Crew NSW Penstocks and Stopboards are used for the isolation and control of water, wastewater, stormwater, drainage, water level and spillways.

Features

- The Penstock range is an engineered to order product and available in a variety of configurations:
  - upward opening
  - downward opening (Weir)
  - square or rectangular opening
- Constructed from corrosion resistant materials:
  - Frame & Gate: 316 S/S, marine grade aluminium or super duplex
- Designed for on-off or modulating bi-directional sealing, using UHMWPE or Ertalyte® as a bearing/guide material to reduce the operating torque.
- Seals on three or four faces throughout the opening and closing stroke.
- Specially designed sealing profile (lip seal) allows for a leakage rate of less than 0.1 litres per minute per metre of seal perimeter.
- Rising and non-rising spindle options.
- Actuator options include manual, electric, pneumatic and hydraulic.
- Easy installation and maintenance free operation.

Technical data

Size:
200 x 200 to 3000 x 3000mm

Pressure:
Up to 10m.
Greater head and sizes available on request.

Connections:
Wall, channel or embedded.
Features

1. **Actuation**
   Choice of manual, electric, pneumatic or hydraulic.

2. **Thrust bridge**
   Robust design, allows for easy retro-fitting of actuation.

3. **Construction**
   316/316L S/S, Marine grade aluminium, Super duplex.

4. **Spindle Rising & Non-Rising**
   Allows for easy assembly and disassembly.

5. **Guides & Sealing**
   Seals on three or four faces depending on model type, guided through the opening and closing stroke, ideal for modulating applications.

6. **On and off seating**
   Bi-directional seal ensures positive seating.

7. **Bottom seal**
   Flush inverted seal, prevents dirt build-up, positive sealing.

www.crewnsw.com       Ph: 02 4421 2174       Mobile: 0456 360 992
A. Wall/Face option
This is the most common way of installation. Therefore, we provide for frame drill holes. Mounting studs and lock nuts are provided.

B. Wall/Side option
Mounting studs and lock nuts are provided.

C. Embedded recess option
For installation into (precast) block out.

D. Other options
- Thimble mounted Penstock.
- Flange mounted Penstock.
- Direct on Steel pit/basin Penstock/Stopboard mounted.
- Double gate or board in single frame.

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**Design**

- A fabricated robust frame made of U-profile stainless steel sections.
- Low friction gate guides and lip seal mechanically fixed in frame.
- Design suitable for On and Off sealing head (Bi-directional).
- Leakage rate less than 0.1 litres per minute per metre of seal perimeter.
- Gate fabricated in one piece with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head.

**Material**

- **Frame and Gate:** 316/316L Stainless Steel or Super Duplex
- **Seal:** EPDM or Neoprene UHMWPE

- **Frame and Gate:** Marine grade Aluminium
  - **Frame:** grade 6061 T6
  - **Gate:** grade 5083 H321
  - **Seal:** EPDM or Neoprene UHMWPE

**Head**

- 4 sides sealed
  - **Head:** up to 10m*
  - On and Off seating

- 4 sides sealed
  - **Head:** up to 6m*
  - On and Off seating

- 4 sides sealed
  - **Head:** up to 6m
  - On and Off seating

- 3 sides sealed
  - **Head:** up to 3m*
  - On and Off seating

**Opening**

- Square or rectangular
  - 300x300 up to 3000x3000**

- Square or rectangular
  - 200x200 up to 1200x1200**

- Square or rectangular
  - 200x200 up to 1200x1200**

- Square or rectangular
  - 300x300 up to 3000x3000**

**Operation**

- **Spindle:** Rising or Non-rising
  - Manual operated electric, pneumatic or hydraulic

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**Material**

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<tbody>
<tr>
<td>Seal:</td>
<td>EPDM or Neoprene</td>
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<td>UHMWPE</td>
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**Head**

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<tbody>
<tr>
<td><strong>Head:</strong></td>
<td>up to 3m*</td>
<td>up to 1.5m*</td>
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<td>On and Off seating</td>
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**Opening**

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<tr>
<td><strong>Head:</strong></td>
<td>300x300 up to 3000x3000**</td>
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**Operation**

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## Stopboards - Single Board

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<tr>
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<th>Frame and Gate: 316 Stainless Steel, Seal: Neoprene/UHMWPE</th>
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</thead>
</table>

### Stop Gate model F982 SSL:
- A fabricated frame made of rolled stainless steel sections.
- Low friction gate guides and double lip seal inserted into frame.
- Design suitable for On and Off sealing head (Bi-directional).

### Stop Gate model F982 SAL:
- Fabricated from extruded marine grade aluminium to accept unique seal. Frame is of a robust construction to accommodate installation and operation without flexing or distortion.
- Double lip seal inserted into frame.
- Design suitable for On and Off sealing head (Bi-directional).

