

SEW-GATE Penstocks



SEW-GATE Penstocks



1 - Description

SEW-GATE penstocks are used for isolating and regulating open channels, inlets and outlets of canal, sewers, pits, basins and pipelines. SEW-GATE penstocks are used for flow control, for maintaining the sewage level, flow limitation, distribution of channel flow and measure recirculation. Thanks to the wide variety of versions and specific material, our penstocks are ideally suited for use in sewage engineering, the water industry and flood protection.

- Modular component assembly for universal accommodation of all operating gear options and for individual designs and sizes.
- Customized material selection: stainless steel as well as special materials on request.
- Tried and tested sealing principle.
- 3 or 4 facing seals in both directions of flow.
- Plate guided by lateral slider strips or sliding curves in the frame, non abrasive guides, low actuating forces.
- Maintenance friendly due to clamped or bolted sealing profile.
- Easy installation due to wall sealing without grouting.
- Compact design.

2 - Performance

Range performance	Benefit to user
Welded design based on modular concept.	Low cost, a lot of dimensions available.
Standardized sealing profiles ensure permanent sealing properties. Low wear and easy replacement. Low operation forces required.	Long life. Reliability. Little maintenance.
Many design variants and attachment options.	Existing plants can be upgraded to Penstock. At any time without modification of the building.

3 - Installation

Depending on the type of design, SEW-GATE penstocks are mounted to smooth concrete walls or in the channel.

Wall bolting type

Bolting is the most common installation method. Therefore, the frames are provided with factory made boreholes. For fastening we recommend to use chemical anchors (resin bolts consisting of mortar cartridges and threaded rod with hexagon nut and A4 washer). Sealing between the frame and the wall is already mounted.

Grouting type


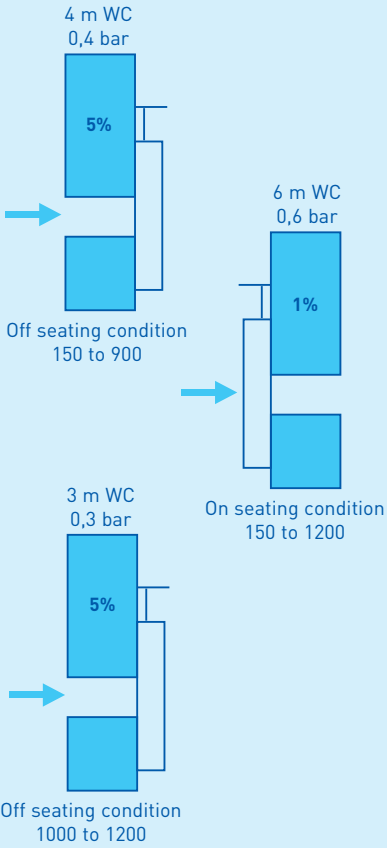
The SEW-GATE penstocks are inserted in the provided recess and fixed. Then the recess is boarded and grouted with the proper type of concrete of appropriate quality.

Channel recess mounting

Insert the SEW-GATE penstocks in the channel recess, then the recess is boarded and grouted with the proper type of concrete.

SEW-GATE Penstocks

SEW-GATE SEWAGY
150 to 1200
Permissible leakage better than DIN 19569-4

4 m WC
0,4 bar
5%

Off seating condition
150 to 900

6 m WC
0,6 bar
1%


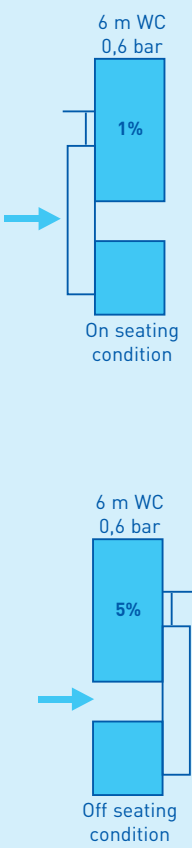
On seating condition
150 to 1200

3 m WC
0,3 bar
5%

Off seating condition
1000 to 1200

On seating mounting, permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting, permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

SEW-GATE JUMBY
1200 to 4000
Permissible leakage better than DIN 19569-4

6 m WC
0,6 bar
1%


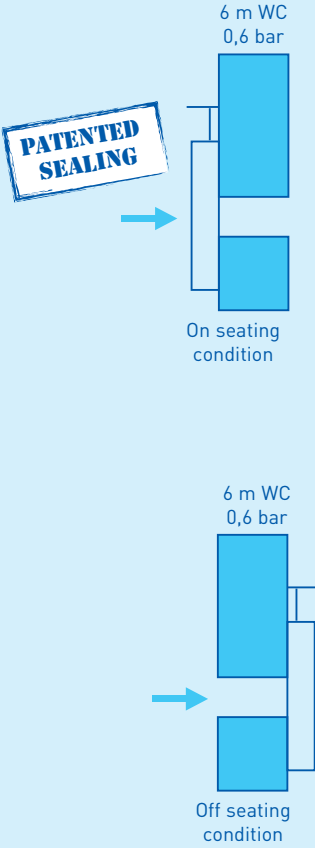
On seating condition

6 m WC
0,6 bar
5%

Off seating condition

On seating mounting, permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting, permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

