Aqseptence Group

Passavant® Shut-off Devices

Stop Gates, Stop-Logs, Stop-Plates, Sluice Gates, Weir Sluice Gates, Penstocks, Weir Penstocks, Drive-Units, Distribution Blades, Overflow Weir, Swing check valves.

Reliable Performance.
Sustainable Results.

OUR KNOW-HOW – YOUR ADVANTAGE

All Passavant® shut-off devices are produced in compliance with the latest state-of-the-art in our factory in Aarbergen (Germany). Our shut-off devices fulfil and exceed the requirements of the DIN 19569-4 standard (particular fundamentals for shut-off devices).

All our shut-off devices are fully immersion pickled and rendered passive. We guarantee proper "stainless-steel-equitable processing" as well as separate processing of stainless steel and mild steel (black and white manufacturing). All shut-off spindles are rolled (not cut) in our own factory.

Before delivery, all shut-off devices are inspected (incl. test run) in our workshop.

The sealing system from all our penstocks and sluice gates is a double lip seal (butterfly-seal). Therefore all these shut-off devices are tight in both flow directions. The replacement of the seal is possible without dismantling the shut-off device. We deliver all shut-off devices with all complete fixing materials (incl. the seal to the civil building).

If desired, our own specialists can install all shut-off devices around the world. Spare parts are delivered on short-notice as sealing solutions are in stock; delivery ex-works is normally possible within one working day.

Passavant® shut-off devices – best quality Made in Germany.

PRODUCT OVERVIEW

LABEL	**SEALING**
Stop gates	3-faced
Stop plates	3-faced
Stop logs	3-faced
Sluice gates	3-faced
Penstocks	4-faced
Penstocks solar actuated	3/4-faced
Regulating penstocks	4-faced
Weir sluice gates	3-faced
Weir penstocks	4-faced
Telescopic valves	3-faced
Distribution blades	3-faced
Overflow weir (regulation)	3-faced
Baffles	3-faced
Swing check valves	3-faced
Swing check valves – partially filled pipe	4-faced
Swing check valves – pump pressure	4-faced
Bounce plates	
Special constructions	

PRODUCT KEY SYSTEMATIC

Passavant® SHUT-OFF DEVICES | **PAN** | **X** | **X** | **X** | **X** | **X** | **X** | **CONSECUTIVELY NUMBERED**

PRODUCT LINE	PRODUCT DESCRIPTION	DESIGN	MOUNTING METHOD
R **Sluice gates** sealing at 3 sides	**1** Stop gates **3** Sluice gates with 1 or 2 spindles **7** Weir sluice gates with 1 or 2 spindles	**1** Square rectangular design with straight sill **2** Square/rectangular design with round shaped sill **3** Square/rectangular design with triangular sill **4** Trapezoid sill **5** Egg-like design **6** Seal on plate	**1** for grouting with wall thimble in box culverts **2** for anchoring towards straight wall/floor **3** for grouting in box culverts **4** for anchoring in channel/ in front of channel **5** for flange connection **8** Sill for anchoring, sides for grouting **9** special kinds of fixation
A **Penstocks** sealing at 4 sides	**1** Penstocks of cast iron with 1 spindle **2** Penstocks of cast iron with 2 spindles **3** Penstocks of stainless steel with 1 or 2 spindles **7** Weir penstocks of stainless steel with 1 or 2 spindles	as **R Sluice gates**	as **R Sluice gates**
B **Actuators** Drives	**0** Overview drives **2** Drives on yoke **3** Drives on headstock **4** Drives on wall bracket **5** Drives in street-cap **6** Drives on floor stand **7** Drives on console stand	**2** Hand wheel **3** Bevel gear **4** Operatingsquare/operating key **5** Spur gear **6** Worm gear **7** Electrical actuator **8** Cylindric drive **9** other kinds of actuators	as **R Sluice gates**
D **Stop logs and stop plates**	**1** Stop logs **3** Stop plates **4** Stop plates with top sealing	as **R Sluice gates**	as **R Sluice gates**
K **Swing check valves**	**3** Swing check valves of stainless steel **6** Adjustable overflow flap weir **8** Distribution blades	as **R Sluice gates**	as **R Sluice gates**

STOP GATES

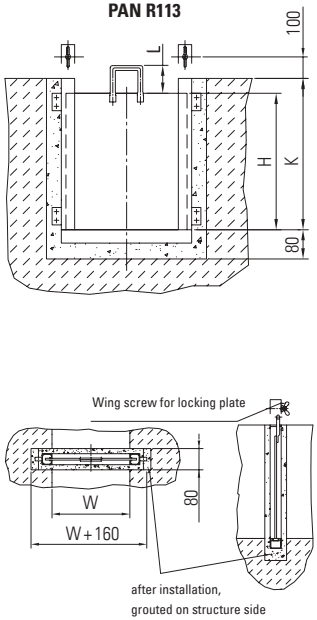
Product Description
Stop gate with straight/round/triangular/trapezoid sill. For grouting in opening of building or for doweling into or in front of the channel on a straight wall in compliance with DIN 18202. Design in compliance with PAN R 1...

Design
Designed in compliance with static requirements. Frame made of welded stainless steel profiles. Double-lip seal on the sides and flat seal mounted flush in straight sill. Plate with handle (above width B > 800 mm = 2 handles) Optionally available with fixing device.

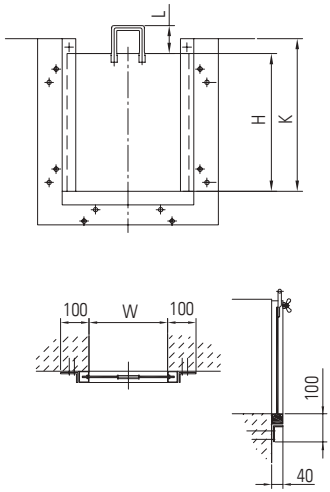
Application
Passavant® stop gates are three faced sealing shut-off devices. Design in compliance with DIN 19569-4 standard leak proof class 2. Suitable for both flow directions.

Mounting methods
Anchoring, grouting and combinations thereof

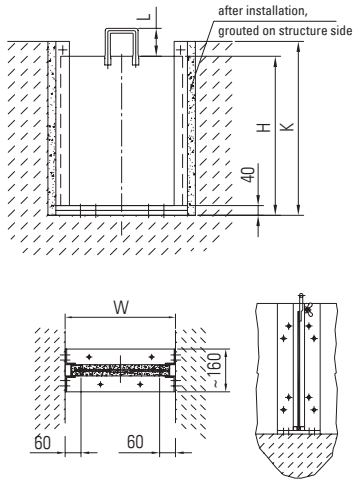
PAN R113



PAN R112

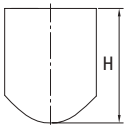


PAN R114

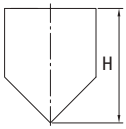


Variations

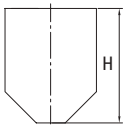
Half-round sill



Triangular sill



Trapezoid sill



DIMENSIONS		MATERIALS
Channel width W:	mm	Frame: AISI 304/AISI 316 L/AISI 316 Ti
Plate height H:	mm	Plate: AISI 304/AISI 316 L/AISI 316 Ti
Channel depth K:	mm (base – upper edge of structure)	Seal: EPDM
Length of handle L:	mm	Connection parts: A4
		Other materials and dimensions upon request.

STOP LOGS OF STAINLESS STEEL

for grouting or doweling | design Passavant® in compliance with DIN 19569-4, leak proof class 1 | widths up to 5,000 mm, backwater levels up to 5,000 mm; larger dimensions available upon request

Product description

Stop log shut-offs made of stainless steel. For grouting into structure openings or for doweling to a plane wall according to DIN 18202 or into the channel. Seal profile double lip seal. Design in accordance with PAN D 1... Designed in compliance with static requirements. Individual logs 250 mm high (other dimensions available upon request).

The stop logs are lifted up with lifting beams. We recommend customers fit our stop log shut-offs with our pressing devices.

Applications

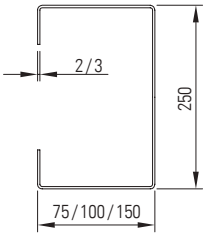
Passavant® stop logs made of stainless steel are three-face sealing shut-off devices that are suitable for both flow directions. For installation in structural openings or at the beginning / end of a pipe or channel.

Design

The frame is welded from special profiles; the sides are fitted with sliding skids and double lip seals affixed with the assistance of rails. Smooth base made of edged profile. Stop logs made of hollow profiles with double lip seals on the log bottom.

Start-up

After the installation or prior to the start-up of the stop log shut-off, seals, seal areas and moving parts must be checked for contamination and cleaned if necessary. If possible check for leak proof performance under operating conditions. In the event of problems, please contact the Passavant® customer service department.



MATERIALS

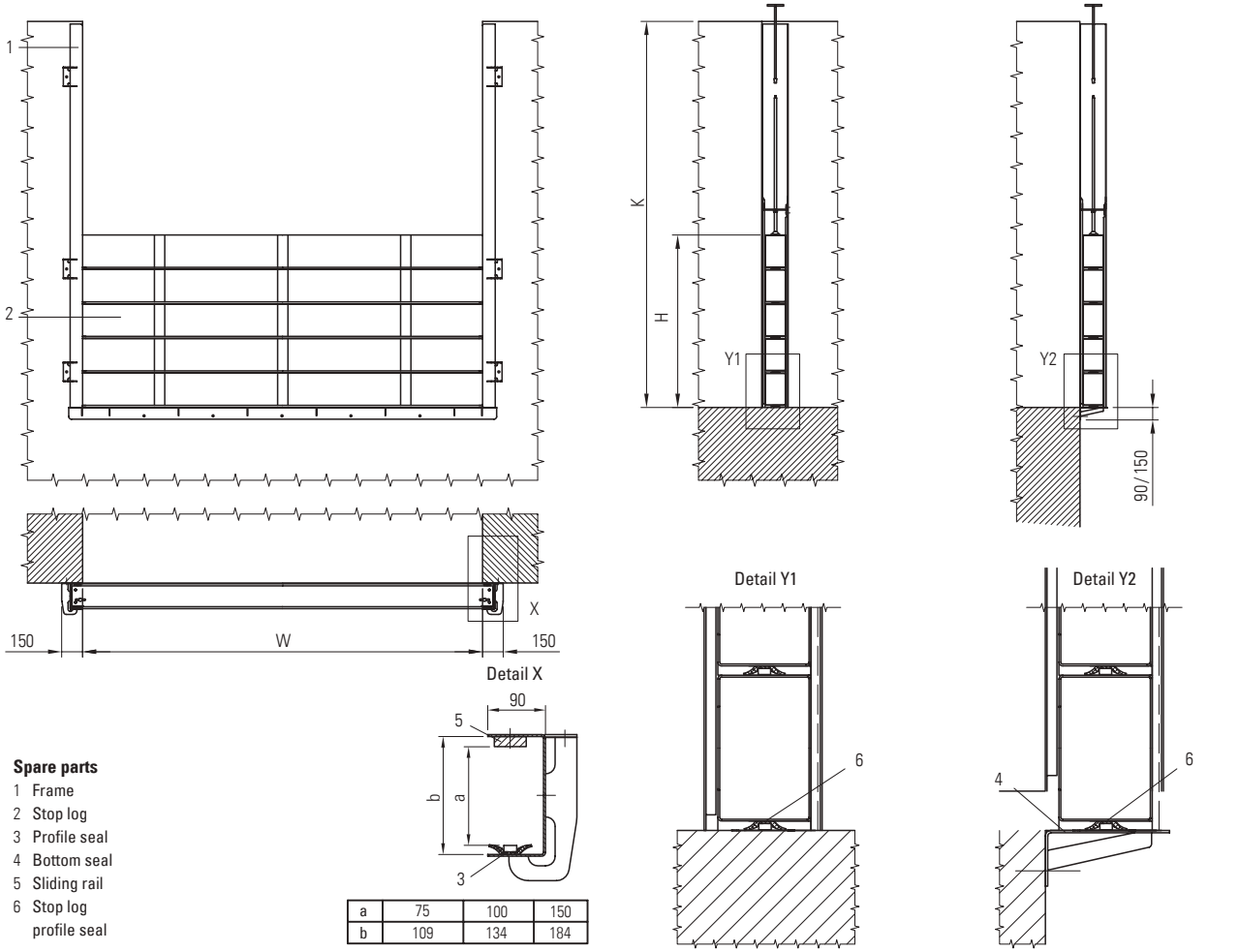
Frame and gate: AISI 304 / AISI 316 L / AISI 316 Ti
Seal: EPDM
Sliding rails: POM
Connection parts: A4
Other materials upon request.

INSPECTION	COMPONENT	INTERVALL	COMMENTS
Functional check	Frame and gate	Annually and as needed depending on function	Lift out and clean stop log
Leak proof check	Seal	Annually and as needed depending on usage	Check condition of seal and clean if necessary and lubricate lightly

STOP LOGS OF STAINLESS STEEL

for grouting or doweling | design Passavant® in compliance with DIN 19569-4, leak proof class 1 | widths up to 5,000 mm, backwater levels up to 5,000 mm; larger dimensions available upon request

Stop log, frame and sill for doweling



Spare parts

1 Frame
2 Stop log
3 Profile seal
4 Bottom seal
5 Sliding rail
6 Stop log profile seal

a	75	100	150
b	109	134	184

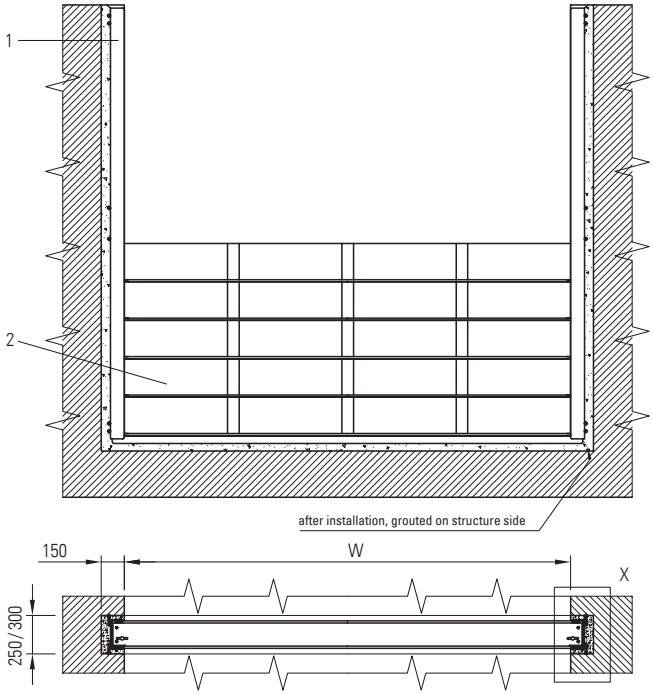
DIMENSIONS

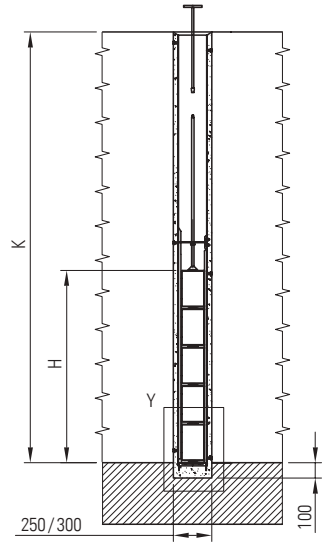
Channel width W: ..... mm
Channel depth K: ..... mm
Stop gate height H: ..... mm (height of backwater)
Individual log height: ..... mm (250 mm standard)
Operating pressure V: ..... R: ..... m WS: .....

STOP LOGS OF STAINLESS STEEL

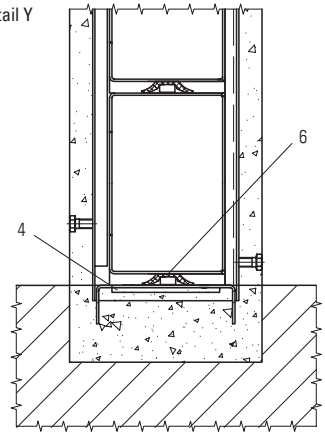
for grouting or doweling | design Passavant® in compliance with DIN 19569-4, leak proof class 1 | widths up to 5,000 mm, backwater levels up to 5,000 mm; larger dimensions available upon request

Stop log, frame and sill for grouting into the channel





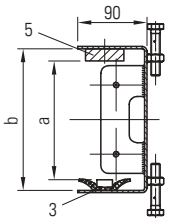
Detail Y



Spare Parts

1 Frame
2 Stop log
3 Profile seal
4 Bottom seal
5 Sliding rail
6 Stop log profile seal

Detail X



a	75	100	150
b	109	134	184

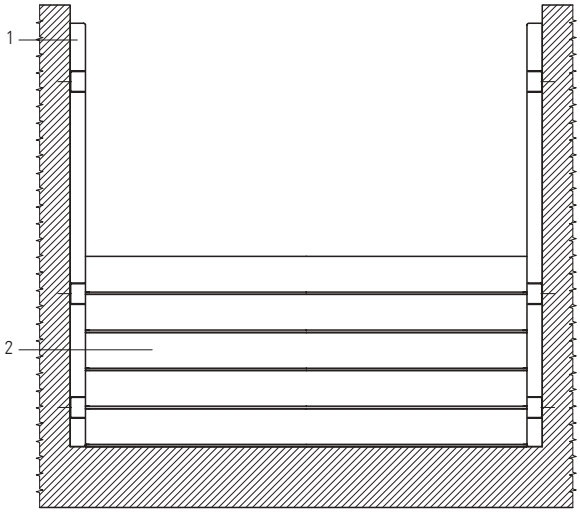
DIMENSIONS

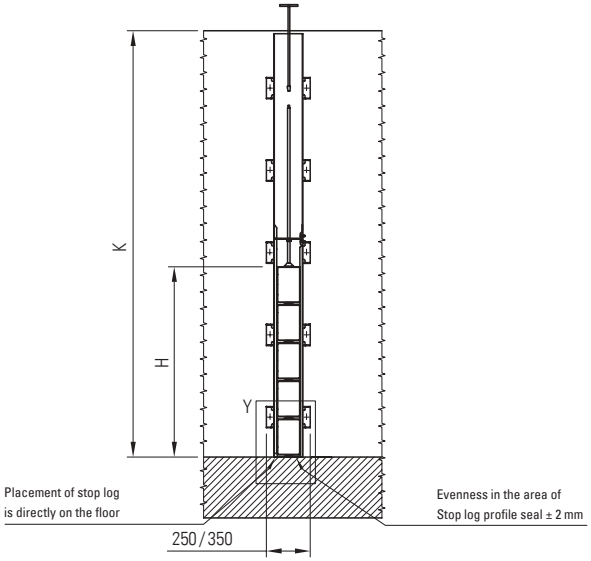
Channel width W: ..... mm
Channel depth K: ..... mm
Stop gate height H: ..... mm (height of backwater)
Individual log height: ..... mm (250 mm standard)
Operating pressure V: ..... R: ..... m WS: .....

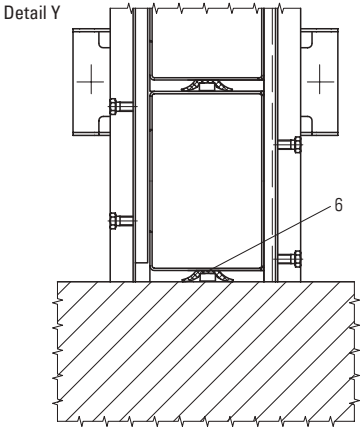
STOP LOGS OF STAINLESS STEEL

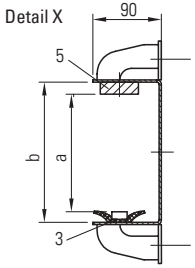
for grouting or doweling | design Passavant® in compliance with DIN 19569-4, leak proof class 1 | widths up to 5,000 mm, backwater levels up to 5,000 mm; larger dimensions available upon request

Stop log, frame for doweling into the channel









Spare parts

1 Frame
2 Stop log
3 Profile seal
4 Bottom seal
5 Sliding rail
6 Stop log profile seal

a	75	100	150
b	109	134	184

DIMENSIONS

Channel width W: ..... mm
Channel depth K: ..... mm
Stop gate height H: ..... mm (height of backwater)
Individual log height: ..... mm (250 mm standard)
Operating pressure V: ..... R: ..... m WS: .....

