

# BUTTERFLY VALVE DUPLIX

## OPERATION MANUAL

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### APPLICATION



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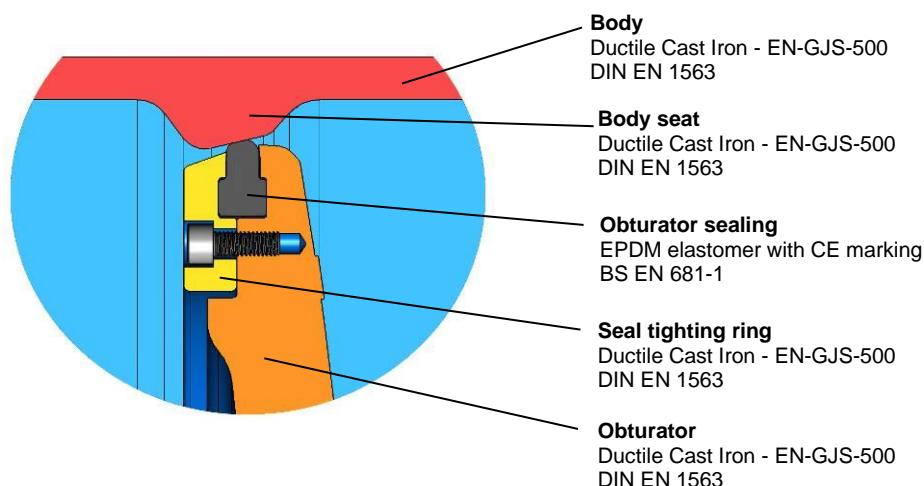
## 1. DESCRIPTION

The Butterfly Valve Duplex is a double eccentricity valve and is intended for sectioning (open or closed) and flow control.

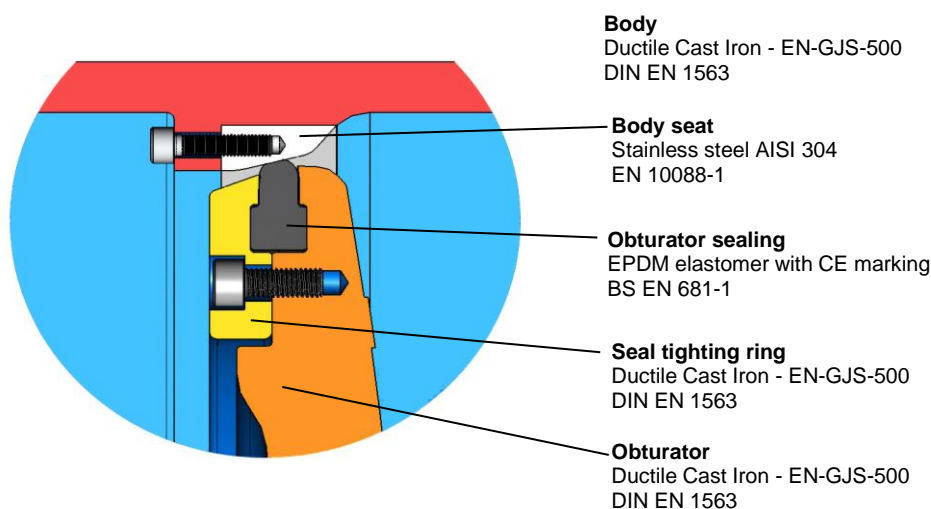
These valves are suitable for flow in both directions and can be operated manually or electrically.

- The Butterfly Valve Duplex works for pressures PN 10, 16, 25 Bar.

- Dimensions DN150 to DN1100.



### SEALING DETAIL WITH SEAT IN DUCTILE CAST IRON EN-GJS-500 – (04.100)



### SEALING DETAIL WITH SEAT IN STAINLESS STEEL AISI 316L – (04.102)

This valve is coated internally and externally with potable epoxy resin applied electrostatically with thickness  $\geq 250 \mu\text{m}$ .

## 1.1. MATERIALS

Body, obturator and seal tightening ring in Ductile Cast Iron (EN-GJS-500).  
Obturator sealing in EPDM elastomer with CE marking (BS EN 681-1).

### Body seat:

- Ductile Cast Iron (04.100)
- Stainless steel AISI 316L (04.102).

### Shafts:

- Stainless steel AISI 304 (04.100)
- Stainless steel AISI 316L (04.102).

## 1.2. GEARBOX AND ELECTRIC ACTUATORS

Equipped with gearbox and handwheel.  
Butterfly valve Duplex 500 with Rotork IP67 – figure 1.

Equipped with Auma IP68 electric actuator (Motorizable).  
Butterfly valve Duplex 500 with Auma IP68 (Motorizable) – figure 2.

Equipped with gearbox and Auma electric actuator.  
Butterfly valve Duplex 500 with gearbo and Auma electric actuator – figure 3.



Figure 1



Figure 2



Figure 3

## 1.3. CONSTRUCTION

Construction in accordance with EN 1074 parts 1 and 2 and EN 593, flange drilling in accordance with EN 1092-2 PN10/16/25, and face-to-face according to EN 558 table 2 series 14.