SEW-GATE SECURITY
150 to 3000
Tightness according to DIN 12266-1

6 m WC
0,6 bar
PATENTED SEALING

On seating condition

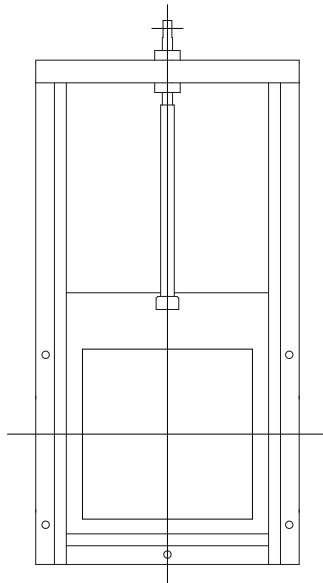
6 m WC
0,6 bar
Off seating condition

On seating mounting and off seating, permissible leakage rate is C according to DIN 12266-1.

l/s/m : liter per second per meter sealing line.

SEW-GATE Penstocks

SEW-GATE SEWAGY



Product characteristics

Compact design, easy installation and first class corrosion protection.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Options

1.4571 - NBR.

Sealing

4 faces.

Aperture

Square or rectangular.

Fixing types

Wall bolting type - Grouting type.

Dimension WxH

150x150 up to 1200x1200.

Pressure

For WxH 150 up to 1200:
on seating condition = 6 m WC /0,6 bar.
For WxH 150 up to 900:
off seating condition = 4 m WC /0,4 bar.
For WxH 1000 up to 1200:
off seating condition = 3 m WC /0,3 bar.
Request for higher pressure.

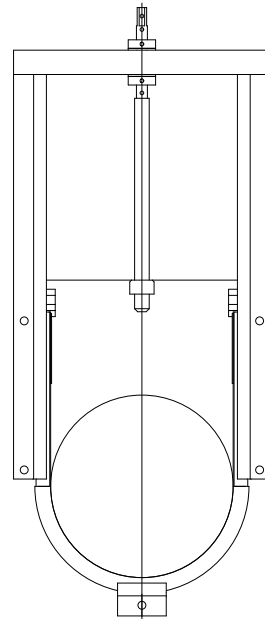
Tightness

According to DIN 19569-4:
On seating mounting permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

Type of operation

Manual operation:
Square cap, handwheel, rack type jack control.
Electric actuator.
Hydraulic or pneumatic operator.

SEW-GATE SEWAGY - RS



Product characteristics

Compact design, easy installation and first class corrosion protection.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Options

1.4571 - NBR.

Sealing

4 faces.

Aperture

Semi circular.

Fixing types

Wall bolting type - Grouting type.

Dimension WxH

150x150 up to 600x600.

Pressure

For WxH 150 up to 600:
off seating condition = 4 m WC /0,4 bar.
Request for higher pressure.

Tightness

According to DIN 19569-4:
On seating mounting permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

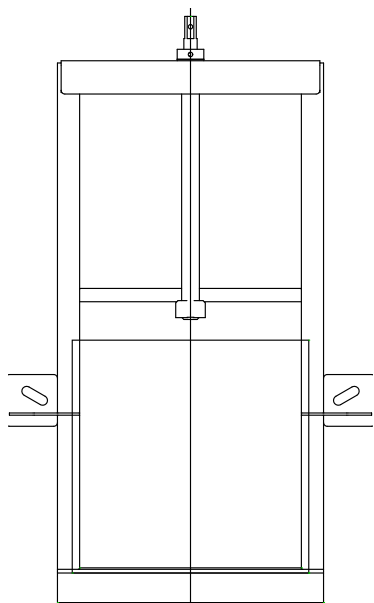
Type of operation

Manual operation:
Square cap, handwheel.
Electric actuator.
Hydraulic or pneumatic operator.

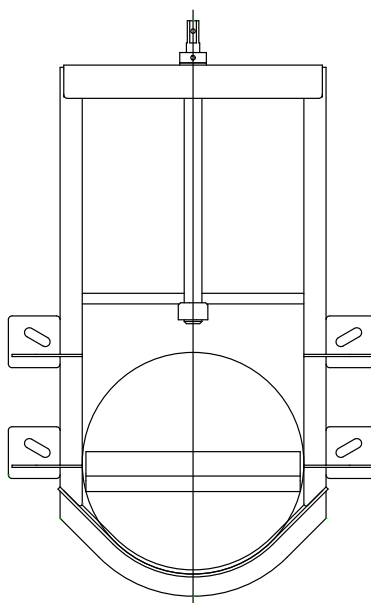
l/s/m : liter per second per meter sealing line.

