

# LAYFLAT GATES



AWMA's LayFlat (Tilting Weir) Gate range incorporates downwards opening tilt gates for accurate regulation and isolation of flows.

## FEATURES

- The design includes a gate leaf that is hinged across the bottom and actuated via a cable hoist mechanism.
- Single bay and multi-bay designs available.
- The LayFlat Gate range has a dedicated volumetric flow algorithm available that has been independently certified to guarantee an accuracy better than  $\pm 5\%$ .
- The modular design allows for the actuation system to be self contained or separately mounted.
- Accurate overshoot flow and level control.
- Integrated emergency bulkhead guides.
- Suits structure openings of all sizes and are custom sized to suit their required application.

## APPLICATIONS

- The LayFlat Gate range is utilised for applications across all industry sectors.
- To date, AWMA has manufactured Australia's largest tilting LayFlat Gates with five LayFlats 4mx4m in size, required to regulate environmental flows.
- Proven to accurately regulate irrigation, environmental and storm water flows.
- Fish-friendly, suitable for environmental applications.

# awma



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### 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.
- Alternative material options are available to suit the application and/or environment specific requirements.
- Materials used in the construction of the Bulkhead 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 LayFlat 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 LayFlat Gates can be mounted to the upstream or downstream side of new or existing structures to maintain 100% of the original open waterway.
- Alternatively they can be mounted inside the structures.
- Options include:
  - Upstream slab mount; self contained actuation
  - In structure mount; separately mounted actuation
  - In structure mount; separately mounted raised actuation.

#### ACTUATION SYSTEMS

- 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.