## 1.4. OPENING

The double eccentricity of the shutter (disc), will create a translational movement when starting the rotary opening.

The shutter seal are no longer under pressure when the shutter rotates a few degrees, reducing the wear to the use of the seal – figure 4.

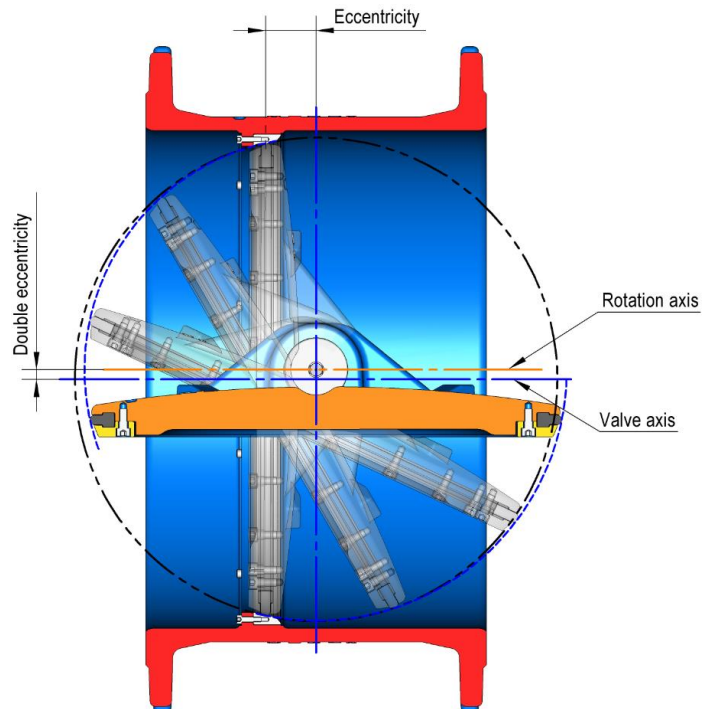


Figure 4

## 2. RISK IDENTIFICATION

Throughout its development were not been identified any potential risks for utilization.

In sales and post-sales assistance are not associated or registered any risks in the assembly and operation.

## 3. INSTALATION AND HANDLING

### 3.1 TIGHTENING TORQUE FOR THE FLANGE BOTS

The tightening of the flange bolts must be carried out crosswise and in the sequence shown according to figure 5. The recommended tightening torques are those referred to in table 1, which must be in accordance with those recommended by the manufacturers and screw suppliers. We advise ensuring the alignment of the flanges to ensure uniform pressure.

Table 1 and figure 5 on the next page.

DN	Bolt			Binary (max.)		
	PN 10	PN 16	PN 25	PN 10	PN 16	PN 25
150	M20		M24	70Nm	90Nm	200Nm
200			M24			
250	M20	M24	M27		180Nm	260Nm
300			M27			
350			M30			290Nm
400	M24	M27	M33	150Nm	220Nm	390Nm
450						
500		M30			250Nm	
600	M27	M33	M36	200Nm	300Nm	520Nm
700			M39			700Nm
800	M30	M36	M45	220Nm	400Nm	850Nm
900						
1000	M33	M39	M52	270Nm	500Nm	1200Nm
1100	M33	M39	-	270Nm	500Nm	-

Table 1

The tightening of the screws should be made in cross, as exemplified in figure 5.

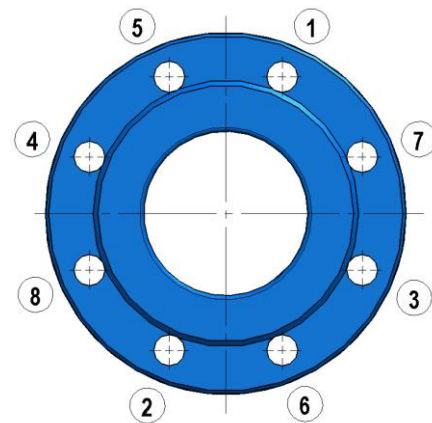


Figure 5

### 3.2 VALVE BINARY

With manual maneuver organ.

- Not applicable. The supplied maneuvering organ (manual gearbox), have open and close indicator and close with mechanical stops.

With electric or pneumatic maneuver organ.

- Not applicable. The maneuver organ supplied (electrical or pneumatic), has open and close indicator and close with mechanical stops.

### 3.3 TIGHTNESS OF THE GEARBOX

The reducers applied are according to EN 60529, and may be provided in the classes:

IP 67 – sealed temporarily, when submerged in water (eg AB ..... **N**)

IP 68 – sealed permanently, when submerged in water (eg E ..... **G**)

Other classes under request.

## 4. MAINTENANCE

Valve designed for maintenance free as such has not set any periodicity of maintenance actions.

## 5. FURTHER INFORMATION

You can obtain instructions, technical datasheet and additional information at the following addresses:

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