

# eccentric interposed flange valve Series 17b - Type WE

## Application:

Eccentric pivot mounted shut-off valve, with pneumatic pressureised sleeve for hard wearing medium, especially bulky material

- Nominal diameter DN 150 up to DN 600,
- Differential pressure up to 10 bar
- Temperature -40°C up to 200°C

The series 17b - type WE is a tight-sealing interposed flange valve. The valve is suitable for solid, liquid and gaseous media.

The control valve consists basically of an eccentric shut-off valve disc and a pneumatic actuator. The valve is designed according to the modular-assembly principle and can be combined with various options, which have the following features:

- Infeed disc for pneumatic pressure signal canals.
- Cycle locking system for a leakage free discharge from the vacuum area. (Alternative to cellular wheel sluice).
- Locking system for a technical dust explosion decoupling.
- Especially suitable for fine-grained material.

## Versions:

Shut off valve, series 17b - type WZ, optionally in the following designs:

- Shut-off valve with free shaft ends.
- Shut-off valve with pneumatic actuator, series 31a.
- Butterfly valve preferably with pneum. diaphragm actuator, series 30a.

## Additional accessories and attachment parts:

The following accessories for the control valve are obtainable either single or in combination:

- Positioner
- Limit switch
- Solenoid valve
- Air supply station
- Pressure gauge mounting blocks

Further mounting parts are possible on request according to specification.

## Function- and operation:

Flow through in the control valve is possible in both directions. The position of the valve disc determines the flow through between disc and seat.

With this model the sleeve is pressed onto the valve disc by means of compressed air after the valve has closed (static seal).

This particular construction is very good for very bulky material:

In the inactive state there is hardly any contact between the sleeve and the valve disc, therefore there is less abrasion and less actuating power required.

The most important advantage of the eccentric pivot mounting compared the centric mounting, is that the shaft is not located near the sealing element. This means the sealing element can be replaced without any problem.

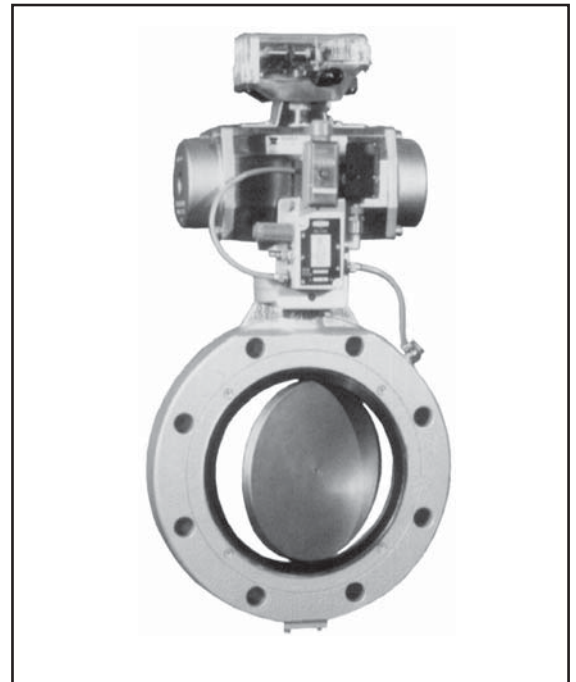
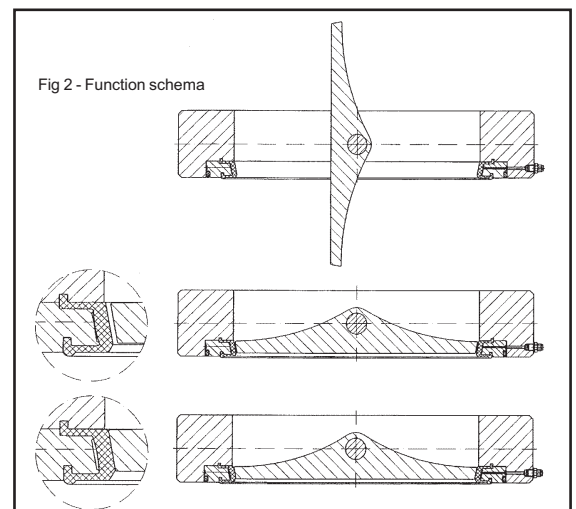


Fig 1 - Shut-off valve, series 17b - type WE with AT-actuator series 31a



### 1. Shut-off disc open:

Free flow through for product stream

### 2. Disc closed:

However, no contact between sealing element and disc, therefore no mechanical abrasion.

### 3. Pressed sealing element:

The controlled pressure of the sealing element against the valve disc is a careful constant sealing.

# Shut-off valve Series 17b - type WE



**Note:** The sleeve must under no circumstances be connected directly without pressure reducer to the air supply for the pneumatic actuator.



