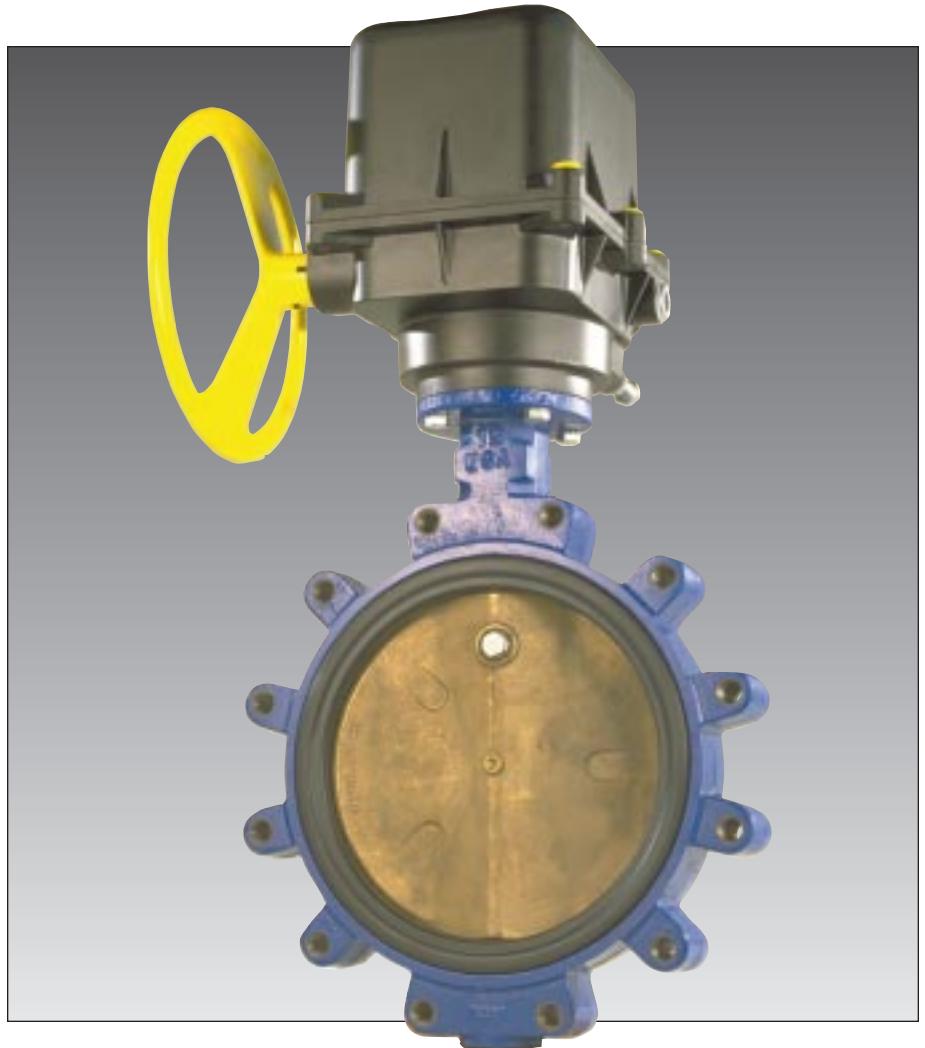




Resilient Seated Butterfly Valves
Sizes 2–12-inch to 175 psi
Sizes 14–36-inch to 150 psi

Features and Benefits

- Triple function resilient seat provides bi-directional drop-tight shutoff and totally isolates the valve body and stem from the line media.
- Molded-in O-ring seat design serves as flange seals, totally eliminating the need for gaskets between the flanges and the valve.
- Unique dovetail seat retention design allows convenient and economical field replacement.
- Superior one-piece thru-shaft design provides high strength and positive disc control.
- Internal shaft seal prevents external media from entering valve and also adjusts for pressure and shaft rotation.
- Heavy-duty, corrosion resistant top bushing provides upper stem support, absorbs actuator sideloads and extends valve cycle life.
- Polished disc edge ensures optimal performance and maximum seat life.
- Stainless steel torque plug (2–12-inch), disc screws (14–20-inch) and taper pins (24–36-inch) provide positive leak-proof connections while allowing for quick and easy disassembly.
- One-piece body with extended neck allows clearance for flanges and insulation.
- Each valve is factory-tested to 110 percent of manufacturer's pressure rating.



