Penstocks

Hot-dip galvanized or powder coated

made from A36-hot-dip galvanized steel

WITH RECTANGULAR AND SEMICIRCULAR OPENING, 3-/ AND 4-SIDED SEALING

Opening size and pressure stage

Opening size 150 x 150 mm to 4000 x 4000 mm
Selectable pressure level on both sides: 2-15 mWC

Frame and plate

- 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 with integrated spindle bearing
- Welded frame and slide panel, 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
- Up to opening size 1200 mm:
  Integrated closing wedges made of stainless steel,in the penstock plate made of polyethylene (PE-UHMW)
- From opening size 1300 mm:
  Integrated closing wedges made of seawater- and wastewater-resistant bronze, in the stainless steel penstock plate
- Penstock for embedding in concrete: Equipped with setting sleeve for aligning the penstock in the channel recess
- No offset in rear to front invert level on the embedded penstock
- Welding certificate in accordance with DIN EN 1090-2 EXC2

Spindle

- Polyethylene spindle protection
- Spindle with rolled trapezoidal thread made of stainless steel from opening dimensions 150-1600 mm
- Spindle with whirled trapezoidal thread made of stainless steel from opening dimensions 1700-4000 mm
- Single spindle design or twin spindle design
- Self-cleaning spindle nut made of seawater- and wastewater-resistant bronze with cleaning recess
  Optional: Spindle outside the medium rising or non-rising (easier to lubricate)

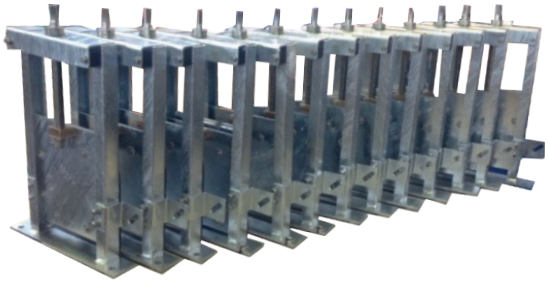
Seal

- Assembled on the sliding plate, note profile seal with hot vulcanised (minimum temperature 180°C) BÜSCH UNO corner connections made from wastewater and UV resistant EPDM or oil-resistant NBR
- Easy replacement of the seal possible during operation, as the slide plate can be pulled upwards
- Factory pre-assembled seal against the wall made of solid, wastewater-resistant cellular rubber on the seal support with maximum pressure stage 6 mwc on both sides
- Seal line 50 mm larger than the masonry opening to prevent leaks on masonry openings

Leak tightness class

- Leak rate better than DIN EN 19569; Part 4 Table 1:
  - Pressure on front side: max. 1% of 0,02 $l \cdot s^{-1} \cdot m^{-1}$ (Leak tightness class 5)
  - Pressure on rear side: max 5% of: 0,02 to 0,05 $l \cdot s^{-1} \cdot m^{-1}$ (Leak tightness class 4)
- Alternative:
  - Leak rate on both sides according to DIN EN 12266-2, Part 2, Table A.5: Leak rate C.

Penstock hot-dip galvanized
with round sole 400 x 400 mm



Penstock 200 x 200 mm for fish farm

Irrigation system in Croatia,
penstock 1000 x 1000 mm

Mounting

- Concreted into recess
- Dowelling to the wall in front of the opening
- Dowelling laterally on the wall
- Dowelling onto the base

Actuation of the penstock

- Stainless steel handwheel on transverse yoke
- Lateral actuation 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 tran verse yoke
  Optional: with BÜSCH weather protection roof
- Pneumatic actuation assembled on transverse yoke
- Hydraulic actuation assembled on transverse yoke

Application areas

- Flood protection
- Irrigation
- Dam constructions
- Pond systems
- Surface water level regulation

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