



CP4 penstock

made of stainless steel

PENSTOCK WITH RECTANGULAR OPENING, 4-SIDED SEALING

Opening dimensions and pressure stage

Opening dimensions 150 x 150 mm to 1200 x 1200 mm

Pressure stage on the front side: 6 mwc

Pressure stage on the rear side: 4 mwc; from 900 x 900 mm: 3 mwc

Frame and panel

- Supplied as pre-assembled penstock which does not require assembly, setting and adjusting works
- Design as self-supporting frame construction made of stainless steel with integrated spindle bearing
- Slim construction design (width = masonry opening + 165 mm)
- Welded frame and slide panel made of stainless steel, optimised for maximum safety and durability by means of FEM certification
- No offset in rear to front invert level on the embedded penstock
- Penstock for embedding in concrete: Equipped with setting sleeve for aligning the penstock in the channel recess
- Seal and wear parts (spindle, spindle nut, spindle bearing, seal) replaceable
- Welding certificate in accordance with DIN EN 1090-2 EXC2

Material

- Stainless steel 1.4301 (304) / 1.4404 (316L)

Spindle

- Spindle with rolled trapezoidal thread made of stainless steel
- Spindle non-rising
- Spindle nut made of sea and wastewater resistant bronze
Optional: Spindle outside the medium rising or non-rising (easier to lubricate)

Seal

- Movable, positioned seal support, seal clipped with stainless steel and pre-tensioned for two-sided pressure absorption
- Profile seal with hot-vulcanized (minimum temperature: 180°C) BÜSCH UNO angle and butt joints made of wastewater- and UV-resistant EPDM or oil-resistant NBR
- Factory pre-assembled seal against the wall made of solid, wastewater resistant cellular rubber on the seal support in the design for dowel fixing
- Seal line 44 mm larger than the masonry opening to prevent leaks on masonry spalling

Leak tightness class

- Leak rate according to DIN EN 19569, Part 4, Table 1:
Pressure on front side: 0.02 to 0.05 l·s⁻¹·m⁻¹ leak tightness class 4)
Pressure on rear side: 0.05 to 0.11 l·s⁻¹·m⁻¹ leak tightness class 3)
- CP4 penstock leak rate:
Pressure on front side: maximum 1 % from 0.02 to 0.05 l·s⁻¹·m⁻¹ (leak tightness class 4)
Pressure on rear side: maximum 5 % from 0.02 to 0.05 l·s⁻¹·m⁻¹ (leak tightness class 4)



CP4 penstock 500 x 500 mm

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YOUR ADVANTAGES

- **IMMEDIATELY TIGHT**
Full sealing performance independent of water level due to pre-tensioned seal
- **NARROW CONSTRUCTION**
Usable in narrow shafts
- **NO SPRAY EFFECT**
Clear control behavior
- **LARGER SEALING LINE**
Ideal for rough construction openings
- **PERFECT CORROSION PROTECTION**
All welded stainless steel parts from our own pickling plant
- **OPTIONAL EX-PROTECTION**
On request, the penstock can be proven to comply with the ATEX Directive 2014/34/EU

