



SAFOX® penstock

made of stainless steel

PENSTOCK WITH CIRCULAR, ROUND OPENING, ALL-SIDED SEAL

Opening dimensions and pressure stages

Opening dimensions DN 150 to DN 3000

Standard pressure stages for pressure on the front or back sides of the penstock plate:

- DN 150 to DN 300: 10 mWC
- DN 400 to DN 800: 8 mWC
- DN 900 to DN 1200: 7 mWC
- More than DN 1200: 6 mWC
- Higher pressure stages possible

Frame and panel

- Supplied as pre-assembled fitting which does not require assembly, setting and adjusting works up to 1200 mm *(multiple frame as of 1300 mm)
- Design as self-supporting frame construction made of stainless steel with integrated spindle bearing
- Welded frame and slide panel made of stainless steel, optimised for maximum safety and durability by means of FEM certification
- Bridge screwed on, thereby all wear parts (spindle, spindle nut, spindle bearing and seal) can be exchanged in the installed condition without dismantling the fitting from the structure
- Exchangeable closing wedges in bronze frame resistant to seawater and wastewater
- Welding certificate in accordance with DIN EN 1090-2 EXC2

Materials

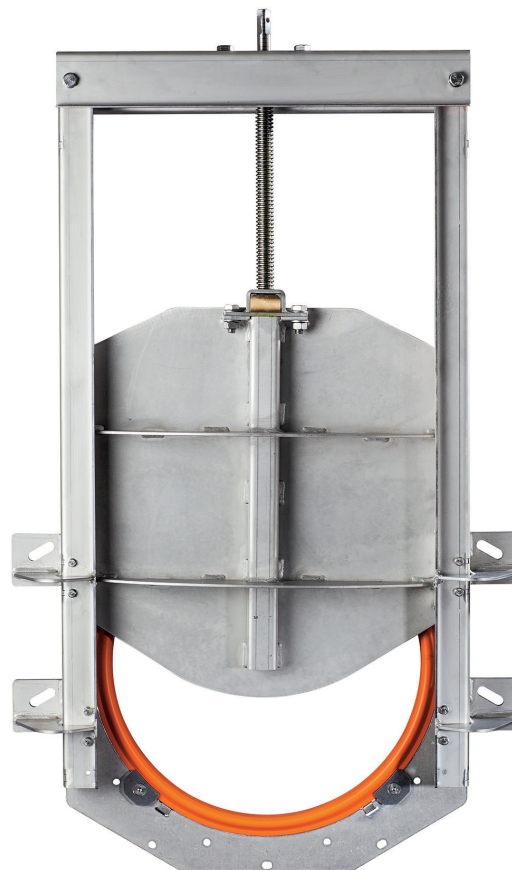
- 1.4301 (304) / 1.4404 (316L) / 1.4410 (507) / 1.4462 (318LN) / 1.4539 (904L) / 1.4571 (316Ti)

Spindle

- Spindle protection made of stainless steel
- Spindle with rolled stainless steel trapezoidal thread, opening size DN 150-1300
- Spindle with whirled trapezoidal thread made of stainless steel, opening size DN 1400-3000
- Single spindle design or twin spindle design
- Self-cleaning spindle nut made of sea and wastewater resistant bronze with cleaning recess
- Optional: Spindle outside the medium rising or non-rising (easier to lubricate)

Seal

- Factory-fitted profile sealing ring suspended freely in the frame, floating bearing, sealing both to the wall and also to the slide, additional sealing to the wall not permissible
- Made of wastewater and UV-resistant EPDM or oil-resistant NBR with welded UNO push joint
- Seal line larger than the masonry opening to prevent leaks on masonry spalling
 - DN 150 bis DN 600: + 12 mm
 - DN 700 bis DN 1200: + 32 mm
 - DN 1400 bis DN 3000: + 50 mm



SAFOX® penstock DN 400

i

YOUR ADVANTAGES

- **ABSOLUTELY TIGHT**
According to drinking water standard DIN EN 12266-2
- **IMMEDIATELY READY FOR USE**
Penstock is delivered ready for installation*
- **QUICKEST POSSIBLE INSTALLATION**
Minimum number of anchor rods, no dowels required on the underside
- **DURABLE**
Only one seal - UNO-vulcanized seal connection
- **PERFECT CORROSION PROTECTION**
All welded stainless steel parts from our own pickling plant
- **EX-SCHUTZ**
Proven to comply with ATEX directive 2014/35/EU

