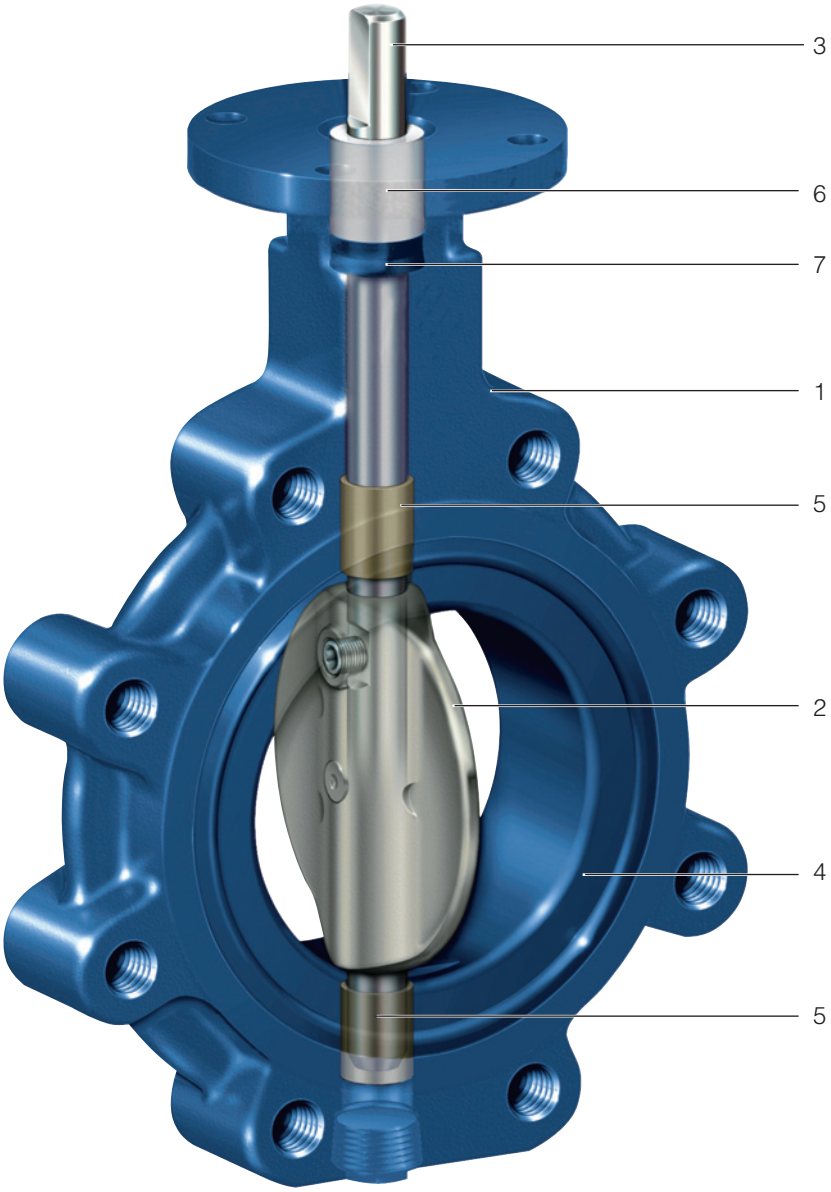
General Application

Heating, ventilation, air conditioning and irrigation markets.

Technical Data

Size Range:	2" to 12" wafer and lug styles
Pressure Rating:	250 psi
Bi-directional Dead End Rating:	250 psi
Temperature Rating:	-40°F to +250°F
Flange Accomodation:	ASME 125/150

Materials

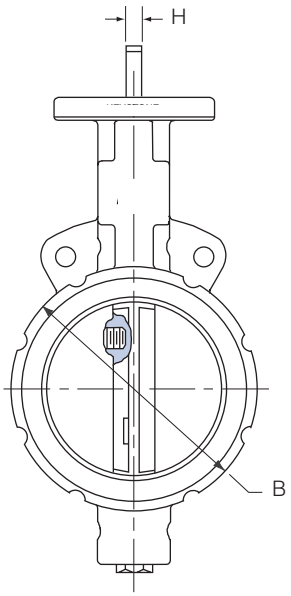


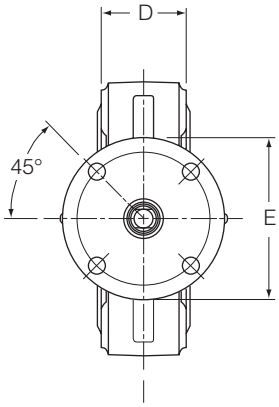
Materials

No.	Description	Material	Material Standards
1	Body	Cast Iron	ASTM A126 Class B
2	Disc	304 SS	ASTM A351 Grade CF8
3	Stem	416 SS	ASTM A582 UNS S41600
4	Molded-in liner	EPDM NBR	
5	Inboard bearings	Bronze	
6	Upper bushing	Polyester	
7	Upper stem seal	NBR	

