

Application

Rodney Hunt Tilting weir gates are normally used to control the water level on irrigation canals, reservoirs, and drainage canals. These gates, which are sometimes very large, are designed for long life and low maintenance in difficult conditions, but also incorporate several “designed-in,” installation, and field-adjustment features.

Rodney Hunt offers a size range up to 350” x 120” square or rectangular with the head range as per the client requirement in the series mentioned below:

- SERIES: A-315** Stainless steel construction, embedded in sidewalls
- A-316** Stainless Steel construction, face or head wall mounted
- A-335** Structural Steel construction, embedded in sidewalls
- A-336** Structural Steel construction, face or head wall mounted
- A-345** HDPE construction, embedded in sidewalls
- A-346** HDPE construction, face or head wall mounted

Construction

The tilting weir gate is similar in construction to the Bascule® gate having a flat skin plate reinforced with vertical and horizontal members fitted with a single torque tube across the invert.

Side seal plates are mounted in the abutments or on the face of a wall and generally resilient seals attach to the sides of the moveable disc to seal against the side plates. Side seal plates to be manufactured from stainless steel. All sealing surfaces to be type 304 or 316 to avoid corrosion in the sealing area. There is a seal across the hinge or the invert of the gate in the form of a bulb or J-type seal.

The torque tube fitted with self-lubricating-bushings is generally supported at ends near to the side seal plates and in case if the span of the gate is greater, the torque tube is supported by multiple supports along with the invert edge of the gate.

Actuators connect with lifting lugs provide on the top face of the Tilting weir gate and positioned at the end of the gate span to achieve uninterrupted water flow across the gate opening.

Actuation

Cable drum hoists or hydraulic actuation units are recommended options for hoisting. However, Rodney Hunt also offers manual and electrically operated geared operators for actuation.



12” x 36” Tilting Weir Gate for USA

Material Options:

The client to select and specify material of construction of various components from the following alternatives based on the application and requirement. If required, material of construction other than that specified below can also be offered upon specific request.

Components	Material
Gate disc / shutter	Carbon steel (A36) / Stainless steel (304, 316, 304L, 316L) / Duplex steel (2205) / Super duplex steel (2507) / HDPE
Frame, Seal seats for seals	Stainless steel (304, 316, 304L, 316L) / Duplex steel (2205) / Super duplex steel (2507)
Stem	Stainless steel (304, 316, 304L, 316L) / Duplex steel (2205) / Super duplex steel (2507)
Retainer bars for Seals	Stainless steel (304, 316, 304L, 316L) / Duplex steel (2205) / Super duplex steel (2507)
Assembly fasteners, studs and anchors	Stainless steel (304, 316)
Resilient Seals	Neoprene / EPDM rubber (D2000)
Retainer bars for Seals	Stainless steel (304, 316, 304L, 316L) / Duplex steel (2205) / Super duplex steel (2507)