SEW-GATE Penstocks

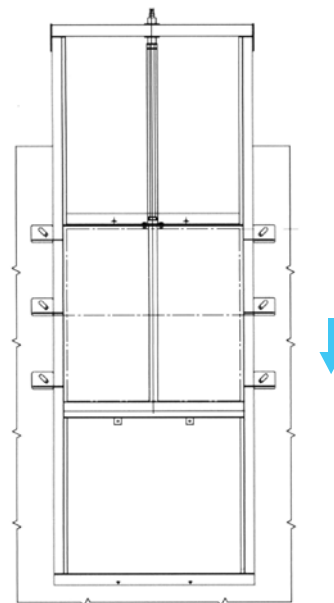
SEW-GATE JUMBY



SEW-GATE JUMBY - RS



SEW-GATE JUMBY - L



Product characteristics

Very large penstock are exposed to very high forces, the pre-stressed lipseal gives an out standing tightness, with pressure towards and/or against the seal direction. The sealing is mounting directly on the sliding plate.

Product characteristics

Very large penstock are exposed to very high forces, the pre-stressed lipseal gives an out standing tightness, with pressure towards and/or against the seal direction. The sealing is mounting directly on the sliding plate.

Product characteristics

Lowering type penstock are used where the medium level needs to be regulated. The sliding plate opens downwards and adjusts the damming height. Very large penstocks are exposed to very high forces. The pre-stressed lipseal gives an outstanding tightness, with pressure towards and/or against the seal direction. The sealing is mounting directly on the sliding plate.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Options

1.4571 - NBR.

Options

1.4571 - NBR.

Options

1.4571 - NBR.

Sealing

4 faces.

Sealing

4 faces.

Sealing

4 faces.

Aperture

Square or rectangular.

Aperture

Semi circular.

Aperture

Square or rectangular.

Fixing types

Wall bolting type - Grouting type.

Fixing types

Wall bolting type - Grouting type.

Fixing types

Wall bolting type - Grouting type.

Dimension WxH

1200x1200 up to 4000 x4000.

Dimension WxH

150x150 up to 3000 x3000.

Dimension WxH

1200x1200 up to 4000 x4000.

Pressure

For WxH 1200 x1200 up to 4000x4000:
6 mWC / 0,6 bar.
Request for higher pressure.

Pressure

For WxH 150 x150 up to 3000x3000:
6 mWC / 0,6 bar.
Request for higher pressure.

Pressure

For WxH 1200 x1200 up to 4000x4000:
6 mWC / 0,6 bar.
Request for higher pressure.

Tightness

According to DIN 19569-4:
On seating mounting permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

Tightness

According to DIN 19569-4:
On seating mounting permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

Tightness

According to DIN 19569-4:
On seating mounting permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

Type of operation

Manual operation: Square cap, handwheel, gearbox.
Electric actuator.
Hydraulic or pneumatic operator.

Type of operation

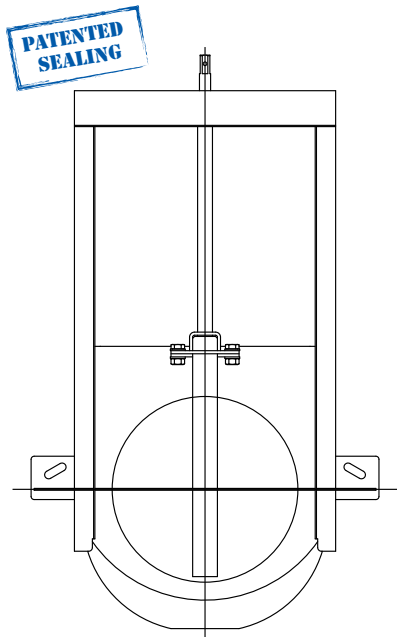
Manual operation: Square cap, handwheel, gearbox.
Electric actuator.
Hydraulic or pneumatic operator.

Type of operation

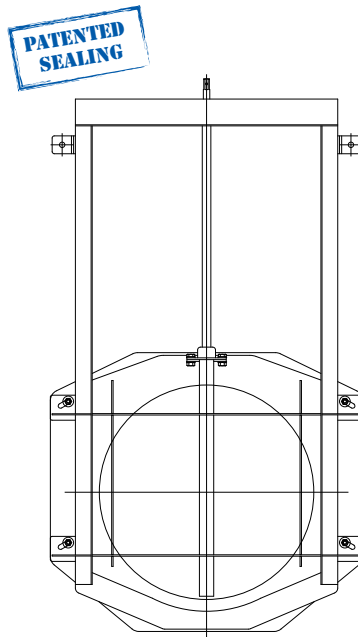
Manual operation: Square cap, handwheel, gearbox.
Electric actuator.
Hydraulic or pneumatic operator.

SEW-GATE Penstocks

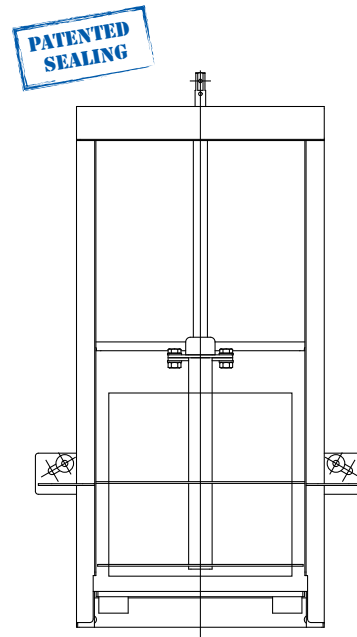
SEW-GATE SECURITY



SEW-GATE SECURITY - F



SEW-GATE SECURITY - Q



Product characteristics

Whilst leakage on penstock is usually caused by insufficient frame stability and frame distortion, patented sealing system is not affected by those parameters as it is separated from the frame.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Options

1.4571 - NBR.