STOP PLATES OF STAINLESS STEEL

frame for grouting or doweling with elastic seal | design Passavant® in compliance with DIN 19569-4, leak proof class 2 | approximately 1,000 x 1,000 up to 5,000 x 5,000 mm; other dimensions upon request

Product description
Stop plates made of stainless steel. For grouting in structure openings or for doweling to a plane wall in compliance with DIN 18202. Seal profile: double lip or music note shaped profile. Design in accordance with PAN D310. Designed to meet static requirements. With crane hooks or lifting beams to lift up/insert the gate. Suitable for both flow directions.

Applications
Passavant® stop plates made of stainless steel are three-face *sealing shut-off devices, which are usually grouted into an open raceway in openings in the structure. Special versions are available for doweling in front of or into the channel.

*Special design with additional top seal four-faced.

Design
Profile seal and bottom seal (double lip profile) mounted to the frame. Frame welded from special profiles for grouting or doweling. With double lip seals mounted to the sides via rails and flush inserted flat seal in a straight sill.

Start-up
After the installation or prior to the start-up of the stop plate, check seals, seal areas and moving parts for contamination, and clean them if necessary. If possible check for leak proof performance under operating conditions.

In the event of problems, please contact the Passavant® customer service department.

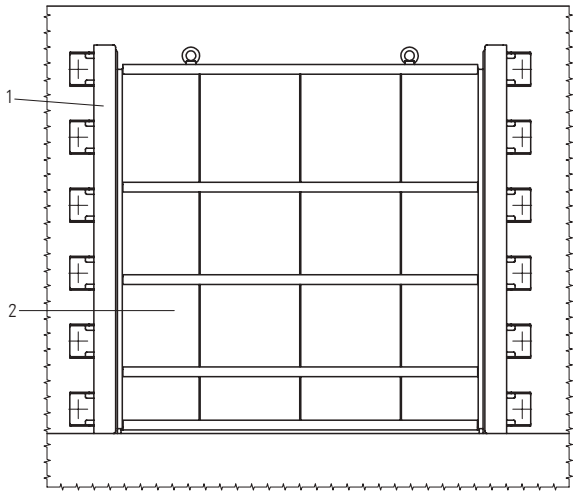
MATERIALS
Frame and gate: AISI 304/AISI 316 L/AISI 316 Ti
Seal: EPDM
Sliding rails: POM
Connection parts: A4
Other materials upon request.

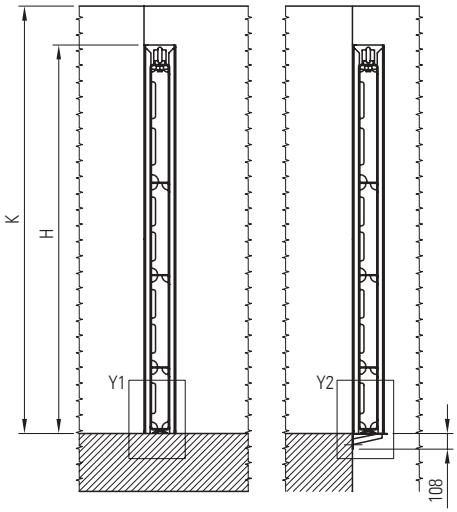
INSPECTION	COMPONENT	INTERVAL	COMMENTS
Functional check	Frame and gate	Annually and as needed depending on function	Fift out and clean stop gate
Leak proof check	Seal	Annually and as needed depending on usage	Check condition of seal and clean if necessary and lubricate lightly

STOP PLATES OF STAINLESS STEEL

widths up to 5,000 mm, backwater levels of up to 5,000 mm

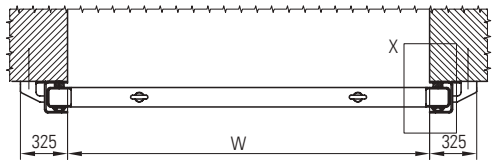
Stop plate, frame and sill for doweling PAN D 312



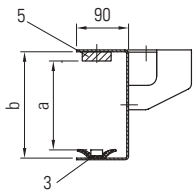


Spare parts

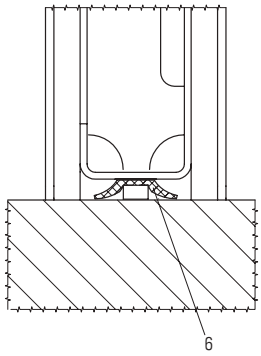
1 Frame
2 Stop plate
3 Profile seal
4 Bottom seal
5 Sliding rails
6 Stop plate profile seal



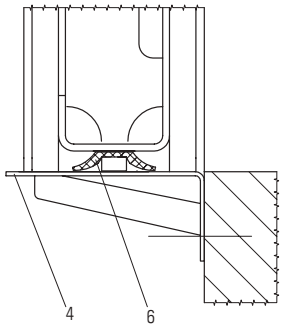
Detail X



Detail Y1



Detail Y2



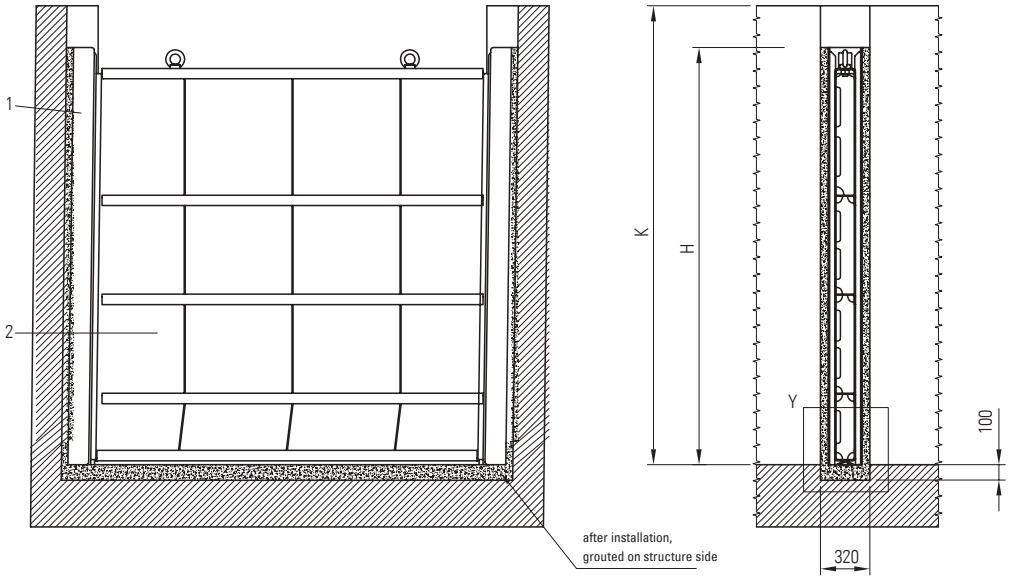
DIMENSIONS

Channel width W:		mm
Channel depth K:		mm
Stop gate height H:		mm (height of backwater)
Operating pressure V:	R:	m WS
Flow direction:		

STOP PLATES OF STAINLESS STEEL

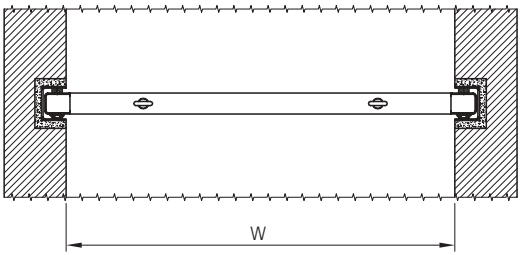
widths up to 5,000 mm, backwater levels of up to 5,000 mm

Stop plate, frame and sill for grouting in the channel PAN D 313

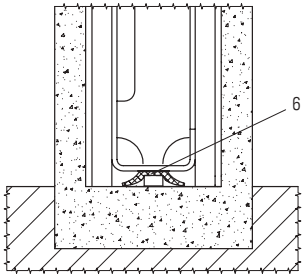


Spare parts

1 Frame
2 Stop plate
3 Profile seal
4 Bottom seal
5 Sliding rails
6 Stop plate profile seal



Detail Y



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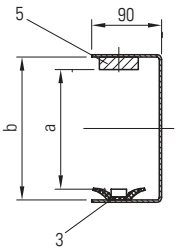
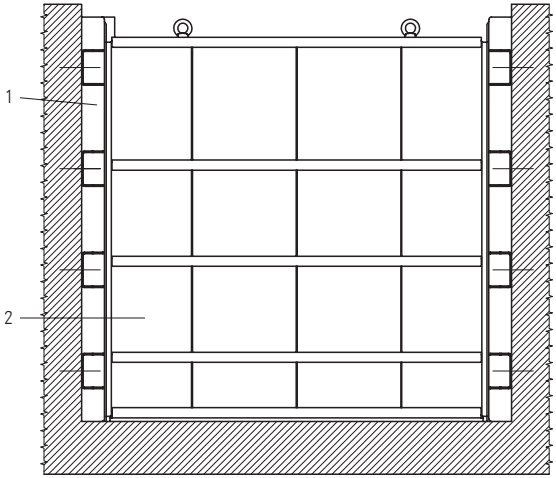


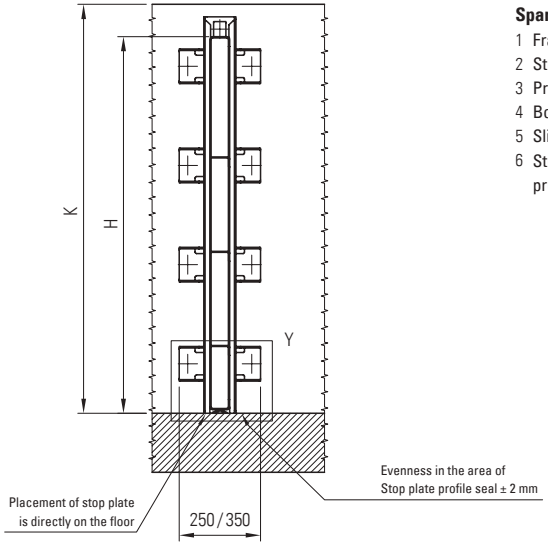
DIMENSIONS	
Channel width W:	mm
Channel depth K:	mm
Stop gate height H:	mm (height of backwater)
Operating pressure V: R:	m WS
Flow direction:	

STOP PLATES OF STAINLESS STEEL

widths up to 5,000 mm, backwater levels of up to 5,000 mm

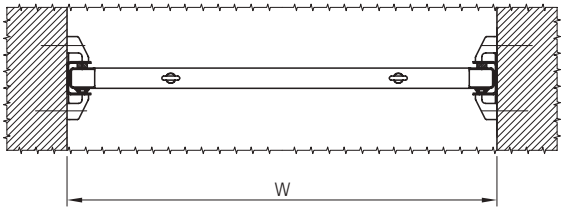
Stop plate, frame for doweling in the channel PAN D 314



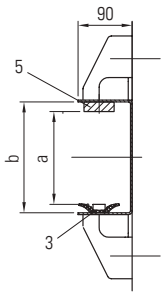


Spare parts

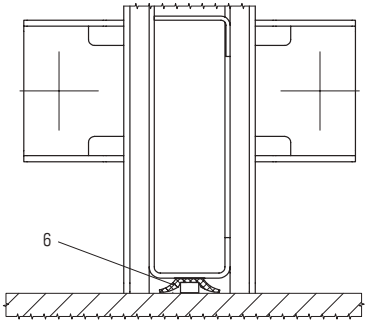
1 Frame
2 Stop plate
3 Profile seal
4 Bottom seal
5 Sliding rails
6 Stop plate profile seal



Detail X



Detail Y



DIMENSIONS	
Channel width W:	mm
Channel depth K:	mm
Stop gate height H:	mm (height of backwater)
Operating pressure V: R:	m WS
Flow direction:	

STOP PLATES OF PUR COATED STEEL

frame for grouting or doweling with Neoprene seal | design Passavant® in compliance with DIN 19569-4, leak proof class 2 | approximately 1,000 x 1,000 up to 5,000 x 5,000 mm; larger dimensions available upon request

Product description
Passavant® stop plates are designed based on the local requirements and are manufactured as welded parts made of steel sheet metal and supports.

Matching guide frames are made for the stop plates from special profiles. They are installed by grouting them into structure grooves. The guide frames ensure perfect seals and guide the lifting tools as well as the plates.

Stop plates are equipped with balancing valves through which the blocked-off canal area is flooded. Thanks to this balancing of pressure, the stop plates can be pulled easily. The valves are activated automatically by the lifting tool. Additional manual work, such as valve spindle activation, is not required in this case.

Single piece stop plates are usually designed for installation on the channel base. A concrete apron in the structure covers the distance from the top end of the channel to the operating floor.

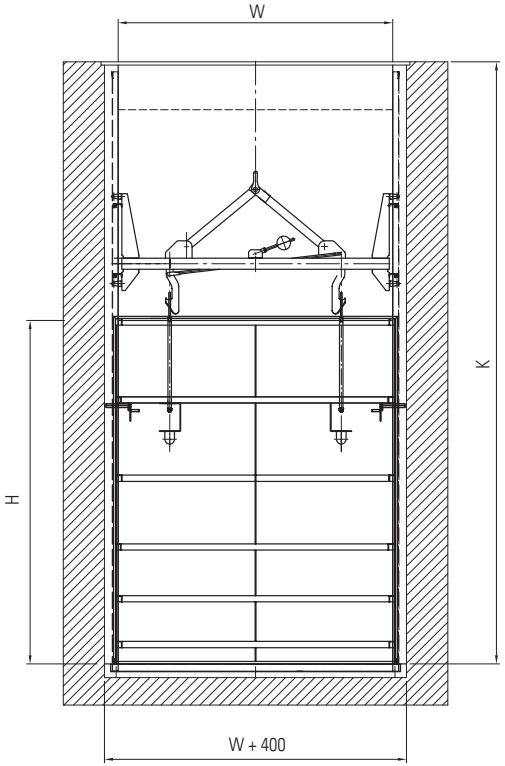
If multi-part stop plates are used, several individual sections are positioned above each other.

For situations where the stop plates have to be positioned into place in fast flowing water, Passavant® offers special roller stop plates, which feature additional heavy load rollers.

The company's portfolio also includes lifting beams and chain devices to pull up and lower the stop plates and storage racks.

Application
Shut-off devices with three-face or four-face shut-offs. For secure shut-offs (no drive unit failure) and simple operation as well as handling thanks to automatic balancing valves. Usually installed into open channels. Suitable for one flow direction.

Anti-corrosive properties
Stop plates are delivered in PUR steel coating according to customer or application specifications. Special designs in stainless steel are possible.



Dimensions

Channel width W:	mm
Channel depth K:	mm
Stop gate height H:	mm (height of backwater)
Operating pressure V:	m WS

SLUICE GATES WITH 1 SPINDLE OR 2 SPINDLES

use and design | W x H | as specified

Product description
Sluice gate with straight/round/triangular/trapezoid sill. For grouting in opening of building or for doweling into or in front of the channel on a straight wall in compliance with DIN 18202. Design in compliance with PAN R 3…

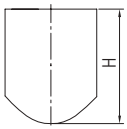
Application
Passavant® sluice gates are 3-face sealing shut-off/control devices. Design in compliance with DIN 19569-4 standard; leak proof class 3. Suitable for both flow directions.

Design
Designed to meet static requirements. Frame with yoke made of welded stainless steel profiles with double-lip seal attached to the side. Flat seal mounted flush in straight sill. Drive on yoke with spindle (1 or 2 spindles) and hand wheel or other drive types and activation types.

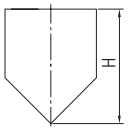
Mounting
Anchoring, grouting and combinations thereof

Variations

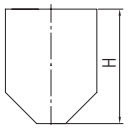
Half-round sill



Triangular sill



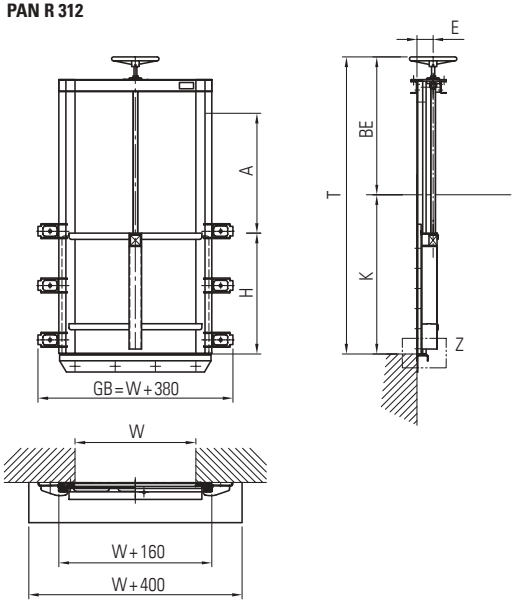
Trapezoid sill



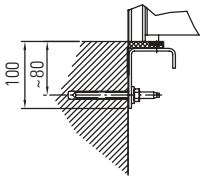
SLUICE GATES WITH 1 SPINDLE OR 2 SPINDLES

use and design | W x H | as specified

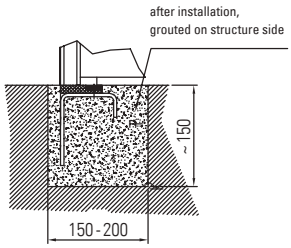
PAN R 312



Z Sill for doweling



Z Sill for grouting



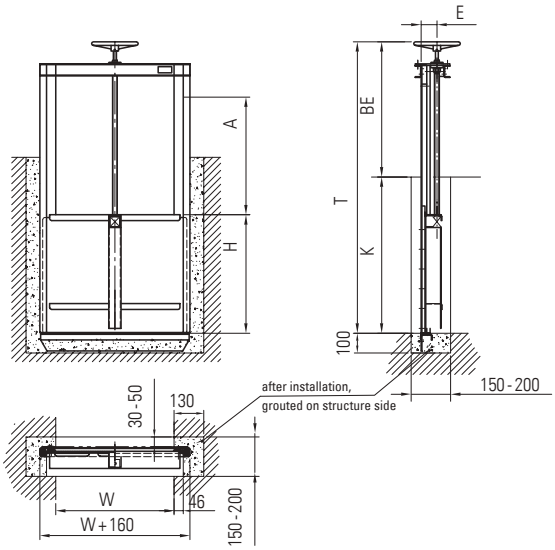
Operating height BE standard = 900 mm
(other heights upon request)
E = upon request

DIMENSIONS		MATERIALS
Channel width W:	mm	Frame: AISI 304 / AISI 316 L / AISI 316 Ti
Plate height H:	mm	Plate: AISI 304 / AISI 316 L / AISI 316 Ti
Channel depth K:	mm (base – upper edge of structure)	Yoke: AISI 304 / AISI 316 L / AISI 316 Ti
Installation depth (K + BE) T:	mm (base – axis operating device)	Seal: EPDM
Stroke A:	mm	Spindle: AISI 304 / AISI 316 L / AISI 316 Ti
		Spindle nut: POM / RG 7
		Connection parts: A4
		Other materials upon request.

