

MODEL P1000 CHANNEL PENSTOCK

General Description

The AWE P1000 Series is a flush bottom 3 sided sealing upward opening channel penstock suitable for all types of flow control applications such as water and wastewater treatment plants, irrigation, flood control, hydraulic works and power plants.

The P1000 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 P1000 Series penstock with materials for more demanding service conditions. For more information please contact an AWE representative.

The P1000 Series penstock is designed and manufactured in accordance with BS 7775, ANSI/AWWA C561 and DIN 19569-4.

The standard P1000 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.

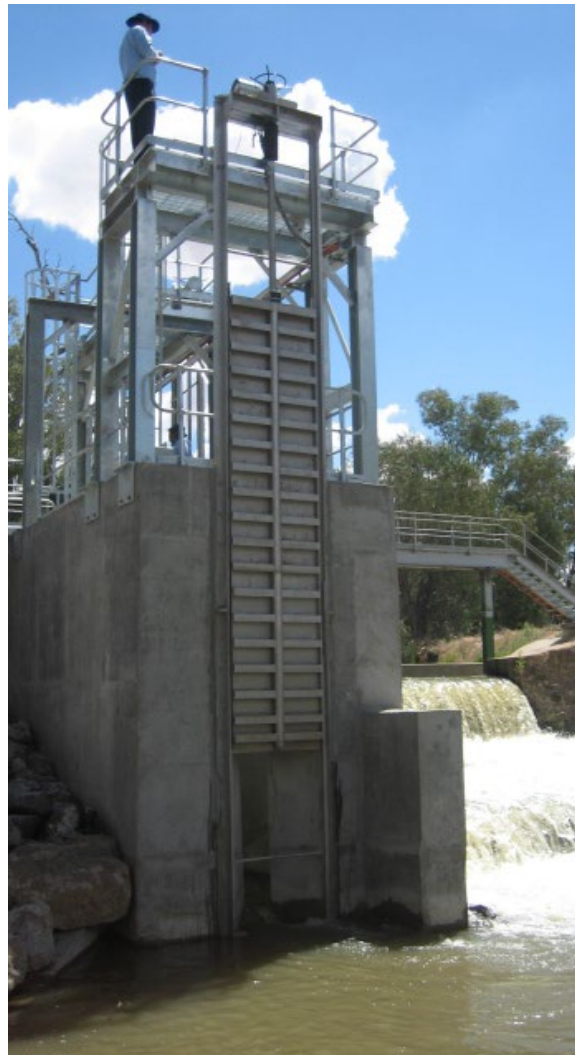
Design Features

The P1000 series penstock utilises a self-contained frame configuration with the below options:

- Square
- Rectangular

Mounting configuration options include:

- Embedded
- Face wall mount
- Side wall and floor 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

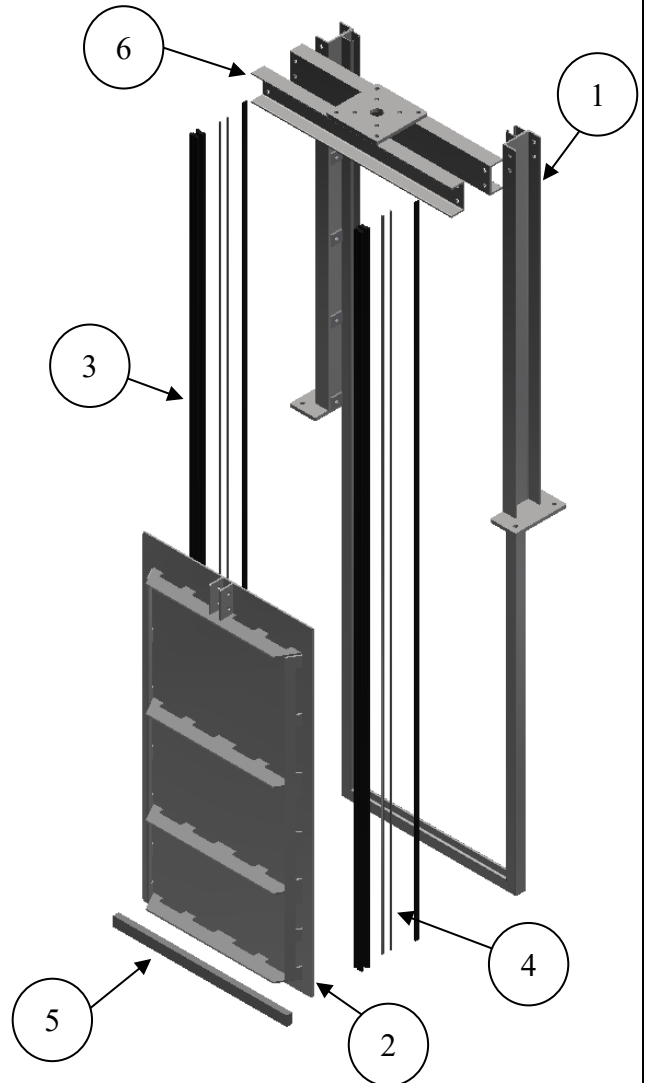
Performance

The leakage rate performance of the P1000 model penstock is significantly lower than the maximum allowable leakage as defined by the various recognised industry standards.

