



KV-1

## BUTTERFLY VALVE/WAFER TYPE

### GENERAL FEATURES

The closing element in the butterfly valves is a rotating shaft that is placed on a vertical axis. The sealing is provided between the metal flap and the elastic or plastic sealing elements covering the inside of the body. The sealing element also serves as a flange seal between the valve and the pipe.

Advantages of such valves are; low pressure loss, easy opening and closing, good sealing, light weight and small footprint.

The Ayvaz KV-1 Wafer Type Butterfly Valves should be checked to see if they are moving freely during the installation. The valve stem may be horizontal or vertical. However, horizontal installation on DN300 should be preferred.

#### Product Material

**Body:** Cast Iron

**Disc:** AISI316 Stainless Steel

**Shaft:** SS420

#### Connection:

Wafer Type

**Max. Working Temp.:** 80 °C

#### Application Areas:

- Heating, ventilating and air conditioning systems
- Water treatment and distributing systems
- Mining industry
- Shipbuilding and drilling plant
- Food and chemistry industries
- Fire extinguisher systems
- Water, sea water, dust, gas, wastewater and air

#### Notes:

It is recommended to use reducer type for all diameters in butterfly valves. There are only reducer type production on DN350 and above Butterfly valves.

#### Actuator Types

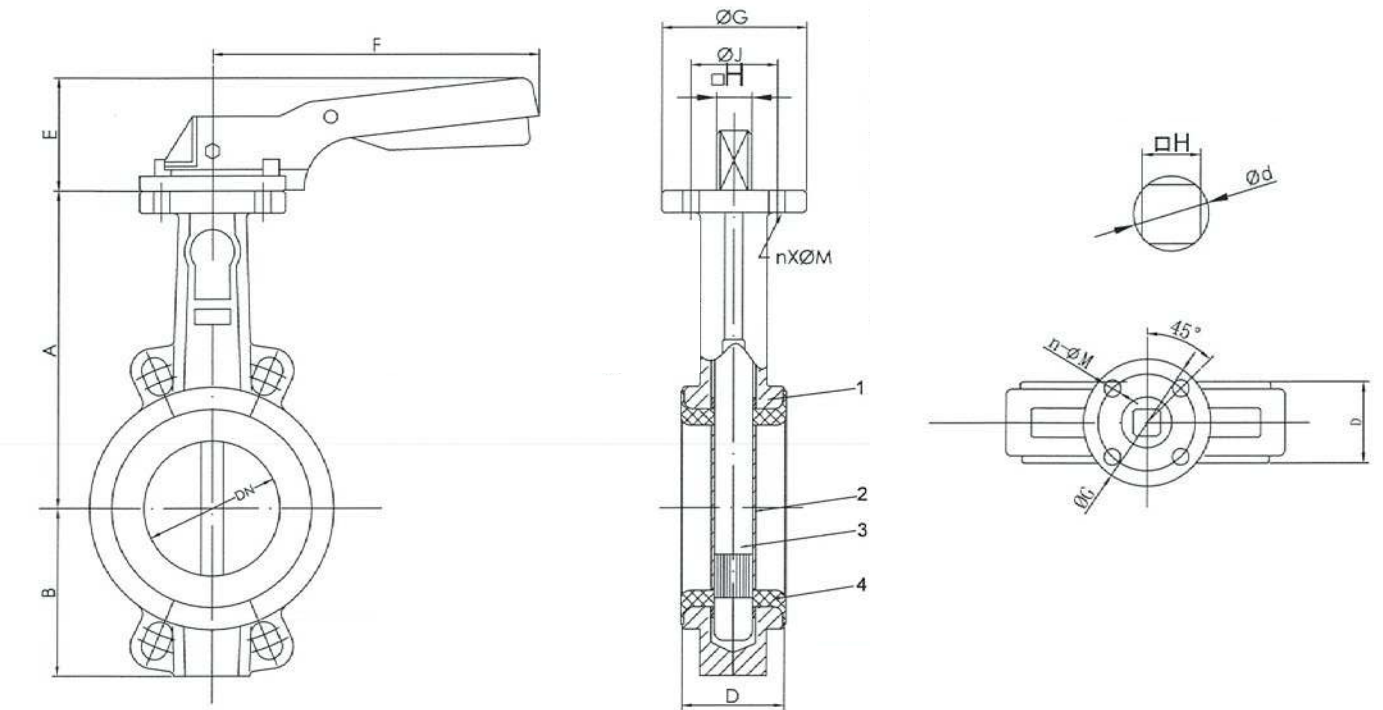
- Hand operated
- Reducer
- Single Action Pneumatic Actuator
- Double Action Pneumatic Actuator
- With Electric Actuator / On-Off (Manual Arm)

