

Application

Rodney Hunt Swing gates are used to protect against flooding or to dewater sections of a waterway for maintenance. They may be referred to as road closure gates because they most often seal a road cut in a levee.

A swing gate pivots at the end allowing rotation through 90 degrees / 180 degrees. The amount of rotation, which is usually 180 degrees depends on the site geometry and how the gate is stored in the open position. This type of gate, like miter gates, is designed for pressure in only one direction. Its simple construction and operation provide long service life with low maintenance.

Rodney Hunt offers size range from 48" to 600" wide with heights up to 180" as required. The series designations appear below.

- SERIES: A-811** Stainless Steel Swing Gates
- A-831** Structural Steel Swing Gates

Construction

The swing gate is a pivoting gate mounted to a fixed pivot end frame supporting the gate and other embedded items to provide corrosion-resistant sealing surfaces.

Pivot bushings are self-lubricating and are usually high-performance non-metallic although bronze can be provided.

The gate can also be designed with a lifting mechanism to raise the gate a few inches allowing it to swing freely and to then lower, obtaining full contact along with the invert seal in the closed position. Latching devices hold the gate in the open and closed positions.

The seals are factory set but can be adjusted in the field to accommodate the variances encountered in large-scale construction.

Actuation

Swing gate operation is infrequent. Therefore, most installations employ a motor vehicle to tow the gate in an arc to close or open it. Smaller gates can be maneuvered by a few people. In rare cases, a manual worm gear is used to rotate the gate. The lifting equipment used to raise the gate a few inches is generally a manually operated compound bevel gear.

Electric Motor operation and Cylinder actuation are both possible. The same range of controls and features available for other types of gates can be incorporated into the design.

Material

Swing gates can be manufactured in carbon steel, stainless steel, and duplex stainless steel depending on the corrosiveness of the media and desired length of service life. Swing gates have resilient seals. Neoprene and EPDM are common by Viton can be supplied.



248" x 77.8" Structural Steel Swing Gate for Davenport, IA, USA