



## CENTER LINE Butterfly Valves Series RS



**CRANE**®

# CENTERLINE Butterfly Valves

## Series RS

### The preferred Industrial Valves for Critical Applications and Processes

#### Areas of application:

CENTERLINE Butterfly Valves Series RS are reliable, maintenance-free shutoff and control valves with permanently gas-tight seal. This valve has proved itself as a leakage-free and corrosion-resistant valve in various applications under most difficult operating conditions.

The safety and reliability of a valve is especially important when used for aggressive media – all components within the CENTERLINE Butterfly Valves Series RS have been designed accordingly.

#### Product features:

- Concentric design
- Soft seat design
- No pins needed to attach the disc to the shaft, only 2 parts in contact with the medium
- Replaceable body lining with firm back-up ring
- Permanently tight closure
- Optimum operation under vacuum conditions
- Standardized head flange for actuator adaption
- Materials for almost all media
- Short face-to-face dimension
- Maintenance-free version
- Blow-out proof shaft
- Direct mounting of actuators without any additional brackets

Over 70,000 Butterfly Valves Series RS are installed in 60 power generation sites and many sugar refineries worldwide. Used on the most arduous conditions, this is proof of the Series RS durability and reliability when in operation.

#### Main areas of application:

- Paper industry
- Sugar industry
- Power generation plants
- Chemical and petrochemical industry
- Steel industry
- Automotive industry
- Energy supply
- Shipbuilding industry
- Breweries
- Cement plants

#### Applications:

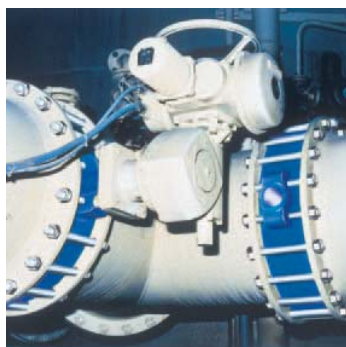
- Hot and cooling water
- Air-conditioning systems
- Drinking water systems
- Flue-gas desulphurisation
- Compressed air systems
- Vacuum systems
- Purification plants
- Sewage treatment plants
- Gas systems





#### Technical data:

- DN 40-1200, NPS 36", 42", 48", 54"
- PN 6, 10, 16, ANSI 150
- Temperature range from -34°C (-29°F) to +150°C (+302°F)
- Tightness in accordance with DIN 3230-T3, leakage rate 1
- Face-to-face dimension in accordance with EN 558-1, series 20
- Mounting flange in accordance with ISO 5211
- Shaft end DN 50 – 300 with square in accordance with DIN 3337
- Insulation in accordance with heating system regulation possible
- DVGW – gas approval
- Quality assurance in accordance with ISO 9001



# Design features

## Corrosion resistance

With CENTERLINE Butterfly Valves Series only 2 parts of the valve come into contact with the medium. This means that neither the body nor mechanical parts such as the shaft are subject to the danger of corrosion.

The only two parts in contact with the medium are the body lining and the disc. These are available in a selection of materials so that a suitable corrosion resistant combination can be chosen for almost any application.

## Permanently tight closure

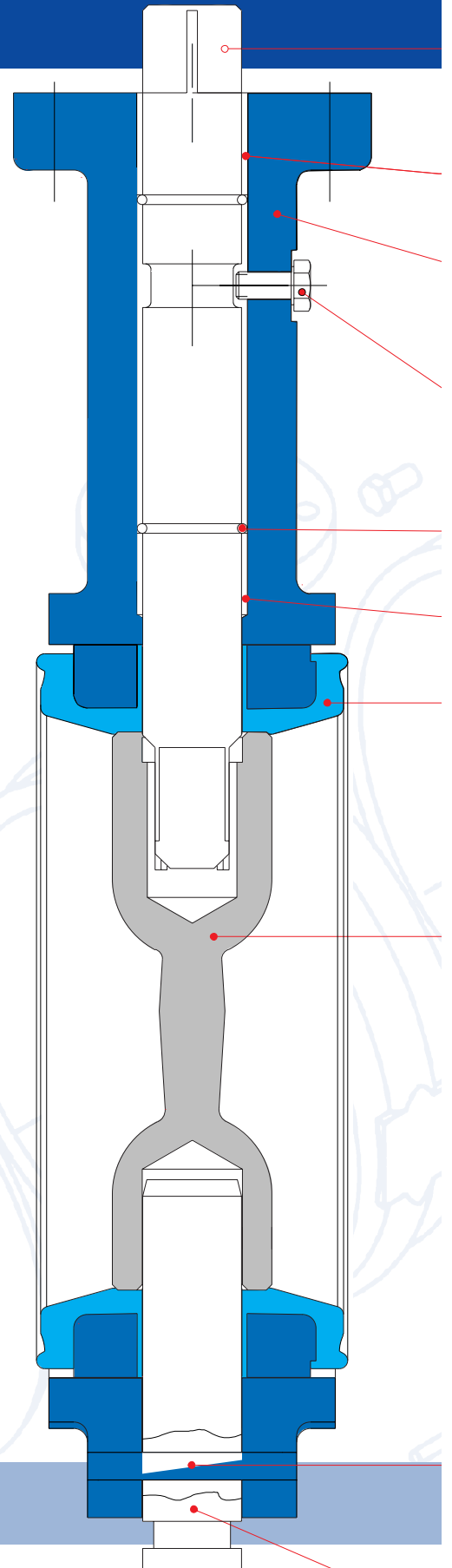
CENTERLINE Butterfly Valves seal absolutely liquid and gas-tight in both flow directions due to their centric design.