| Max. Pressure | Dia. (mm)   |
|---------------|-------------|
| 10 bar        | DN (25-300) |

| Gasket Material | Min. Temp. (°C) | Max. Temp. (°C) |
|-----------------|-----------------|-----------------|
| PTFE            | -10             | 80              |

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DN25-DN150

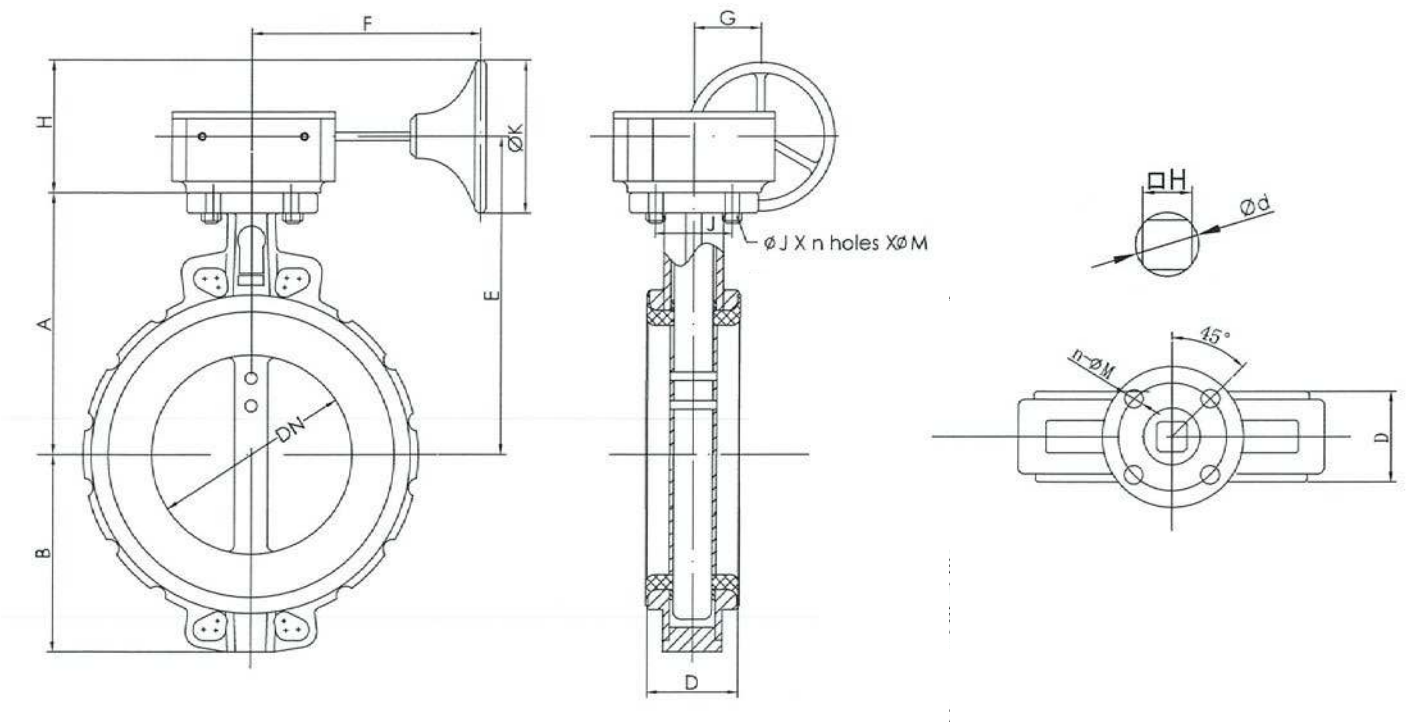


| No |        |           |
|----|--------|-----------|
| 1  | Body   | Cast Iron |
| 2  | Disc   | AISI 316  |
| 3  | Shaft  | SS420     |
| 4  | Gasket | PTFE      |