Sealing

4 faces.

Aperture

Circular.

Fixing types

Wall bolting type - Grouting type

Dimension DN

150 up to 3000.

Pressure

For WxH 150 x150 up to 300x300:

10 mWC / 1,0 bar.

For WxH 400 x400 up to 800x800:

8 mWC / 0,8 bar.

For WxH 900 x900 up to 1000x1000:

7 mWC / 0,7 bar.

For WxH 1200 x1200 and bigger:

6 mWC / 0,6 bar.

Request for higher pressure.

Tightness

According to DIN 12 266-1:

On seating and off seating up to heads maximum leakage is rate C.

Type of operation

Manual operation: Square cap, handwheel.

Electric actuator.

Hydraulic or pneumatic operator.

Product characteristics

Whilst leakage on penstock is usually caused by insufficient frame stability and frame distortion, patented sealing system is not affected by those parameters as it is separated from the frame.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Options

1.4571 - NBR.

Sealing

4 faces.

Aperture

Circular with flange connection.

Fixing types

Wall bolting type - Grouting type.

Dimension DN

150 up to 2000.

Pressure

For WxH 150 x150 up to 300x300:

10 mWC / 1,0 bar.

For WxH 400 x400 up to 800x800:

8 mWC / 0,8 bar.

For WxH 900 x900 up to 1000x1000:

7 mWC / 0,7 bar.

For WxH 1200 x1200 and bigger:

6 mWC / 0,6 bar.

Request for higher pressure.

Tightness

According to EN12266-1:

On seating and off seating up to heads maximum leakage is rate C.

Type of operation

Manual operation: Square cap, handwheel.

Electric actuator.

Hydraulic or pneumatic operator.

Product characteristics

Whilst leakage on penstock is usually caused by insufficient frame stability and frame distortion, patented sealing system is not affected by those parameters as it is separated from the frame.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Options

1.4571 - NBR.

Sealing

4 faces.

Aperture

Square or rectangular.

Fixing types

Wall bolting type - Grouting type.

Dimension WxH

150x150 up to 2000 x2000.

Pressure

For WxH 150 x150 up to 300x300:

10 mWC / 1,0 bar.

For WxH 400 x400 up to 800x800:

8 mWC / 0,8 bar.

For WxH 900 x900 up to 1000x1000:

7 mWC / 0,7 bar.

For WxH 1200 x1200 and bigger:

6 mWC / 0,6 bar.

Request for higher pressure.

Tightness

According to EN12266-1:

On seating and off seating up to heads maximum leakage is rate C.

Type of operation

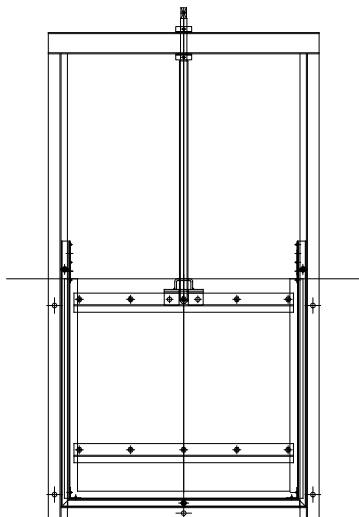
Manual operation: Square cap, handwheel.

Electric actuator.

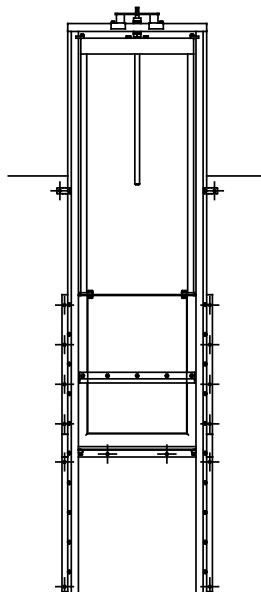
Hydraulic or pneumatic operator.

SEW-GATE Channels penstocks

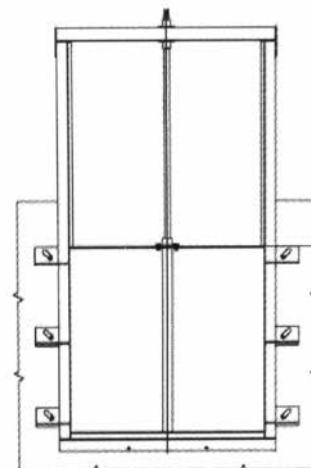
SEW-GATE SEWAGY - 3



SEW-GATE SEWAGY - 3 L



SEW-GATE JUMBY - 3



Product characteristics

Compact design, easy installation and first class corrosion protection.