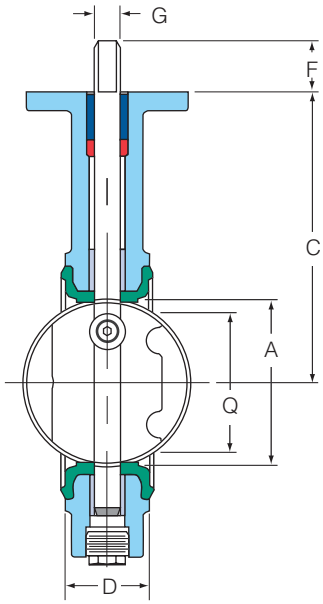
Dimensions (inches)

Wafer

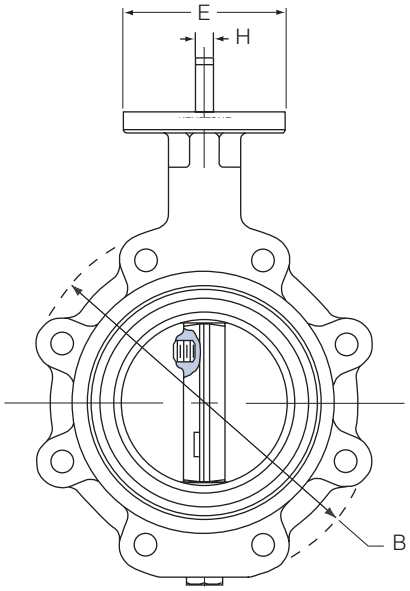




Wafer and Lug



Lug



Wafer Dimensions (inches)

Size	A	B	C	D	Q	E	F	G	H	Top Plate Drilling Key	Bolt Circle	No. Holes	Hole Diam.	Weight (lbs.)
2	2 1/16	4 1/8	5 5/16	1 11/16	1 3/8	4	1 1/4	9/16	3/8	N/A	3 1/4	4	7/16	7.7
2 1/2	2 9/16	4 5/8	5 15/16	1 13/16	2	4	1 1/4	9/16	3/8	N/A	3 1/4	4	7/16	8.8
3	3 1/16	5 3/16	6 5/16	1 13/16	2 5/8	4	1 1/4	9/16	3/8	N/A	3 1/4	4	7/16	10.2
4	4 1/16	6 3/8	7 1/8	2 1/16	3 11/16	4	1 1/4	5/8	7/16	N/A	3 1/4	4	7/16	16.9
5	5 1/16	7 3/8	7 11/16	2 1/4	4 3/4	4	1 1/4	3/4	1/2	N/A	3 1/4	4	7/16	19.9
6	5 13/16	8 1/2	8 5/16	2 1/4	5 9/16	4	1 1/4	3/4	1/2	N/A	3 1/4	4	7/16	25.3
8	7 13/16	10 11/16	9 1/2	2 3/8	7 3/4	6	1 1/4	7/8	5/8	N/A	5	4	9/16	40.5
10	9 13/16	13	10 7/8	2 11/16	9 3/4	6	2	1 1/8	N/A	1/4 x 1/4	5	4	9/16	61.1
12	11 13/16	14 13/16	12 1/4	3 1/8	11 3/4	6	2	1 1/8	N/A	1/4 x 1/4	5	4	9/16	82.7

Lug Dimensions (inches)