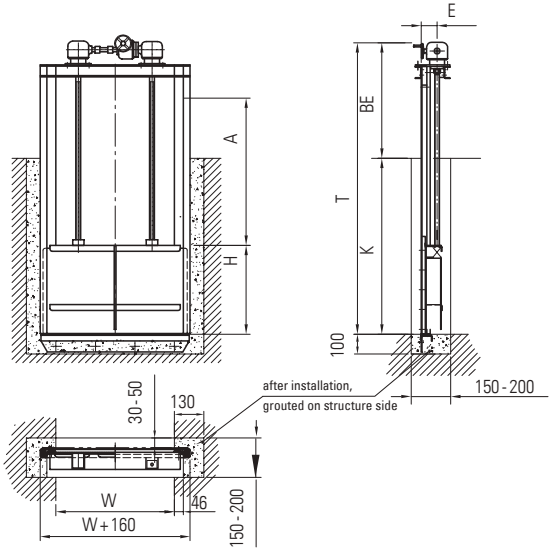
SLUICE GATES WITH 1 SPINDLE OR 2 SPINDLES

use and design | W x H | as specified

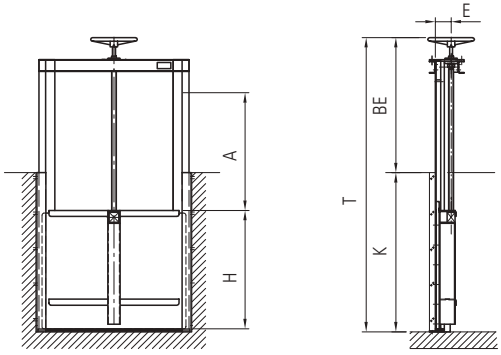
PAN R 313 1 spindle

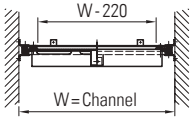


PAN R 313 2 spindles



PAN R 314





Operating height BE standard = 900 mm
(other heights upon request)
E = upon request

MATERIALS

Frame: AISI 304 / AISI 316 L / AISI 316 Ti
Plate: AISI 304 / AISI 316 L / AISI 316 Ti
Yoke: AISI 304 / AISI 316 L / AISI 316 Ti
Seal: EPDM
Spindle: AISI 304 / AISI 316 L / AISI 316 Ti
Spindle nut: POM / RG 7
Connection parts: A4

Other materials upon request.

DIMENSIONS

Channel width W: ..... mm
Plate height H: ..... mm
Channel depth K: ..... mm (base – upper edge of structure)
Installation depth (K + BE) T: ..... mm (base – axis operating device)
Stroke A: .....

WEIR SLUICE GATES

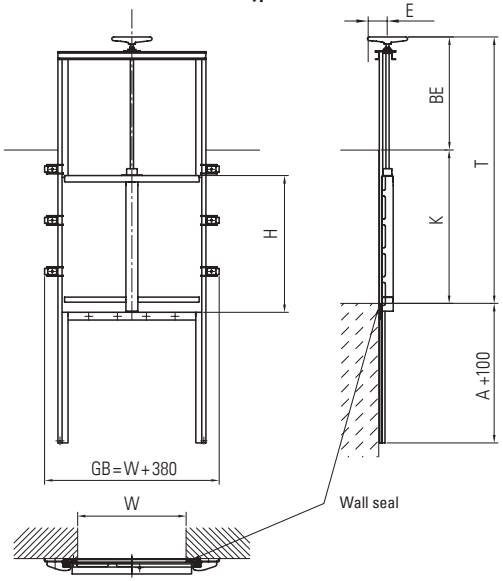
Product description
Weir sluice gate with straight sill. For grouting in opening of building or for doweling to a straight wall in compliance with DIN 18202. Design in accordance with PAN R71...

Applications
Passavant® weir sluice gates are three-faced sealing shut-off/control devices for open flow cross sections. Design in compliance with DIN 19569-4, leak proof class 3. Suitable for both flow directions.

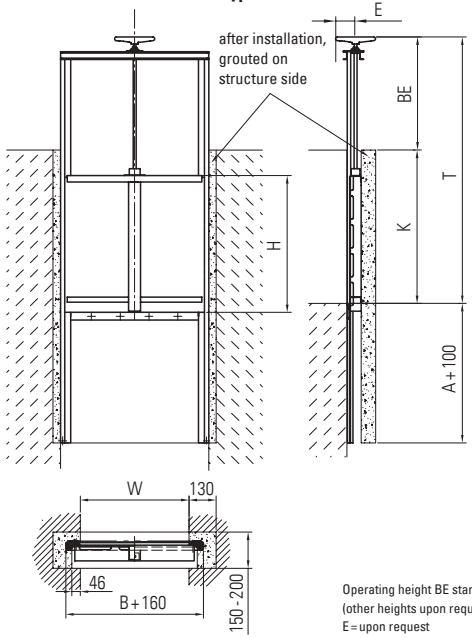
Design
Designed in compliance with static requirements. Frame with yoke in the form of welded stainless steel profiles. Has three-face inserted double-lip seal. Drive on yoke with spindle (1 or 2 spindles). Hand wheel or other drive and activation types.

Mounting: *Doweling, grouting*

Type R 711



Type R 713



Operating height BE standard = 900 mm
(other heights upon request)
E = upon request

DIMENSIONS

Channel width W:	mm	
Plate height H:	mm	
Channel depth K:	mm	(base – upper edge of structure)
Installation depth (K + BE) T:	mm	(base – axis operating device)
Stroke A:	mm	

MATERIALS

Frame: AISI 304/AISI 316 L/AISI 316 Ti
Plate: AISI 304/AISI 316 L/AISI 316 Ti
Yoke: AISI 304/AISI 316 L/AISI 316 Ti
Seal: EPDM
Spindle: AISI 304/AISI 316 L/AISI 316 Ti
Spindle nut: POM/RG 7
Connection Parts: A4

PENSTOCKS OF STAINLESS STEEL

on stock: W x H 200 x 200 up to 1,200 x 1,200 mm | PN 0.6 bar

Product description
Penstocks made of stainless steel for doweling to a straight wall in compliance with DIN 18202; for grouting in opening of building (or with flange connection as a special option). With elastic seal (slide gate); design in compliance with PAN A312 and A 313.

Applications
Passavant® penstocks have seals on four sides and work as sealing and control units.They are suitable for both flow directions. Designed in compliance with DIN 19569-4; leak proof class 4 (class 5 available upon request).

Design
Steel welded design in compliance with static specifications. Edged profile frame with fixation clamps all around (in the version used with dowels). With replaceable profile seal on all sides (standard double lip). Pressing of seals via sliding stripes. Moss rubber sealing between frame and structure. Spindle drive for various below ground and above ground level drives (see separate chapter).

Mounting
PAN A 312 for doweling, PAN A 313 for grouting and combinations thereof ***as well as*** *flange connections available upon request.*

MATERIALS

Frame: AISI 304 / AISI 316 L / AISI 316 Ti
Plate: AISI 304 / AISI 316 L / AISI 316 Ti
Seal: EPDM
Spindles: AISI 304 / AISI 316 L / AISI 316 Ti
Spindle nut: POM / RG 7
Connection parts: A4

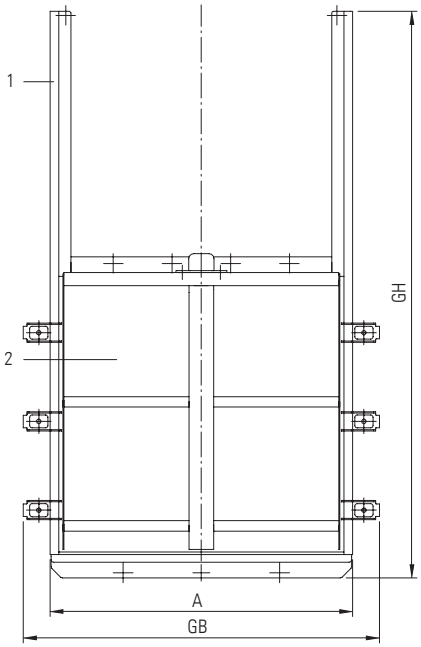
Operating height BE:
Above ground level: Standard 900 mm, K + 900 mm
Below ground level: Standard 100 mm under ground, K – 100 mm
Other materials and operating heights upon request.

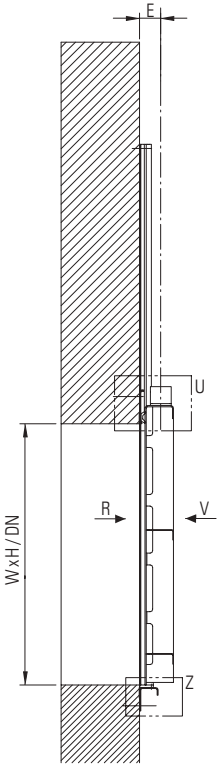
DIMENSIONS

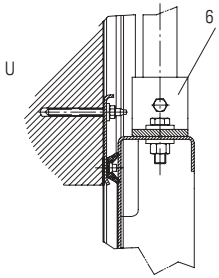
Cross sectional opening W x H / DN:	mm
Channel depth K:	mm (base – upper edge of structure)
Installation depth (K + BE) T:	mm (base – to upper edge of drive)
Stroke A:	mm
Operating pressure, VS-RS P:	m WS
Activation pressure, VS-RS Pb:	m WS

PENSTOCKS FOR DOWELING WITH SLIDE RAILS AND ELASTIC PROFILE SEALS

design Passavant® in compliance with DIN 19569-4 | DN/W x H 200 x 200 up to 1,200 x 1,200 mm | PN 0.6 bar;
higher pressures upon request



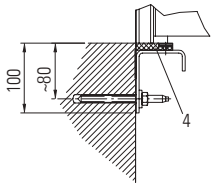




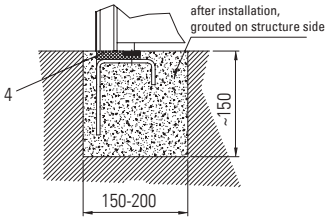
Spare parts

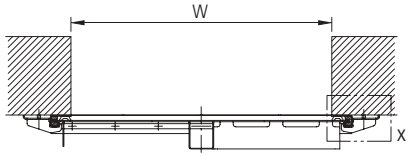
1 Frame
2 Plate
3 Seal
4 Bottom seal
5 Sliding strip
6 Rod mount
7 Mounting clamp

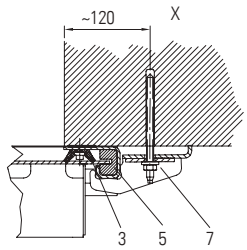
Z Sill for doweling



Z Sill for grouting





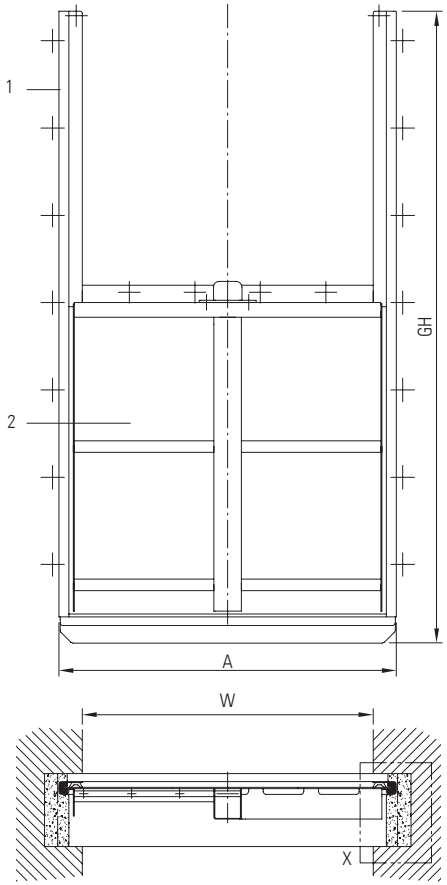


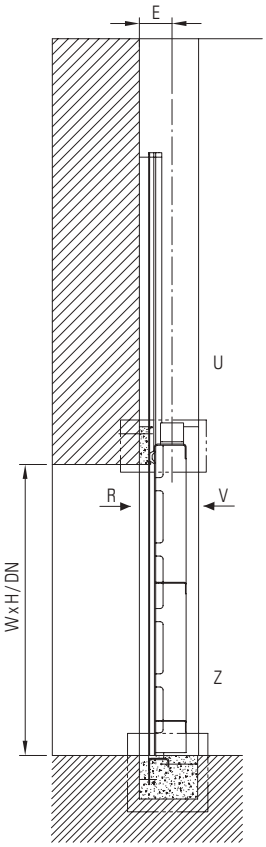
E = upon request

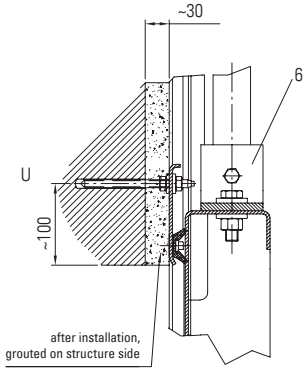
W x H / DN	H / STROKE	A	GB	GH	QUANTITY / SIZE DOWELS	MAX. LOAD / DOWEL
200 x 200	200	360	580	580	4xM10 / 2xM12	2.5 kN
300 x 300	300	460	680	780	4xM10 / 2xM12	5.0 kN
400 x 400	400	560	780	980	5xM10 / 2xM12	8.5 kN
500 x 500	500	660	880	1,180	6xM10 / 4xM12	7.0 kN
600 x 600	600	760	980	1,380	6xM10 / 4xM12	8.5 kN
700 x 700	700	860	1,080	1,580	8xM10 / 6xM12	6.0 kN
800 x 800	800	960	1,180	1,780	8xM10 / 6xM12	9.0 kN
900 x 900	900	1,060	1,280	1,980	9xM10 / 8xM12	8.0 kN
1,000 x 1,000	1,000	1,160	1,380	2,180	9xM10 / 8xM12	9.0 kN
1,100 x 1,100	1,100	1,260	1,480	2,380	10xM10 / 10xM12	8.0 kN
1,200 x 1,200	1,200	1,360	1,580	2,580	10xM10 / 10xM12	9.0 kN

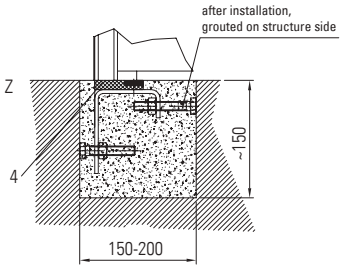
PENSTOCKS FOR GROUTING WITH SLIDE RAILS AND ELASTIC PROFILE SEALS

design Passavant® in compliance with DIN 19569-4 | DN/W x H 200 x 200 up to 1,200 x 1,200 mm | PN 0.6 bar;
higher pressures upon request



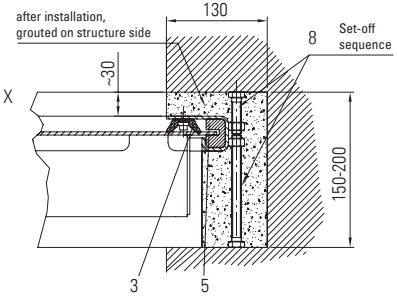






Spare parts

1 Frame
2 Plate
3 Seal
4 Bottom seal
5 Sliding strip
6 Rod mount
8 Alignment screw

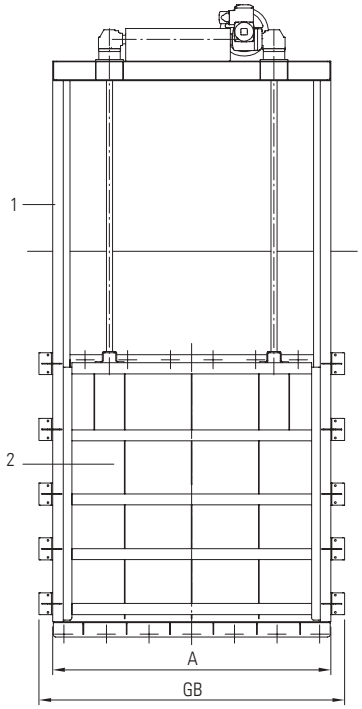


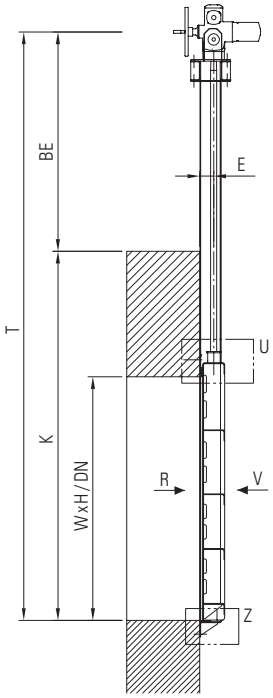
E = upon request

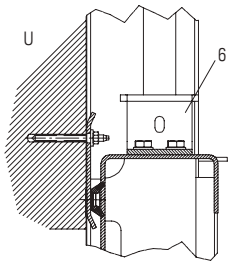
W x H/DN	H/STROKE	A
200 x 200	200	360
300 x 300	300	460
400 x 400	400	560
500 x 500	500	660
600 x 600	600	760
700 x 700	700	860
800 x 800	800	960
900 x 900	900	1,060
1,000 x 1,000	1,000	1,160
1,100 x 1,100	1,100	1,260
1,200 x 1,200	1,200	1,360

PENSTOCKS 1-SPINDLE OR 2-SPINDLES FOR DOWELING WITH SLIDE RAILS AND ELASTIC PROFILE SEALS

design Passavant® in compliance with DIN 19569-4 | DN/W x H larger than 1,200 x 1,200 up to 3,000 x 3,000 mm | PN 0.6 bar;
other dimensions and pressures upon request



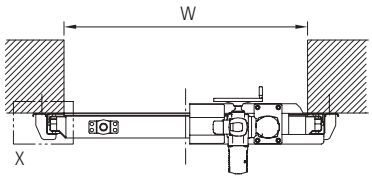


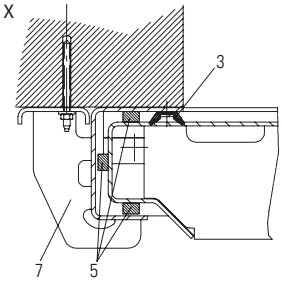


Spare parts

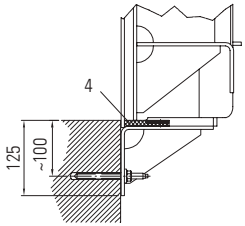
1 Frame
2 Plate
3 Seal
4 Bottom seal
5 Sliding strip
6 Rod mount
7 Mounting clamp

Operating height BE:
Above ground level: Standard 900 mm
(other heights upon request)
E = upon request

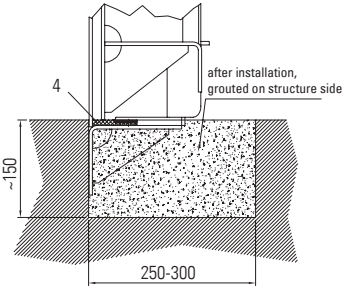




Z Sill for doweling

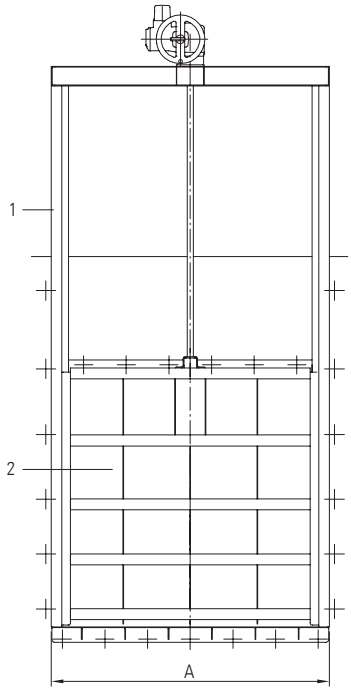


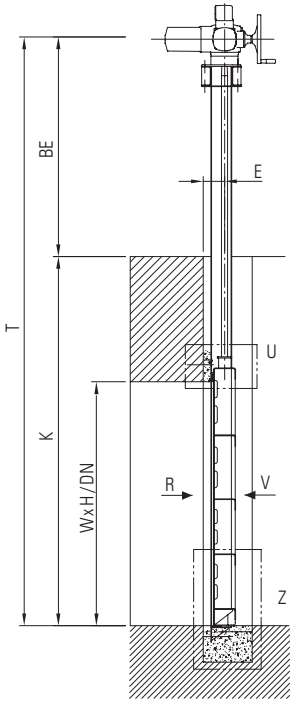
Z Sill for grouting

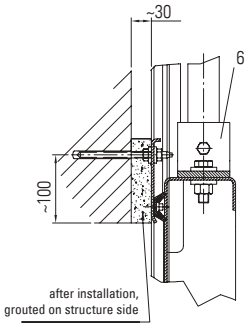


PENSTOCKS 1-SPINDLE OR 2-SPINDLES FOR GROUTING WITH SLIDE RAILS AND ELASTIC PROFILE SEALS

design Passavant® in compliance with DIN 19569-4 | DN/W x H larger than 1,200 x 1,200 up to 3,000 x 3,000 mm | PN 0.6 bar;
all other dimensions and pressures upon request