Leak tightness classclass

- SAFOX® Leak rate according to drinking water standard DIN EN 12266-2, Part 2, Table A.5:
- Pressure on the backside: leak rate C

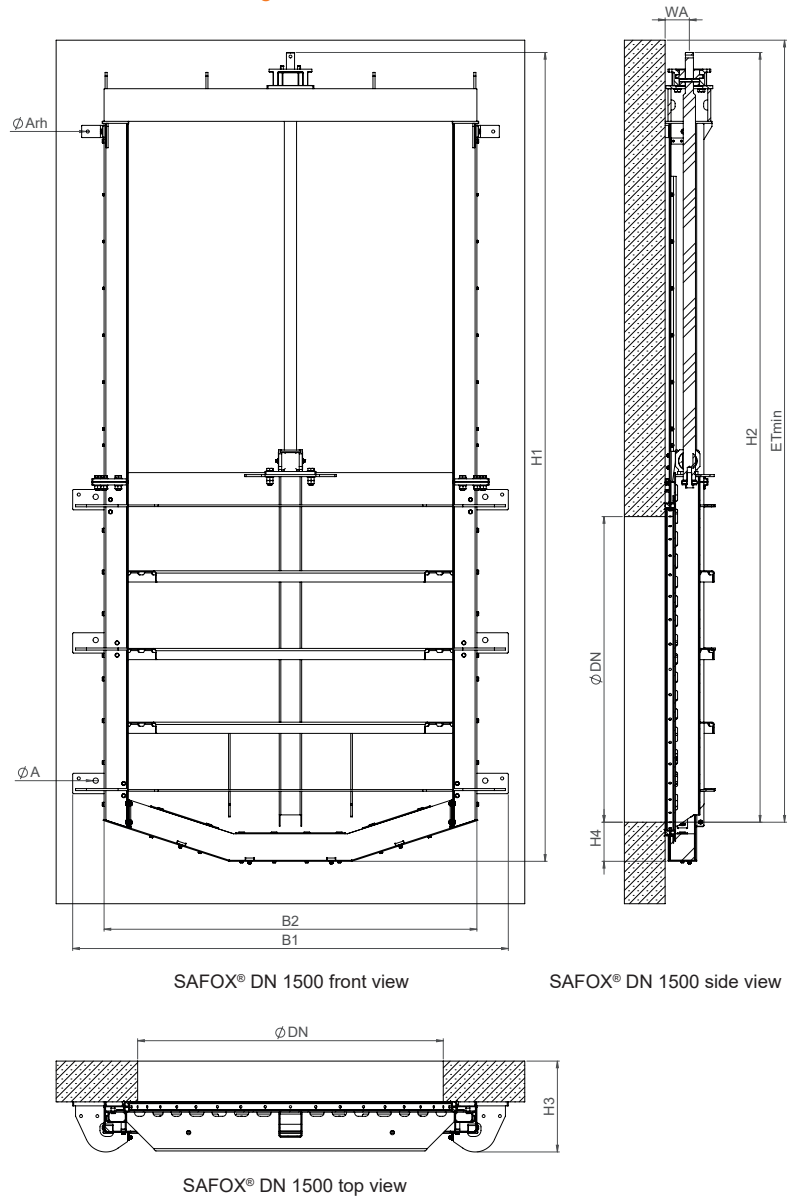
Mounting

- Dowelling to the wall in front of the opening
No fixing needed on the bottom side
- Fastening in the base
Concreting in recess -> corresponds to SAFOX® G

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
- BEAservo 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

