

**Figure 990 (wafer) and Figure 920 (lug) resilient-seated butterfly valves feature one-piece disc stem and field replaceable seat. The range of available materials makes these valves suitable for a wide variety of applications.**

### Features

- Factory testing of every valve at full rating ensures 100% bubble tight shut-off.
- Standardized actuator flange for easy operator interchangeability and mount direct to Keystone range of actuators.
- One-piece, wafer-thin disc stem provides high strength and absolutely positive disc control and gives the very minimum obstruction to flow. Its crevice free surface makes it ideal for hygienic duty.
- Primary seal formed by the seat/stem/hub contact exceeds the pressure rating of the valve. Body is totally isolated from the flowing medium.
- Secondary stem seal is suitable for pressure and vacuum is self-adjusting.
- Patented dove-tail seat requires no bonding. Makes seat replacement simple and fast. Extra heavy edge section resists tearing.
- Hub seal is provided by preloaded contact between flatted seat surface and rounded polished disc-hub area for positive sealing at all disc positions.
- Moulded-in O-ring provides positive flange sealing and eliminates the need for gaskets.
- Heavy duty top bushing absorbs side thrust loads. Self-adjusting sealing for both direction is also suitable for vacuum.



### General Applications

The Figure 990/920 is :

- the ideal valve for use in the food and beverage industries.
- teflon lined for use in semi aggressive chemical industries.
- rubber lined for use in the process and marine industries.

### Technical Data

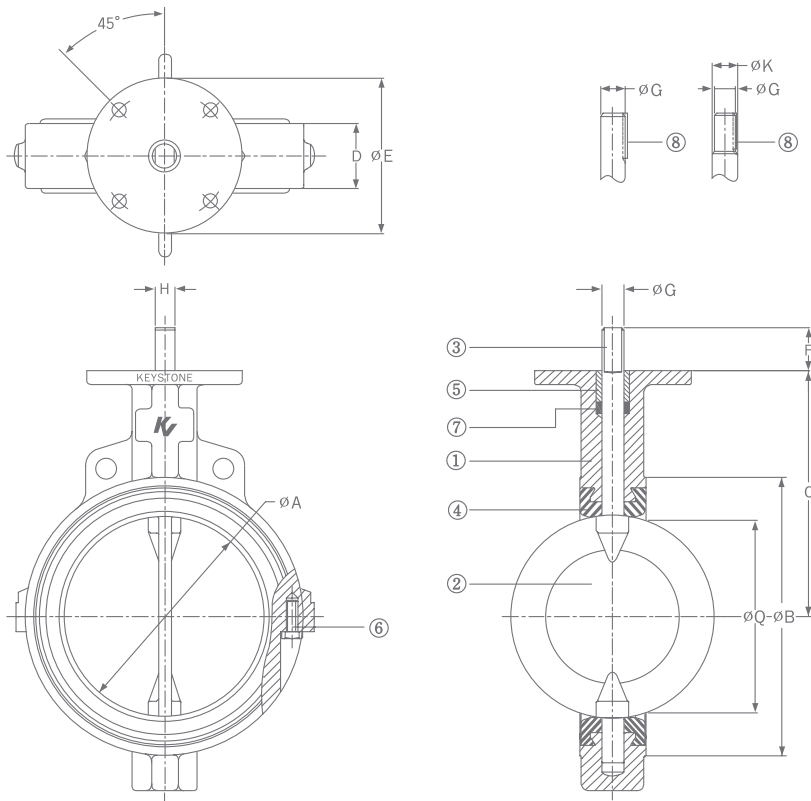
|               |                                   |
|---------------|-----------------------------------|
| Pressure      | : 10kg/cm <sup>2</sup> (150 psi)  |
| Temperature   | : -40°C to 150°C (-40°F to 248°F) |
| Size          | : 25mm to 500mm (1" to 20")       |
| Flange        |                                   |
| Accommodation | : JIS/KS 5K/10K<br>ANSI 150       |

\* Consult factory for other flange accommodation.

# Butterfly Valve Figure 990/920

## Figure 990 Valve Data - Wafer

Figure 990



### Part Name

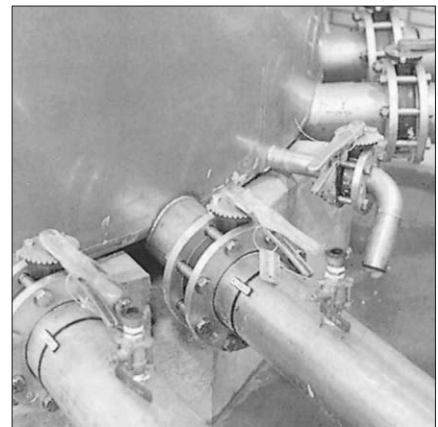
- 1 Body
- 2 Disc
- 3 Stem
- 4 Seat
- 5 Bushing
- 6 Screw
- 7 Packing
- 8 Key