Product characteristics

The sliding plate is opened from top to bottom allowing for easy water level control in water basins.
Compact design, easy installation and first class corrosion protection.

Product characteristics

Very large penstocks are exposed to very high forces. The pre-stressed lip seal gives an outstanding tightness, with pressure towards and/or against the seal direction.
The sealing is mounted directly on the sliding plate.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Options

1.4571 - NBR.

Options

1.4571 - NBR.

Options

1.4571 - NBR.

Sealing

3 faces.

Sealing

3 faces.

Sealing

3 faces.

Aperture

Square or rectangular.

Aperture

Square or rectangular.

Aperture

Square or rectangular.

Fixing types

Wall bolting type - Grouting type.

Fixing types

Wall bolting type - Grouting type.

Fixing types

Wall bolting type - Grouting type.

Dimension WxH

200x200 up to 1600x1600.
Request for others size.

Dimension WxH

200x200 up to 1600x1600.
Request for others size.

Dimension WxH

1200x1200 up to 4000 x4000.

Pressure

Height of the door.

Pressure

Height of the door.

Pressure

Height of the door.

Tightness

According to DIN 19569-4:
On seating mounting permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

Tightness

According to DIN 19569-4:
On seating mounting permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

Tightness

According to DIN 19569-4:
On seating mounting permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

Type of operation

Manual operation: Square cap, handwheel, gearbox.
Electric actuator.
Hydraulic or pneumatic operator.

Type of operation

Manual operation: Square cap, handwheel, gearbox.
Electric actuator.
Hydraulic or pneumatic operator.

Type of operation

Manual operation: Square cap, handwheel, gearbox.
Electric actuator.
Hydraulic or pneumatic operator.

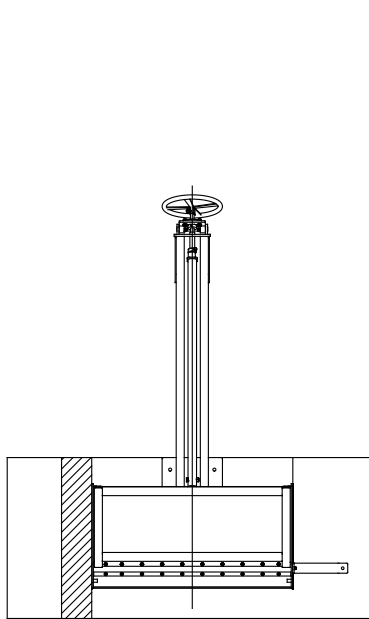
l/s/m : liter per second per meter sealing line.

SEW-GATE Channels penstocks

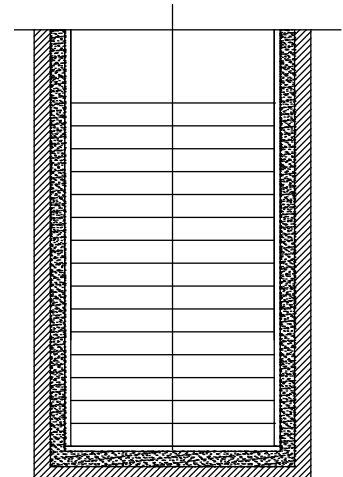
SEW-GATE JUMBY - 3 L



SEW-GATE OVERFALL WEIR



SEW-GATE STOP LOGGY



Product characteristics

Lowering type penstock and sluice gates close and regulate the outflow at opening of building and channels. Very large penstock are exposed to very high forces. The pre-stressed lipseal gives an outstanding tightness, with pressure towards and/or against the seal direction. The sealing is mounting directly on the sliding plate.

Materials Frame Door Seal in standard
1.4301/1.4301/Sewage EPDM.

Options
1.4571 - NBR.

Sealing
3 faces.

Aperture
Square or rectangular.

Fixing types
Wall bolting type - Grouting type.

Dimension WxH
1200x1200 up to 4000 x4000.

Pressure
Height of the door.

Tightness
According to DIN 19569-4:
On seating mounting permissible leakage is between 1% of 0,02 and 0,05 l/s/m.
Off seating mounting permissible leakage is between 5% of 0,05 and 0,1 l/s/m.

Type of operation
Manual operation: Square cap, handwheel, gearbox.
Electric actuator.
Hydraulic or pneumatic operator.

Product characteristics

The function is to adjust great volumes to a constant level with a small adjusting range.

Materials Frame Door Seal in standard
1.4301/1.4301/Sewage EPDM.

Options
1.4571 - NBR.

Sealing
3 faces.
On request 4 faces.

Aperture
-

Fixing types
Wall bolting type - Grouting type.

Dimension WxH
1000x150 up to 3000x1000.

Pressure
Height of the door.

Tightness
According to DIN 19569-4.

Type of operation
Manual operation: Handwheel.
Hydraulic or pneumatic operator.

Product characteristics

Stop logs are used for the temporary closure of channels, for the revision of pumps, valves or building section and flood protection. Constant good sealing performance regardless of water pressure. Our range propose a high dimensional stability and stiffness as well as the lightweight design of the sandwich production.