| DN  | A     | B     | D  | E  | F   | ØG | ØJ | □H    | Ød   | nXØM |
|-----|-------|-------|----|----|-----|----|----|-------|------|------|
| 25  | 121   | 53    | 33 | 70 | 195 | 65 | 50 | 7x7   | 9    | 4xØ7 |
| 32  | 121   | 57    | 33 | 70 | 195 | 65 | 50 | 7x7   | 9    | 4xØ7 |
| 40  | 130   | 61    | 33 | 70 | 195 | 65 | 50 | 9x9   | 11.8 | 4xØ7 |
| 50  | 136,5 | 77    | 43 | 70 | 195 | 65 | 50 | 9x9   | 11.8 | 4xØ7 |
| 65  | 142   | 87,5  | 46 | 70 | 195 | 65 | 50 | 9x9   | 11.8 | 4xØ7 |
| 80  | 158   | 95    | 46 | 70 | 195 | 65 | 50 | 9x9   | 11.8 | 4xØ7 |
| 100 | 180   | 107   | 52 | 70 | 195 | 65 | 50 | 11x11 | 14.5 | 4xØ7 |
| 125 | 192   | 121,5 | 56 | 71 | 278 | 90 | 70 | 14x14 | 18.9 | 4xØ9 |
| 150 | 215   | 144   | 56 | 71 | 278 | 90 | 70 | 14x14 | 18.9 | 4xØ9 |

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DN200-DN300

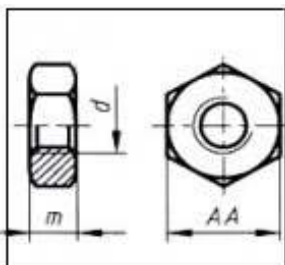


| No |        |           |
|----|--------|-----------|
| 1  | Body   | Cast Iron |
| 2  | Disc   | AISI 316  |
| 3  | Shaft  | SS420     |
| 4  | Gasket | PTFE      |

| DN  | A   | B   | D  | E   | F   | $\phi G$ | $\square H$ | $\phi d$ | $\phi J$ | $n \times \phi M$ |
|-----|-----|-----|----|-----|-----|----------|-------------|----------|----------|-------------------|
| 200 | 242 | 171 | 60 | 284 | 241 | 63       | 17x17       | 22,5     | 102      | 4x $\phi 11$      |
| 250 | 280 | 205 | 68 | 320 | 223 | 78       | 22x22       | 29,8     | 125      | 4x $\phi 13$      |
| 300 | 310 | 235 | 78 | 350 | 223 | 78       | 27x27       | 31,6     | 125      | 4x $\phi 13$      |