Figure 990 Valve Dimensions (mm)

| Valve Size<br>(inch) (mm) | ØA  | ØB  | C   | D   | ØE  | F   | ØG  | H    | ØK   | ØQ | Top Plate Data |             |              | Weight<br>(kg) |       |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|------|------|----|----------------|-------------|--------------|----------------|-------|
|                           |     |     |     |     |     |     |     |      |      |    | B.C.D.         | Hole<br>No. | Hole<br>Dia. |                |       |
| 1                         | 25  | 30  | 62  | 79  | 30  | 57  | 19  | 9.5  | 6.5  | -  | 16             | 44.5        | 4            | 6.35           | 1.5   |
| 1½                        | 40  | 45  | 82  | 94  | 30  | 57  | 19  | 9.5  | 6.5  | -  | 27             | 44.5        | 4            | 6.35           | 2.0   |
| 2                         | 50  | 51  | 105 | 140 | 41  | 102 | 32  | 14.3 | 9.5  | -  | 36             | 82.6        | 4            | 11             | 3.0   |
| 2½                        | 65  | 64  | 118 | 152 | 44  | 102 | 32  | 14.3 | 9.5  | -  | 51             | 82.6        | 4            | 11             | 4.0   |
| 3                         | 80  | 76  | 130 | 159 | 44  | 102 | 32  | 14.3 | 9.5  | -  | 68             | 82.6        | 4            | 11             | 5.0   |
| 4                         | 100 | 102 | 161 | 178 | 51  | 102 | 32  | 15.9 | 11.1 | -  | 94             | 82.6        | 4            | 11             | 7.0   |
| 5                         | 125 | 127 | 186 | 191 | 54  | 102 | 32  | 19.1 | 12.7 | -  | 121            | 82.6        | 4            | 11             | 8.0   |
| 6                         | 150 | 146 | 216 | 203 | 54  | 102 | 32  | 19.1 | 12.7 | -  | 141            | 82.6        | 4            | 11             | 9.0   |
| 8                         | 200 | 197 | 270 | 241 | 64  | 152 | 32  | 22.2 | 15.9 | -  | 195            | 127.0       | 4            | 13             | 16.0  |
| 10                        | 250 | 248 | 330 | 273 | 64  | 152 | 51  | 28.6 | -    | -  | 248            | 127.0       | 4            | 13             | 22.0  |
| 12                        | 300 | 298 | 376 | 311 | 76  | 152 | 51  | 28.6 | -    | -  | 297            | 127.0       | 4            | 13             | 31.0  |
| 14                        | 350 | 337 | 429 | 305 | 76  | 152 | 76  | 34.9 | -    | -  | 337            | 127.0       | 4            | 13             | 52.0  |
| 16                        | 400 | 387 | 489 | 329 | 102 | 152 | 76  | 41.3 | -    | -  | 383            | 127.0       | 4            | 13             | 61.0  |
| 18                        | 450 | 438 | 546 | 368 | 108 | 203 | 108 | 47.6 | -    | -  | 434            | 165.0       | 4            | 21             | 86.0  |
| 20                        | 500 | 489 | 600 | 403 | 127 | 203 | 108 | 47.6 | -    | 54 | 482            | 165.0       | 4            | 21             | 110.0 |

### Notes

1. Valve size shown is for 150mm.
2. "Q" is the disc chordal dimension at face of valve for disc clearance into pipe fitting or equipment.
3. Valve dimensions are for reference only.  
For detailed information, please consult factory.