Materials Frame Door Seal in standard
1.4301/aluminium/Sewage EPDM.

Options
1.4571 - NBR - Others dimensions.

Sealing
-

Aperture
-

Fixing types
Wall bolting type - Grouting type.

Dimension WxH
maximum width up to 4000.

Pressure
Height of the door.

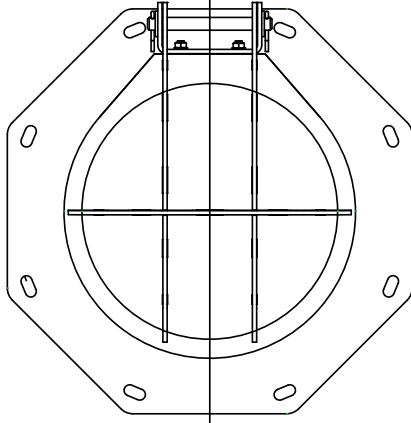
Tightness
According to DIN 19569-4.

Type of operation
Semi automatic lifting tool.
Storage system.

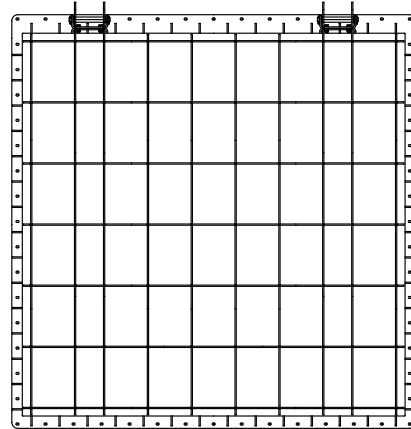
l/s/m : liter per second per meter sealing line.

SEW Flap valves

SEW FLAP VALVE



SEW FLAP VALVE R



Product characteristics

Flap cover are used as backflow preventer in rain storage reservoirs or for flood protection purposes. It opens with small inside pressure and close reliable in case of pressure on the cover.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Options

1.4571 - NBR.
With counterweight.

Sealing

-

Aperture

Circular.

Fixing types

Wall bolting type.
Grouting type.
Flanged.

Dimension DN

100 to 2000.

Pressure

6 mWC / 0,6 bar.

Tightness

According to DIN 19569-4.

Type of operation

No actuation is needed.
On option: lifting point of the flap.

Product characteristics

Flap cover are used as backflow preventer in rain storage reservoirs or for flood protection purposes. It opens with small inside pressure and close reliable in case of pressure on the cover.

Materials Frame Door Seal in standard

1.4301/1.4301/Sewage EPDM.

Options

1.4571 - NBR.
With counterweight.

Sealing

-

Aperture

Square or rectangular.

Fixing types

Wall bolting.

Dimension WxH

100 to 2000.
On request higher dimension.

Pressure

6 mWC / 0,6 bar.

