



ACE penstocks are available in various forms and are used in surface, sewer and process water systems. The KSA-MD is a proven design which has now become ACE's most popular penstock type.

The KSA-MD is a tried and tested penstock type, as it has been a long-standing product supplied by ACE. The range has been extended to include a lighter-duty penstock (KSA-LD) and a heavier duty penstock (KSA-HD), however the KSA-MD continues to be a very popular product for the majority of applications.

The penstock consists of a vertically sliding door that closes a round opening, moving within a stainless steel 316L frame with HDPE guides. The seal between the door and frame is achieved through an EPDM lip seal positioned in the moving plate that retains up to 5MwC of water pressure from both sides.

The penstock is supplied with a non-rising spindle as standard, however on request the penstock can also be supplied with a rising spindle. The wall mounted type is the most popular, we can also supply these with pipe and flange connections. The KSA-MD is made as a standard for a circular pipe, on request it can be manufactured to be suitable for a square or rectangular culvert.



Technical Specification:

Sizes:	Ø 100 mm to Ø 800 mm
Operating pressure:	5MwC on/off seating as standard
Operation point:	KWT "half moon" connector
Movement mechanism:	Non-rising spindle

Higher pressures and larger dimensions on request.

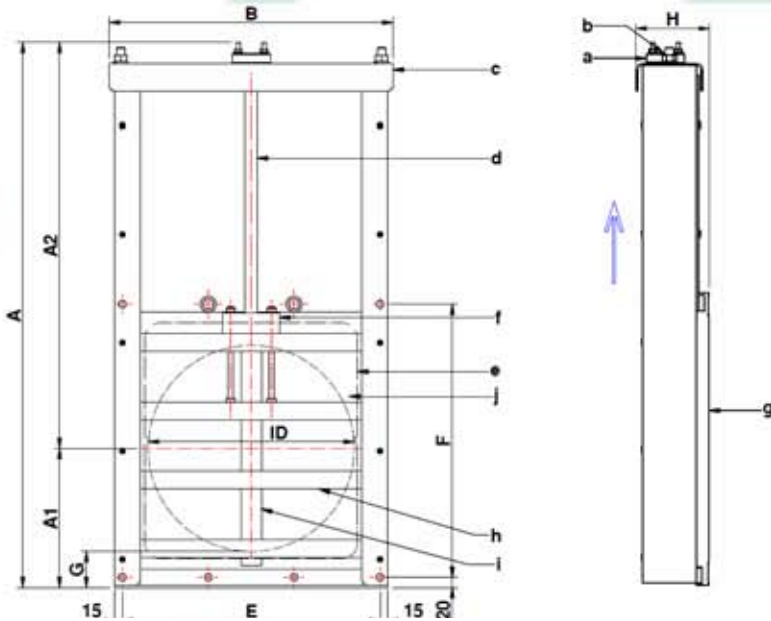
Materials

Moving plate:	HDPE with SS316L stiffeners
Spindle:	SS316
Spindle block:	POM
Bearing ring:	OLG
Back plate:	HDPE
Seals:	EPDM
Mounting material:	SS316

Easy to install- no grouting required
Light weight strong HDPE construction
Virtually maintenance free
UV & Impact Resistant
Standard sizes available from stock for quick dispatch
Various mounting methods available, wall/ pipe/flange mounted.
Can be customised on request for non-standard applications

Penstock 100-800mm

The original maintenance free penstock

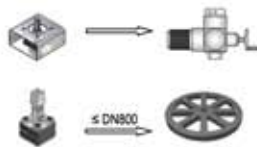


A- Spindle bearing B- Terminal C- Top member D- Spindle E- Seal F- Spindle nut G- Back plate H- Reinforcement rib I- Protection tube J- Sliding plate

Data (mm)

KWT item nr	DN	ID Ø	A	A1	A2	B	E	F	G	H
211Z0100	DN100	110	470	120	350	260	210	240	70	130
211Z0125	DN125	125	500	132	368	275	225	255	70	130
211Z0150	DN150	160	570	145	425	310	260	290	70	130
211Z0200	DN200	200	650	170	480	350	300	330	70	130
211Z0250	DN250	250	750	195	555	400	350	380	70	130
211Z0300	DN300	315	800	220	580	465	415	445	70	130
211Z0400	DN400	400	1050	270	780	550	500	530	70	130
211Z0500	DN500	500	1250	320	930	650	600	630	70	130
211Z0600	DN600	630	1450	370	1080	750	700	730	70	130
211Z0700	DN700	710	1650	420	1230	850	800	830	70	130
211Z0800	DN800	800	1850	470	1380	950	900	930	70	130

DN					
DN100	24	10	21	4	8
DN125	26	10	22	4	8
DN150	32	10	25	4	8
DN200	39	10	29	4	8
DN250	47	10	33	4	8
DN300	58	15	39	4	8
DN400	72	20	49	8	6
DN500	89	30	60	8	6
DN600	105	45	73	8	6
DN700	122	55	92	10	6
DN800	139	70	109	10	6



Leakage rate

KSA MD DN≤ 800	MwC	L/min'		BS7775 (resilent)		DIN 19569-4		
				MwC	L/min'	L/min'	L/min'	L/min'
100mm - 300 mm	8	0,3	0,5	8	1,1	1,1	1,2 - 3,0	1,2 - 3,0
400mm - 800 mm	6	0,3	0,5	6	0,7	0,7	1,2 - 3,0	1,2 - 3,0

Measured values (L/min'/m')

Norm values (L/min'/m')



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Spindle block: POM

Bearing ring: OLG

Back plate: HDPE

Seals: EPDM

Mounting material: SS316

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