

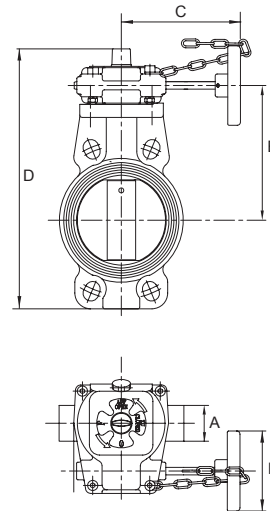


Butterfly Valve (Wafer) with Gearbox

JMA

Technical Features

- **Sizes available (Nominal) :** DN50/2", DN65/2 1/2", DN80/3", DN100/4", DN125/5", DN150/6", DN200/8", DN250/10" and DN 300/12".
- **Pressure data :**
Working pressure : 12 bar (175 psi).
- **Finish :** Fusion bonded epoxy.
- **Connections :** Wafer Style designed to fit between the following flange types:
BS 4504/DIN 2501/ISO 2084 PN 10 and 16
ANSI B16.1 Class 125
BS10 Table E
- **Supervisory/Auxiliary Switches:** The gearbox is fitted with one internal supervisory switch and one internal auxiliary switch.



Control Valves

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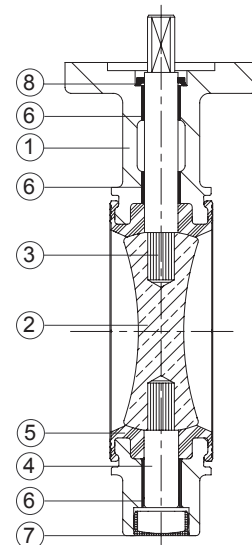
Physical Data

Nominal Pipe Size		Dimensions (mm / inch)					Reference	Weight (kg / lb)
Metric	inch	A	B	C	D	E		
DN50	2"	43 / 1.7	150 / 5.9	208 / 8.2	311 / 12.2	140 / 5.5	81219050	9.1 / 20.1
DN65	2 1/2"	46 / 1.8	150 / 5.9	208 / 8.2	326 / 12.8	148 / 5.8	81219065	9.8 / 21.6
DN80	3"	46 / 1.8	150 / 5.9	208 / 8.2	345 / 13.6	155 / 6.1	81219080	10.2 / 22.5
DN100	4"	52 / 2.0	150 / 5.9	208 / 8.2	374 / 14.7	170 / 6.7	81219100	12.4 / 27.3
DN125	5"	56 / 2.2	150 / 5.9	208 / 8.2	409 / 16.1	190 / 7.5	81219125	14.2 / 31.3
DN150	6"	56 / 2.2	225 / 8.9	215 / 8.5	437 / 17.2	205 / 8.1	81219150	18.1 / 39.9
DN200	8"	60 / 2.4	225 / 8.9	215 / 8.5	503 / 19.8	236 / 9.3	81219200	22.1 / 48.7
DN250	10"	68 / 2.7	300 / 11.8	276 / 10.9	576 / 22.7	298 / 11.7	81219250	43.0 / 94.8
DN300	12"	78 / 3.1	300 / 11.8	276 / 10.9	639 / 25.2	328 / 12.9	81219300	51.0 / 112.4

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Materials List

Item	Description	Material	Specification
1	Body	Ductile Iron	FGS 400.18
2	Disc	Epoxy Coated Ductile Iron	Ductile Iron
3	Control Shaft	Stainless Steel with 13% Chromium	AISI 420
4	Spindle	Stainless Steel with 13% Chromium	AISI 420
5	Seat	EPDM - Nitrile	
6	Bearings	Sintered Bronze with PTFE on Cadmium Plated Steel	
7	Protection Plug	Polyethelene	
8	Chevron Seal	Nitrile	





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Design requirements

The butterfly valve should be connected to the piping system with approved couplings or flanges available from Viking SupplyNet. Flow may be from either direction through the valve, and the valve may be positioned in any direction.

Installation

When the valves are received from Viking SupplyNet they should be handled carefully to avoid breakage and damage to the seating area. Before installation of the valve, clean the piping, and connecting flange or coupling. Care must be taken to align wafer butterfly valves correctly in the middle of the waterway so as not to impair disc operation nor damage the disc or operator. Place the two flanges parallel to each other with a distance between them that is slightly larger than the valve takeout. Slide the butterfly valve into the space between the two flanges. Ensure the valve is centered in the waterway. Insert the remaining studs around the valve and tighten in an alternating fashion until the desired torque is achieved.

To prevent distortion, properly support the piping adjacent to the inlet and outlet of the valve. Avoid damage and do not use the valve to force the piping into position.

The valve should never be forced to seat by applying excessive torque to the gearbox or through the use of a wrench. This may distort the valve components or score the sealing surface. Care must be taken to align wafer valves correctly so that the disc operation to the fully open position will not be obstructed. The use of excessive force to open or close the valve violates all warranties whether express or implied.

Conduit and electrical connections to the supervisory/auxiliary switches must be in accordance with the requirements of the Authority Having Jurisdiction.

Care and Maintenance

Inspect and verify proper operation on an annual basis or according to the requirements of the Authority Having Jurisdiction. Check for leakage at the valve pipe connection and body-to-operator connection. Installation, inspection and maintenance should be performed by a qualified person(s) certified by the Authority Having Jurisdiction.

If the valve closes hard, check to make sure that there is no debris lodged in the waterway around the seating area. Backing off the handwheel and closing the valve again can often correct this condition.

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Wiring Instructions

The JMA series butterfly valves come complete with one internal supervisory position switch and one internal auxiliary switch.

The supervisory/auxiliary switches operate by a cam connected to the valve stem and are designed to notify in the case of valve closure. Please refer to the relevant installation standard and Authority Having Jurisdiction.

The switch will change position and close within two (2) full turns of the hand wheel from the fully open position. No adjustment is possible. The circuit condition is shown for a valve in the fully open position

Switch number	Wire	Wire color	Mode/Description
Supervisory switch #1	A	Red	Normally open
Supervisory switch #1	B	Black	Normally closed
Supervisory switch #1	C	White	Common
Auxiliary switch #2	D	Yellow	Normally open
Auxiliary switch #2	E	Orange	Normally closed
Auxiliary switch #2	F	Blue	Common
	G	Green	Ground lead

Notes : Connection to power limited circuitry is required. Switch rating is limited to 5 A, 1/6 HP, 125 V or 250 V