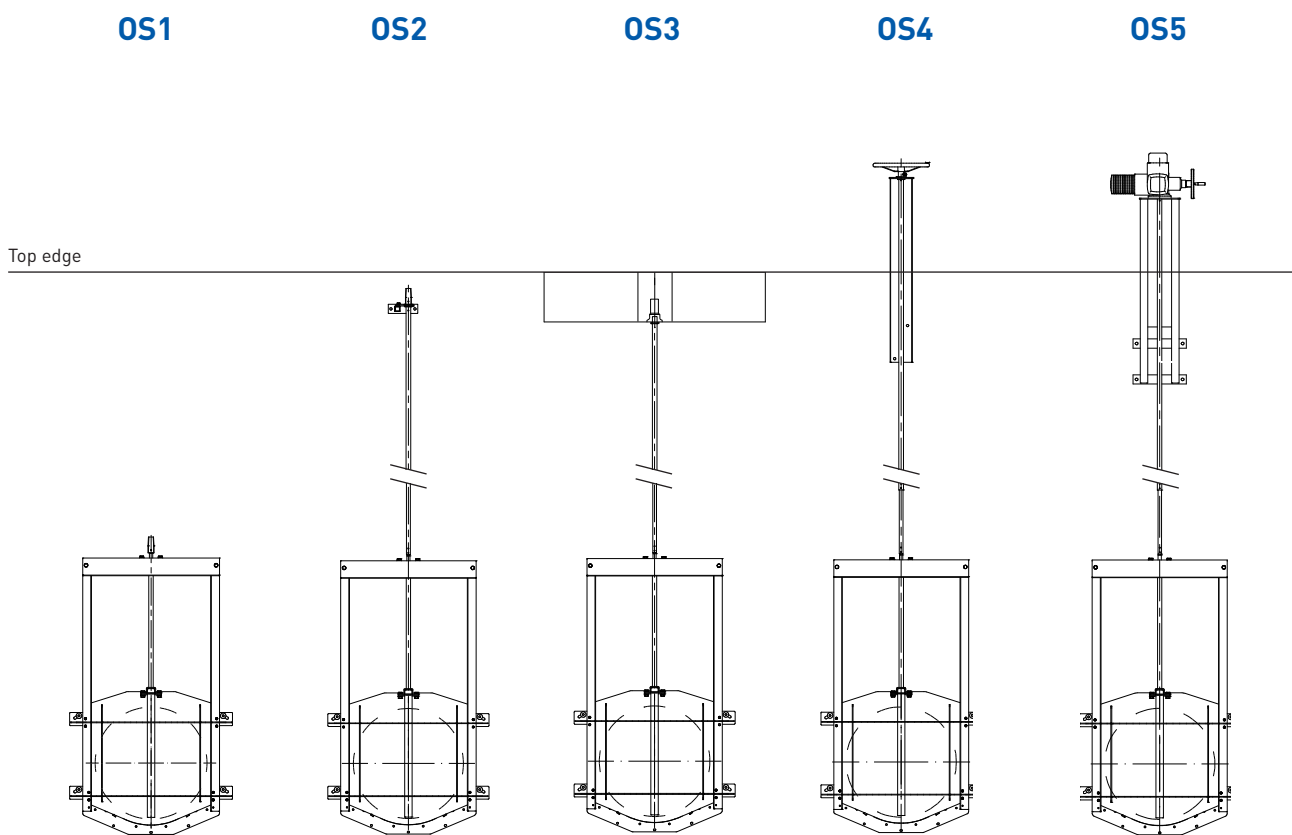
Tightness

According to DIN 19569-4.

Type of operation

No actuation is needed.
On option: lifting point of the flap.

SEW-GATE Operating systems



Operating system	Operating system	Operating system	Operating system	Operating system
Square cap.	Square cap with adjustable telescopic spindle extension (up to 3m, 3 to 6m). Wall bearing, necessary every 2m.	Square cap with adjustable telescopic spindle extension (up to 3m, 3 to 6m). Wall bearing, necessary every 2m.	Handwheel on bracket headstock with adjustable telescopic spindle extension (up to 3m, 3 to 6m). Wall bearing, necessary every 2m.	Electric actuator on bracket headstock with adjustable telescopic spindle extension (up to 3m, 3 to 6m). Wall bearing, necessary every 2m.
Suitable for range Sewagy, Security, Jumby.	Suitable for range Sewagy, Security, Jumby.	Suitable for range Sewagy, Security, Jumby.	Suitable for range Sewagy, Security, Jumby.	Suitable for range Sewagy, Security, Jumby.
Materials Galvanised steel.	Materials 1.4301.	Materials 1.4301.	Materials 1.4301.	Materials 1.4301.
Options <ul style="list-style-type: none"> • For bigger dimensions on request. • Accessories for rising stem. • 1.4571. • Mechanical position indicator. • Electrical position indicator. • Electrical position indicator with integrated wire control. 	Options <ul style="list-style-type: none"> • For bigger dimensions on request. • Accessories for rising stem. • 1.4571. • Mechanical position indicator. • Electrical position indicator. • Electrical position indicator with integrated wire control. 	Options <ul style="list-style-type: none"> • Slab bracket for grating. • For bigger dimensions on request. • Accessories for rising stem. • 1.4571. • Mechanical position indicator. • Electrical position indicator. • Electrical position indicator with integrated wire control. 	Options <ul style="list-style-type: none"> • For bigger dimensions on request. • Accessories for rising stem. • 1.4571. • Mechanical position indicator. • Electrical position indicator. • Electrical position indicator with integrated wire control. 	Options <ul style="list-style-type: none"> • For bigger dimensions on request. • Accessories for rising stem. • 1.4571. • Others electric actuators on request.