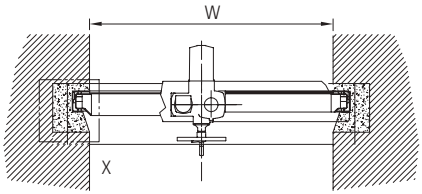


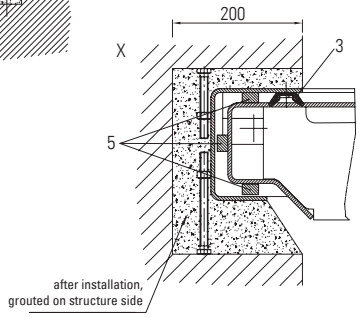


Spare parts

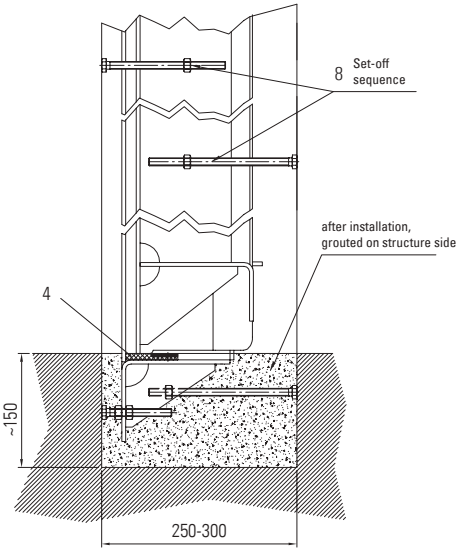
1 Frame
2 Plate
3 Seal
4 Bottom seal
5 Sliding strip
6 Rod mount
8 Alignment screw

Operating height BE:
Above ground level: Standard 900 mm
(other heights upon request)
E = upon request

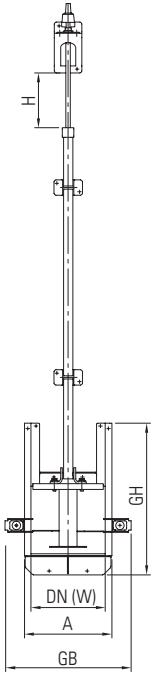


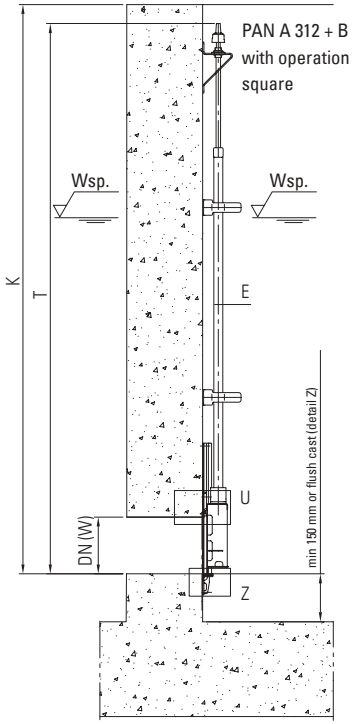


Z Sill for grouting

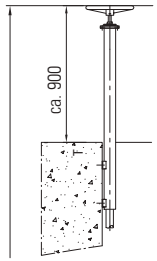


STANDARD PENSTOCKS 200 x 200 – 600 x 600

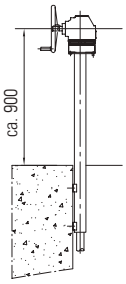




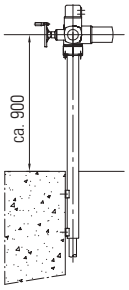
PAN A 312 + B 721
with hand wheel



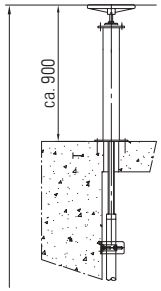
PAN A 312 + B 731
with gear



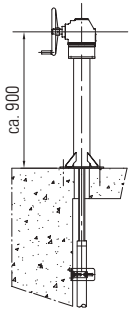
PAN A 312 + B 771
with electric drive



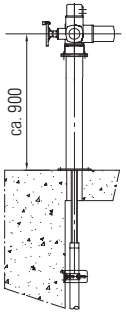
PAN A 312 + B 621
with hand wheel



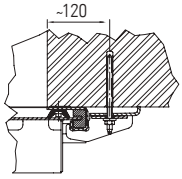
PAN A 312 + B 631
with gear



PAN A 312 + B 671
with electric drive



X (Top view)



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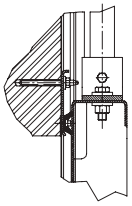
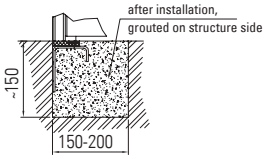
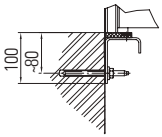


Z Sill for grouting



Z Sill for doweling



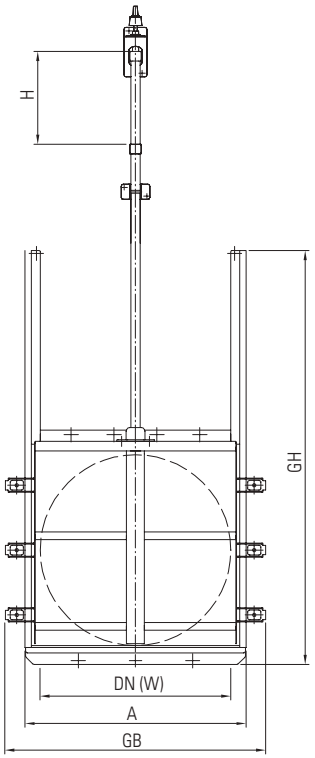
Vertically even walls in compliance with DIN 18202.
Penstock design in compliance with DIN 19569-4

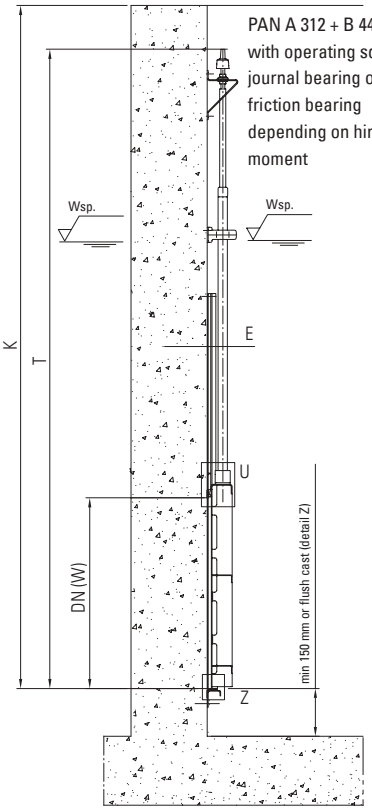
E = upon request

MATERIALS
Frame / Plate:
Spindle:
Spindle nut:
Sleeve pipe:
Spindle guide:
Mounting material: A4-70

DN/W	H/STROKE	A	GB	GH
200 x 200	200	360	580	580
300 x 300	300	460	680	780
400 x 400	400	560	780	980
500 x 500	500	660	880	1,180
600 x 600	600	760	980	1,380

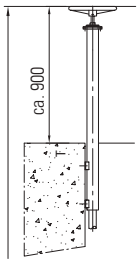
STANDARD PENSTOCKS 700 x 700 – 1,200 x 1,200



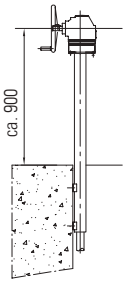


PAN A 312 + B 441
with operating square; journal bearing or anti-friction bearing depending on hinge moment

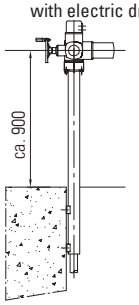
PAN A 312 + B 721
with hand wheel



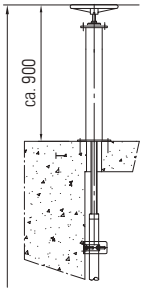
PAN A 312 + B 731
with gear



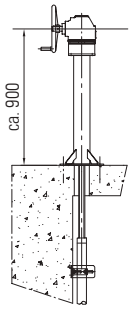
PAN A 312 + B 771
with electric drive



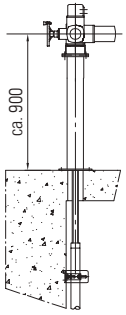
PAN A 312 + B 621
with hand wheel



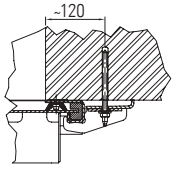
PAN A 312 + B 631
with gear



PAN A 312 + B 671
with electric drive



X (Top view)



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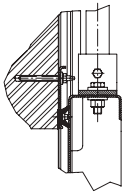
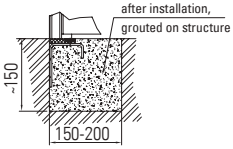
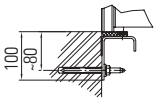


Z Sill for grouting



Z Sill for doweling



Vertically even walls in compliance with DIN 18202,
Penstock design in compliance with DIN 19569-4

E = upon request

MATERIALS
Frame / Plate:
Spindle:
Spindle nut:
Sleeve pipe:
Spindle guide:
Mounting material: A4-70

DN/W	H/STROKE	A	GB	GH
700 x 700	700	860	1,080	1,580
800 x 800	800	960	1,180	1,780
900 x 900	900	1,060	1,280	1,980
1,000 x 1,000	1,000	1,160	1,380	2,180
1,100 x 1,100	1,100	1,260	1,480	2,380
1,200 x 1,200	1,200	1,360	1,580	2,580

PENSTOCKS OF CAST IRON

with metal seals and wedge shut-off or roller wedge shut-off | design Passavant® in compliance with DIN 19569-4, leak proof class 4 | dimensions DN 150 up to W x H 3,400 x 3,400 mm

Start-up
After the installation or prior to the start-up of the shut-off devices, check seals, seal areas and moving parts for contamination, and clean them if necessary. Check the stroke levels across the entire opening and closing route using the intended activation device. If possible, check for leak proof performance under operating conditions (design in compliance with DIN 19569-4, leak proof class 4). If this should not be possible, perform a visual inspection (smooth straight wall in compliance with DIN, no grooves between frame and wall rendering).

In the event of problems, call the Passavant® customer service department for assistance.

PAN A 111: Square version for doweling with wedge shut-off
W x H 200 x 200 up to 1,200 x 1,200 mm, pressure VS: 0.6 bar/RS: 0.3 bar*

PAN A 142/145: Round version for grouting/with flange connection DN 150 up to DN 1,600 (above DN 500 with roller wedge shut-off), pressure VS: 0.6 bar/RS: 0.3 bar*

PAN A 152: Egg-shaped version for grouting with roller wedge shut-off, pressure VS: 0.6 bar/RS: 0.3 bar*

PAN A 242: Round variant (1 + 2 spindles) for grouting DN 1,800 up to DN 3,000 with roller wedge shut-off, pressure VS: 0.6 bar/RS: 0.3 bar*

PAN A 112/212: Square variant (1 + 2 spindles) for grouting W x H 1,400 x 1,400 up to 3,400 x 3,400 with roller wedge shut-off, pressure VS: 1.0 bar/RS: 0.3 bar*

PAN A 112/212: Standing rectangle (1 + 2 spindles) for grouting W x H 800 x 1,200 up to 2,400 x 3,200 with roller wedge shut-off, pressure VS: 1.0 bar/RS: 0.3 bar*

PAN A 112/212: Flat-lying rectangle (1 + 2 spindles) for grouting W x H 800 x 1,200 up to 2,400 x 3,200 with roller wedge shut-off, pressure VS: 1.0 bar/RS: 0.3 bar*

*Higher pressures available upon request.

Drives PAN B… (see separate chapter)
Drives on a vast variety of drive media above ground level or under ground level, spindle, manual and electrical drive or other drive types and activation devices.

DIMENSIONS

Dimensions/Types W x H/DN:		mm
Channel depth K:		mm (base – upper edge of structure)
Installation depth T:		mm (base – axis operating device)
Operating pressure V:	R	bar
Activation pressure V:	R	bar
Flow direction:		
Mounting:		

Rod design: 1 spindle/2 spindles

MATERIALS

Frame: Cast iron* GG20/GGG 50*
Plate: Cast iron* GG20/GGG 50*
Seal: Bronze
Spindles: AISI 304/AISI 316 L/AISI 316 Ti
Spindles nuts: POM/RG 7
Connection parts: A4

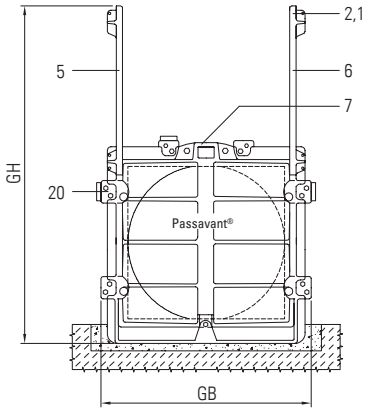
Coating/anti-corrosive substance cast iron parts: steel rust remover SA 2,5;
400µ solvent free 2-component Polyurethane, applied in a hot spray process
(other coating available upon request)

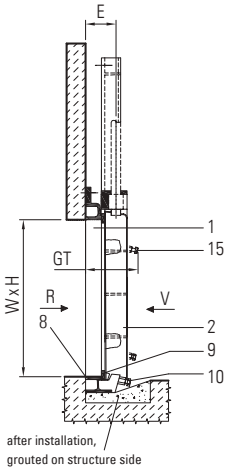
*Other cast iron qualities upon request.

INSPECTION	COMPONENT	INTERVAL	COMMENTS
Functional check	Frame	Annually and as needed depending on function	Open and close shut-off device and remove any contaminants
Leak proof check	Seal	Annually and as needed depending on use	Check condition of seal and clean if necessary and lubricate lightly

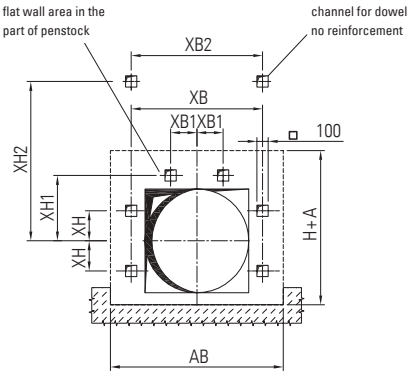
Spare parts

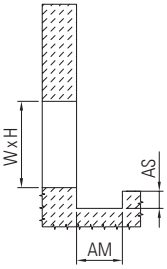
1 Frame incl. side guides
2 Plate
5 Side rail extension left
6 Side rail extension right
7 Backflow hook
8 Wall seal
9 Seal
10 Bottom wedge screw
15 Wedge screw
20 Dowel/frame
21 Dowel/frame Extension





DIMENSIONS PENSTOCK					APPROX.
W x H	GB	GH	GT	E	WEIGHT
200 x 200	470	470	155	95	40
300 x 300	570	620	155	95	50
400 x 400	670	770	165	95	70
500 x 500	770	920	165	100	110
600 x 600	930	1,680	290	140	290
700 x 700	1,030	1,780	290	140	320
800 x 800	1,130	1,800	290	140	400
1,000 x 1,000	1,400	2,450	290	140	480
1,200 x 1,200	1,680	2,450	290	140	620

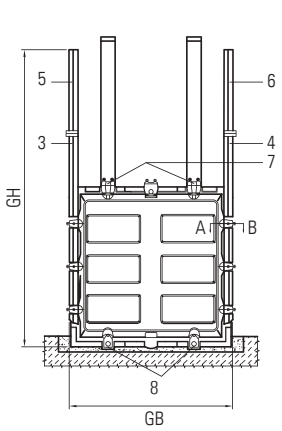


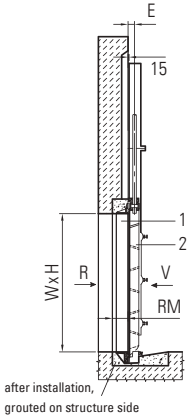


DIMENSIONS OPENINGS IN THE STRUCTURE											QUANTITY / SIZE OF	MAX. LOAD
W x H	AB	H + A	AM	AS	XB	XB1	XB2	XH	XH1	XH2	DOWELS	PER DOWEL
200 x 200	470	200 + 200	400	100	400						2 x M12	2.2 kN
300 x 300	570	300 + 200	400	100	500						2 x M12	4.3 kN
400 x 400	670	400 + 200	400	100	600						4 x M12	3.5 kN
500 x 500	770	500 + 200	400	100	700						4 x M12	5.4 kN
600 x 600	1,050	600 + 400	500	180	850	205	800	195	425	1,075	8 x M12	8.8 kN
700 x 700	1,150	700 + 400	500	180	950	205	900	245	425	1,125	6 x M16 / 2 x M12	8.8 kN
800 x 800	1,250	800 + 800	500	180	1,050	205	1,000	250	525	1,200	6 x M20 / 2 x M12	11.5 kN
1,000 x 1,000	1,520	1,000 + 400	500	180	1,310	215	1,200	320	670	1,550	6 x M24 / 2 x M12	17.3 kN
1,200 x 1,200	1,800	1,200 + 400	500	180	1,600	215	1,400	370	770	1,800	6 x M24 / 2 x M12	24.3 kN

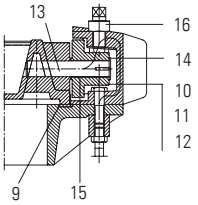
Spare Parts

1 Frame
2 Plate
3 Side rail left
4 Side rail right
5 Side rail extension left
6 Side rail extension right
7 Backflow hook
8 Bottom wedge
9 Frame seal
10 Upper wedge roll
11 Center wedge roll
12 Lower wedge roll
13 Roller pin
14 Pin disk
15 Bush
16 Adjustment screw

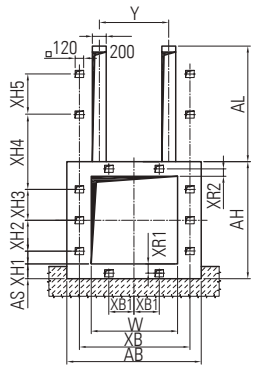


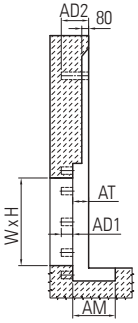


sectional drawing A - B



DIMENSIONS PENSTOCK					APPROX.
W x H	GB	GH	RM	E	WEIGHT
1,400 x 1,400	1,740	3,100	140	80	843
1,500 x 1,500	1,840	3,200	140	80	953
1,600 x 1,600	1,940	3,300	140	80	1,056
1,800 x 1,800	2,175	3,500	150	95	1,490
2,000 x 2,000	2,415	3,950	170	95	1,955
2,200 x 2,200	2,665	4,420	185	100	2,615
2,400 x 2,400	2,890	4,570	200	100	3,335
2,500 x 2,500	3,000	4,750	200	100	3,905
2,600 x 2,600	3,100	5,000	200	100	4,165
2,800 x 2,800	3,300	5,450	250	115	5,680
3,000 x 3,000	3,550	5,880	250	115	6,355

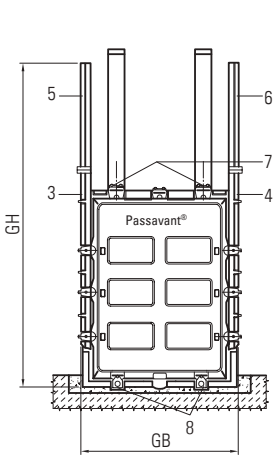


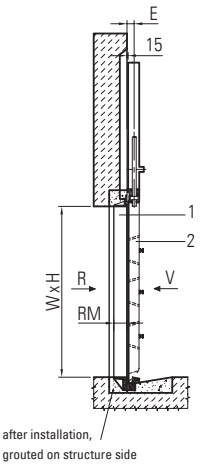


DIMENSIONS OPENINGS IN THE STRUCTURE																		
W x H	AB	AH	AT	AM	AS	AL	AD1	AD2	XB	XB1	XH1	XH2	XH3	XH4	XH5	XR1	XR2	Y
1,400 x 1,400	2,000	1,720	160	800	160	1,550	140	300	1,580	250	170	500	500	1,755		95	95	900
1,500 x 1,500	2,100	1,820	160	800	160	1,650	140	300	1,680	300	220	500	490	1,790		95	95	1,000
1,600 x 1,600	2,200	1,920	170	800	160	1,750	130	300	1,780	350	220	500	500	1,880		95	95	1,100
1,800 x 1,800	2,400	2,120	170	800	160	1,950	130	300	1,990	400	320	500	600	1,890		100	100	1,200
2,000 x 2,000	2,600	2,320	190	800	160	2,150	110	300	2,230	400	250	700	750	2,020		100	110	1,400
2,200 x 2,200	2,800	2,600	200	800	200	2,350	100	300	2,450	400	300	750	855	2,315		100	120	1,600
2,400 x 2,400	3,100	2,820	220	800	210	2,550	80	300	2,670	500	250	850	1,000	2,300		120	120	1,800
2,500 x 2,500	3,200	2,920	220	800	210	2,650	80	300	2,780	550	400	700	800	2,510		130	130	1,800
2,600 x 2,600	3,300	3,020	200	800	210	2,750	80	300	2,880	550	400	750	850	2,760		130	130	1,800
2,800 x 2,800	3,500	3,260	270	800	230	3,000	130	400	3,220	550	300	950	1,150	1,160	1,600	145	145	2,000
3,000 x 3,000	3,700	3,460	270	800	230	3,200	130	400	3,420	550	450	950	1,150	1,600	1,430	145	145	2,000

