# COMPOSITE WEIR GATES SERIES: A-351







#### **SPECIFICATION:**

These slide gates are made in compliance with AWWA C563.

### APPLICATION:

These are downward opening overflow weir gates (not downward opening slide gates) mounted on the face of a wall and are provided with sealing arrangement which ensures continuous sealing on 3 sides (side and bottom) at any extent of gate opening and allows water to overflow only from the top side. These are used either for (i) decanting of a reservoir or a tank, or (ii) maintaining precise level control in a reservoir or a tank, or (iii) to isolate the flow as well as maintain precise level control by providing an optional 4th side (top side) sealing arrangement.

#### **FEATURES:**

- Rigid stainless steel flange back gate frame suitable for direct mounting on face of wall using anchor fasteners and secondary grout between wall and frame.
- Full length frame provided with full length extension guides sufficient to engage full height of slide when the gate is full open.
- Slide of composite sandwich construction comprising lightweight rigid cellular core with a fully welded steel box matrix and chemically bonded and sealed with outer skins of "jointless" rigid composite material to prevent ingress of water into the inner core. The outer skin material is non toxic and UV stabilized.
- Offered with HARSA-ML<sup>TM</sup> rigid sealing system on sides and top having integral seal/seat.
- HARSA-ML<sup>TM</sup> unique integral seal / seat system can withstand higher cycle operation and reduce the possibility of requiring future seal changes. This sealing system offers longevity but necessitates precision in installation to achieve specified leakage criterion.
- HARSA-ML<sup>TM</sup> rigid sealing system comprising of slide mounted low friction, high abrasion resistant, multi layered, self-adjusting seals of UHMWPE backed with compression resilient seals to ensure forced contact between the seal and the corresponding seating faces of frame.
- Sealing system in compliance with requirements of AWWA C563.
- Flush bottom slide gates provided with a bottom sealing arrangement comprises of flexible rubber seal flush with the opening.
- Rising stem with pedestal / yoke mounted manual gate operating arrangement to operate the slide gate with less than 18 kgs effort on the crank or handwheel.
- Single piece or multi piece stem to suit the installation depth, coupling to connect the stem sections with the lowest stem section connecting to the stem block mounted on slide.
- Stem guides and brackets to prevent buckling of stem.
- Dual or tandem stems for all gates 1200 mm and wider and having widths greater than twice their height.
- Anchor bolts with nuts and washers for frame, stem guide brackets and pedestal of lift mechanism.

#### **OPTIONAL FEATURES:**

- Oversized frame opening for slide gates to be mounted in front of a concrete pipe terminating at face of the wall.
- Self-contained / close top gate frame with lifting mechanism mounted directly on the yoke provided across the top of slide gate frame.

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- Electric / Pneumatic / Hydraulic operating arrangement.
- Portable gate operator for manual / electric / hydraulic operating arrangement.
- Foot wall bracket for pedestal mounting.
- Stem cover made of galvanized steel or transparent plastic
- Gate position indicating arrangement.

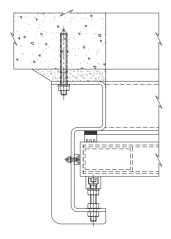
#### **MATERIAL OF CONSTRUCTION:**

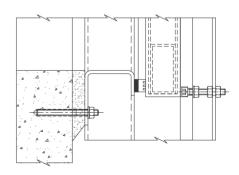
Depending upon application and requirement, client can select and specify the material of construction option for various components of the gate from the alternatives stated on page no. 29.

#### **SHOP TESTING:**

- Leakage testing of weir gate at plant with water filled to the top of slide to verify gate leakage performance.#
- Seat clearance check of each slide gate for checking clearance between mating sealing faces.
- Movement test for checking interference free movement of complete assembly.
- Torque test to verify gate operating torque for manual operating slide gate.
- # Shop leakage test will be carried out only when a test has been specifically agreed to or when a test is specifically stated in specifications.

#### HARSA-ML™ RIGID SEALING SYSTEM





SIDE SEALING ARRANGEMENT

**BOTTOM SEALING ARRANGEMENT**