Dimensional drawing



Dimensions in mm

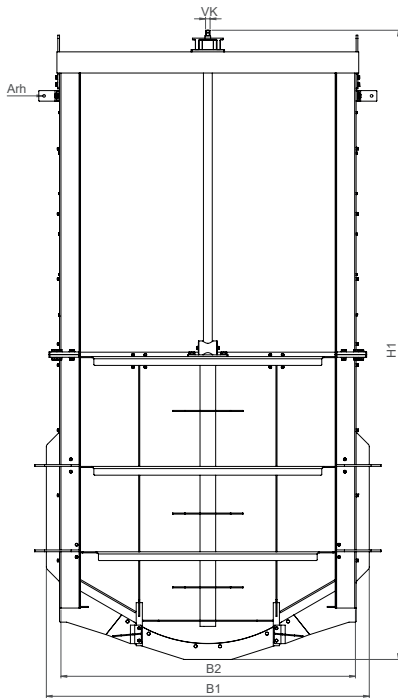
DN	150	200	250	300	400	500	600	700	800	900	1000	1200	1400	1500	1600	1800	2000	2200	2400	2600	2800	3000
B1	412	462	512	562	674	774	874	1070	1170	1304	1404	1604	2038	2138	2238	2462	2638	2862	3260	3460	3660	3860
B2	272	322	372	422	534	634	734	830	930	1064	1164	1364	1730	1830	1930	2150	2330	2550	2860	3060	3260	3460
H1	623	728	828	928	1141	1341	1541	1902	2102	2313	2501	2901	3712	3970	4170	4546	4911	5366	6315	6715	7115	7515
H2	558	658	758	858	1063	1264	1464	1797	1997	2192	2396	2796	3577	3835	4035	4411	4776	5231	6180	6580	6980	7380
H3	100	100	100	100	115	115	115	132	132	132	152	152	246	246	246	246	246	192	300	300	300	300
H4	65	70	70	70	78	77	77	105	105	121	105	105	135	135	135	135	135	135	135	135	135	135
ETmin	618	718	818	918	1123	1324	1524	1857	2057	2252	2456	2856	3637	3895	4095	4471	4836	5291	6240	6640	7040	7440
WA	49	49	49	49	49	49	49	68	68	68	68	68	103	119	119	119	119					
ØA	"2 × Ø 13 M10x130"		"4 × Ø 13 M10x130"		"4 × Ø 19 M16x190"		"6 × Ø 19 M16x190"		"6 × Ø 26 M20x260"		"10 × Ø 26 M20 x260"		On demand									
ØArh	-	-	-	-	-	-	-	"2 × Ø 13 M10x130"					"2 × Ø 15 M12x160"									
Rev./stroke	38	48	58	68	90	110	130	157	177	198	218	258	ca. 192	ca. 200	ca. 220	ca. 210	ca. 235	ca. 226	ca. 260	ca. 280	ca. 300	ca. 320

Dimensions for other nominal sizes on request.