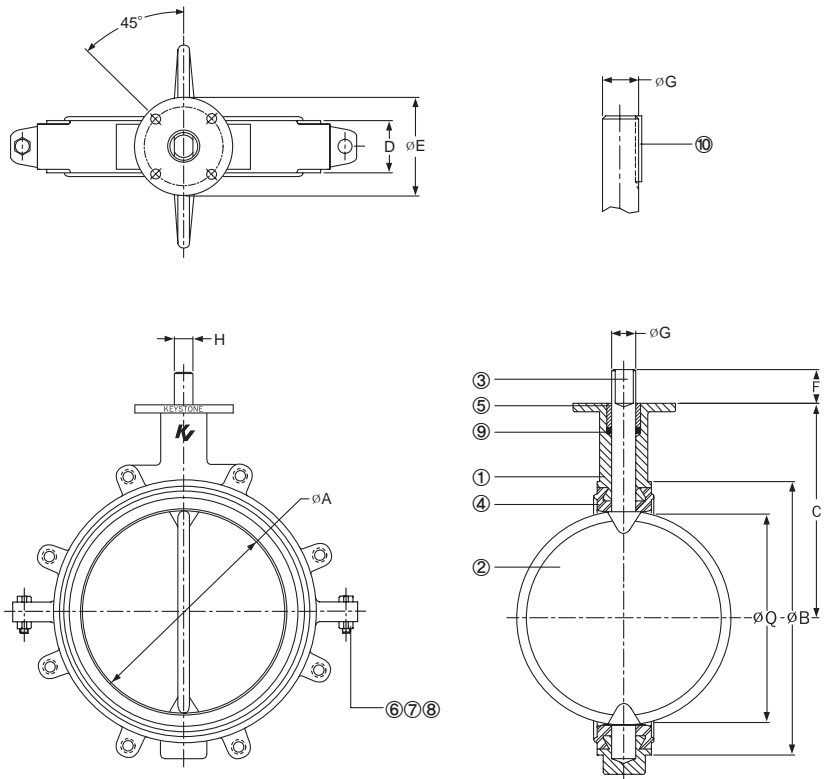


# Butterfly Valve Figure 990/920

## Figure 920 Valve Data - Lugged

Figure 920

| Part Name      |
|----------------|
| 1 Body         |
| 2 Disc         |
| 3 Stem         |
| 4 Seat         |
| 5 Bushing      |
| 6 Hex. Bolt    |
| 7 Hex. Nut     |
| 8 Tooth Washer |
| 9 Packing      |
| 10 Key         |



### Notes

1. Body provided with lugs tapped as shown.
2. Valve size shown is for 150mm.
3. "Q" is the disc chordal dimension at face of valve for disc clearance into pipe fitting or equipment.
4. The valve dimensions are for reference only. For detailed information, please consult factory.

Figure 920 Valve Dimensions (mm)

| Valve Size<br>(inch) (mm) | øA  | øB  | C   | D   | øE  | F   | øG  | H    | øQ   | Top Plate Data<br>B.C.D. Hole No. Hole Dia. | Weight<br>(kg) |     |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|------|------|---|----------------|-----|
| 2                         | 50  | 51  | 105 | 140 | 41  | 102 | 32  | 14.3 | 9.5  | 36  | 82.6 4 11      | 4   |
| 2½                        | 65  | 64  | 118 | 152 | 44  | 102 | 32  | 14.3 | 9.5  | 51  | 82.6 4 11      | 5   |
| 3                         | 80  | 76  | 130 | 159 | 44  | 102 | 32  | 14.3 | 9.5  | 68  | 82.6 4 11      | 6   |
| 4                         | 100 | 102 | 161 | 178 | 51  | 102 | 32  | 15.9 | 11.1 | 94  | 82.6 4 11      | 8   |
| 5                         | 125 | 127 | 186 | 191 | 54  | 102 | 32  | 19.1 | 12.7 | 121   | 82.6 4 11      | 10  |
| 6                         | 150 | 146 | 216 | 203 | 54  | 102 | 32  | 19.1 | 12.7 | 141   | 82.6 4 11      | 12  |
| 8                         | 200 | 197 | 270 | 241 | 64  | 152 | 32  | 22.2 | 15.9 | 195   | 127.0 4 13     | 20  |
| 10                        | 250 | 248 | 330 | 273 | 64  | 152 | 51  | 28.6 | -    | 248   | 127.0 4 13     | 30  |
| 12                        | 300 | 298 | 376 | 311 | 76  | 152 | 51  | 28.6 | -    | 297   | 127.0 4 13     | 42  |
| 14                        | 350 | 337 | 429 | 305 | 76  | 152 | 76  | 34.9 | -    | 337   | 127.0 4 13     | 52  |
| 16                        | 400 | 387 | 489 | 329 | 102 | 152 | 76  | 41.3 | -    | 383   | 127.0 4 13     | 61  |
| 18                        | 450 | 438 | 546 | 368 | 108 | 203 | 108 | 47.6 | -    | 434   | 165.0 4 21     | 86  |
| 20                        | 500 | 489 | 600 | 403 | 127 | 203 | 108 | 47.6 | -    | 482   | 165.0 4 21     | 110 |

### Actuator Selection

| Actuator         | Figure           | Remark  |
|------------------|------------------|---|
| Handle           | F401             | Leverlock   |
| Gear             | F420 to F430     | Range of heavy duty gear operators available  |
| Pneumatic        | F79U             | Double acting and spring return rack and pinion designs                             |
| Gear & Pneumatic | F453/79U         | Declutchable gear unit provides manual override for the Keystone pneumatic actuator |
| Electric         | EPI <sub>2</sub> | Compact electric actuators  |