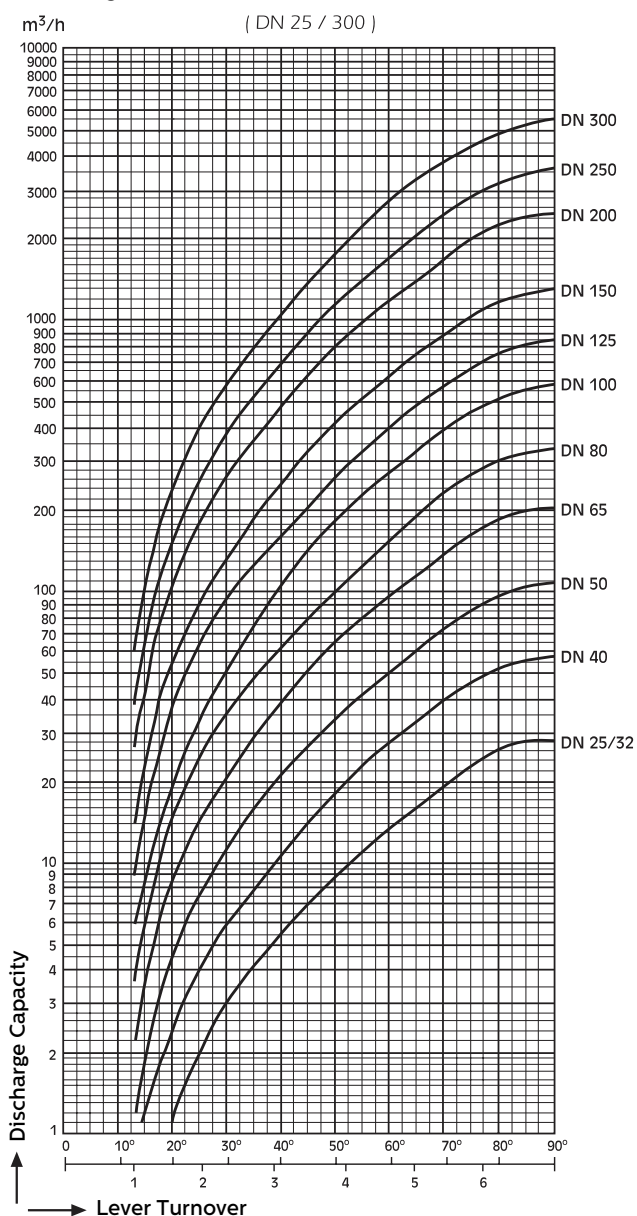
## KV-1 BUTTERFLY VALVE/WAFER TYPE

### Screw Connection Dimensions



| d (mm) | M10 | M12 | M16 | M20 | M24 |
|--------|-----|-----|-----|-----|-----|
| AA     | 17  | 19  | 24  | 30  | 36  |
| m      | 8   | 10  | 13  | 16  | 19  |

