

MODEL F35 PENSTOCK

General Description

The AWE F35 Series is a flush bottom 4 sided sealing upward opening penstock suitable for all types of flow control applications such as water and wastewater treatment plants, irrigation, flood control, hydraulic works and power plants.

From sizes 600mm x 600mm to 2000mm x 2000mm and larger, the F35 Series has a unique UHMWPE self-adjusting seal design that achieves leakage rates considerably less than those stipulated in BS 7775, ANSI/AWWA 561 and DIN 19569-4.

AWE also designs and manufactures the F35 Series penstock in larger sizes and with materials for more demanding service conditions. For more information please contact an AWE representative.

The F35 Series penstock is designed and manufactured in accordance with BS 7775, ANSI/AWWA C561 and DIN 19569-4.

The standard F35-S model is manufactured in grade 316L stainless steel which offers high corrosion resistance in many applications resulting in a longer life cycle with minimal maintenance. Other materials of construction are available upon request, such as marine grade aluminium and duplex stainless steels.

Design Features

The robust modular design of the F35 series allows for both open frame and self-contained configurations.

Frame configuration options include:

- Square
- Rectangular
- Circular
- Round bottom

Mounting configuration options include:

- Face wall mount
- Embedded
- Side wall and floor mount
- Flange mount



Other features include:

- Rising or non-rising stem configurations
- Flush bottom design allows for raised or flush invert configurations
- Suitable for operation with manual, electric, pneumatic, hydraulic, fixed or portable actuators
- Self-adjusting, low friction and wear resistant UHMWPE seals reduce sliding drag friction minimising the required operating effort and extending seal life
- Gate stiffening ribs are designed to avoid crevice corrosion
- AWE penstocks are factory assembled and tested eliminating the need for on site adjustment
- All fasteners are grade A4 class 70 stainless steel

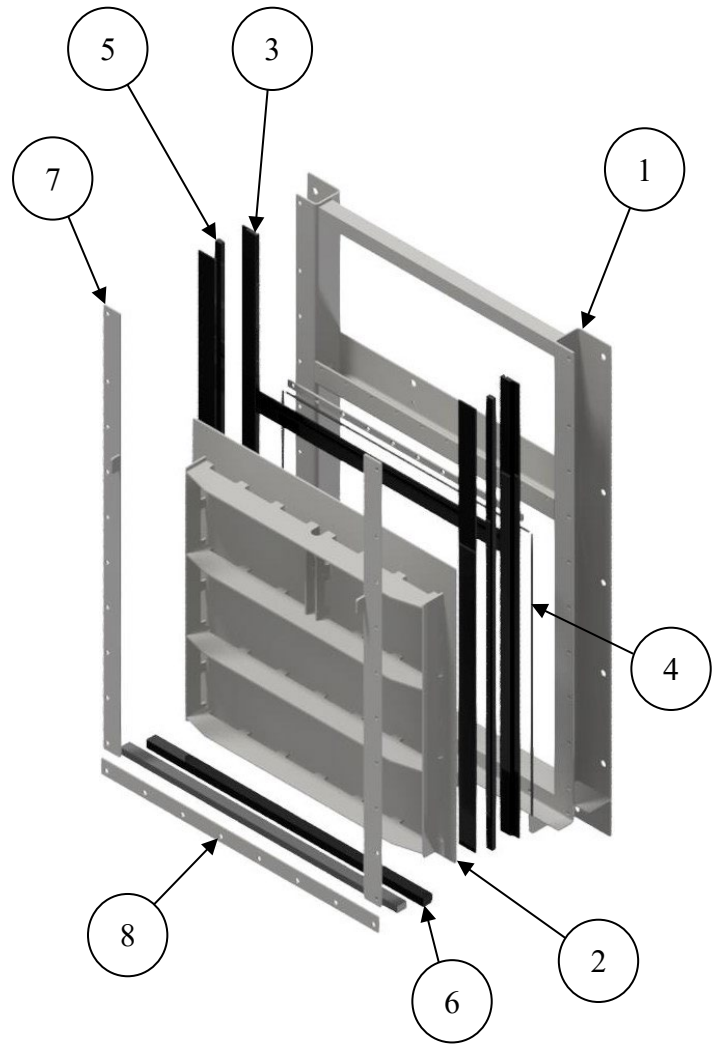
Performance

The leakage rate performance of the F35 model penstock is significantly lower than the maximum allowable leakage as defined by the various recognised industry standards.

