# KEYSTONE

## Resilient-Seated Butterfly Valve Sizes 2 thru 20 inch, 200 psi

#### Features

- Primary stem seal, formed by preloaded contact of disc hub with flatted seat surfaces, completely isolates stem and body from the line media.
- Secondary stem seal, formed by an engineered interference fit of the stem through the seat, provides additional sealing integrity.
- Rounded, polished disc edge provides full 360 degree concentric seating, minimum flow restriction, lower seating and unseating torques and maximum seat life.
- Superior, one-piece thru-shaft design provides high-strength and positive disc control. Shaft ends are standardized for operator interchangeability.
- Self-locking, stainless steel disc screws allow quick and easy disassembly and provide a positive connection.
- Self-adjusting, bi-directional stem seal is suitable for full industrial vacuum and pressure, preventing external contamination of the stem area.
- Heavy-duty, corrosion-resistant top bushing absorbs actuator side thrust loads.
- Replaceable, metal-reinforced seat, completely encapsulated by rubber, isolates the stem and body from the media and eliminates seat distortion due to high vacuum or turbulence.
- Each valve is factory tested to 110 percent of specified pressure rating assures drop-tight shut-off.
- Cast-in top plate is an integral part of the body and is standardized to allow direct mounting of all Keystone actuators.

#### **Technical Data**

Pressure Rating: 200 psi

Sizes: 2 thru 20 inch



#### **General Applications**

The Figure 129 and Figure 139 are heavy duty, resilient-seated butterfly valves that are ideally suited for many industrial high performance applications, such as air, water and vacuum service. Figures 129 and 139 can also be

used for marine and naval use where MIL-V-22133C specified valves are required. Consult factory for appropriate materials for other services.

#### Materials of Construction

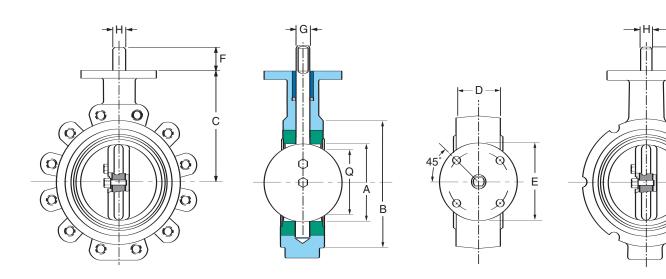
Body:		ı, Ductile iron, uminum bronze							
Disc:	Ductile iron, Aluminum bronz 316 Stainless Steel, Monel®								
Stem:		nless Steel, inless Steel							
Seat:	NBR, EF	MDv							
Stem Bu	shing:	Polyester							
Disc Scr	ews:	316 Stainless Steel, Monel®							
Stem Pa	cking:	NBR							



Total Flow Control Solutions<sup>™</sup>

Keystone is either a trademark or registered trademark of Tyco International Services AG or its affiliates in the United States and/or other countries. All other brand names, product names, or trademarks belong to their respective holders.