### Discharge Amount



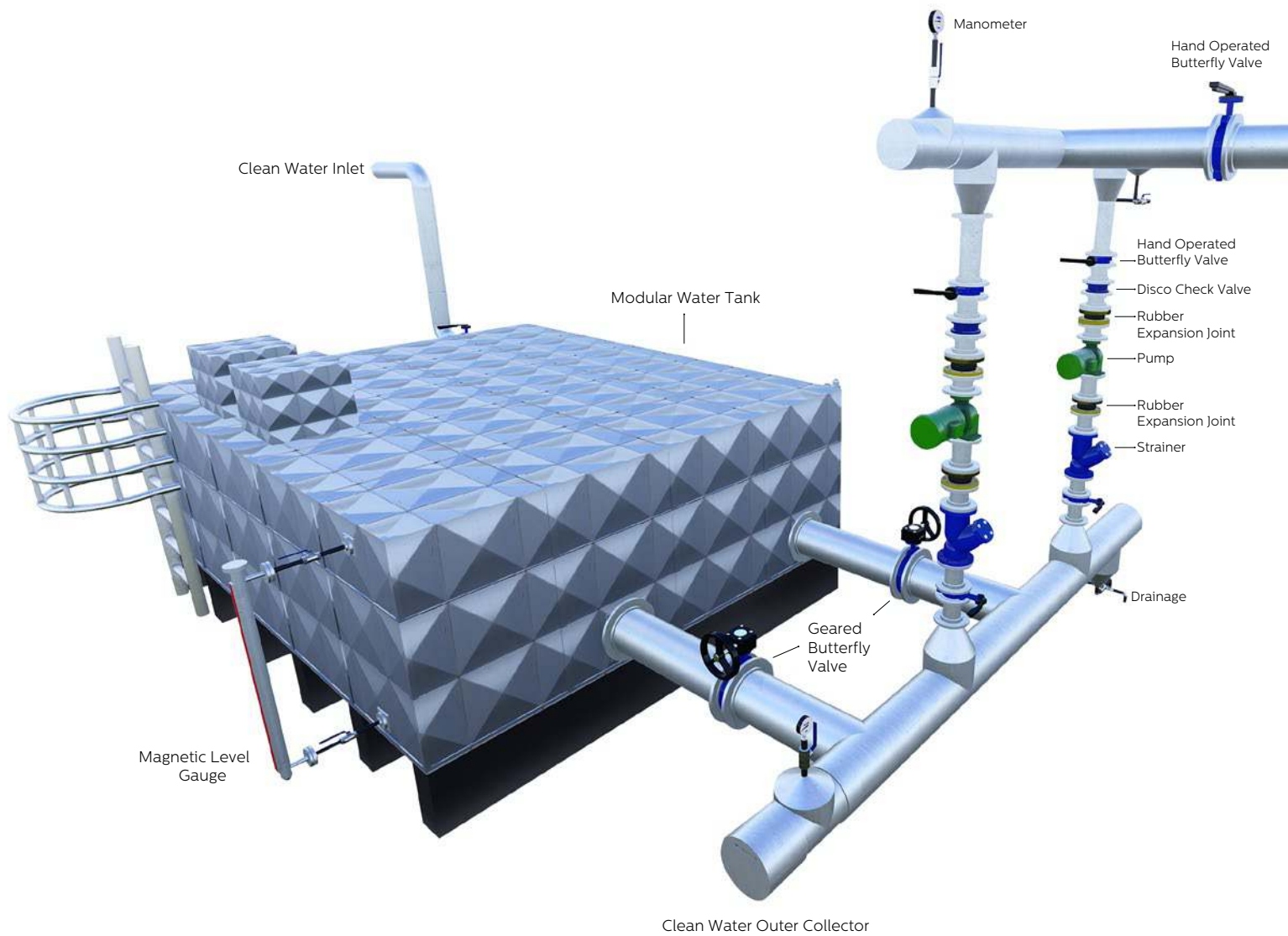
| Pipe<br>mm | Torque (Nm) |        |
|------------|-------------|--------|
|            | 10 Bar      | 16 Bar |
| 25         | 9           | 10     |
| 32         | 9           | 10     |
| 40         | 11          | 12     |
| 50         | 15          | 16     |
| 65         | 24          | 26     |
| 80         | 31          | 33     |
| 100        | 48          | 53     |
| 125        | 73          | 81     |
| 150        | 106         | 119    |
| 200        | 177         | 194    |
| 250        | 281         | 308    |
| 300        | 410         | 595    |
| 350        | 475         | 969    |
| 400        | 746         | 1307   |
| 450        | 1112        | 1787   |
| 500        | 1356        | 2288   |
| 600        | 2468        | 3711   |

| Pipe<br>Dia. |     | DISC OPENING ANGLE(DEGREE)<br>VALVE FLOW (m <sup>3</sup> /h) |     |     |      |      |      |      |      |      |
|--------------|-----|--------------------------------------------------------------|-----|-----|------|------|------|------|------|------|
|              |     | 10                                                           | 20  | 30  | 40   | 50   | 60   | 70   | 80   | 90   |
| MM           | INC |                                                              |     |     |      |      |      |      |      |      |
| 40           | 1 ½ | 0,048                                                        | 2,4 | 5,6 | 12   | 21,6 | 35,2 | 56   | 84   | 92   |
| 50           | 2   | 0,06                                                         | 3   | 7   | 15   | 27   | 44   | 70   | 105  | 115  |
| 65           | 2 ½ | 0,10                                                         | 6   | 12  | 25   | 45   | 75   | 119  | 178  | 196  |
| 80           | 3   | 0,20                                                         | 9   | 18  | 39   | 70   | 116  | 183  | 275  | 302  |
| 100          | 4   | 0,30                                                         | 17  | 36  | 78   | 139  | 230  | 364  | 546  | 600  |
| 125          | 5   | 0,50                                                         | 29  | 61  | 133  | 237  | 392  | 620  | 930  | 1022 |
| 150          | 6   | 0,80                                                         | 45  | 95  | 205  | 366  | 605  | 958  | 1437 | 1579 |
| 200          | 8   | 2                                                            | 89  | 188 | 408  | 727  | 1202 | 1903 | 2854 | 3136 |
| 250          | 10  | 3                                                            | 151 | 320 | 694  | 1237 | 2047 | 3240 | 4859 | 5340 |
| 300          | 12  | 4                                                            | 234 | 495 | 1072 | 1911 | 3162 | 5005 | 7507 | 8250 |