- F35 Series = 0.2 Litres/minute/metre of seal
- BS 7775 = 0.5L/min/per m of seal
- DIN 19569-4 (Class 5) = 1.2L/min per m of seal
- ANSI/AWWA C561 = 1.24L/min per m of seal

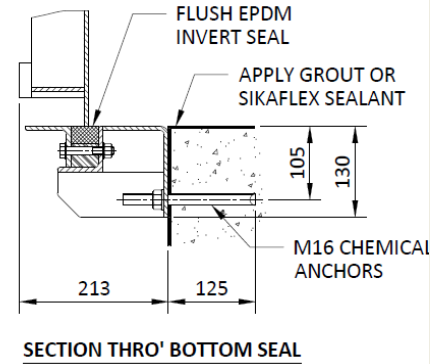
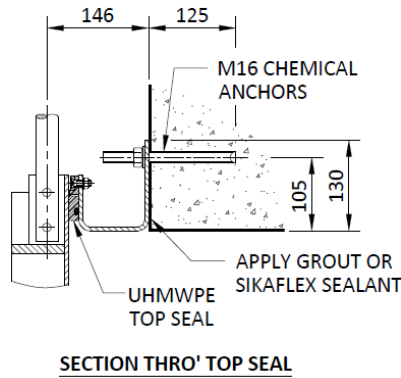
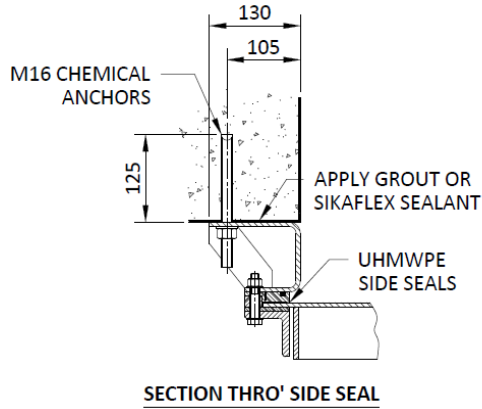
Seating and Off-seating Head

All AWE penstocks are designed in accordance with the project specific design heads as stipulated. Heads are measured from the invert of the penstock to the maximum top water level. The combination of opening width and head is generally the limiting factor for the design capacity of any given penstock.