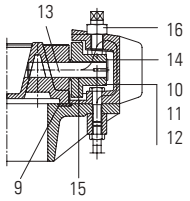
Spare parts

1 Frame
2 Plate
3 Side rail left
4 Side rail right
5 Side rail extension left
6 Side rail extension right
7 Backflow hook
8 Bottom wedge
9 Frame seal
10 Upper wedge roll
11 Center wedge roll
12 Lower wedge roll
13 Roller pin
14 Pin disk
15 Bush
16 Adjustment screw

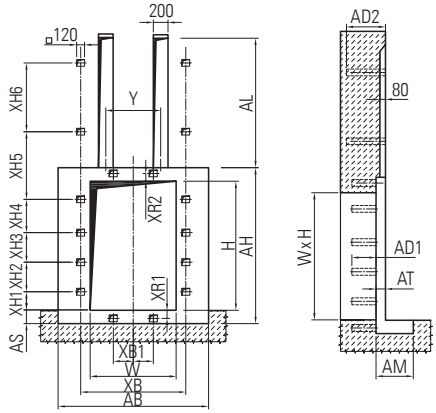




sectional drawing A-B



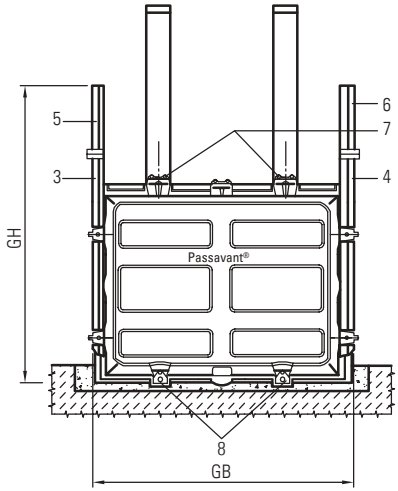
DIMENSIONS PENSTOCK					APPROX.
W x H	GB	GH	RM	E	WEIGHT
800 x 1,200	1,180	2,360	130	45	543
1,000 x 1,500	1,350	3,170	140	75	832
1,200 x 1,800	1,575	3,490	150	90	1,120
1,400 x 2,100	1,775	4,100	150	85	1,540
1,500 x 2,000	1,895	3,950	150	85	1,554
1,600 x 2,400	1,975	4,750	150	85	1,903
1,800 x 2,400	2,200	4,850	150	85	2,150
2,400 x 3,200	3,000	6,350	200	100	4,990

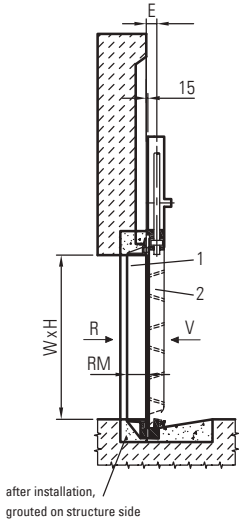


DIMENSIONS OPENINGS IN THE STRUCTURE																			
W x H	AB	AH	AT	AM	AS	AL	AD1	AD2	XB	XB1	XH1	XH2	XH3	XH4	XH5	XH6	XR1	XR2	Y
800 x 1,200	1,400	1,500	150	500	150	1,350	150	300	976		240	720		1,250					
1,000 x 1,500	1,600	1,800	170	500	160	1,650	130	300	1,186		240	500	500	1,790					
1,200 x 1,800	1,800	2,420	170	500	160	1,950	130	300	1,992		300	500	600	1,890					
1,400 x 2,100	2,000	2,420	190	800	160	2,250	110	300	1,608	300	270	700	700	2,070			100	100	900
1,500 x 2,000	2,100	2,320	190	800	160	2,150	110	300	1,708	300	250	700	750	2,020			105	105	1,000
1,600 x 2,400	2,300	2,720	190	800	160	2,550	110	300	1,792	300	250	850	1,000	2,450			105	105	1,200
1,800 x 2,400	2,400	2,720	190	800	160	2,550	110	300	1,992	400	250	850	1,000	2,450			100	100	1,200
2,400 x 3,200	3,000	3,600	190	800	200	3,350	110	300	2,714	500	450	700	700	800	1,700	1,650	120	100	1,800

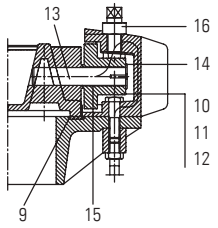
Spare parts

1 Frame
2 Plate
3 Side rail left
4 Side rail right
5 Side rail extension left
6 Side rail extension right
7 Backflow hook
8 Bottom wedge
9 Frame seal
10 Upper wedge roll
11 Center wedge roll
12 Lower wedge roll
13 Roller pin
14 Pin disk
15 Bush
16 Adjustment screw

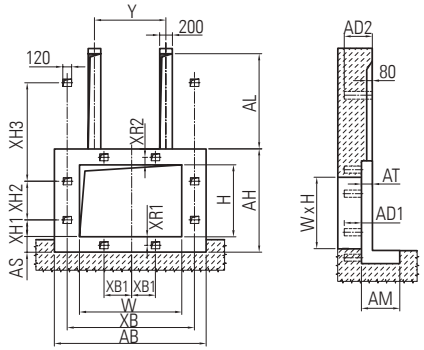




sectional drawing A-B



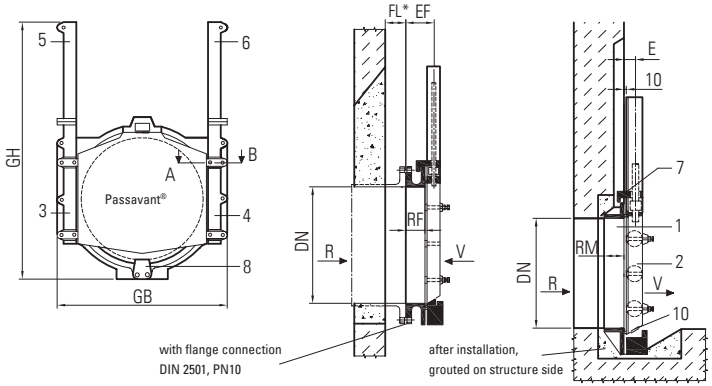
DIMENSIONS PENSTOCK					APPROX.
W x H	GB	GH	RM	E	WEIGHT
1,200 x 900	1,510	1,830	105	65	380
1,400 x 1,050	1,730	2,060	135	80	696
1,600 x 1,200	1,930	2,380	135	80	750
2,000 x 1,000	2,400	2,160	150	95	1,400
2,000 x 1,500	2,450	3,230	170	85	1,490
2,500 x 2,000	2,900	3,900	160	110	3,600
2,800 x 2,100	3,200	4,100	160	110	4,234
3,000 x 1,500	3,500	2,890	180	130	2,780
3,200 x 2,400	3,700	4,650	200	100	4,638



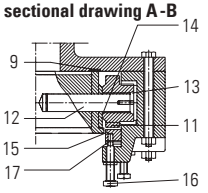
DIMENSIONS OPENINGS IN THE STRUCTURE																	
W x H	AB	AH	AT	AM	AS	AL	AD1	AD2	XB	XB1	XH1	XH2	XH3	XH4	XR1	XR2	Y
1,200 x 900	1,700	1,160	130	500	130	1,150	170	300	1,360		180	540	950				
1,400 x 1,050	2,000	1,350	150	800	150	1,200	150	300	1,575		200	66	1,150				900
1,600 x 1,200	2,200	1,500	150	800	150	1,350	150	300	1,775	400	240	720	1,250		90	90	1,100
2,000 x 1,000	2,500	1,320	170	800	160	1,200	130	300	2,310	500	150	350	3,50	1,070	105	105	1,400
2,000 x 1,500	2,600	1,820	190	800	160	1,650	110	300	2,230	400	220	520	560	1,720	110	110	1,400
2,500 x 2,000	upon request if needed this size																
2,800 x 2,100	3,400	2,500	220	800	200	2,250	80	300	3,080	550	270	700	700	2,200	120	120	1,800
3,000 x 1,500	3,500	1,900	200	800	200	1,650	100	300	3,370	550	250	450	500	1,550	130	130	2,000
3,200 x 2,400	3,800	2,820	220	800	210	2,550	80	300	3,468	600	250	850	1,000	2,300	125	125	2,200

Spare parts

1 Frame
2 Plate
3 Side rail left
4 Side rail right
5 Side rail extension left
6 Side rail extension right
7 Backflow hook
8 Bottom wedge
9 Frame seal
10 Wedge plate
11 Wedge roller
12 Roller pin
13 Pin disk
14 Bushing
15 Wedge
16 Adjustment screw
17 Locking pin

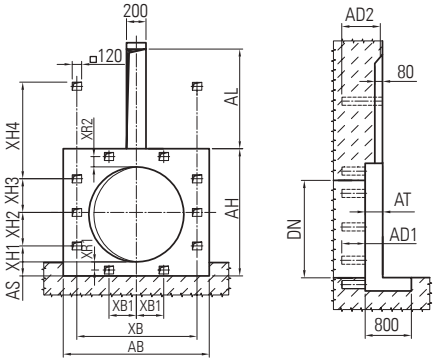


sectional drawing A-B



FL*= min. length of mounting screws

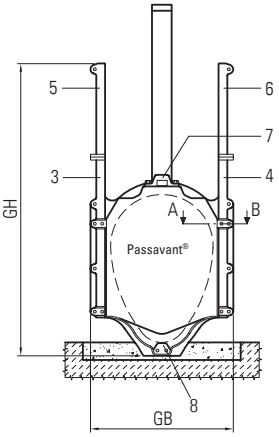
DIMENSIONS PENSTOCK							APPROX.
DN	GB	GH	RF	EF	RM	E	WEIGHT
150	275	320	90	122	55	42	19/13
200	345	560	110	142	55	42	36/24
250	395	585	110	142	60	42	42/27
300	445	610	110	142	60	42	45/32
400	555	805	110	142	70	42	67/50
500	680	1,090	110	150	80	50	126/104
600	860	1,260	120	160	90	50	201/157
800	1,220	1,690	150	200	110	60	420/337
1,000	1,320	1,990	150	200	110	60	517/431
1,200	1,540	2,370	160	220	120	70	857/715
1,300	1,650	2,570			120	70	–/750
1,400	1,800	3,100			140	90	1,450/1,288
1,500	1,880	3,230			150	90	1,530/1,390
1,600	1,980	3,330			150	90	1.650/1.478

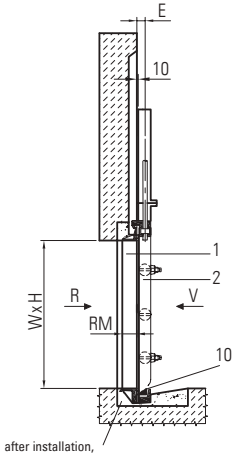


DIMENSIONS OPENINGS IN THE STRUCTURE																
DN	AB	AH	AT	AS	AL	AD1	AD2	XB	XB1	XH	XH1	XH2	XH3	XH4	XR1	XR2
150	350	290	70	70	300			240		75						
200	400	420	90	90	320			304		70						
250	450	450	90	90	360			354		95						
300	500	480	90	90	430			404		120						
400	600	590	90	90	520			506		170						
500	900	740	100	120	650	200		620			70	360				
600	1,000	840	110	120	750	190		780			120	440				
800	1,200	1,040	130	120	950	170	300	1,048			160	480	850			
1,000	1,500	1,240	130	120	1,150	170	300	1,248			200	600	1,050			
1,200	1,700	1,480	140	140	1,350	160	300	1,475			240	720	1,250			
1,300	1,800	1,580	140	140	1,450	160	300	1,575			260	780	1,340			
1,400	2,000	1,720	160	160	1,550	140	300	1,710	250		170	500	500	1,955	90	90
1,500	2,000	1,820	170	160	1,650	130	300	1,810	300		240	500	500	1,790	90	90
1,600	2,200	1,920	170	160	1,750	130	300	1,910	400		220	500	500	1,880	60	60

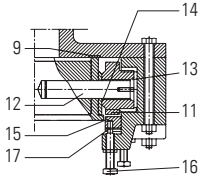
Spare parts

1 Frame
2 Plate
3 Side rail left
4 Side rail right
5 Side rail extension left
6 Side rail extension right
7 Backflow hook
8 Bottom wedge
9 Frame seal
10 Wedge plate
11 Wedge roller
12 Roller pin
13 Pin disk
14 Bushing
15 Wedge
16 Adjustment screw
17 Locking pin

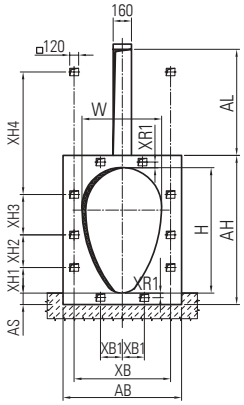


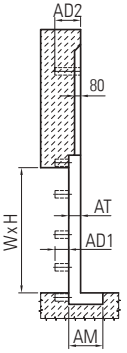


sectional drawing A - B



DIMENSIONS PENSTOCK					APPROX.
W x H	GB	GH	RM	E	WEIGHT
600 x 900	920	1,830	110	60	350
700 x 1,050	1,020	2,010	110	60	380
800 x 1,200	1,120	2,380	120	70	550
900 x 1,350	1,230	2,650	130	70	695
1,000 x 1,500	1,380	3,250	150	90	985
1,200 x 1,800	1,580	3,520	150	90	1,350
1,400 x 2,100	1,830	3,950	170	90	1,890

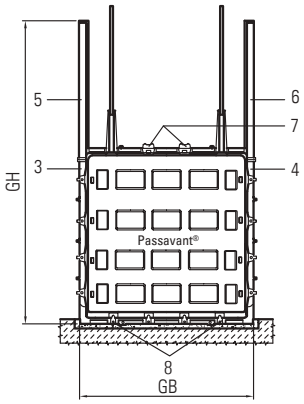


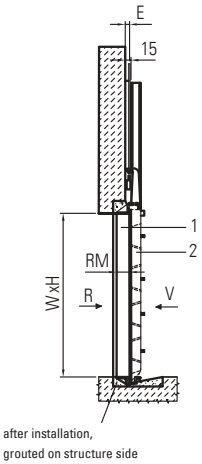


DIMENSIONS OPENINGS IN THE STRUCTURE															
W x H	AB	AH	AT	AM	AS	AL	AD1	AD2	XB	XB1	XH1	XH2	XH3	XH4	XR1
600 x 900	1,000	1,150	130	500	130	1,050	170	300	848		180	540		965	
700 x 1,050	1,100	1,310	130	500	130	1,200	170	300	948		200	600		1,050	
800 x 1,200	1,300	1,500	140	500	150	1,350	160	300	1,075		240	720		1,250	
900 x 1,350	1,400	1,650	150	500	160	1,500	150	300	1,175		270	810		1,405	
1,000 x 1,500	1,600	1,800	170	500	150	1,650	130	300	1,310		240	500	500	1,790	
1,200 x 1,800	1,800	2,100	170	500	150	1,950	130	300	1,510		320	500	600	1,890	
1,400 x 2,100	2,000	2,500	200	500	180	2,250	100	300	1,770	300	250	70	700	2,070	120

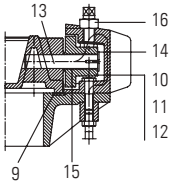
Spare parts

1 Frame
2 Plate
3 Side rail left
4 Side rail right
5 Side rail extension left
6 Side rail extension right
7 Backflow hook
8 Bottom wedge
9 Frame seal
10 Upper wedge roller
11 Center wedge roller
12 Lower wedge roller
13 Roller pin
14 Pin disk
15 Bushing
16 Adjustment screw

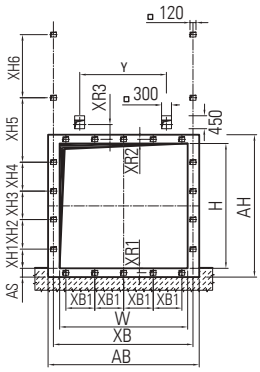


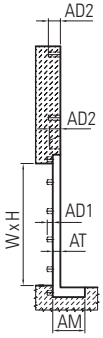


sectional drawing A-B



DIMENSIONS PENSTOCK					APPROX.
W x H	GB	GH	RM	E	WEIGHT
3,400 x 3,400	4,000	6,620	220	75	8,880

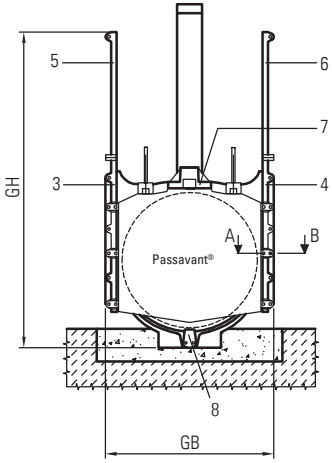


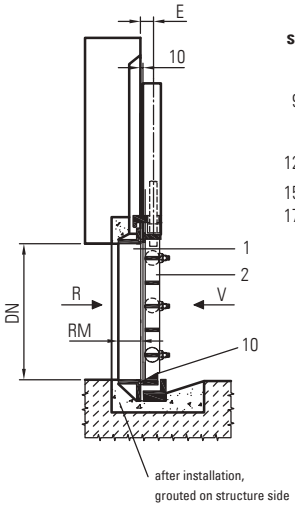


DIMENSIONS OPENINGS IN THE STRUCTURE																		
W x H	AB	AH	AT	AM	AS	AD1	AD2	XB	XB1	XH1	XH2	XH3	XH4	XH5	XH6	XR1	XR2	XR3	Y
3,400 x 3,400	4,100	3,860	110	1,000	230	240	280	3,720	800	450	700	800	900	1,800	1.650	130	130	450	2,400

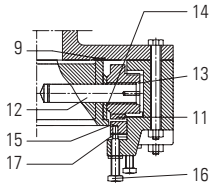
Spare parts

1 Frame
2 Plate
3 Side rail left
4 Side rail right
5 Side rail extension left
6 Side rail extension right
7 Backflow hook
8 Bottom wedge
9 Frame seal
10 Wedge plate
11 Wedge roller
12 Roller pin
13 Roller disk
14 Bushing
15 Wedge
16 Adjustment screw
17 Locking pin

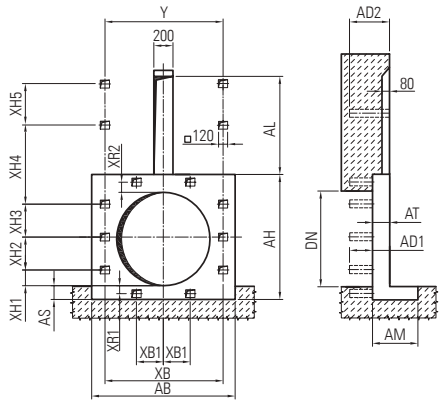




sectional drawing A-B



DIMENSIONS PENSTOCK					APPROX.
DN	GB	GH	RM	E	WEIGHT
1800	2,200	3,600	115	95	1,803
2,000	2,450	3,870	170	95	2,363
2,200	2,650	4,430	170	95	3,000
2,500	3,050	4,900	200	135	4,550
3,000	3,550	5,800	230	135	5,800



DIMENSIONS OPENINGS IN THE STRUCTURE																		
DN	AB	AH	AT	AM	AS	AL	AD1	AD2	XB	XB1	XH1	XH2	XH3	XH4	XH5	XR1	XR2	Y
1,800	2,400	2,120	170	800	160	1,950	130	300	2,110	400	320	500	600	1,950		60	60	1,200
2,000	2,600	2,320	190	800	160	2,150	110	300	2,370	400	250	700	750	2,020		60	60	1,400
2,200	2,800	2,600	200	800	200	2,350	100	300	2,570	400	300	750	855	2,315		60	60	1,600
2,500	3,200	2,920	220	800	210	2,650	100	300	2,926	500	290	850	1,000	2,550		100	100	1,800
3,000	3,700	3,440	280	800	220	3,150	120	400	3,420	550	450	950	1,150	1,600	1,430	60	60	2,000

WEIR PENSTOCKS

Product description
Weir penstocks made of stainless steel for doweling (to a straight wall in compliance with DIN 18202) or for grouting into an opening of the structure. With elastic seal (slide gate); design according to PAN A 712 and A 713.