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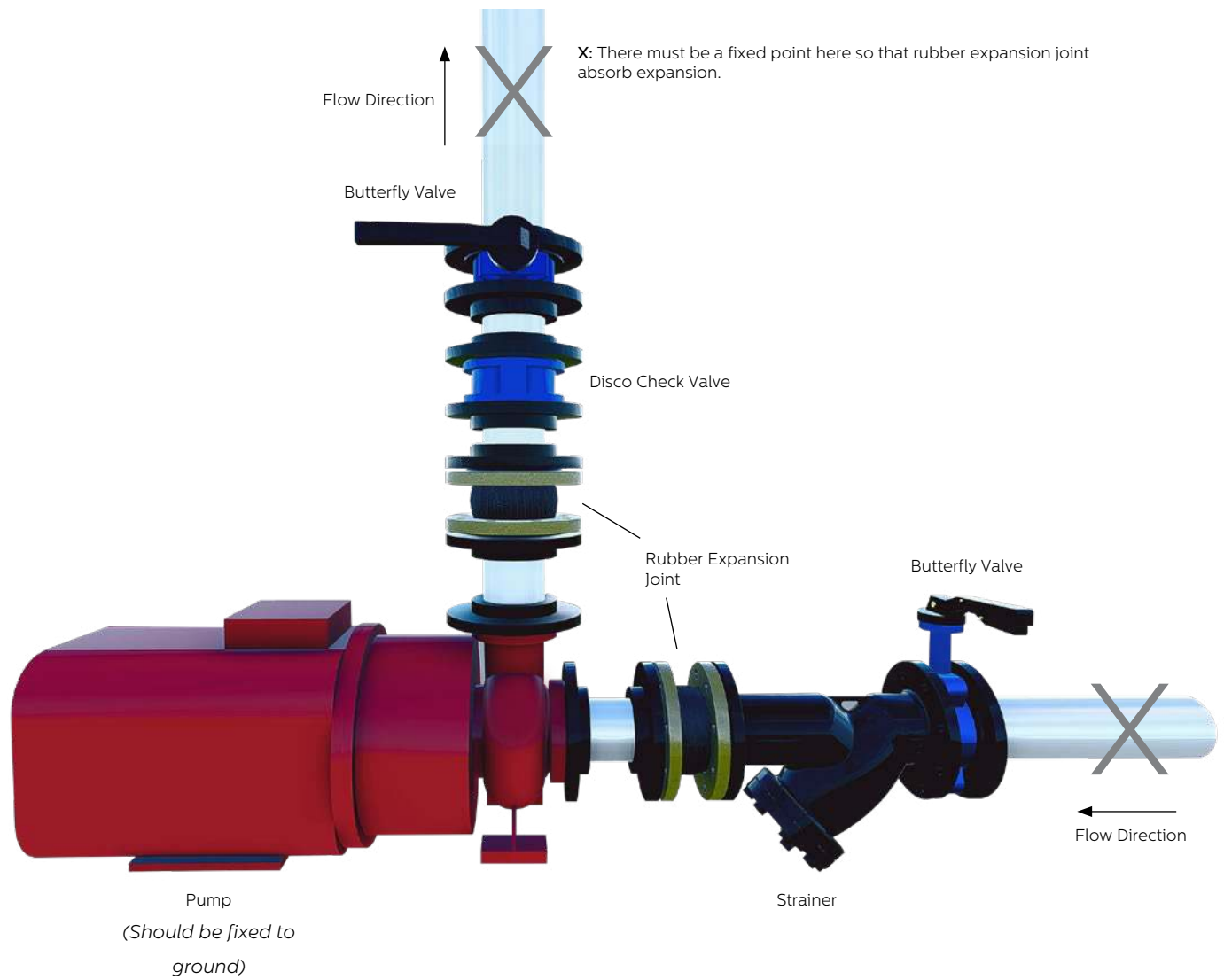
### 3D APPLICATION SAMPLE - 1