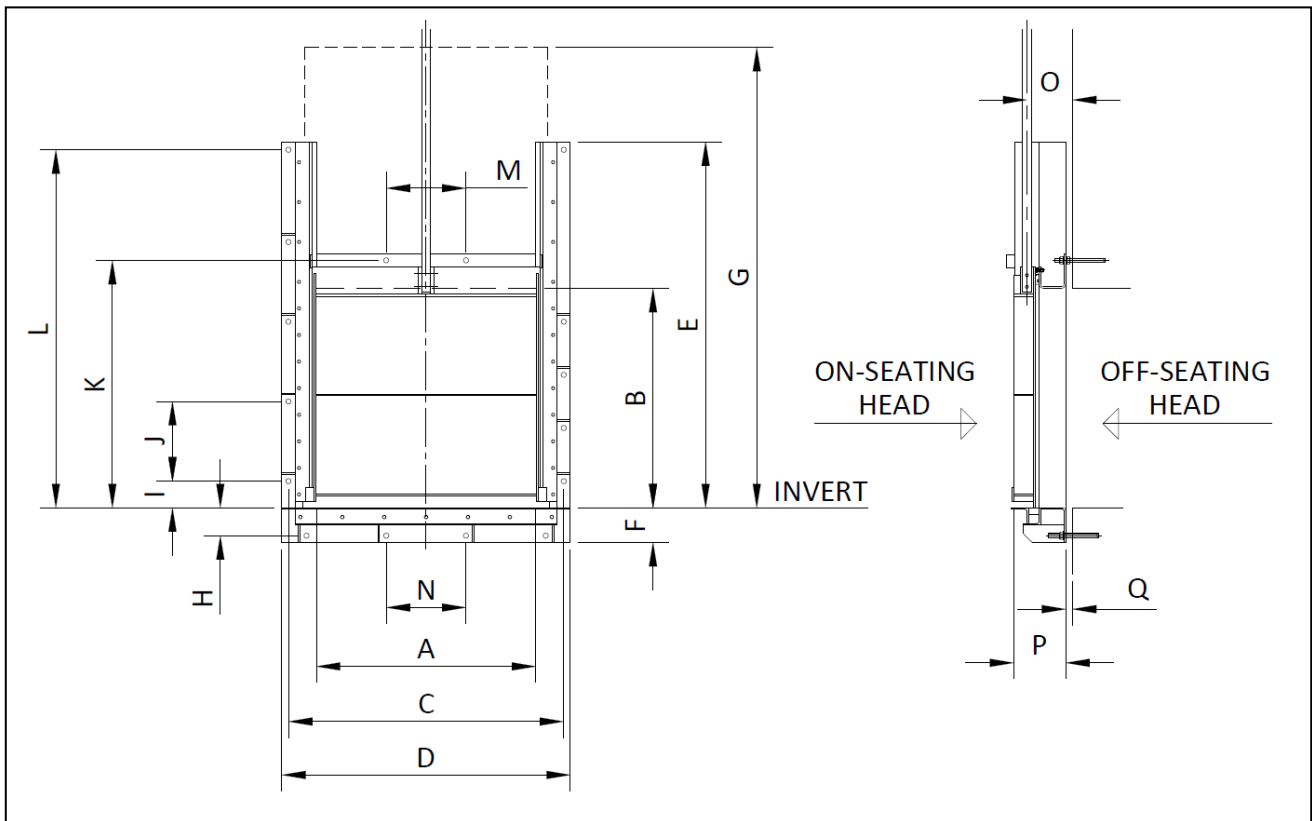


Item	Description	Material
1	Frame	316 Stainless Steel
2	Gate	316 Stainless Steel
3	Side and Top Seals	UHMWPE
4	Compression Cord	EPDM
5	Guides	UHMWPE
6	Bottom Seal	EPDM
7	Side Seal Retainer	316 Stainless Steel
8	Bottom Seal Retainer	316 Stainless Steel

Mounting Configurations



Overall Dimension



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
600x600	600	600	810	860	1000	130	1280	105	100	300	705	970	300	300	172	201	25
700x700	700	700	910	960	1167	130	1480	105	100	300	805	1137	300	300	172	201	25
800x800	800	800	1010	1060	1333	130	1680	105	100	300	905	1303	300	300	172	201	25
900x900	900	900	1110	1160	1500	130	1880	105	100	300	1005	1470	300	300	172	221	25
1000x1000	1000	1000	1210	1260	1667	130	2080	105	100	250	1105	1637	300	300	172	221	25
1100x1100	1100	1100	1310	1360	1833	130	2280	105	100	250	1205	1803	300	300	172	221	25
1200x1200	1200	1200	1410	1460	2000	130	2480	105	100	250	1305	1970	300	300	172	221	25
1300x1300	1300	1300	1510	1560	2167	130	2680	105	100	250	1405	2137	300	300	172	221	25
1400x1400	1400	1400	1610	1660	2333	130	2880	105	100	250	1505	2303	300	300	172	250	25
1500x1500	1500	1500	1710	1760	2500	130	3080	105	100	200	1605	2470	300	300	172	250	25
1600x1600	1600	1600	1810	1860	2667	130	3280	105	100	200	1705	2637	300	300	172	250	25
1700x1700	1700	1700	1910	1960	2833	130	3480	105	100	200	1805	2803	300	300	172	250	25
1800x1800	1800	1800	2010	2060	3000	130	3680	105	100	200	1905	2970	300	300	172	275	25
1900x1900	1900	1900	2110	2160	3167	130	3880	105	100	200	2005	3137	300	300	172	275	25
2000x2000	2000	2000	2210	2260	3333	130	4080	105	100	200	2105	3303	300	300	172	275	25

Actuation Options