The disc presses with a defined, uniform compression into the elastic body lining over the entire circumference of 360°. The power transmission between shaft and disc is accomplished by a square and enables axial movement and automatic centering of the disc. Excess stress and wear of the elastomer are avoided.

## Elastic body lining

The replaceable body lining consists of a reinforced back-up ring, on which the elastic seat material is vulcanized. When mounting the valve between the pipe flanges this stable seat cannot be displaced or pushed out. When the valve closes a stretching and bulging of the elastomer in front of the closing disc is avoided.

The fixed connection between elastomer and back-up ring enables the application of the valve even under vacuum or high flow velocities. The slightly protruding sealing lip of the body lining constitutes at the same time the flange seal.



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- 1 Shaft
- 2 Bearing bush
- 3 Body
- 4 Shaft lock
- 5 Citclip
- 6 Body lining  
(with vulcanized back-up ring)
- 7 Disc
- 8 Dowelling
- 9 Lower Stem

8

9



### Maintenance-free operation

The shafts of the CENTERLINE Butterfly Valves Series RS are mounted in self-lubricating DU bearing bushes so that there is no need for maintenance even after a long operating period.

### Shaft lock

All CENTERLINE Butterfly Valves Series RS feature a lock at the valve neck avoiding a blowing-out of the shaft during the valves operations life.

### Actuator mounting

All CENTERLINE Butterfly Valves Series RS feature a mounting in accordance with ISO 5211 for the mounting of hand lever, gear, pneumatic REVO or other automatic actuators. A conversion – even during operation – from manual to automatic actuator and reverse is possible without any difficulties.

### Actuator adaptation

CENTERLINE Butterfly Valves Series RS are available for 3 closing pressures (operating pressures) – 3.5 bar (51 psi), 10 bar (145 psi) and 16 bar (232 psi). The actuator size can be selected individually against the pipeline pressure available, so that with lower pipeline pressures even smaller actuators can be utilised due to the lower torque's.





# Versions available

With the proven modular system, CENTERLINE Butterfly Valves Series RS can be directly equipped with a variety of actuators. Available ex stock, various manual actuators together with those from the REVO pneumatic range can be fitted and assembled quickly to meet your needs. A number of accessories including three way version and shaft extensions are also available. Contact your local stockist for more information.



**Wafer body  
with centering lugs**

DN 50 - 300  
PN 6, 10, 16

**Wafer body**

DN 50 - 600  
PN 6, 10, 16  
ANSI 150

**Lug-type body**

DN 50 - 600  
PN 6, 10, 16  
ANSI 150

# Standards considered


Design:	EN 593
Face-to-face dimension:	EN 558-1, Series 20 ISO 5752-short
Head flange:	ISO 5211
Shaft end:	DIN 3337-square (only for DN 40-300)
Flange connection:	EN 1092-1, EN 1759-1, ANSI B16.5, Class 150 ANSI B16.47 - Type A
Testing:	DIN 3230-T3, leakage rate 1
Identification:	EN 19 MSS SP-25 CE in accordance with PED 97/23 EG
Quality assurance:	ISO 9001
Approvals:	DVGW Lloyds Register Det Norske Veritas American Bureau of Shipping Leybold Systems Vakuumtest



Lug-type body  
Flange body

DN 700 - 1200  
PN 10, 16  
ANSI





## International Organisation:

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### **Crane Process Flow Technologies SPRL / BV**

Avenue Franklin No. 1  
B-1300 Wavre  
BELGIUM  
Tel: +32 10 8184 44  
Fax: +32 10 8184 58  
[www.craneflow.com](http://www.craneflow.com)

### **Crane Process Flow Technologies India Ltd.**

Amar Avinash Corporate Plaza,  
7th Floor, Plot No. D2  
C.T.S. No. 11/1 to 11/4  
Near Inox Multiplex, Bund Garden Road,  
Pune 411 001  
INDIA  
Tel: +91 20 26050922 - 26  
Fax: +91 20 26050927  
[www.craneflow.com](http://www.craneflow.com)

### **Crane Process Flow Technologies**

6 Alexander Road  
Belfast  
BT6 9HJ  
NORTHERN IRELAND  
Tel: +44 28 9070 4222  
Fax: +44 28 9040 1582  
[www.craneflow.com](http://www.craneflow.com)

### **Crane Process Flow Technologies GmbH**

IZ NÖ Süd, Str. 2/M6  
2355 Wr. Neudorf  
AUSTRIA  
Tel: +43 2236 682-0  
Fax : +43 2236 64353  
[www.craneflow.com](http://www.craneflow.com)

### **Crane Process Flow Technologies s.r.l.**

Via Pusiano 2  
20052 - Monza MI  
ITALY  
Tel: +39 039 2704 280  
Fax: +39 039 2704 450  
[www.craneflow.com](http://www.craneflow.com)

### **Crane Process Flow Technologies Ltd.**

Grange Road  
Cwmbran  
Gwent NP44 3XX  
UNITED KINGDOM  
Tel: +44 163 348 6666  
Fax: +44 163 348 6777  
[www.craneflow.com](http://www.craneflow.com)

### **Crane Process Flow Technologies GmbH**

Heerdter Lohweg 63-71  
D-40549 Düsseldorf  
GERMANY  
Tel: +49 211 59 56 0  
Fax: +49 211 59 56 111  
[www.craneflow.com](http://www.craneflow.com)

### **Crane Process Flow Technologies**

Quatro House  
Frimley Road, Camberley  
Surrey GU16 7ER  
UNITED KINGDOM  
Tel: +44 1276 804421  
Fax: +44 1276 804422  
[www.craneflow.com](http://www.craneflow.com)  
for sales and technical enquiries originating  
in the UK, please contact Crane Process Flow  
Technologies Ltd in Cwmbran



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