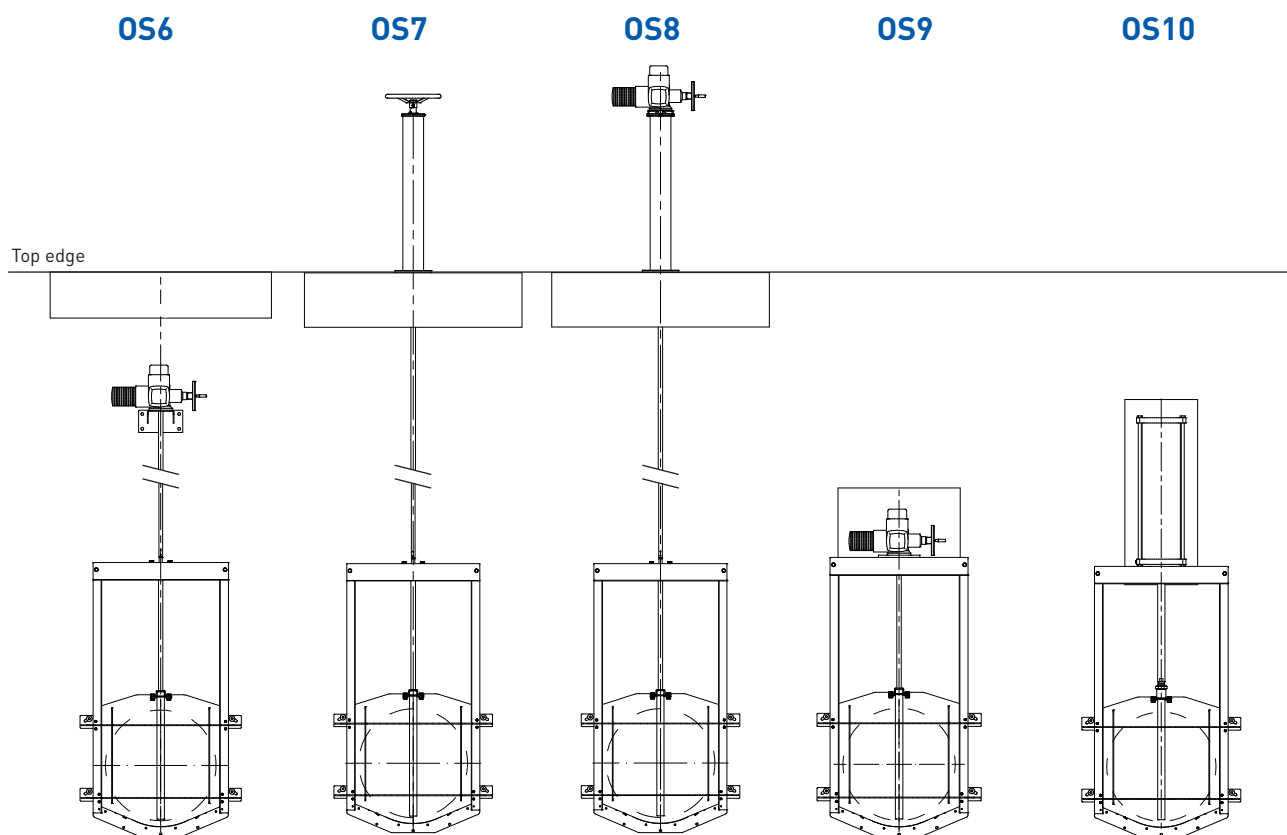
Always at your side

Merely delivering a product is not enough, especially where complex technical installations are involved. So we are at your side to help you with advice and support in all life-cycle phases. Highly qualified teams and representatives throughout 50 countries on five continents work together with you to devise first-class solutions.

Planning and design

Individual advice from our experienced engineers and technicians begins during the project phase. In a dialogue with our customers, we are thus able to achieve optimal solutions for series products or customized designs. Particularly these "customized" packages are the reason why our products are very frequently used for difficult

SEW-GATE Operating systems



<p>Operating system Electric actuator on wall bracket with adjustable telescopic spindle extension (up to 3m, 3 to 6m). Wall bearing, necessary every 2m.</p>	<p>Operating system Handwheel on headstock with adjustable telescopic spindle extension (up to 3m, 3 to 6m). Wall bearing, necessary every 2m.</p>	<p>Operating system Electric actuator on headstock with adjustable telescopic spindle extension (up to 3m, 3 to 6m). Wall bearing, necessary every 2m.</p>	<p>Operating system Electric actuator mounted directly on the penstock.</p>	<p>Operating system Pneumatic or hydraulic cylinder mounted directly on the penstock.</p>
<p>Suitable for range Sewage, Security, Jumbo.</p>	<p>Suitable for range Sewage, Security, Jumbo.</p>	<p>Suitable for range Sewage, Security, Jumbo.</p>	<p>Suitable for range Sewage, Security, Jumbo.</p>	<p>Suitable for range Sewage, Security, Jumbo.</p>
<p>Materials 1.4301.</p>	<p>Materials 1.4301.</p>	<p>Materials 1.4301.</p>	<p>Materials -</p>	<p>Materials -</p>
<p>Options</p> <ul style="list-style-type: none"> • For bigger dimensions on request. • Accessories for rising stem. • 1.4571. 	<p>Options</p> <ul style="list-style-type: none"> • For bigger dimensions on request. • Accessories for rising stem. • 1.4571. • Mechanical position indicator. • Electrical position indicator. • Electrical position indicator with integrated wire control. 	<p>Options</p> <ul style="list-style-type: none"> • For bigger dimensions on request. • Accessories for rising stem. • 1.4571. 	<p>Options</p> <ul style="list-style-type: none"> • For bigger dimensions on request. • Options on electric actuator on request. 	<p>Options</p> <ul style="list-style-type: none"> • For bigger dimensions on request.

Installation and commissioning

If required by the customer, our fitters install the valves at your facility and commissioning the system together with your staff. This naturally also includes training and instruction measures for specialist staff based on detailed operating instructions and training documents.

Maintenance and repair

Spare parts required for repairs are available even after years of operation.

Your choice in waterflow control



TALIS is always the number one choice whenever water transport or management is required. Our company offers the most appropriate solution for water and energy management, and applications serving industrial and municipal customers. With a complete range of more than 20,000 products, we offer comprehensive solutions for the entire water cycle: pumping, distribution, and connections, ... Our experience, innovative technology, global and specific expertise form the basis for developing sustainable solutions for the efficient handling of the vital resource... water.



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