PENSTOCKS

KWT® High Presurre Penstock Type: KSA-HD

Applications

KWT penstocks are available in various forms and are used in surface, sewer and process water systems. The penstock is a very traditional structure for regulating flows or isolating a pipe, using a simple yet effective drive system.

Operation

As a new addition to the already popular KSA range, the KSA-HD has been developed as a high-specification product for large, heavy-duty applications, and is suitable for on and off seating pressures of 10MwC as a standard. The KSA-HD is particularly suitable for industrial, tidal and emergency applications where operational safety plays a decisive role. The penstock is manufactured in Stainless Steel 316L as a standard however higher grades are also available.

The sealing system on the KSA-HD is unique, in that the entire moving plate rests against a sealing face positioned at an angle of 3°. As the penstock closes, this automatically wedges the seal, compressing it evenly and producing a virtually drop-tight seal between the frame and plate. To ensure a tight seal between the frame and wall, there is a cavity in the back of the frame which is filled with expanding foam seal to fill any pockets in the mounting face.

The anchoring will be on a line with the load face due to this. The vertical spindle is positioned directly on the back plate including bearings, which means that a separate heavy bearing is not required.

Benefits

Virtually no maintenance.

Excellent Sealing.

Fast installation.

Very compact construction.

Rather than conventional guiding systems, the new design uses a patented system which has made it possible to keep the dimensions particularly compact.

Specifications

Passage	: Ø 500 mm to Ø 2000 mm : 500 mm x 500 mm to 2000 x 2000 mm
Operating pressure	:On/Off seating, 10 MwC as standard
Operation method	: manual or actuated
Operation point	: conical square 27/32x40
Movement mechanism	: non-rising spindle

Higher pressures and special measurements delivered on request.

Materials

Moving plate	: Stainless steel 316L
Spindle	: Stainless steel 316
Spindle Block	: POM or Gbr12
Bearing ring	: OLG
Backplate	: RVS 316 L
Sealing	: EPDM
Mounting material	: Stainless steel 316

Other materials on request

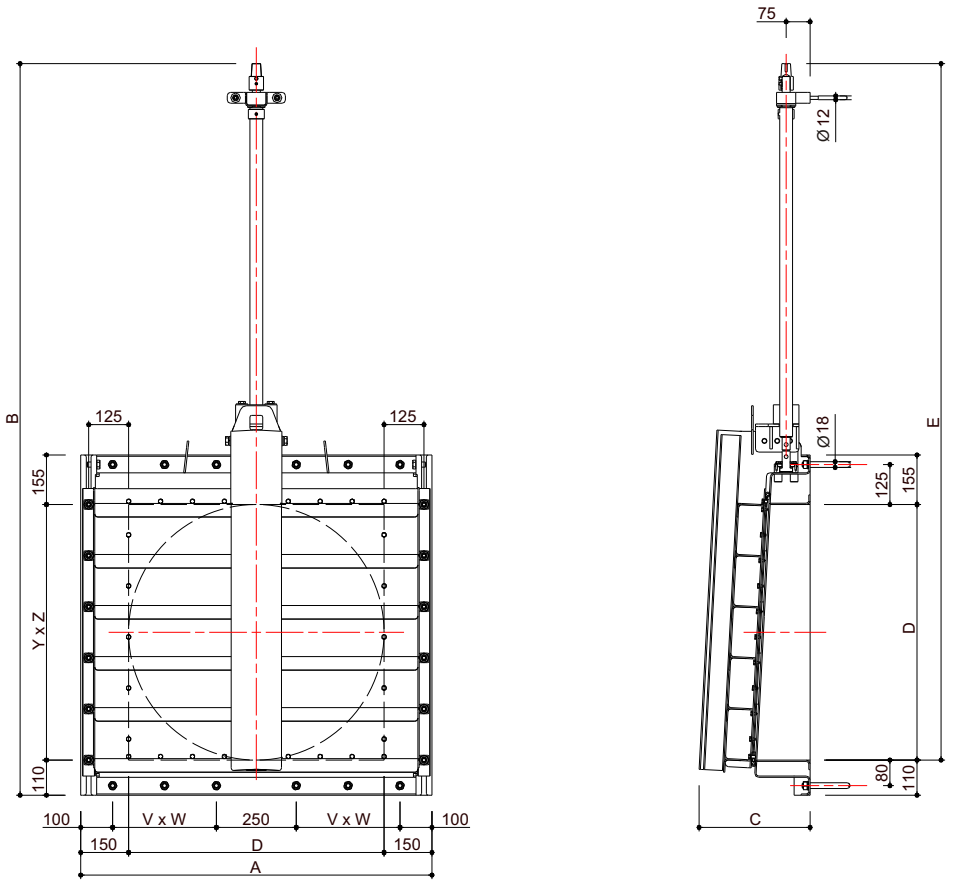
KWT® Waterbeheersing

Tel: +31 (0)321 33 55 66
Fax: +31 (0)321 33 55 76

E-mail: kwtwaterbeheersing@kwtgroup.nl
www.kwtgroup.nl

PATENT

KWT® High Pressure Penstock Type: KSA-HD



ØD D x D mm.	A mm.	B mm.	C mm.	E mm.	V	W mm.	Y	Z mm.		Nm.	Kg
500/2000	*D+300*	*2xD+690*		*2xD+580*					*(D+95)/6*		
500	800	1690	312	1580	1	175,00	3	166,67	99	40	114
600	900	1890	321	1780	1	225,00	4	150,00	115	55	131
700	1000	2090	339	1980	2	137,50	4	175,00	132	70	154
800	1100	2290	348	2180	2	162,50	5	160,00	149	90	185
900	1200	2490	365	2380	2	187,50	5	180,00	165	110	206
1000	1300	2690	379	2580	2	212,50	6	166,67	182	140	239
1100	1400	2890	392	2780	2	237,50	6	183,33	199	165	287
1200	1500	3090	407	2980	3	175,00	7	171,43	215	195	308
1250	1550	3190	412	3080	3	183,33	7	175,57	224	210	324
1500	1800	3690	442	3580	3	225,00	9	166,67	265	300	433
2000	2300	4690	517	4580	4	231,25	11	181,25	349	520	705

Description for tenders

Penstock, type KSA-HD

Manufactured by: KWT Waterbeheersing

Materials: SS316L, HDPE and EPDM

Passage: Ø 500 mm to Ø 2000 mm 500 x 500 to 2000 x 2000 mm

Operating pressure: 10MwC On/ Off seating.The penstock is equipped with a vertical spindle which means that a buckling force is not exerted on the spindle when it closes. The bearing of the spindle is attached to the SS316L penstock house. The side guides have been provided as box profiles to ensure the anchors used to install the penstock experience a "pure" tensile force. The penstock has been produced in such a way that the probability that crevice corrosion occurs is minimised. The SS316L moving plate has been equipped with an EPDM profiled seal and can be fully adjusted in relation to the mounting face that slants by 3 degrees. You should be able to replace the seal and the wire block freely without having to remove the penstock from the mounting face.