Applications
Passavant® weir penstocks are four-faced sealing shut-off/control devices. Suitable for both flow directions. Design in compliance with DIN 19569-4, leak proof class 4 (class 5 upon request).

Design
Steel welded design in compliance with static requirements. Edged profile frame with fixation clamps all around (version for doweling). With replaceable profile seal on all sides (standard double lip). Pressing of seals via sliding stripes. Moss rubber sealing between frame and structure.

Spindle drive for various below ground and above ground level drives (see separate chapter).

Mounting
PAN A 7112 for doweling,
PAN A 713 for grouting and combinations thereof

MATERIALS

Frame: AISI 304/AISI 316 L/AISI 316 Ti
Plate: AISI 304/AISI 316 L/AISI 316 Ti
Seal: EPDM
Spindles: AISI 304/AISI 316 L/AISI 316 Ti
Spindle nut: POM/RG 7
Connection parts: A4

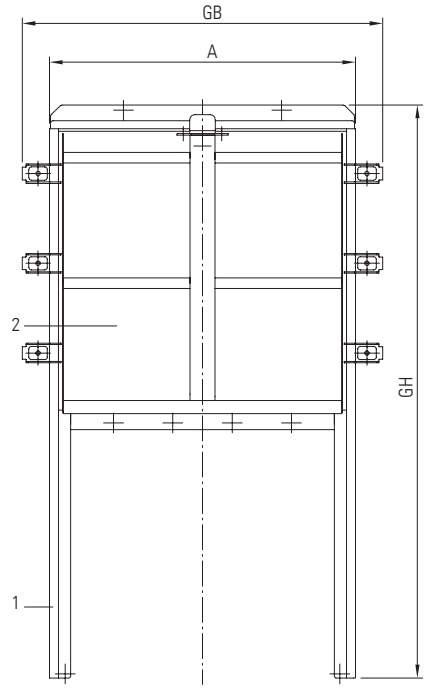
Operating height BE:
Above ground level: Standard 900 mm, K + 900 mm
Below ground level: Standard 100 mm under ground, K – 100 mm
Other materials and heights upon request.

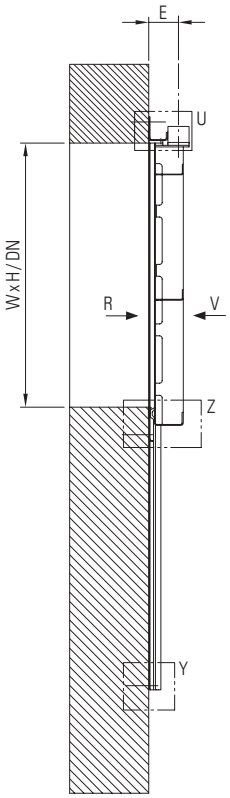
DIMENSIONS

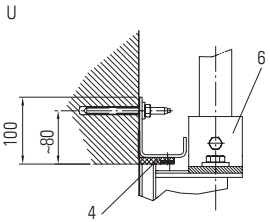
Cross sectional opening W x H or DN:	mm
Channel depth K:	mm (base – upper edge of structure)
Installation depth (K + BE) T:	mm (base – axis operating device)
Stroke H:	mm
Operating pressure, VS-RS P:	m WS
Activation pressure, VS-RS Pb:	m WS

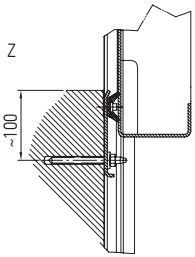
WEIR PENSTOCKS FOR DOWELING WITH SLIDING RAILS AND ELASTIC PROFILE SEALS

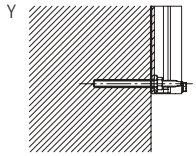
design Passavant® in compliance with DIN 19569-4 | DN/W x H 200 x 200 up to 1,200 x 1,200 mm | PN 0.6 bar; higher pressures upon request







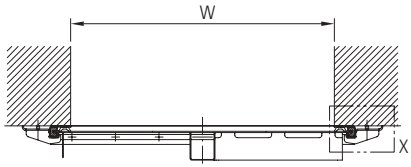


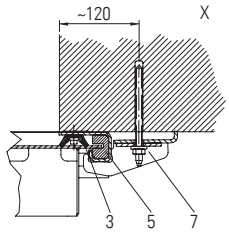


Spare Parts

1 Frame
2 Plate
3 Seal
4 Top seal
5 Sliding strip
6 Rod mount
7 Mounting clamp

E = upon request

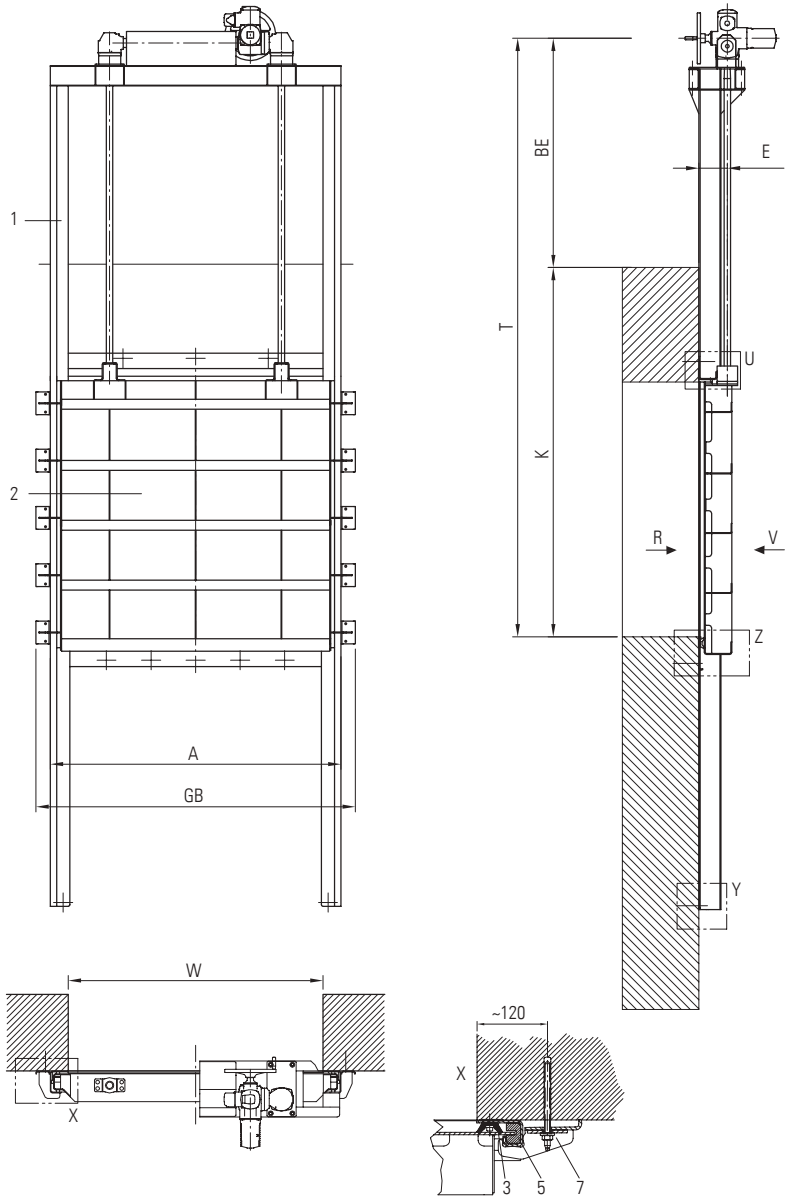




W x H / DN	H / STROKE	A	GB	GH	QUANTITY / SIZE DOWELS	MAX. LOAD / DOWEL
200 x 200	200	360	580	580	4xM10 / 2xM12	2.5 kN
300 x 300	300	460	680	780	4xM10 / 2xM12	5.0 kN
400 x 400	400	560	780	980	5xM10 / 2xM12	8.5 kN
500 x 500	500	660	880	1,180	6xM10 / 4xM12	7.0 kN
600 x 600	600	760	980	1,380	6xM10 / 4xM12	8.5 kN
700 x 700	700	860	1,080	1,580	8xM10 / 6xM12	7.0 kN
800 x 800	800	960	1,180	1,780	8xM10 / 6xM12	9.0 kN
900 x 900	900	1,060	1,280	1,980	9xM10 / 8xM12	8.0 kN
1,000 x 1,000	1,000	1,160	1,380	2,180	9xM10 / 8xM12	9.0 kN
1,000 x 1,100	1,100	1,260	1,480	2,380	10xM10 / 10xM12	8.0 kN
1,200 x 1,200	1,200	1,360	1,580	2,580	10xM10 / 10xM12	9.0 kN

WEIR PENSTOCKS FOR DOWELING WITH SLIDING RAILS AND ELASTIC PROFILE SEALS

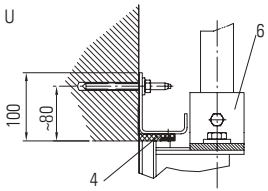
design Passavant® in compliance with DIN 19569-4 | DN/W x H greater 1.200 x 1.200 up to 3.000 x 3.000 mm;
other dimensions and higher pressures upon request

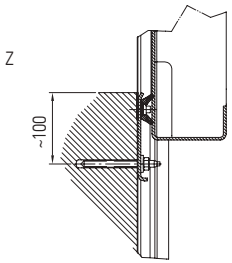


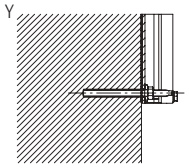
Spare parts

1 Frame
2 Plate
3 Seal
4 Top seal
5 Sliding strip
6 Rod mount
7 Mounting clamp

Operating height BE standard = 900 mm
(other heights upon request)
E = upon request







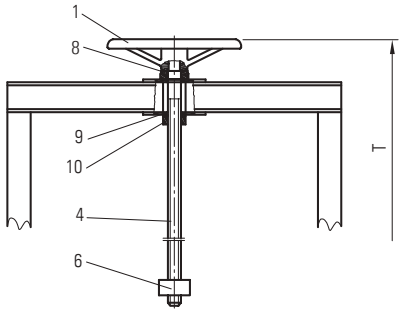
Passavant® ACTUATORS

Drive on yoke	Hand wheel	B229 01
	Bevel gear and hand wheel	B239 01
	2 spindles version with 2 bevel gears and hand wheel	B239 03
	2 spindles version with 3 bevel gears and operating square or hand wheel	B239 05
	Operating square	B249 01
	Spur gear and operating square	B259 01
	Electric drive	B279 01
	2 spindles version with 2 bevel gears and electric drive	B279 03
	Cylinder drive	B289 01
Drive on headstock	Hand wheel	B321 01
	Bevel gear and hand wheel	B331 01
	2 spindles version with 2 bevel gears and hand wheel	B331 03
	2 spindles version with 3 bevel gears and operating square or hand wheel	B331 05
	Electric drive	B371 01
	2 spindles version with 2 bevel gears and electric drive	B371 03
	Cylinder drive	B381 01
Drive on wall bracket	Bevel gear and hand wheel	B431 01
	Operating square	B441 01
	Spur gear and operating square	B451 01
	Electric drive	B471 01
	2 spindles version with 2 bevel gears and electric drive	B471 03
	Cylinder drive	B481 01
	2 spindles version with 3 bevel gears, ceiling housing and operating square	B491 05
	Bevel gear with wall bushing and electric drive	B492 03/05
	Operating key	B560 01
Drive in street cap	Operating square	B543 01
	Operating square with protection tube	B543 03
	Operating square with position indicator	B543 05
	Operating square with position indicator and protection tube	B543 07
Drive on floor stand	Hand wheel	B621 01
Mounted on shaft ceiling	Bevel gear with hand wheel	B631 01
	Electric drive	B671 01
	Cylinder drive	B681 01
Drive on floor stand	Hand wheel	B721 01
Mounted on shaft wall	Bevel gear with hand wheel	B731 01
	Electric drive	B771 01
	Cylinder drive	B781 01

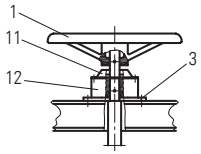
DRIVE ON YOKE WITH 1 FIXED SPINDLE

Fixed spindle and hand wheel B 229 01

Version with slide bearing

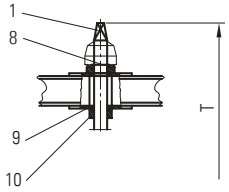


Version with roller bearing

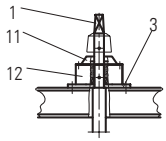


Fixed spindle and square/operating square B 249 01

Version with slide bearing

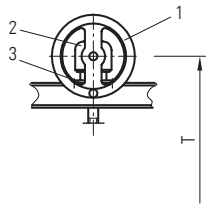


Version with roller bearing

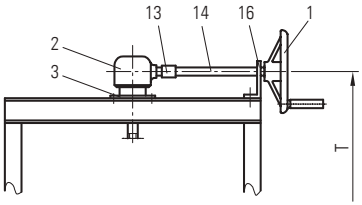


Fixed spindle with bevel gear and hand wheel B 239 01

Hand wheel on the front



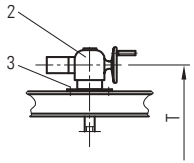
Hand wheel on the side



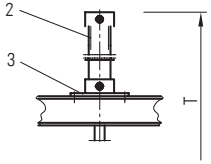
Spare Parts

1 Hand wheel, square, operating square
2 Bevel gear, spur gear, electric drive, cylinder
3 Bearing plate
4 Spindle
6 Spindle nut
8 Slide bearing
9 Slide bearing
10 Set collar
11 Cap piece of bearing
12 Rolling bearing assembly
13 Shaft coupling
14 Connection shaft
16 Step bearing

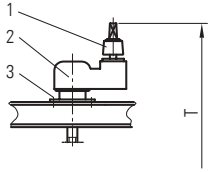
Fixed spindle with electric drive B 279 01



Cylinder and pneumatic or hydraulic drive B 289 01



Fixed spindle with front wheel gear and operating square B 259 01



DIMENSIONS	
Operating height BE:	mm
Channel depth K:	mm (base – upper edge of structure)
Installation depth (K+BE) T:	mm (base – axis operating device)

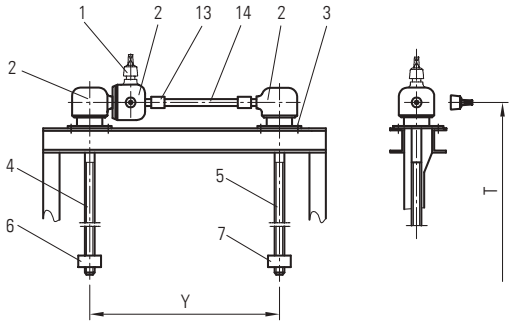
Materials

Yoke: AISI 304/AISI 316 L/AISI 316 Ti
Spindle: AISI 304/AISI 316 L/AISI 316 Ti
Spindle nut: POM/RG7
Connection parts: A4
Operating elements: Standard trade

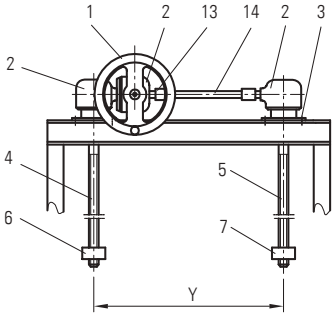
Operating height BE standard = 900 mm
Other materials and drive assemblies upon request.

DRIVE ON YOKE WITH 2 FIXED SPINDLES AND 3 BEVEL GEAR
ALTERNATIVE VERSION WITH MECHANICAL POSITION INDICATOR

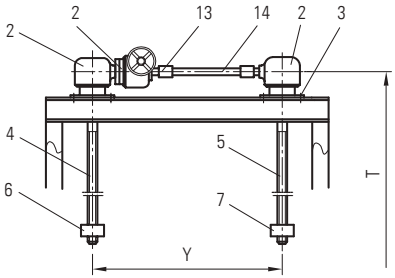
B 239 05 Version with operating square 21/25



B 239 03 Version with hand wheel



Yoke with 2 fixed spindles,
2 bevel gears and electric drive B 279 03



Other drive assemblies upon request.

Spare parts

1 Hand wheel, operating square
2 Bevel gear, Spur gear, electric drive, cylinder
3 Bearing plate
4 Spindle LH
5 Spindle RH
6 Spindle nut LH
7 Spindle nut RH
8 Slide bearing
9 Slide bearing
10 Set collar
11 Cap piece of bearing
12 Rolling bearing assembly
13 Shaft coupling
14 Connection shaft
16 Step bearing

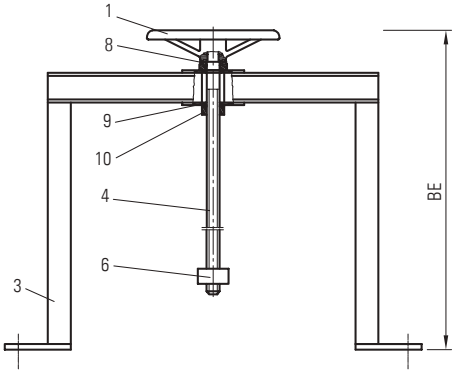
DIMENSIONS		MATERIALS
Operating height BE:	mm	Yoke: AISI 304/AISI 316 L/AISI 316 Ti
Channel depth K:	mm (base – upper edge of structure)	Spindle: AISI 304/AISI 316 L/AISI 316 Ti
Installation depth (K+BE) T:	mm (base – axis operating device)	Spindle nut: POM/RG7
Spindle clearance Y:	mm	Connection parts: A4
		Operating elements: Standard trade

Operating height BE standard = 900 mm
Other materials and drive assemblies upon request.

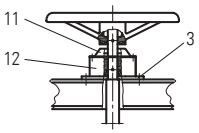
DRIVE ON HEADSTOCK WITH 1 FIXED SPINDLE

Headstock with fixed spindle and hand wheel B 321 01

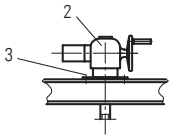
Design with slide bearing



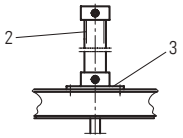
Design with rolling bearing



Headstock with fixed spindle and electric drive B 371 01

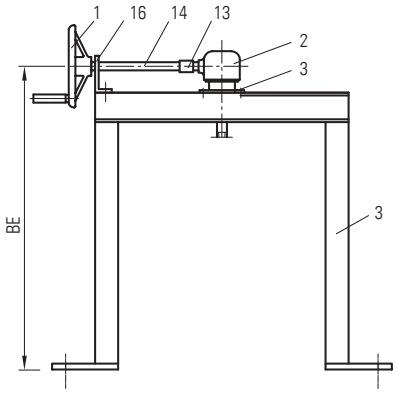


Headstock with cylinder and pneumatic or hydraulic drive B 381 01

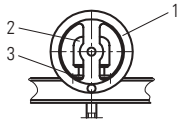


Headstock with fixed spindle with bevel gear and hand wheel B 331 01

Hand wheel at the side



Hand wheel on the front



Spare parts

1 Hand wheel, operating square
2 Bevel gear, spur gear electric drive, cylinder
3 Bearing plate, headstock
4 Spindle
6 Spindle nut
8 Slide bearing
9 Slide bearing
10 Set collar
11 Cap piece of bearing
12 Rolling bearing assembly
13 Shaft coupling
14 Connection shaft
16 Step bearing

DIMENSIONS		MATERIALS
Operating height BE:	mm	Headstock: AISI 304/AISI 316 L/AISI 316 Ti
Channel depth K:	mm (base – upper edge of structure)	Spindle: AISI 304/AISI 316 L/AISI 316 Ti
Installation depth (K+BE) T:	mm (base – axis operating device)	Spindle nut: POM/RG7
		Connection parts: A4
		Operating elements: Standard trade

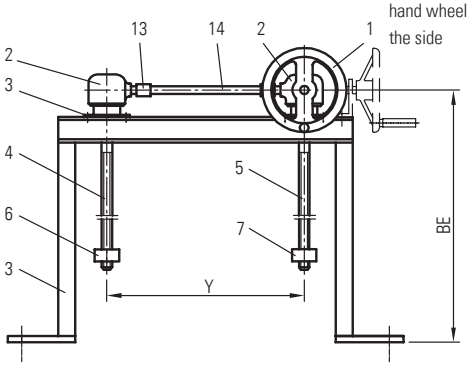
Operating height BE standard = 900 mm
Other heights and materials upon request.