Size	A	B	C	D	Q	E	F	G	H	Top Plate Drilling Key	Bolt Circle	No. Holes	Hole Diam.	Tapped Lug Data Bolt Circle	No. Holes	Tap	Weight (lbs.)
2	2 1/16	4 3/4	5 5/16	1 11/16	1 3/8	4	1 1/4	9/16	3/8	N/A	3 1/4	4	7/16	4 3/4	4	5/8-11 UNC-2B	9.0
2 1/2	2 9/16	5 1/4	5 15/16	1 13/16	2	4	1 1/4	9/16	3/8	N/A	3 1/4	4	7/16	5 1/2	4	5/8-11 UNC-2B	10.5
3	3 1/16	5 13/16	6 5/16	1 13/16	2 5/8	4	1 1/4	9/16	3/8	N/A	3 1/4	4	7/16	6	4	5/8-11 UNC-2B	11.9
4	4 1/16	7	7 1/8	2 1/16	3 11/16	4	1 1/4	5/8	7/16	N/A	3 1/4	4	7/16	7 1/2	8	5/8-11 UNC-2B	21.4
5	5 11/16	8 1/8	7 11/16	2 1/4	4 3/4	4	1 1/4	3/4	1/2	N/A	3 1/4	4	7/16	8 1/2	8	3/4-10 UNC-2B	25.7
6	5 13/16	9 1/4	8 5/16	2 1/4	5 9/16	4	1 1/4	3/4	1/2	N/A	3 1/4	4	7/16	9 1/2	8	3/4-10 UNC-2B	31.0
8	7 13/16	11 7/16	9 1/2	2 3/8	7 3/4	6	1 1/4	7/8	5/8	N/A	5	4	9/16	11 3/4	8	3/4-10 UNC-2B	48.0
10	9 13/16	13 7/8	10 7/8	2 11/16	9 3/4	6	2	1 1/8	N/A	1/4 x 1/4	5	4	9/16	14 1/4	12	7/8-9 UNC-2B	75.8
12	11 13/16	15 11/16	12 1/4	3 1/8	11 3/4	6	2	1 1/8	N/A	1/4 x 1/4	5	4	9/16	17	12	7/8-9 UNC-2B	106.5

Note: "Q" dimension is the minimum allowable pipe or flange inside diameter at the centered body face to protect the disc sealing edge against damage when opening the valve.

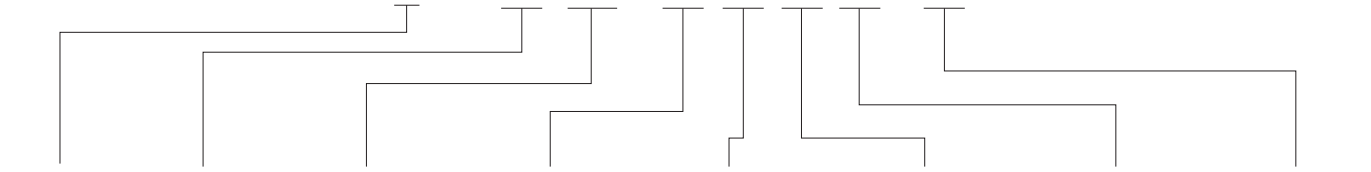
Valve C_V

Size, in. [mm]		10°	20°	30°	40°	50°	60°	70°	80°	90°
2	[50]	0	1.3	5	14	26	40	52	59	60
2 1/2	[65]	0	1.4	6	21	44	74	107	138	150
3	[80]	0	1.5	8	29	67	115	175	234	262
4	[100]	1	15	48	107	196	318	463	589	647
5	[125]	3	32	99	206	362	579	832	1,045	1,141
6	[150]	4	47	145	295	510	810	1,160	1,450	1,580
8	[200]	6	84	239	450	751	1,190	1,754	2,385	2,892
10	[250]	9	133	360	652	1,064	1,683	2,524	3,596	4,593
12	[300]	12	192	509	899	1,449	2,288	3,470	5,085	6,682

Note: C_V is the valve flow capacity expressed as the flow rate of 60°F water, in US gallons per minute, which produces a 1 psi pressure drop across the valve.

How to Order

Example **8 – W C – 1 2 9 2 – 3**



Valve Size	Body Style	Body Material	Series	Seat Material	Disc Material	Operator	Stem Material
2	W- Wafer	C - Cast Iron	1 - 1000	1 - NBR (std)	9 - 304 SS	0 - None	3 - 416 SS
2.5	L- Lug			2 - EPDM		1 - 10-P Lever	
3						2 - Gear	
4							
5							
6							
8							
10							
12							

Grinnell FLOW CONTROL
Phone: (877) 791-3208
Fax: (281) 240-6932
www.grinnellvalves.com