#### **Dimensions**



F

С

Valve Dimensions (inches)																			
											Top Plate Drilling			Tapped Lug Data					
Size	A	В	C	D	Q	E	F	G	Н	Key	Bolt Circle	Bolt Holes	No. Diam.	Bolt Circle	Bolt Holes	No. Tap	Weight 129	(lbs) 139	Adapt Code
2	2	41/8	315/16	<b>1</b> 5/8	<b>1</b> 7/16	4	<b>1</b> 1/4	<sup>9/16</sup>	3/8	N/A	31/4	4	7/16	43/4	4	5/8 - 11NC	8	6 <sup>1</sup> /2	BAB
<b>2</b> <sup>1</sup> / <sub>2</sub>	<b>2</b> <sup>1</sup> / <sub>2</sub>	47/8	41/2	<b>1</b> <sup>3</sup> /4	2 <sup>1</sup> /16	4	<b>1</b> 1/4	<sup>9/16</sup>	3/8	N/A	31/4	4	7/16	5 <sup>1</sup> /2	4	<sup>5</sup> /8 - 11NC	9	8	BAB
3	3	5 <sup>3/8</sup>	47/8	13/4	211/16	4	<b>1</b> 1/4	9/16	3/8	N/A	31/4	4	7/ <sub>16</sub>	6	4	5/8 - 11NC	10	<b>9</b> 1/2	BAB
4	4	67/8	6	2	33/4	4	<b>1</b> 1/4	5/ <sub>8</sub>	7/16	N/A	31/4	4	7/16	71/2	8	<sup>5</sup> /8 - 11NC	18	14	BAC
5	5	73/4	6	21/8	43/4	4	<b>1</b> 1/4	5/8	<sup>7</sup> /16	N/A	31/4	4	<sup>7/</sup> 16	81/2	8	<sup>3</sup> / <sub>4</sub> - 10NC	21	15 <sup>1</sup> /2	BAC
6	6	83/4	61/2	21/8	515/16	4	<b>1</b> 1/4	3/4	1/2	N/A	31/4	4	7/16	91/2	8	3/4 - 10NC	25	<b>18</b> <sup>1</sup> / <sub>2</sub>	BAD
8	8	11	85/16	21/2	77/8	6	<b>1</b> 1/4	7/8	5/8	N/A	5	4	<sup>9/16</sup>	<b>11</b> <sup>3</sup> / <sub>4</sub>	8	<sup>3</sup> / <sub>4</sub> - 10NC	44	<b>34</b> <sup>1</sup> / <sub>2</sub>	CAE
10	10	133/8	9	21/2	915/16	6	2	<b>1</b> 1/8	N/A	1/4 <b>x</b> 1/4	5	4	9/16	<b>14</b> <sup>1</sup> / <sub>4</sub>	12	7/8 - 9NC	61	47	CAF
12	12	<b>16</b> <sup>1</sup> /8	105/8	3	117/8	6	2	<b>1</b> 1/8	N/A	1/4 x 1/4	5	4	<sup>9/16</sup>	17	12	<sup>7</sup> /8 - 9NC	95	80	CAF
14	13	175/8	12	3	<b>12</b> <sup>13</sup> / <sub>16</sub>	6	3	<b>1</b> 3/8	N/A	5/16 <b>X</b> 5/16	5	4	9/ <sub>16</sub>	183/4	12	1 - 8UNC	131	115	CAG
16	15	201/4	<b>12</b> <sup>61</sup> / <sub>64</sub>	4	<b>14</b> <sup>3</sup> / <sub>4</sub>	6	3	<b>1</b> 5/8	N/A	<sup>3</sup> /8 x <sup>3</sup> /8	5	4	<sup>9/</sup> 16	<b>21</b> <sup>1</sup> / <sub>4</sub>	16	1 - 8UNC	221	210	CAH
18	17	<b>21</b> <sup>1</sup> / <sub>2</sub>	141/2	41/4	<b>16</b> <sup>11</sup> / <sub>16</sub>	8	41/4	<b>1</b> 7/8	N/A	1/2 <b>X</b> 3/8	61/2	4	13/16	223/4	16	11/8 - 7UNC	264	240	DAJ
20	19	233/4	157/8	5	185/8	8	41/4	<b>1</b> 7/8	N/A	1/2 <b>X</b> 3/8	61/2	4	13/16	25	20	11/8 - 7UNC	368	316	DAJ

#### Notes

1 '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.

- 2. 'B' dimensions refer to Figure 139 body O.D. dimensions.
- 3. Monel<sup>®</sup> is a registered trademark of the International Nickel Company.

### **Tyco Valves & Controls**

#### www.tycovalves.com

Tyco Flow Control (TFC) provides the information herein in good faith but makes no representation as to its comprehensiveness or accuracy. This data sheet is intended only as a guide to TFC products and services. Individuals using this data sheet must exercise their independent judgment in evaluating product selection and determining product appropriateness for their particular purpose and system requirements. TFC MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT(S) TO WHICH THE INFORMATION REFERS. ACCORDINGLY, TFC WILL NOT BE RESPONSIBLE FOR DAMAGES (OF ANY KIND OR NATURE, INCLUDING INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES) RESULTING FROM THE USE OF OR RELIANCE UPON THIS INFORMATION. Patents and Patents Pending in the U.S. and foreign countries. Tyco reserves the right to change product designs and specifications without notice.