DRIVE ON HEADSTOCK WITH 2 FIXED SPINDLES

Headstock with 2 fixed spindles with 2 bevel gears and hand wheel B 331 03

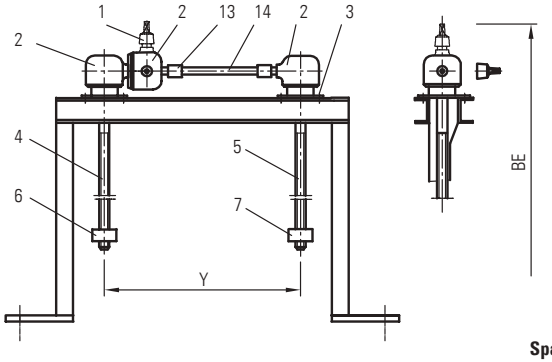
Hand wheel on the front

Variation hand wheel at the side



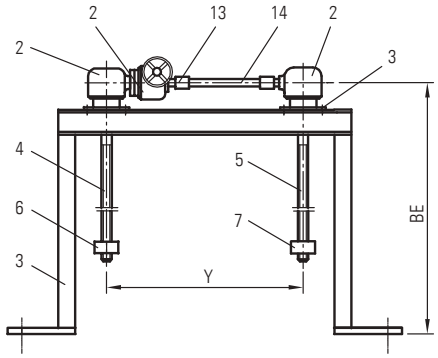
Headstock with 2 fixed spindles with 3 bevel gears and operating square B 331 05

Design with operating square 21/25

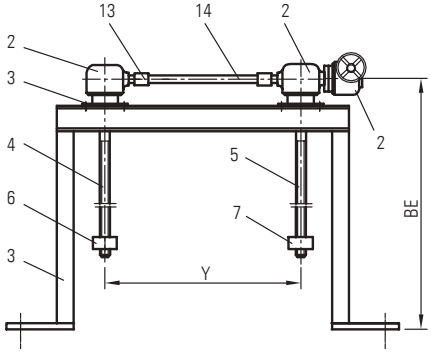


Headstock with 2 fixed spindles, 2 bevel gears and electric drive B 371 03

Drive located in center



Drive located on the side



Spare parts

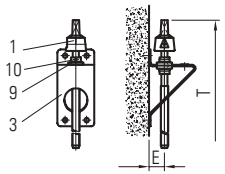
1 Hand wheel,
2 Bevel gear, spur gear electric drive, cylinder
3 Bearing plate, headstock
4 Spindle LH
5 Spindle RH
6 Spindle nut LH
7 Spindle nut RH
8 Slide bearing
9 Slide bearing
10 Set collar
11 Cap piece of bearing
12 Rolling bearing assembly
13 Shaft coupling
14 Connection shaft
16 Step bearing

DIMENSIONS		MATERIALS
Operating height BE:	mm	Headstock: AISI 304/AISI 316 L/AISI 316 Ti
Channel depth K:	mm (base – upper edge of structure)	Spindle: AISI 304/AISI 316 L/AISI 316 Ti
Installation Depth (K+BE) T:	mm (base – axis operating device)	Spindle nut: POM/RG7
Spindle clearance Y:	mm	Connection parts: A4
		Operating elements: Standard trade

Operating height BE standard = 900 mm
Other heights and materials upon request.

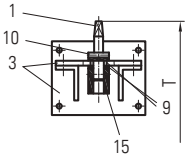
DRIVE ON WALL BRACKET

Wall bracket with operating square B 441 01

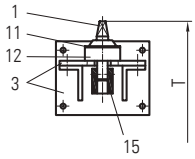


Wall bracket with square B 441 01

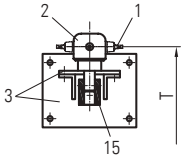
Design with slide bearing



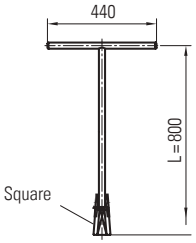
Design with roller bearing



Wall bracket with bevel gear hand wheel / square B 431 01

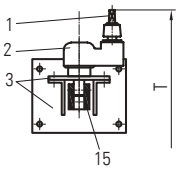


Operator key with square B 560 01



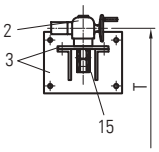
L = 800 mm standard
(other dimensions upon request)

Wall bracket with spur gear and operating square B 451 01

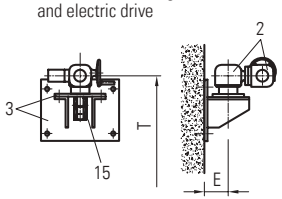


Wall bracket with electric drive B 471 01

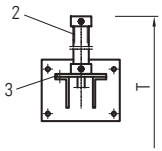
Version with electric drive



Version with bevel gear and electric drive



Wall bracket with pneumatic or hydraulic drive B 481 01

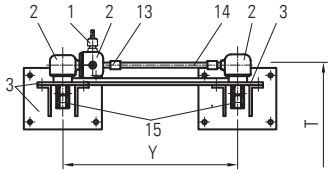


Spare parts

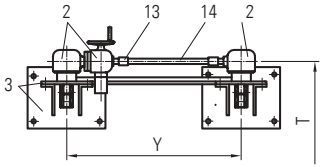
1 Square, operating square, hand wheel
2 Bevel gear, spur gear, electric drive, cylinder
3 Bearing plate, wall bracket
9 Slide bearing
10 Set collar
11 Cap piece of bearing
12 Slide bearing
13 Shaft coupling
14 Connecting shaft
15 Bearing piston with coupling sleeve

Wall bracket with 3 bevel gears and operating square / hand wheel B 491 01

Alternative version with mechanical position indicator

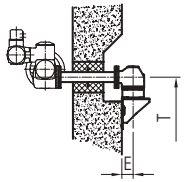


Wall bracket with 2 bevel gears and electric drive B 471 01



Drive types also possible with wall bearing B 492 02

1 or 2 spindles

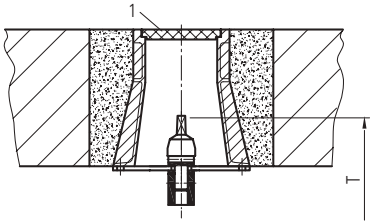


DIMENSIONS		MATERIALS
Channel depth K:	mm (base – upper edge of structure)	Wall bracket: AISI 304 / AISI 316 L / AISI 316 Ti
Installation depth (K+BE) T:	mm (base – axis operating device)	Bearing piston with coupling sleeve: AISI 304 / AISI 316 L / AISI 316 Ti
Spindle to wall clearance E:	mm	Spindle: AISI 304 / AISI 316 L / AISI 316 Ti
Spindle clearance Y:	mm	Spindle nut: POM / RG7
		Connection parts: A4
		Operating elements: Standard trade
		Other materials upon request.

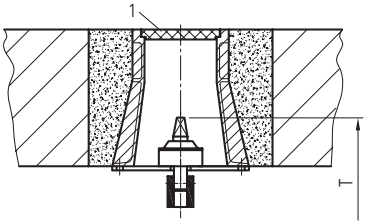
DRIVE IN STREET CAP WITH OPERATING SQUARE

optional with pressure-proof lead-through sealing;
alternative version with mechanical position indicator

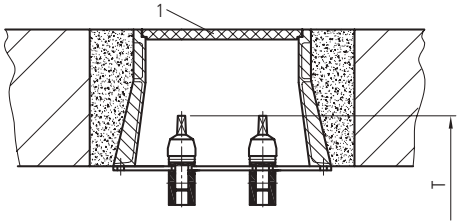
Design with slide bearing



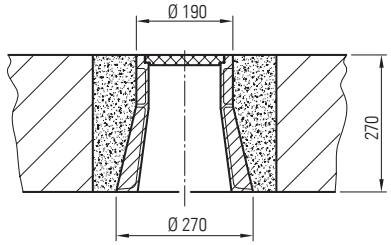
Design with roller bearing

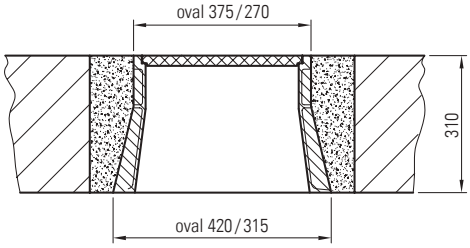


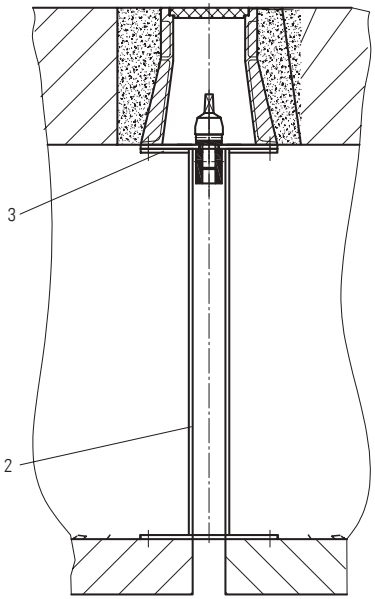
Design with 2 operating squares with additional gear ratio



Street cap DIN 4055, DIN 4056







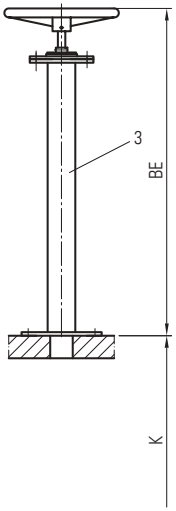
Spare parts

1 Street cap
2 Ceiling pipe
3 Pressure-proof ceiling flange

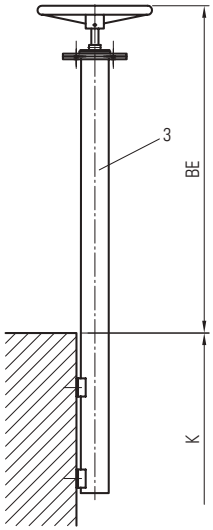
DIMENSIONS		MATERIALS
Channel depth K:	mm (base–upper edge of structure)	Surface box: Standard trade
Installation depth T:	mm (base–upper edge square)	Bearing piston with coupling sleeve:
Spindle to wall clearance E:	mm	AISI 304/AISI 316 L/AISI 316 Ti
		Operating square: GG/PUR
		Connection parts: A4
		Operating elements: Standard trade
		Other materials upon request.

DRIVE ON FLOOR STAND

Mounted to the shaft ceiling B 621 01

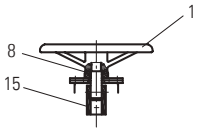


Mounted to the shaft wall B 721 01

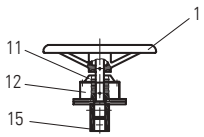


Hand wheel B 621/B 721 01

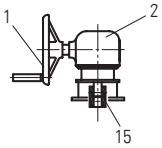
Design with slide bearing – alternative version with mechanical position indicator



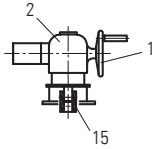
Design with roller bearing – alternative version with mechanical position indicator



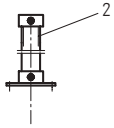
Bevel gear and hand wheel B 631/b 731 01



Electric drive B 671/B 771 01



Pneumatic or hydraulic drive B 681/B 781 01



Spare Parts

1 Hand wheel
2 Bevel gear, electric drive, cylinder
3 Floor stand
8 Slide bearing
11 Cap piece of bearing
12 Rolling bearing
15 Bearing piston with coupling sleeve

DIMENSIONS		MATERIALS
Operating height BE:	mm	Floor stand: AISI 304/AISI 316 L/AISI 316 Ti
Channel depth K:	mm (base – upper edge of structure)	Connection parts: A4
Installation depth (K + BE) T:	mm (base – axis operating device)	Operating elements: Standard trade

Operating height BE standard = 900 mm
Other materials and lengths on request.

OVERFLOW WEIRS (REGULATING) OF STAINLESS STEEL AND PUR COATED STEEL

for doweling to the overflow sill | design Passavant® in compliance with DIN 19569-4 | W x H approximately 500 x 200 up to 8,000 x 1,000 mm (or customized)

Product description
Regulating overflow weirs of stainless/coated steel are welded designs consisting of a sill sheet metal piece with side flanks, flap bearing and end stoppers as well as a privoting flap in compliance with static requirements in a winding stiff finish. The seal between sill and flap is a joint seal, which is screw mounted to both components. The side seal on the flanks are elastic seals mounted to the flap. For use in areas prone to freezing, an optional side flank heater can be installed (optional feature).

Applications
Passavant® regulating overflow weirs work as three-faced shut-off/controlling devices. They are suitable for one flow direction. Used to control the overflow or set up the desired water level, as a rule on the drains of pools/building structures. The weirs are doweled on top of the concrete overflow sill.

Start-up
After installation and/or prior to start-up of the overflow weirs, check seals, seal areas and moving parts for contamination and if required, clean them. Lubricate winding spindles with grease type e.g. Alvania R3. Inspect the blockage path using the intended operating device across the entire opening and closing path. If possible, check seal tightness under operating conditions (permitted leak rate pursuant to DIN 19569-4). If this should not be possible, perform a visual inspection (e.g. seal must be flush with the sealing area without any openings).

In the event of problems, please call the Passavant® customer service department for assistance.

Anti-corrosive properties
In accordance with client or application specifications, controllable overflow weirs are delivered in various stainless steel or coated steel qualities. All stainless steel components have been fully immersioned pickled and passivated.

Drive (operation)
Drive stand with spindle and hand wheel or other drive types or operating devices (see PAN B…)

MATERIALS

Weir and side flanks:
AISI 304/AISI 316 L/AISI 316 Ti
Spindle: AISI 304/AISI 316 L/AISI 316 Ti
Seal: EPDM
Connection parts: A4

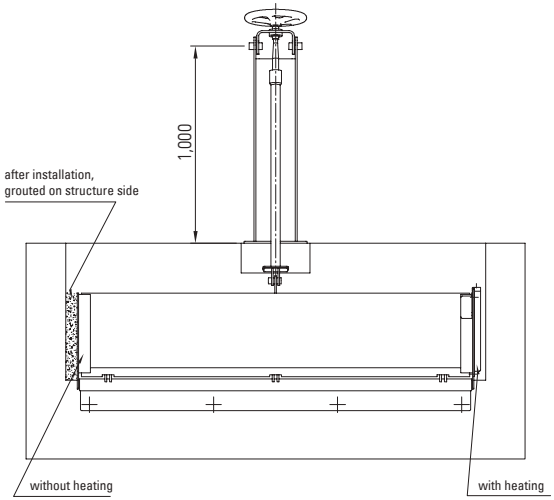
Other materials upon request.

INSPECTION	COMPONENT	INTERVAL	COMMENTS
Functional check	Weir flap	Annually and as needed depending on function	Drive overflow weir across the entire adjustment range once and remove all contaminants, lubricate spindle
Leak proof check	Seal	Annually and as needed depending on function	Check condition of seal and clean if necessary and lubricate lightly

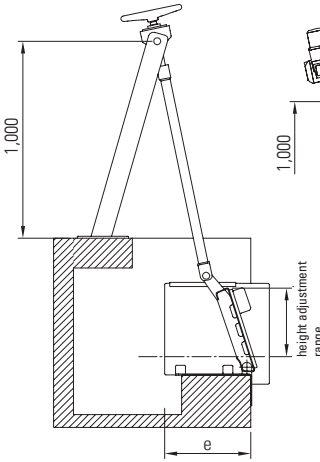
DIMENSIONS/OPERATING MODELS

Weir height h:		mm
Adjustment range Δh:		mm (as a rule: Weir height -100 mm)
Channel depth K:		mm (base – upper edge of structure)
Installation depth T:		mm (base – upper edge of the drive)
Operating pressure V:	R	bar
Side flank heater:	Yes / No	

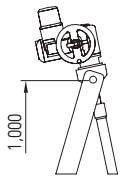
OVERFLOW WEIR (REGULATING)



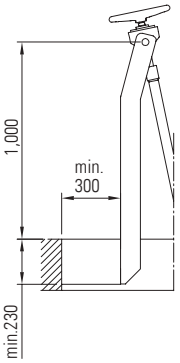
B 621 console stand manual drive

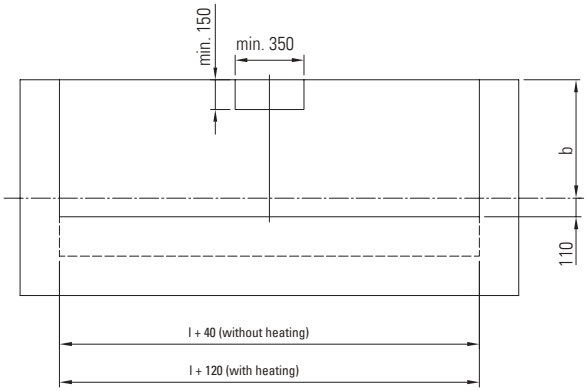


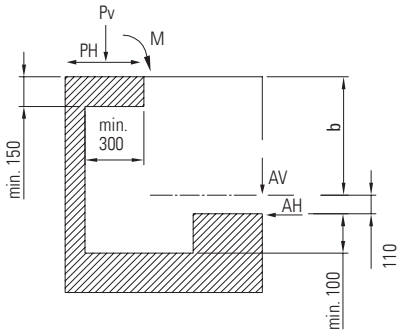
B 671/771 electric drive



B 721 wall mounting







HEIGHT ADJUSTEMENT AREA	REACH L	CLEARANCE a	INSTALLATION DEPTH b	FIXING AREA E e	AV (N/m)	AH (N/m)	PV (per m)	PH (per m)	M (per m)
0-300 mm	1.0–6.0 m	600–900 mm	600–2,000 mm	450 mm	450 N/m	750 N/m	1.0 kN	0.25 kN	0.7 kN
	6.0–8.0 m		850–2,000 mm				1.0 kN	0.25 kN	0.7 kN
0-450 mm	1.0–6.0 m	700–1,050 mm	600–2,000 mm	600 mm	750 N/m	1,500 N/m	1.65 kN	0.45 kN	1.2 kN
	6.0–8.0 m		850–2,000 mm				1.65 kN	0.45 kN	1.2 kN
0-700 mm	1.0–6.0 m	900–1,100 mm	1,000–2,000 mm	850 mm	1,200 N/m	3,000 N/m	2.5 kN	1.0 kN	2.5 kN
	6.0–8.0 m		1,250–2,000 mm				2.5 kN	1.0 kN	2.5 kN

DISTRIBUTION BLADES OF STAINLESS STEEL

for doweling into an open channel | design Passavant® in compliance with DIN 19569-4, leak proof class 1 | approximately 500 x 500 up to 3,000 x 3,000 mm (or customized)

Product description
Distribution blades of stainless steel are welded designs comprising the following components: Frame with pivoting bearing for doweling into a channel with an plan wall in compliance with DIN 18202, as well as a redirection flap designed as an edge profile based on static requirements. The seal between frame and flap is created by a joint seal (joint tape or profile seal depending on the design version). On the base and on the open side, the seal is created in the channel by a flat seal affixed to the flap.