- P1000 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.

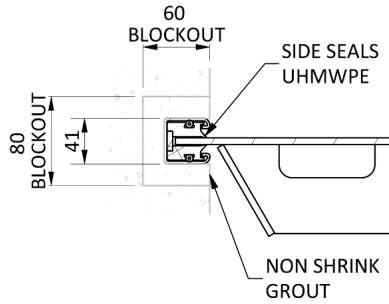


Item	Description	Material
1	Frame	316 Stainless Steel
2	Gate	316 Stainless Steel
3	Side Seals	UHMWPE
4	Compression Cord	EPDM
5	Bottom Seal	EPDM
6	Headrail	316 Stainless Steel

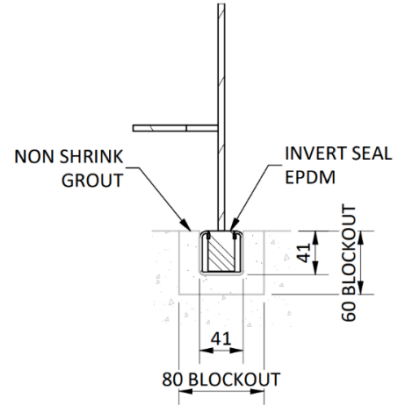
Other materials are available on request to suit specific project requirements

Mounting Configurations

Embedded (Bi-Directional)

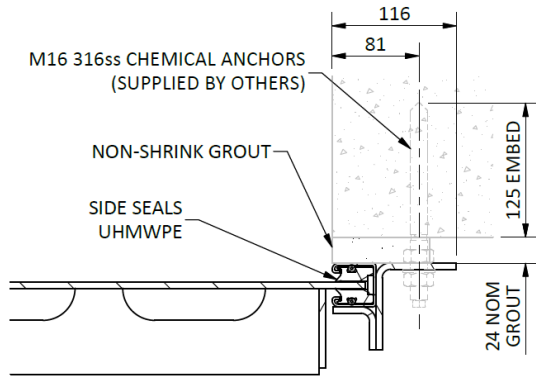


SECTION THRO' SIDE SEAL

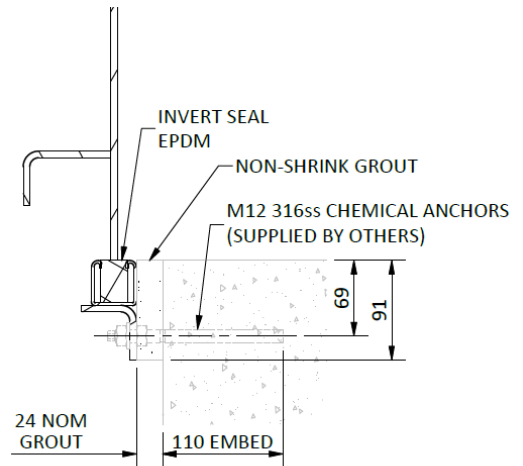


SECTION THRO' BOTTOM SEAL

Face Wall Mounted (Off-Seating)

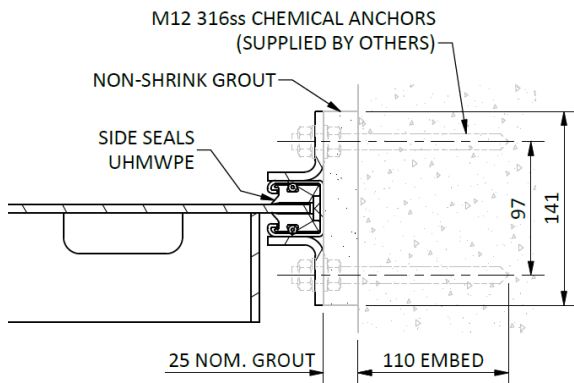


SECTION THRO' SIDE SEAL

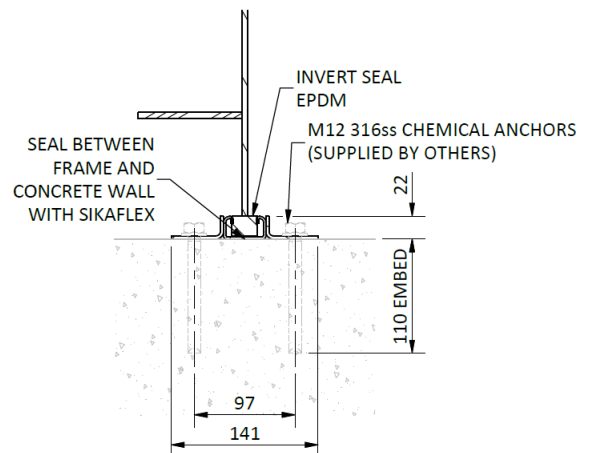


SECTION THRO' BOTTOM SEAL

Side Wall and Floor Mounted (Bi-Directional)