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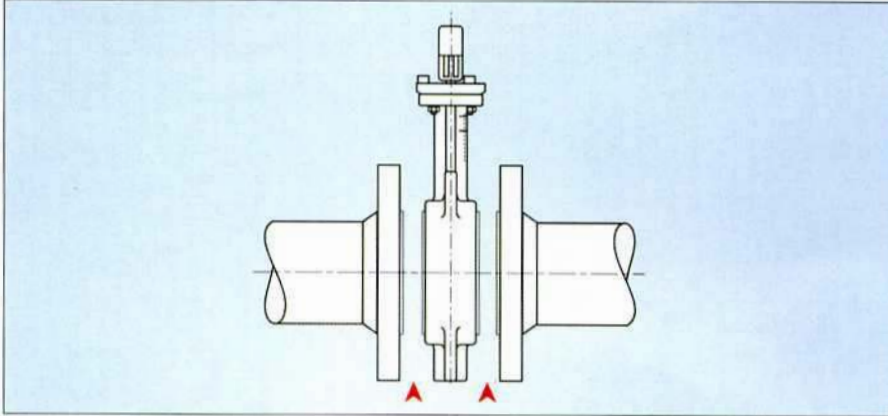
### 3D APPLICATION SAMPLE- 2



## KV-1 BUTTERFLY VALVE/WAFER TYPE

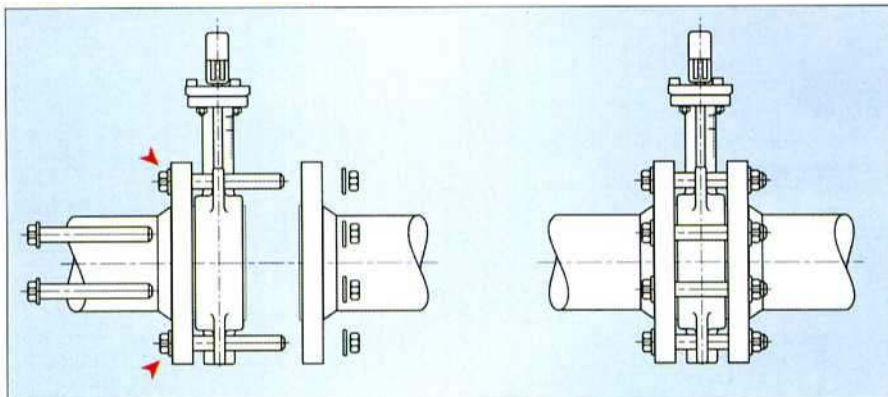
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### INSTALLATION 1



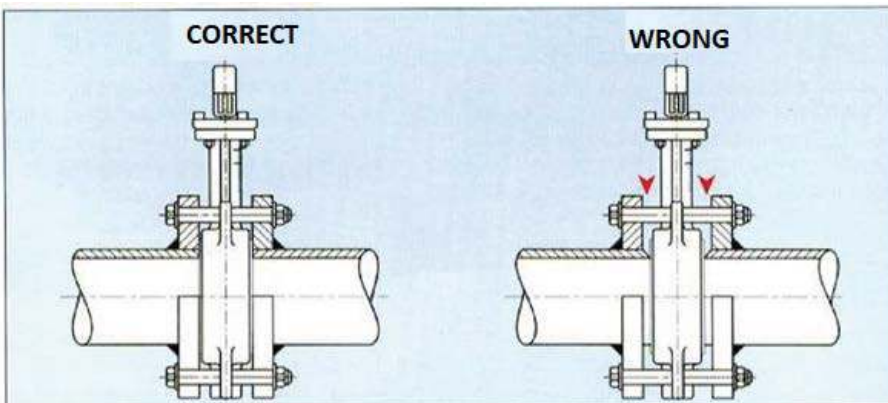
When mounting the valve on the mounting surface, make sure that there is sufficient clearance between the flanges. Valve surfaces that are attempted to be installed without sufficient distance may be damaged.