General Applications

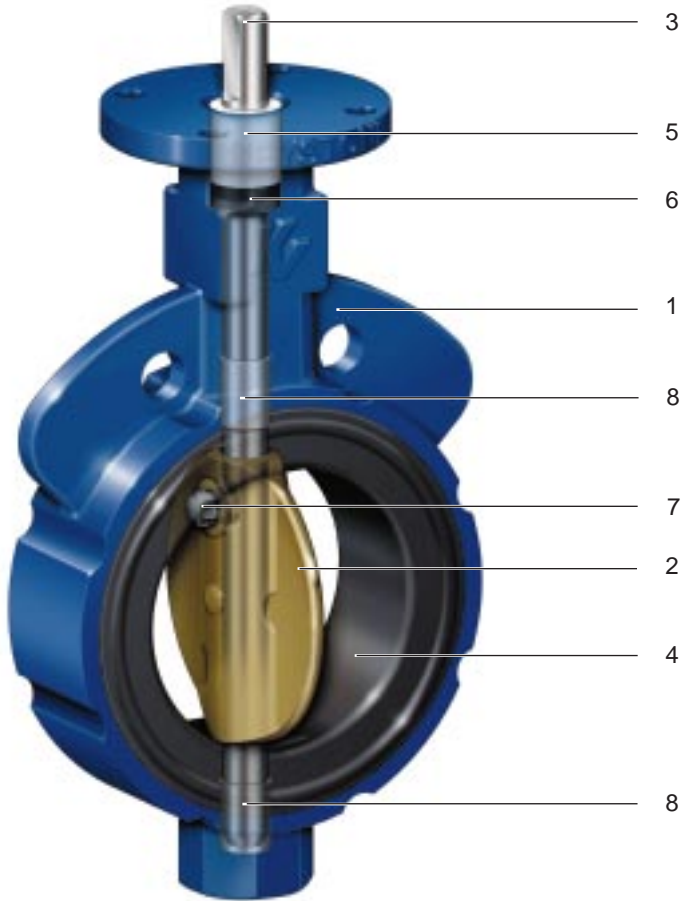
Ideally suited for many high performance applications, such as fire protection, water treatment, cooling systems, food and beverage and bulk product handling. Consult factory for appropriate materials for specific services.

Technical Data

Size Range:
 Figure AR1 (wafer style) 2–36-inch
 Figure AR2 (lugged style) 2–24-inch
 Flange Standard: ANSI Class 125/150
 (Consult factory for additional drilling standards.)

A **tyco** INTERNATIONAL LTD. COMPANY

Making Flow Control Easier



Materials

Part	Standard Material	Material Specification	Optional Material
1. Body	Cast iron Ductile iron Carbon steel Stainless steel	ASTM A-126, Class B ASTM A-395 GR 60/40/18 ASTM A-216 WCB (Figure AR2 only) ASTM A-351 CF8M (Figure AR2 8" to 20" only)	
2. Disc	Ductile iron Aluminum bronze 316 Stainless steel	ASTM A-536 GR 65/45/12 ASTM B-148, UNS C95200 Grade A ASTM A-743, CF8M	
3. Stem	316 Stainless steel (2–12-inch) 18-8 Stainless steel (14–20-inch) 17-4 PH Stainless steel (24–36-inch) Phosphate treated steel (2–20-inch)	ASTM A-276 UNS S31600 ASTM A-276 UNS S30400 ASTM A-564 UNS S17400 ASTM A 108 UNS G10450	
4. Seat	NBR food grade (0°F–212°F) EPDM food grade (-40°F–250°F)		Fluoroelastomer (FKM) White NBR
5. Upper stem bushing	Polyester (2–20-inch) Bronze (24–36-inch)		
6. Stem packing	NBR		
7. Torque plug (2–12-inch) 7. Disc screws (14–20-inch) 7. Taper pins (24–36-inch)	316 Stainless steel 316 Stainless steel 17 - 4 PH Stainless steel	ASTM A-276 UNS S31600 condition A ASTM F-593 Group 2 condition CW1 ASTM A564 UNS S17400 H1075	
8. Bearings (2–12-inch)	Sintered metal		