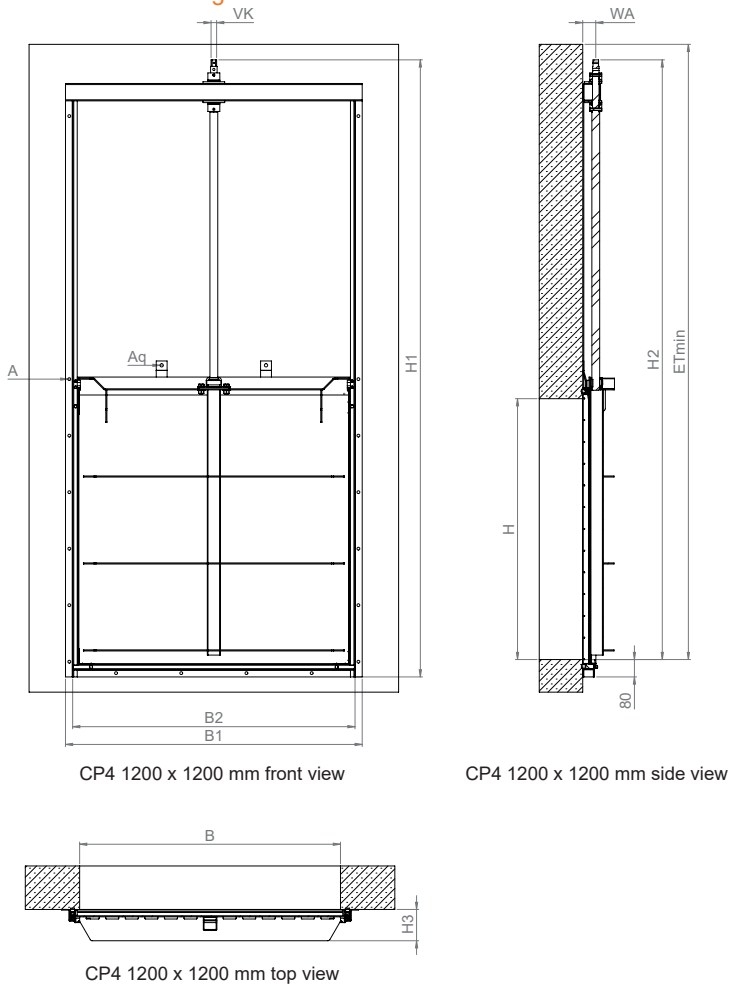
Actuation of the penstock by

- Stainless steel handwheel on transverse yoke
- Lateral actuation with gearbox with BÜSCH stainless steel gearbox with stainless steel handwheel or stainless steel crank handle
- BÜSCH All-in-one control key via square cap
- BÜSCH MOBITORQ electric or accu - mobile actuators via square stem cap
- BEA®servo stainless steel electric actuator assembled on transverse yoke, optional with BÜSCH weather protection roof
- Pneumatic actuator assembled on transverse yoke
- Hydraulic actuator assembled on transverse yoke
- E-actuator

Mounting

- Concreted into recess
- Dowelling to the wall in front of the opening

Dimensional drawing



Dimensions in mm

B × H	150×150	200×200	250×250	300×300	400×400	500×500	600×600	700×700	800×800	900×900	1000×1000	1200×1200
B1	315	365	415	465	565	665	765	865	965	1065	1165	1365
B2	250	300	350	400	500	600	700	800	900	1000	1100	1300
H1	670	770	870	970	1170	1370	1590	1790	1990	2239	2439	2839
H2	590	690	790	890	1090	1290	1510	1710	1910	2159	2359	2759
H3	80	80	80	80	90	90	95	100	105	121	134	144
ETmin	670	770	870	970	1170	1370	1590	1790	1990	2239	2439	2839
WA	54	54	54	54	54	54	54	54	54	60	60	60
Rev./stroke	38	48	58	68	88	108	128	148	168	188	208	248
VK	□16	□16	□16	□16	□16	□16	□16	□16	□16	□26	□26	□26
A	"2x Ø13 M10x130"		"3x Ø13 M10x130"	"5x Ø13 M10x130"		"8x Ø13 M10x130"	"10x Ø13 M10x130"	"12x Ø13 M10x130"	"13x Ø13 M10x130"		"16x Ø13 M10x130"	"18x Ø13 M10x130"
Aq	-	-	-	-	-	-	-	"1x Ø15 M12x160"		"2x Ø15 M12x160"		

Dimensions for other nominal sizes on request.

CP4 semicircular VARIANT* FROM CP4

PENSTOCK WITH SEMICIRCULAR OPENING, 4-SIDED SEAL

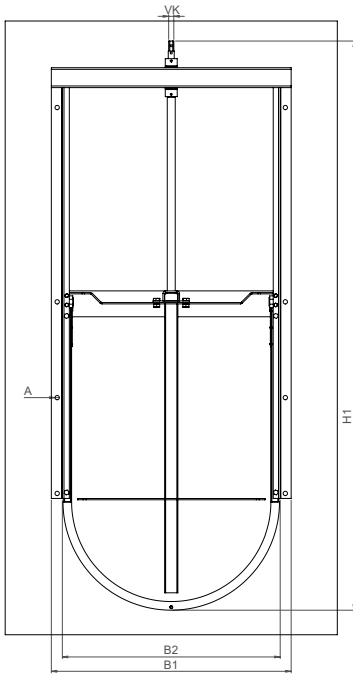
Opening dimensions and pressure stage

DN 150 x 150 mm to DN 600 x 600 mm
 Pressure stage on the front side: 4 mwc
 Pressure stage on the rear side: 4 mwc

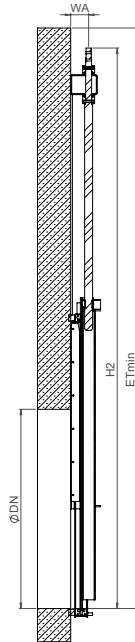
Opening dimensions and pressure stage

DN 700 x 700 mm to DN 800 x 800 mm
 Pressure stage on the front side: 4 mwc
 Pressure stage on the rear side: 3 mwc

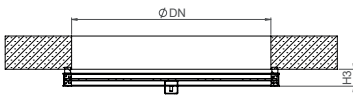
Dimensional drawing



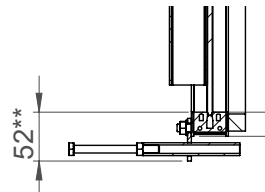
CP4 semicircular DN 600 front view



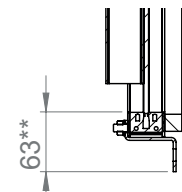
CP4 semicircular DN 600 side view



CP4 semicircular DN 600 top view



* flush invert with additional pressure device



** for dowelling in front of the wall

SPECIAL FEATURES

- SEMICIRCULAR BOTTOM
Ideal penstock for DIN channels
- VARIABLE INSTALLATION OPTIONS
Subsequent installation in shafts, in an existing channel, or for a new sewer construction