### INSTALLATION 2



During assembly, first assemble the valve with a flange bolt, but do not tighten the bolts, as a second warning, set the body to center the pipe. Then tighten the nuts in the opposite direction, crosswise, until the valve body and pipe flange surfaces touch each other.

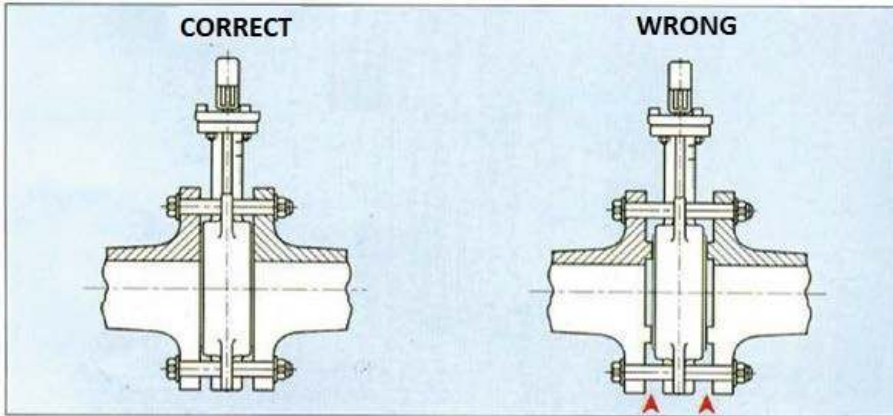
### INSTALLATION 3



On the pipe surfaces where the butterfly valve is to be mounted, it is absolutely necessary to avoid the sharp points of the pipe ends and the diameters of the pipe. Pointed spikes and burrs on the pipe mounting surface can cause the rubber surfaces of the butterfly valve to be destroyed.

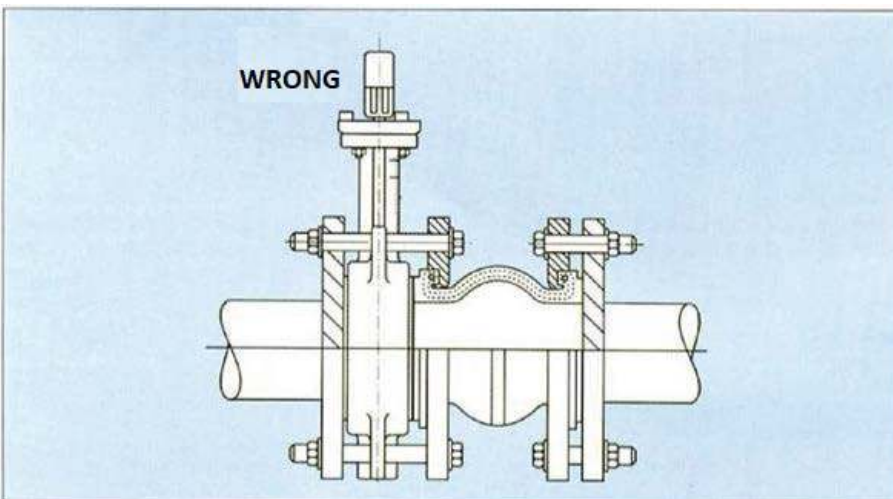
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## INSTALLATION 4



Installation the butterfly valve, it is important to use the correct connecting flange while the valve. The connection flange to be used must cover the maximum surface area of the butterfly valve.

## INSTALLATION 5



While installing the butterfly valve, it is important to that rubber surfaces do not touch each other. Best installation of butterfly valve is the rubber surface of the valve and the metal surface of the pipe flanges to touching each other. The valve may come in contact with the sealing surface of the rubber compensator and may not close.



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