**Safety position:**

Depending on the pneumatic actuator, the shut-off valve has two safety positions, which become effective when pressure is relieved, or when the air supply fails:

- **Shut-off valve with actuator " Spring closes ":**  
When the air supply fails, the valve closes. The valve opens, when the air control pressure increases acting against the force of the springs.
- **Shut-off valve with actuator " Spring opens ":**  
When the air supply fails, the valve opens. The valve closes when the air control pressure increases against the force of the springs.



**Note:** The shut-off valve is suitable for use in hazardous areas according to ATEX 94/9/EG: See EC-Examination certificate. BVS 03 ATEX H 025 X

**General technical data:**

Nominal diameters and pressure ranges	DN 125 - DN 250	= 10 bar
	DN 300 - DN 400	= 6 bar
	DN 450 - DN 600	= 4 bar
Connection	connect between flanges DIN 2501	
Temperature range	-40°C to 200°C	
Leakage rate	Leakage rate A acc. DIN EN 12266-1, Test P12 ( Leakage 1 BO acc. DIN 3230 part 3 )	

Table 2 - technical data

**Material:**

Valve body	Silumin; GG 25; GGG 40; Stainless steel
Valve disc	Stainless steel; GGG; PVDF; coated; ground and polished
Sealing sleeve	Perbunan; NBR; Hypalon; EPDM; Viton; Silicone and others.
Valve shaft	Stainless steel; 9S20K
Sleeve	Brass; PTFE
O-rings	Perbunan; Viton

Table 3 - Material

**Selection and layout of the control valve:**

1. Selection of nominal diameter according to table 3.
2. Select the appropriate actuator according to table 3
3. if necessary, special materials / higher temperatures

**Dimensions:**

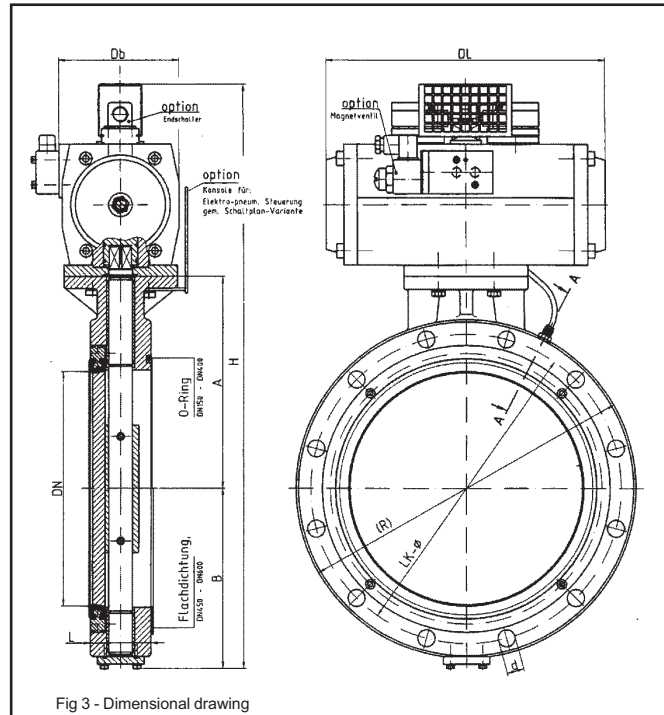


Fig 3 - Dimensional drawing

DN	150	200	200	250	300	300	350	400	450	500	600
A	175	200	200	249	274	274	304	330	400	434	493
W	153	179	179	207	230	230	270	302	337	365	425
H	522	573	586	685	733	751	821	904	1045	1107	1250
L	56	60	60	68	78	78	78	102	102	110	110
(ØR)	285	340	340	395	445	445	505	565	630	670	780
ØBP	240	295	295	350	400	400	460	515	565	620	725
n x Ød	8x22	8x22	8x22	12x22	12x22	12x22	16x22	16x26	20x26	20x26	20x30
Db	106	106	123	141	141	152	152	172	187	187	204
DI	248	248	269	315	315	345	345	409	438	438	487
Actuator DAP	100	100	150	220	220	300	300	450	600	600	900

Table 3 - Dimensions in mm

**Ordering text:**

Shut-off valve, series 17b - type WE,  
DN . . . . / PN . . . . , evtl. special design  
Manual gear box i.e. actuator manufacturer: . . . .  
Pressure: . . . . bar, safety position: . . . .  
Limit switch, Solenoid, Positioner: . . . .  
Others: . . . .



**Note:** All relevant details regarding the version ordered, which deviate from the specified version in this technical description data, can be taken if required, from the corresponding order confirm.

**For your special requirements, please contact our technical sales team.**

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**Specifications and design are subject to change without notice**