Applications
Passavant® distribution blades are three-face sealing control devices. Design according to DIN 19569-4, leak proof class 1. Suitable for one flow direction. Used to redirect or distribute the medium flowing through it.

Start-up
After the installation or prior to the start-up of the distribution blades, all seals, seal areas and moving parts must be checked for contamination and cleaned if necessary. Spindles must be lubricated; we recommend e.g. Alvania R3. The adjustment route must be checked using the intended activation device across the entire pivoting range. Check leak proof performance under operating conditions if at all possible.

In the event of problems, please call the Passavant® customer service department.

Drive (activation)
If used in conjunction with smaller dimensions, the distribution blade can be operated manually using a hand pulling rod with a locking device. Alternatively, it is possible to perform this with a drive stand and worm gear on the turning point. This can also be done in combination with an actuator.

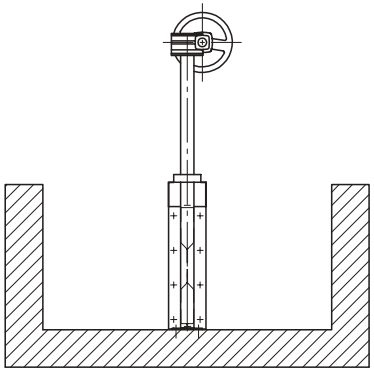
If the dimensions are larger, operation must be performed via the horizontally positioned spindle on the wall bracket via bevel/worm gear and operating square. A column stand with hand wheel/bevel gear and operating square or electrical drive can be used as options.

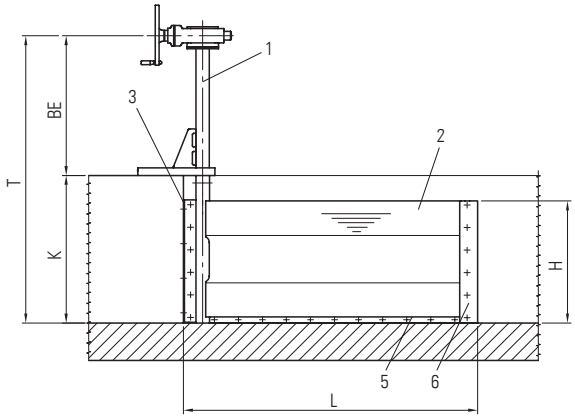
MATERIALS
Flap: AISI 304/AISI 316 L/AISI 316 Ti
Spindle: AISI 304/AISI 316 L/AISI 316 Ti
Seal: EPDM
Connection parts: A4
Other materials and dimensions upon request.

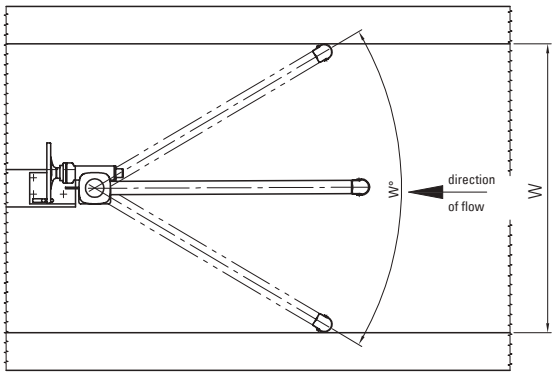
INSPECTION	INTERVAL	COMMENTS
Funktional check	Annually and as needed depending on function	Run flap over the entire swivel range once, remove any contaminants
Leak proof check		Lubricate spindle

DISTRIBUTION BLADES OF STAINLESS STEEL

for doweling into an open channel | design Passavant® in compliance with DIN 19569-4, leak proof class 1 | approximately 500 x 500 up to 3,000 x 3,000 mm (or customized)

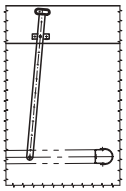




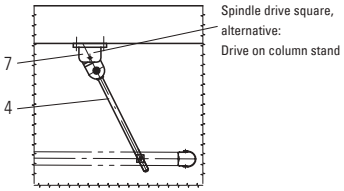


Drive variants

Manual pulling rods



With drive on the side



Spare parts

1 Drive stand with worm gear
2 Flap
3 Wall seal
4 Spindle
5 Bottom sealing rail
6 Side sealing rail
7 Wall bearing with bevel gear

Operating height BE standard = 900 mm
(other lengths upon request)

DIMENSIONS	
Length of the flap L:	mm
Height of the flap H:	mm
Channel width W:	mm
Channel depth K:	mm (base – upper edge of structure)
Installation depth T:	mm (base – upper edge ot the drive)
Operating pressure V:	bar
Flow speed:	m/s
Turning / pivoting range:	degrees

SWING CHECK VALVES OF STAINLESS STEEL AND PUR COATED STEEL

for doweling, grouting or flange connections | seals made of EPDM | design Passavant® in compliance with DIN 19569-4 | DN 400 – DN 1,200; other round dimensions and rectangular options starting at W x H 800 x 800 mm upon request

Product description
Swing check valves of stainless/coated steel for doweling, grouting or flange connections, with elastic seal; design in compliance with PAN K 3... Designed in compliance to the static requirements.

Version with single cap for gravity pipelines, used as flood protection as well as protection against penetration by animals and foreign particles.

Version with hollow float cap (for filling with a mixture of water and antifreeze, for balancing of the flap – setting-up of the opening force) for gravity pipelines, as a rule with water level in front of the flap cover (flap is at least partially immersed).

Version with lever and counter weight for gravity pipelines; as a rule with water level in front of the flap cover (flap is at least partially immersed). In this case the counter weight makes it possible to balance (set up) the opening force.

Applications
Passavant® Swing check valves work as four-faced sealing units. Suitable for use in one flow direction. For mounting to the end of a pipe or channel. For use in gravity pipelines or as a variant with impact dampening for pump pressure lines.

Start-up
After installation and/or prior to start-up of the swing check valves, check seals, seal areas and moving parts for contamination and if required, clean them. Lubricate flap joints with grease e.g. type Alvania R3. Fill covers of flaps with hollow float caps with a mixture of water and antifreeze through the inlet screw; determine the fill level based on the applicant's requirements. If possible, check seal tightness under operating conditions (permitted leak rate pursuant to DIN 19569-4). If this should not be possible, perform a visual inspection (e.g. seal must be flush with the sealing area without any openings).

In the event of problems, please call the Passavant® customer service department for assistance.

Anti-corrosive properties
Swing check valves are delivered in compliance with client or application specification in a variety of stainless steel qualities or in PUR coated steel. All stainless steel components have been fully immersioned pickled and passivated.

Functions
Autonomously working swing check valves for gravity pipelines or pressure pump pipes. Opening is triggered by the flowing stream of the water column or pump (gravity pipelines or pressure pump pipe).

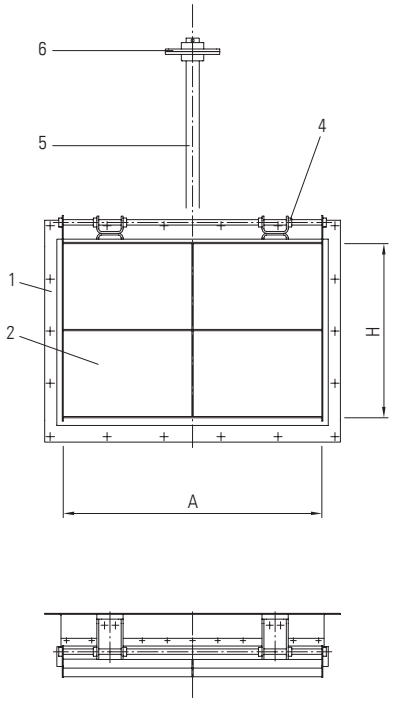
In the absence of flow, the flap is closed as a result of its own weight and prevents the water from flowing back.

INSPECTION	COMPONENT	INTERVAL	COMMENTS
Functional check	Frame and flap cover	Annually and as needed depending on function	Open and close flap cover remove contaminants present, if necessary
Leak proof check	Seal	Annually and as needed depending on use	Check condition of seal and clean if necessary and lubricate lightly

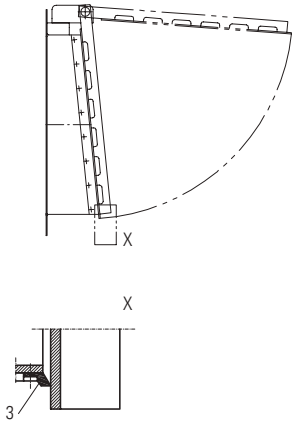
DIMENSIONS		MATERIALS
W x H/DN:	mm	Frame and flap cover: AISI 304/AISI 316 L/AISI 316 Ti
Mounting:		
Pressure on flap cover:	bar	
Pressure from pipe:	bar	Other materials and dimensions upon request.
Gravity pipeline: Pressure pump pipe:		

SWING CHECK VALVES FOR DOWELING SQUARE AND RECTANGULAR DESIGN

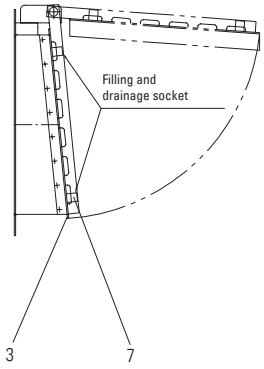
design Passavant® in compliance with DIN 19569-4 | starting at 800 x 800 mm | PN 0.6 bar;
other dimensions upon request



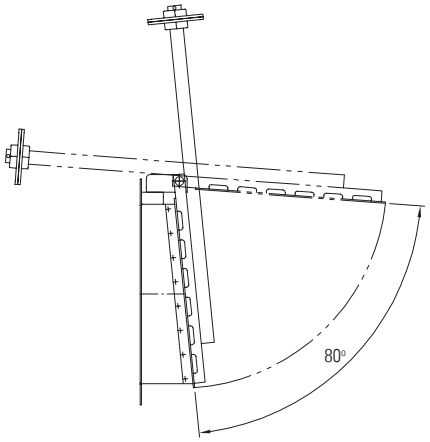
With single cap



With hollow float cap



With counterweight

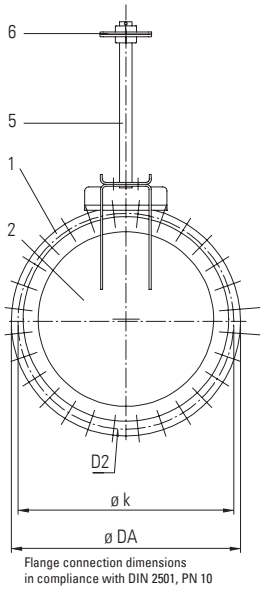


Spare parts

1 Frame
2 Cover
3 Seal
4 Ceiling bearing
5 Lever
6 Counterweight
7 Cover screw

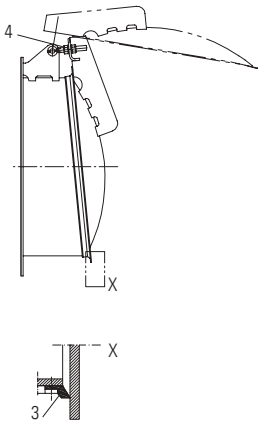
SWING CHECK VALVES FOR DOWELING

round design | design Passavant® in compliance with DIN 19569-4 | DN 400 – DN 1,200 | PN 0.6 bar

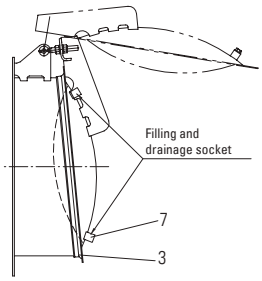


Flange connection dimensions
in compliance with DIN 2501, PN 10

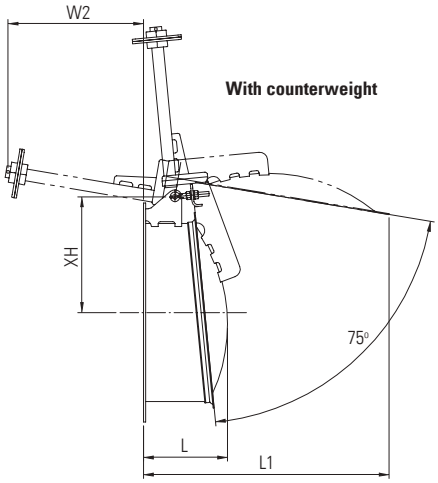
With single cap

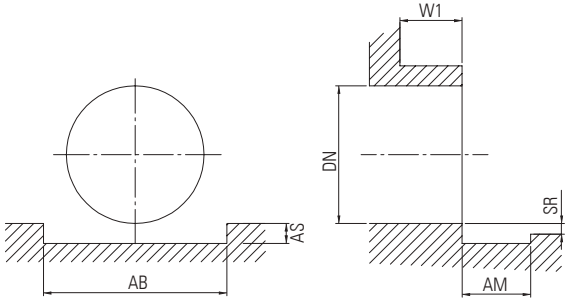


With hollow float cap



With counterweight





Spare parts

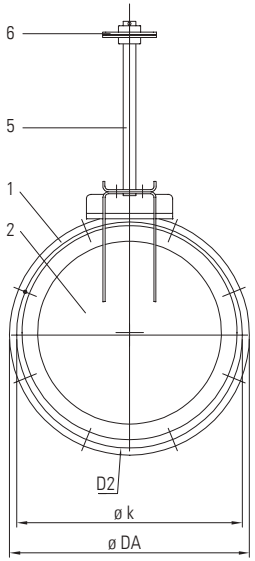
1 Frame
2 Cover
3 Seal
4 Ceiling bearing
5 Lever
6 Counterweight
7 Cover screw

Other dimensions upon request.

									NUMBER OF					WEIGHT KG		
DN	**AB**	**AS**	**AM**	**SR**	**W1**	**øDA**	**øk**	**øD2**	**DRILLS**	**W2**	**L**	**L1**	**XH**	SINGLE CAP	HOLLOW FLOAT CAP	COUNTERWEIGHT
400	300	100	300	60	400	565	515	ø12/M10	8	350	350	780	340	40	50	50
500	400	100	300	60	450	670	620	ø12/M10	8	400	360	880	390	51	60	65
600	500	130	350	60	450	780	725	ø12/M10	8	400	375	980	440	60	70	80
700	600	130	350	60	550	895	840	ø12/M10	8	500	400	1,080	490	72	87	95
800	700	160	400	60	650	1,015	950	ø12/M10	12	600	425	1,230	540	85	100	110
900	800	160	400	60	800	1,115	1,050	ø12/M10	12	750	450	1,330	590	100	125	125
1,000	900	160	450	60	900	1,230	1,160	ø12/M10	12	850	475	1,430	640	120	140	145
1,200	1,100	160	450	60	1,000	1,455	1,380	ø12/M10	12	950	500	1,610	740	165	210	225

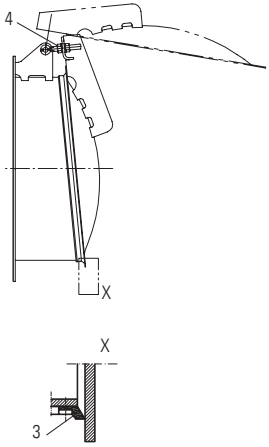
SWING CHECK VALVES WITH FLANGE CONNECTION

round design | design Passavant® in compliance with DIN 19569-4 | DN 400 – DN 1,200 | PN 0.6 bar

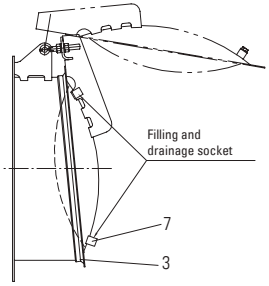


Flange connection dimensions in compliance with DIN 2501, PN 10

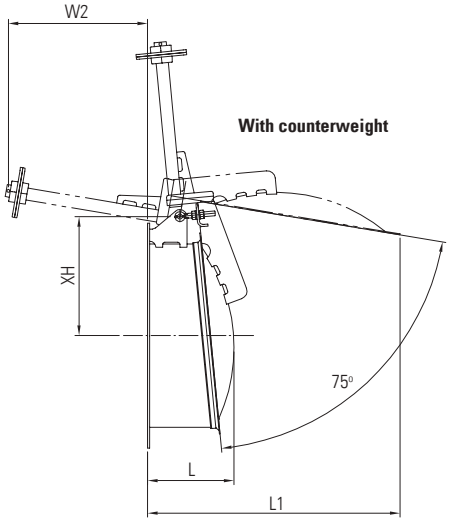
With single cap

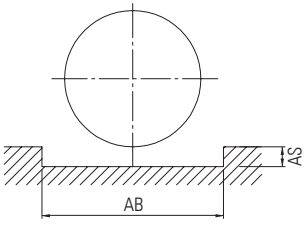


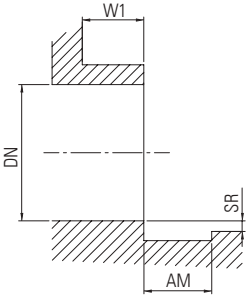
With hollow float cap



With counterweight







Spare parts

1 Frame
2 Cover
3 Seal
4 Ceiling bearing
5 Lever
6 Counterweight
7 Cover screw

Other dimensions upon request.

									NUMBER OF					WEIGHT KG	
DN	AB	AS	AM	SR	W1	øDA	øk	øD2	DRILLS	W2	L	L1	XH	SINGLE CAP	HOLLOW FLOAT CAP	COUNTERWEIGHT
400	300	100	300	60	400	565	515	ø26/M24	16	350	350	780	340	51	50	50
500	400	100	300	60	450	670	620	ø26/M24	20	400	360	880	390	60	60	65
600	500	130	350	60	450	780	725	ø30/M27	20	400	375	980	440	72	70	80
700	600	130	350	60	550	895	840	ø30/M27	24	500	400	1,080	490	85	87	95
800	700	160	400	60	650	1,015	950	ø33/M30	24	600	425	1,230	540	100	100	110
900	800	160	400	60	800	1,115	1,050	ø33/M30	28	750	450	1,330	590	120	125	125
1,000	900	160	450	60	900	1,230	1,160	ø36/M33	28	850	475	1,430	640	165	140	145
1,200	1,100	160	450	60	1,000	1,455	1,380	ø36/M33	32	950	500	1,610	740		210	225

QUESTIONNAIRE FOR THE LAYOUT OF SHUT-OFF DEVICES

If you have any questions regarding the choice of the relevant shut-off device, please contact us. Our engineers for the shut-off devices will be glad to provide you with the necessary information.

Project:.....

Project status: ..... Planning: ..... Period:.....

Design: ..... Period:.....

Customer: ..... Contact partner:.....

Telephone-No.:..... Fax-No.: ..... E-Mail:.....

1. LAYOUT DATA

Water type ☐ River water / lake water ☐ Sea water ☐ Brackish water

☐ Industrial wastewater ☐ Municipal waste water ☐ Circulating water

Temperature:..... °C Chloride (ppm): .....

Other chemical or physical properties: .....

2. INDICATION OF LEVELS

Operation floor elevation: .....m Extreme high water level elevation: ..... m

Permanent water level elevation: .....m Extreme low water level elevation: ..... m

Shut-off device base elevation: .....m

3. PLANNING DOCUMENTS

Working plans and drawings existing? ☐ Layout drawing ☐ Working drawing ☐ New design ☐ Conversion ☐ Site plan

4. OPERATING DATA

4.1 Shut-of device: ..... Design according to PAN (Passavant® shut-off device standardization): .....

4.2 Clear waterway DN or width x height (W x H):.....mm

4.3 Clear waterway DN or width x height (W x H):.....mm

4.4 Installation depth (shut-off device base up to axle of operating device) T: .....mm

4.5 Drive: ..... Design according to PAN (Passavant® shut-off device standardization):.....

4.6 Max. water pressure on the shut-off device plate (operating pressure):

on the front (on seating pressure) V:..... bar

on the rear (off seating pressure) R: ..... bar

4.7 Operation of shut-off device at operating pressure:..... bar

4.8 Operation of shut-off device at pressure compensation: ☐ Yes ☐ No

Pressure compensation by means: ☐ Relief slide gate ☐ Pressure relief valve

4.9 Normal shut-off device position: ☐ Open ☐ Closed

4.10 Shut-off device position for shut-off and control function: ☐ Open ☐ Closed ☐ Intermediate position

COMMENTS

NOTES

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