* STANDARD DATA: please refer CP4 penstock



CP4 semicircular DN 200

Dimensions in mm

DN	150	200	250	300	400	500	600	700	800
B1	272	322	372	422	522	622	722	822	922
B2	198	248	298	348	448	548	648	756	856
H1*/H1**	625*/636**	750*/761**	874*/885**	998*/1009**	1250*/1261**	1495*/1506**	1763*/1774**	1901*/1912**	2130*/2141**
H2	573	698	822	946	1198	1443	1711	1849	2078
H3	80	80	80	80	90	90	90	105	105
H4*/H4**	52*/63**	52*/63**	52*/63**	52*/63**	52*/63**	52*/63**	52*/63**	52*/63**	52*/63**
Etrmin	633	758	882	1006	1258	1503	1771	1909	2138
WA	54	54	54	54	54	54	54	54	54
Rev./stroke	32	42	52	62	82	102	122	141	161
VK	□16	□16	□16	□16	□16	□16	□16	□16	□16
A	2x Ø13 M10x130	5x Ø13 M10x130	5x Ø13 M10x130	5x Ø13 M10x130	5x Ø13 M10x130	7x Ø13 M10x130	9x Ø13 M10x130	12x Ø13 M10x130	13x Ø13 M10x130

Dimensions for other nominal sizes on request.

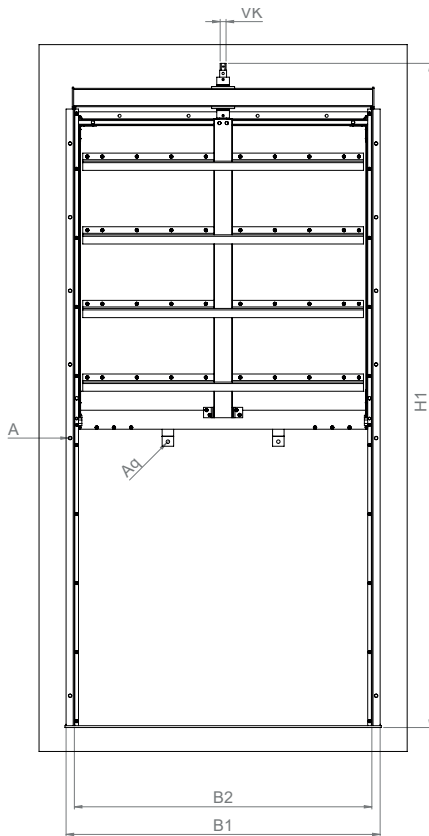
* In the variant „flush invert“ (BR) the dimension H4 = 52 mm

** In the variant „dowelling in front of the wall“ (DV-DV), the dimension is H4 = 63 mm - the dimension H1 changes accordingly!

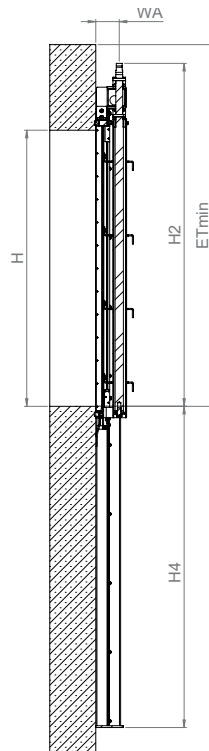
CP4 lowering type penstock VARIANT* FROM CP4

WITH RECTANGULAR OPENING, 4-SIDED SEALING

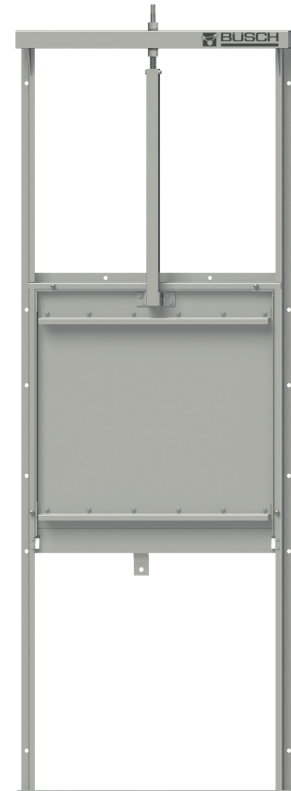
Dimensional drawing



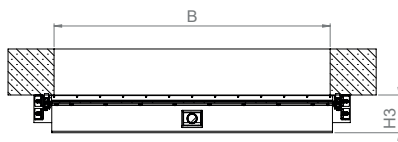
CP4 lowering type penstock
1200 x 1200 mm front view



CP4 lowering type penstock
1200 x 1200 mm side view



CP4 lowering type penstock 700 x 700 mm



CP4 lowering type penstock
1200 x 1200 mm top view

SPECIAL FEATURES

- **LOWERING TYPE PENSTOCK**
Sliding plate can be lowered for optimum water level regulation

*STANDARD DATA: please refer CP4 penstock

B	Please specify when ordering
H	Please specify when ordering
B1	Size dependent
B2	
H1	Size dependent
H2	
H3	= H + 150 mm
H4 min.	
ET min.	Please specify when ordering
WA	Size dependent
Rev./stroke	
VK	
A	
As	
Aq	
Arh	