



ULF PENSTOCKS

AWMA's ULF Penstock range consists of undershot regulating penstocks for flow regulation, diversion, level control or isolation. The ULF Penstocks are also known as Sluice Gates, Slide Gates, Sluice Valves, Stop Gates or Water Gates.

FEATURES

- Resilient seals on three sides of the aperture (for full perimeter sealing see the TLF Penstock and WLF Penstock).
- Bi-directional sealing available.
- Both rising and non-rising spindle configurations available.
- Custom designed and fabricated to suit any size or shaped orifice.

APPLICATIONS

- The ULF Penstock range is commonly used for many applications across all industry sectors.
- Undershot isolation and regulation.
- Undershot regulation of open channel flow.



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ULF PENSTOCKS



DESIGN

DESIGN SUPPORT

- AWMA's design team will provide full support to ensure the most appropriate solution is developed and specified during the preliminary design.

SIZES

- All AWMA water control gates are custom sized to ensure they meet specific site and operational requirements.
- Customisation reduces installation costs.

MATERIALS

- AWMA select materials to meet a minimum design life of 25 years. Where required, AWMA can offer higher grade materials, coatings and protection systems to extend the design life to 100+ years.
- AWMA use ultra high molecular weight polyethylene (UHMWPE) for penstock door guides and/or wedges to provide maintenance free bearing surfaces.
- Plasticised PVC or EPDM are used for the manufacture of seals. These materials offer superior endurance in wastewater and freshwater applications.
- Materials used for penstock door and frames include marine grade aluminium and grades 304, 316, 2205 and 2507 stainless steel.
- Materials used in the construction of the ULF Penstock range have a high corrosion resistance and can be operated for many years with minimal maintenance.

SEALING

- The sealing ability of this gate exceeds that required by the 'Australian Technical Specification for Fabricated Water Control Infrastructure'.

MAINTENANCE

- The ULF Penstock range has a minimum 25 year design life.
- Minimal maintenance is required offering low 'whole of life costs'.
- If required, all the wearing components can be changed, with ease, on site.

MANUFACTURE

QUALITY

- All fabrication is in accordance with the 'Australian Technical Specification for Fabricated Water Control Infrastructure'.
- All stainless steel welding is continuous to avoid crevice corrosion.
- All procedures are in accordance with AWMA's accredited ISO 9001 Quality Management System to ensure each gate is manufactured to a high standard, tested and ready for trouble free operation post approved installation.

INSTALLATION

MOUNTING OPTIONS

- The ULF Penstocks are typically wall mounted.
- The side frames can be face mounted or embedded.
- The sill is available in a raised or flat sill configuration.
- Mount to concrete headwalls, in a channel or within channel rebates.

ACTUATION SYSTEMS

- Choose from
 - Rising Spindle or
 - Non-Rising Spindle
- Handwheel, electric, hydraulic or pneumatic actuator.
- Portable 12VDC actuator and 240VAC actuator available.
- Accepts portable petrol power actuator system.

OPERATION SYSTEMS

- Integration into new or existing SCADA systems optional.
- Global, web based operating platforms for remote control and monitoring.

COMMISSIONING

DOCUMENTATION AND TRAINING

- Detailed documentation on operation, testing procedures and maintenance will be provided with all AWMA water control solutions.
- Comprehensive on and/or off site training available.

DLF PENSTOCKS

AWMA's DLF Penstock range consists of downwards opening, decant weirs.

FEATURES & BENEFITS

- Modulating for regulation of flows.
- Accurate overshoot flow and upstream pool level control.
- The unique design keeps spindles out of the open water way to eliminate obstruction and maintenance issues.
- Bi-directional sealing optional.
- Single and dual spindle configurations available.
- Both rising and non-rising spindle configurations available.
- Custom designed and fabricated to suit any size or shaped orifice.

APPLICATIONS

- The DLF Penstock range is utilised for applications across all industry sectors.
- Isolation and flow regulation.
- Small to medium decanting applications.



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Water Control Solutions



DLF PENSTOCKS

DESIGN

DESIGN SUPPORT

- AWMA's R&D and Engineering teams are available under Early Contractor Involvement (ECI), to assist in developing water control and screening solutions for bespoke green-field and brown-field sites.

SIZES

- All AWMA water control gates are custom sized to ensure they meet specific site and operational requirements.
- Customisation reduces installation costs.

MATERIALS

- AWMA select materials to meet a minimum design life of 25 years. Where required, AWMA can offer higher grade materials, coatings and protection systems to extend the design life to 100+ years.
- AWMA use ultra high molecular weight polyethylene (UHMWPE) for penstock door guides and/or wedges to provide maintenance free bearing surfaces.
- Plasticised PVC or EPDM are used for the manufacture of seals. These materials offer superior endurance in wastewater and freshwater applications.
- * Materials used for penstock door and frames include marine grade aluminium and grades 304, 316, 2205 and 2507 stainless steel.
- Materials used in the construction of the DLF Penstock range have a high corrosion resistance and can be operated for many years with minimal maintenance.

SEALING

- The sealing ability of this gate meets the 'Australian Technical Specification for Fabricated Water Control Infrastructure'.

MAINTENANCE

- The DLF Penstock range has a minimum 25 year design life.
- Minimal maintenance is required offering low 'whole of life costs'.
- If required, all the wearing components can be changed, with ease, on site.

MANUFACTURE

QUALITY

- All AWMA products meet relevant Australian and international standards.
- All fabrication is in accordance with the 'Australian Technical Specification for Fabricated Water Control Infrastructure'.
- All stainless steel welding is continuous to avoid crevice corrosion.
- AWMA hold international accreditations for ISO 9001; Quality, ISO 14001; Environment and ISO 45001 OH&S management.
- AWMA's Integrated Management System aims to provide a framework to deliver products and services that consistently exceed customer expectations.

INSTALLATION

MOUNTING OPTIONS

- The DLF Penstocks are typically wall mounted.

ACTUATION SYSTEMS

- Choose from
 - Rising Spindle,
 - Non-Rising Spindle or
- Handwheel, electric, hydraulic or pneumatic actuator.
- Portable actuation systems available.

OPERATION SYSTEMS

- Integration into new or existing SCADA systems optional.
- Global, web based operating platforms for remote control and monitoring.

COMMISSIONING

DOCUMENTATION AND TRAINING

- Detailed documentation on operation, testing procedures and maintenance will be provided with all AWMA water control solutions.
- Comprehensive on and/or off site training available.