### Stop Gate model F982:
- Fabricated from extruded marine grade aluminium to accept unique seal. Frame is of a robust construction to accommodate installation and operation without flexing or distortion.
- Double lip seal inserted into frame.
- Design suitable for On and Off sealing head (Bi-directional).

### Stoplogs model F984 SSL:
- Single board fabricated from material stainless steel with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head.
- Handles or lifting pins welded on the gate.

### Stoplogs model F984 SAL:
- Multiple boards fabricated from material stainless steel with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head.
- Each board furnished with handles or lifting pins.

### Stoplogs model F984:
- Multiple boards fabricated from material stainless steel with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head.
- Each board furnished with handles or lifting pins.

## Stoplogs - Multiple Boards

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<th>Material</th>
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### Stop Gate model F982 SSL:
- Single board fabricated from material stainless steel with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head.
- Handles or lifting pins welded on the gate.

### Stop Gate model F982 SAL:
- Single board fabricated from material marine grade aluminium with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head.
- Handles or lifting pins welded on the gate.

### Stop Gate model F982:
- Single board fabricated from material marine grade aluminium with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head.
- Handles or lifting pins welded on the gate.

### Stoplogs model F984 SSL:
- Multiple boards fabricated from material stainless steel with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head.
- Each board furnished with handles or lifting pins.

### Stoplogs model F984 SAL:
- Multiple boards fabricated from material marine grade aluminium with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head.
- Each board furnished with handles or lifting pins.

### Stoplogs model F984:
- Multiple boards fabricated from material marine grade aluminium with sufficient ribs and stiffeners to resist in service load under maximum unbalanced head. Each board furnished with handles or lifting pins.

## Material

- **Frame and Gate:**
  - F982SSL: 316 Stainless Steel
  - F982SAL: Marine grade Aluminium
  - F982: Marine grade Aluminium
  - F984SSL: 316 Stainless Steel
  - F984SAL: Marine grade Aluminium
  - F984: Marine grade Aluminium

- **Seal:**
  - Neoprene/UHMWPE
  - Neoprene

## Opening

- **Square or rectangular**
  - F982SSL: 200x200 up to 1200x1200*
  - F982SAL: 200x200 up to 1200x1200*
  - F982: 200x200 up to 1200x1200*
  - F984SSL: 200x200 up to 1200x1200*
  - F984SAL: 200x200 up to 1200x1200*
  - F984: 200x200 up to 1200x1200*

*Larger sizes available on request.*
Penstocks - Figure 980 to 984
Operating Options

Actuator Frame mounted

- Handwheel
- Spindle cap
- Bevel gearbox
- Electric actuator
- Hydraulic actuator
- Pneumatic actuator

Pedestal options

- Pedestal frame
- Mounted
- Spindle cap
- Extension shaft
- Actuator bracket
- Wall mounted
- Pedestal wall
- Mounted
- Pedestal floor
- Mounted

More options

- Actuator mounted
  - Outside of pit
- Actuator mounted
  - Outside of pit
- Actuator off set
  - Universal joints
- Actuator with
  - Wall bracket

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Penstock Model F980
Penstocks in open channel.

Penstock Model F980 Pro
Penstocks four sides sealed, manual operated furnished with torque limitors.

Penstock Model F983 & Stopgate Model F982
Penstocks and stopgates span 15M in open channel.

Irrigation Penstock Model F983
Irrigation infrastructure project.

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**Penstock**

**Material:**
- 316 Stainless steel
- Marine grade Aluminium

**Opening size:**
- W ................. mm wide x H ................. mm high

**Head at Invert:**
- On-seating ................. metre
- Off-seating ................. metre

Head – Maximum water level at Invert of opening

**Invert to operating level:**
- HO ................. metre

Operating level – Top of wall or operating floor level

**Mounting:**
- Frame sides
  - Invert
  - Wall/Face mounted
  - Wall/Side mounted
  - Floor mounted
  - Embedded

**Spindle:**
- Rising
- Non-rising

**Method of Actuation:**
- Manual:
  - Handwheel
  - Gear
  - T-Key
- Actuated:
  - Electric actuator
  - Pneumatic
- Other: Please specify

**Stop Gate/Stoplogs**

**Material:**
- Frame: 316 Stainless steel
- Gate: 316 Stainless steel
- Marine grade Aluminium
- Marine grade Aluminium

**Opening size:**
- W ................. mm wide x H ................. mm Gate high
- Frame height - FH ................. mm
- Wall height - WH ................. mm

**Mounting:**
- Frame sides
  - Invert
  - Wall/Face mounted
  - Wall/Side mounted
  - Floor mounted
  - Embedded

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