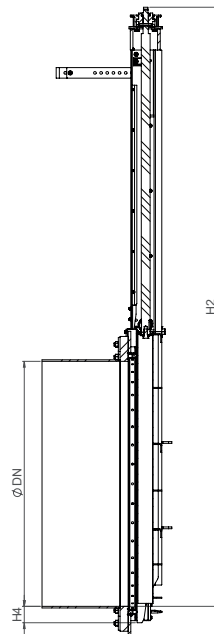
SAFOX® F VARIANT* FROM SAFOX®

WITH FLANGE, PENSTOCK WITH CIRCULAR-SHAPED OPENING, ALL-ROUND SEALING

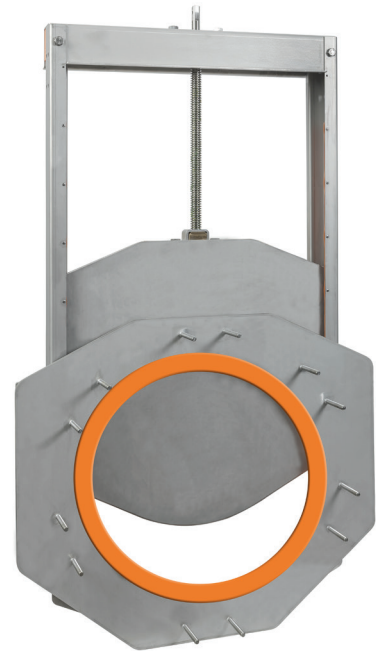
Dimensional drawing



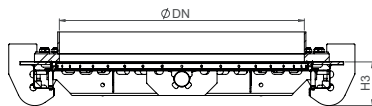
SAFOX® F DN 1500 front view



SAFOX® F DN 1500 side view



SAFOX® F penstock DN 600 with flange



SAFOX® F DN 1500 top view

SPECIAL FEATURES

- **FLANGE**
up to DN 600: flange adapter
from DN 700: fixed flange connection

*STANDARD DATA:
please refer SAFOX® penstock

Dimensions in mm

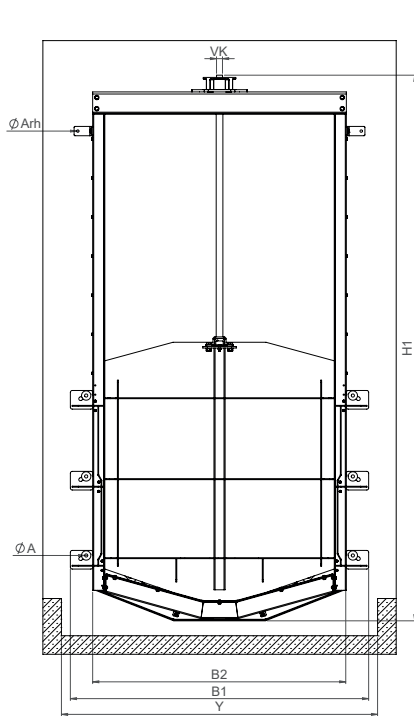
DN	150	200	250	300	400	500	600	700	800	900	1000	1200	1400	1500	1600	1800	2000	
B1	412	462	512	562	674	774	874	1070	1170	1304	1404	1604	2038	2138	2238	2462	2638	
B2	272	322	372	422	534	634	734	830	930	1064	1164	1364	1730	1830	1930	2150	2330	
H1	623	728	828	928	1141	1341	1541	1902	2102	2313	2501	2901	3712	3970	4170	4546	4911	
H2	558	658	758	858	1063	1264	1464	1797	1997	2192	2396	2796	3577	3835	4035	4411	4776	
H3	100	100	100	100	115	115	115	132	132	132	152	152	246	246	246	246	246	
H4	65	70	70	70	78	77	77	105	105	121	105	105	135	135	135	135	135	
ØArh	-	-	-	-	-	-	-	"2 × Ø 13 M10x130"								"2 × Ø 15 M12x160"		"2 × Ø 15 M12x160"
Rev./stroke	38	48	58	68	90	110	130	157	177	198	218	258	ca. 192	ca. 200	ca. 220	ca. 210	ca. 235	

Dimensions for other nominal sizes on request.

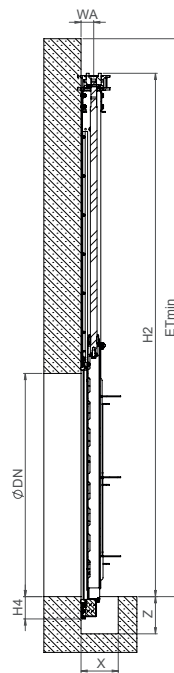
SAFOX® G VARIANT* FROM SAFOX®

WITH SMOOTH SOLE PASSAGE, ALL-ROUND SEALING

Dimensional drawing



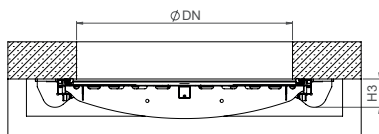
SAFOX® G DN 1200 front view



SAFOX® G DN 1200 side view



SAFOX® G penstock DN 300 with smooth sole passage



SAFOX® G DN 1200 top view

SPECIAL FEATURES

- **SMOOTH SOLE PASSAGE**
Easy concreting into the channel, water flows at the same level as the bottom

*STANDARD DATA:
please refer SAFOX® penstock

Dimensions in mm

DN	150	200	250	300	400	500	600	700	800	900	1000	1200
B1	412	462	512	562	674	774	874	1070	1170	1304	1404	1604
B2	272	322	372	422	534	634	734	830	930	1064	1164	1364
H1	623	728	828	928	1141	1341	1541	1902	2102	2313	2501	2901
H2	558	658	758	858	1063	1264	1464	1797	1997	2192	2396	2796
H3	100	100	100	100	115	115	115	132	132	132	152	152
H4	65	70	70	70	78	77	77	105	105	121	105	105
ETmin	618	718	818	918	1123	1324	1524	1857	2057	2252	2456	2856
ØA	"2 × Ø 13 M10x130"			"4 × Ø 13 M10x130"			"4 × Ø 19 M16x190"		"6 × Ø 19 M16x190"		6 × Ø 19	
ØArh	-	-	-	-	-	-	-	"2 × Ø 13 M10x130"				
Umdr./ Hub	38	48	58	68	90	110	130	157	177	198	218	258
X min	350	350	350	350	350	350	350	450	450	500	550	550
Y min	500	550	600	650	750	850	950	1150	1250	1350	1450	1670
Z min	120	120	120	120	150	150	150	150	150	150	300	300
Ø	240	295	350	400	515	620	725	840	950	1050	1160	1380

Dimensions for other nominal sizes on request.