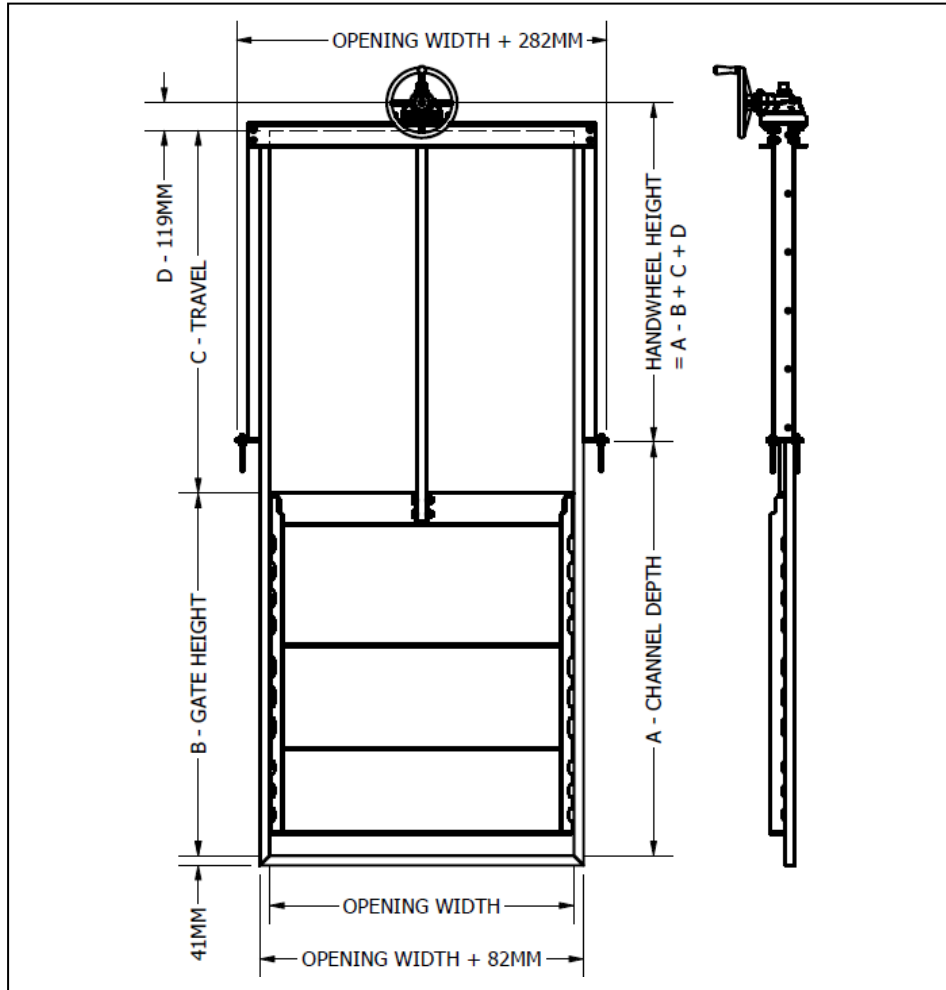


SECTION THRO' SIDE SEAL



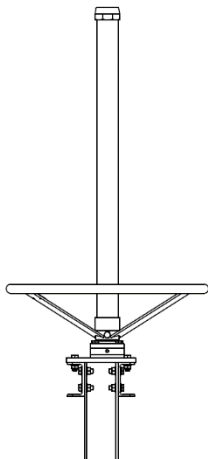
SECTION THRO' BOTTOM SEAL

Overall Dimension (Embedded)

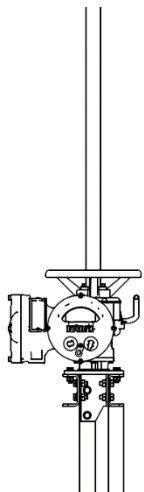


Actuation Options

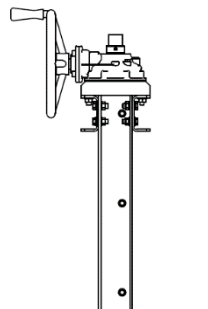
Handwheel



Electric Actuator



Bevel Gearbox



Pneumatic/Hydraulic Cylinder