Figure AR1
Wafer

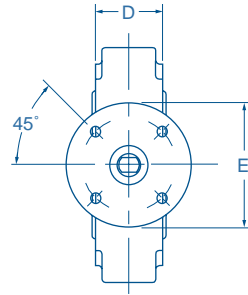
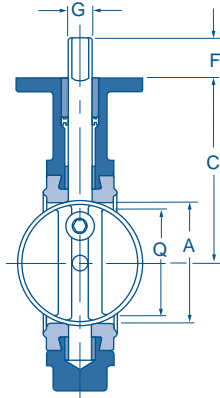
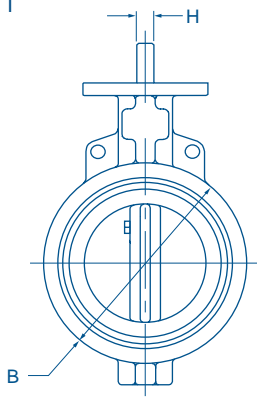


Figure AR2
Lugged

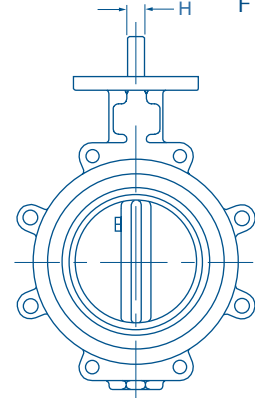


Figure AR1 - Dimensions (inches)

Size	A	B	C	D	E	F	G	H	Q	Key	Top Plate Drilling			Weight (lbs)	Adapt. Code
											Bolt Circle	No. Holes	Hole Dia.		
2	2	4 1/8	5 1/2	1 5/8	4	1 1/4	9/16	3/8	1 3/8	N/A	3 1/4	4	7/16	6.3	BAB
2 1/2	2 1/2	4 5/8	6	1 3/4	4	1 1/4	9/16	3/8	2 1/16	N/A	3 1/4	4	7/16	8.5	BAB
3	3	5 1/8	6 1/4	1 3/4	4	1 1/4	9/16	3/8	2 7/16	N/A	3 1/4	4	7/16	10.0	BAB
4	4	6 3/8	7	2	4	1 1/4	5/8	7/16	3 3/8	N/A	3 1/4	4	7/16	14.0	BAC
5	5	7 3/8	7 1/2	2 1/8	4	1 1/4	3/4	1/2	4 3/4	N/A	3 1/4	4	7/16	18.0	BAD
6	5 3/4	8 1/2	8	2 1/8	4	1 1/4	3/4	1/2	5 1/2	N/A	3 1/4	4	7/16	22.0	BAD
8	7 3/4	10 11/16	9 1/2	2 1/2	6	1 1/4	7/8	5/8	7 1/2	N/A	5	4	9/16	38.0	CAE
10	9 3/4	13	10 3/4	2 1/2	6	2	1 1/8	N/A	9 19/32	1/4 x 1/4	5	4	9/16	51.0	CAF
12	11 3/4	14 13/16	12 1/4	3	6	2	1 1/8	N/A	11 1/16	1/4 x 1/4	5	4	9/16	71.0	CAF
14	13 1/4	16 7/8	12	3	6	3	1 3/8	N/A	13 3/8	5/16 x 5/16	5	4	9/16	114.0	CAG
16	15 1/4	19 1/4	12 61/64	4	6	3	1 5/8	N/A	15	3/8 x 3/8	5	4	9/16	193.0	CAH
18	17 1/4	21 1/2	14 1/2	4 1/4	8	4 1/4	1 7/8	N/A	16 7/8	1/2 x 3/8	6 1/2	4	13/16	222.0	DAJ
20	19 1/4	23 3/4	15 7/8	5	8	4 1/4	1 7/8	N/A	18 3/4	1/2 x 3/8	6 1/2	4	13/16	315.0	DAJ
24	23 1/4	28 1/4	19 1/2	5 15/16	8	4 1/4	1 7/8	N/A	22 5/8	1/2 x 3/8	6 1/2	4	13/16	506.0	DAJ
30	29 1/4	34 3/8	23	6 3/16	8	4 1/4	2 1/4	N/A	28 11/16	1/2 x 3/8	6 1/2	4	13/16	610.0	DAK
36	35 1/4	41 1/4	27 3/4	7 7/8	8	5 1/2	2 7/8	N/A	34 1/2	3/4 x 1/2	6 1/2	4	13/16	1,185.0	DAV

Figure AR2 - Dimensions (inches)

Size	A	B	C	D	E	F	G	H	Q	Key	Top Plate Drilling			Tapped Lug Data			Weight (lbs)	Adapt. Code
											Bolt Circle	No. Holes	Hole Dia.	Bolt Circle	No. Holes	Tap		
2	2	4 1/8	5 1/2	1 5/8	4	1 1/4	9/16	3/8	1 3/8	N/A	3 1/4	4	7/16	4 3/4	4	5/8 - 11 UNC	7.0	BAB
2 1/2	2 1/2	4 5/8	6	1 3/4	4	1 1/4	9/16	3/8	2 1/16	N/A	3 1/4	4	7/16	5 1/2	4	5/8 - 11 UNC	10.0	BAB
3	3	5 1/8	6 1/4	1 3/4	4	1 1/4	9/16	3/8	2 7/16	N/A	3 1/4	4	7/16	6	4	5/8 - 11 UNC	11.5	BAB
4	4	6 3/8	7	2	4	1 1/4	5/8	7/16	3 3/8	N/A	3 1/4	4	7/16	7 1/2	8	5/8 - 11 UNC	18.0	BAC
5	5	7 3/8	7 1/2	2 1/8	4	1 1/4	3/4	1/2	4 3/4	N/A	3 1/4	4	7/16	8 1/2	8	3/4 - 10 UNC	22.5	BAD
6	5 3/4	8 1/2	8	2 1/8	4	1 1/4	3/4	1/2	5 1/2	N/A	3 1/4	4	7/16	9 1/2	8	3/4 - 10 UNC	28.5	BAD
8	7 3/4	10 11/16	9 1/2	2 1/2	6	1 1/4	7/8	5/8	7 1/2	N/A	5	4	9/16	11 3/4	8	3/4 - 10 UNC	49.0	CAE
10	9 3/4	13	10 3/4	2 1/2	6	2	1 1/8	N/A	9 19/32	1/4 x 1/4	5	4	9/16	14 1/4	12	7/8 - 9 UNC	69.0	CAF
12	11 3/4	14 13/16	12 1/4	3	6	2	1 1/8	N/A	11 1/16	1/4 x 1/4	5	4	9/16	17	12	7/8 - 9 UNC	107.0	CAF
14	13 1/4	16 7/8	12	3	6	3	1 3/8	N/A	13 3/8	5/16 x 5/16	5	4	9/16	18 3/4	12	1 - 8 NC	143.0	CAG
16	15 1/4	19	12 61/64	4	6	3	1 5/8	N/A	15	3/8 x 3/8	5	4	9/16	21 1/4	16	1 - 8 NC	238.0	CAH
18	17 1/4	21 3/8	14 1/2	4 1/4	8	4 1/4	1 7/8	N/A	16 7/8	1/2 x 3/8	6 1/2	4	13/16	22 3/4	16	1 1/8 - 7 NC	261.0	DAJ
20	19 1/4	23 1/2	15 7/8	5	8	4 1/4	1 7/8	N/A	18 3/4	1/2 x 3/8	6 1/2	4	13/16	25	20	1 1/8 - 7 NC	366.0	DAJ
24	23 1/4	28 1/4	19 1/2	5 15/16	8	4 1/4	1 7/8	N/A	22 5/8	1/2 x 3/8	6 1/2	4	13/16	29 1/2	20	1 1/4 - 7 NC	576.0	DAJ

Notes

- 'H' Dimension refers to flat on stem.
- '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.



DRINKING WATER SYSTEM
COMPONENTS CLASSIFIED BY
UNDERWRITERS LABORATORIES
INC. IN ACCORDANCE WITH
STANDARD ANSISNF 61-1998
(3N75) MECHANICAL DEVICES.



A **tyco** INTERNATIONAL LTD. COMPANY

Tyco Valves & Controls, USA:
9700 West Gulf Bank Road
Houston, Texas 77040
Phone: (713) 466-1176
Fax: (713) 937-5417

Tyco Valves & Controls, Canada:
470 Seaman Street
Stoney Creek, Ontario, Canada L8E 2V9
Phone: (905) 662-0434
Fax: (905) 662-6191

Tyco Valves & Controls, Latin America:
Gables International Plaza
2655 Le Jeune Road, Suite 612
Coral Gables, Florida 33134
Phone: (305) 448-0059
Fax: (305) 448-1632

The data presented in this bulletin is for general information only. Manufacturer is not responsible for acceptability of these products in relation to system requirements. Patents and Patents Pending in U.S. and foreign countries. All rights reserved. Printed in U.S.A. Tyco reserves the right to change product designs and specifications without notice. © Copyright 1998.