

Irrigation Water Regulators



شركة منور الهندسية المحدودة

Mob. +249 901231606 +249 901232327

E-mail: monawir_eng@yahoo.com



Introduction

Irrigation canals are artificial systems developed to transport water from main water reservoirs to several water-demanding agricultural farms during irrigational seasons. Generally, they cover very long distances; their length can range from hundreds of meters to hundred of kilometers. Along these canals, farms are located close to them and distributed all over the way.

Survey about the different types of controllable variables in canal systems, in order to assure the availability of water for the final users. These are:

- Supplied water discharges.
- Water depth levels where water is diverted for irrigation.
- Stored water volumes.

A gate is a hydraulic structure widely used for controlling discharge and water depth in irrigation and drainage canals. However, it can also be used as a convenient discharge measuring device.

Depending on the intended purpose and the particular mechanical design, there are different types of gates, many of them widely used in irrigation canal applications vertical lift gates, radial (tainter) gates, flap gates and Roller Sluice Gates.

Sluice Gate

General Description Of Sluice Gate

The Roller Sluice Gates are to close against a steel frame consisting of left and right side and bottom rest.

The roller sluice gates are formed of Standard U-Section 200 as and equal iron angles 100 x10 mm and gusset plates to stiffen the gate structure in one rigid structural unit covered in the front by a skin plate 8 mm thick according to your requirements, whoever in compliance with the international standards for under water structures this is in the minimum 10 mm. The gusset plates shall also have a minimum thickness of 8 mm.

At the bottom of the gate bed and joining structurally with the Side Frames for Guides, is the bottom rest (sill) upon which the Roller Sluice Gates are to rest. As described above this bottom rest is adjusted to correct level and position through embedded parts mounted as shown in our drawings.

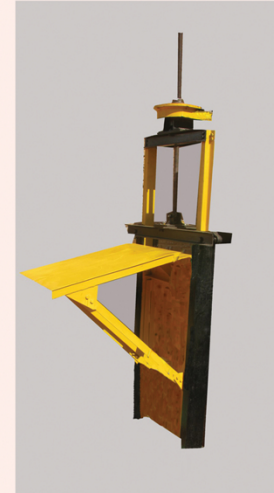


Movable Weir

General Description of Movable Weir

The movable weirs are of welded construction design, designed of two skin supported and stiffened structures sliding across the face of each other, one fixed and the other is movable, maintaining water level up-stream between the certain minimum and maximum level.

The thickness of steel skin is accordance with DIN standard 19704 & 19705 for underwater structures. All other structural members and steel sections used in the design are also complying with above German Standard. The movable part is bolted to U-sections steel to fit with the guide groove, again the movable part is bent to a certain angle allowing water to fall in low and stiffened with a steel angle 50x5 mm. Both weirs on the same frame; the fixed and movable run in guide channels carefully designed to allow for free movement and lending a strong anchor into brickwork or concrete forming the sides and bottom sill. The movable weir gate is operated through a geared—mechanical lifting system.



flap valve

General Description Of flap valve

flap valves are designed to open with the flow of water out of a pipe, prevent flooding and stop water back flowing up pipework.

Flap Valves used to:

- Pump discharge control
- Irrigation systems
- Flood control
- Water and sewage treatment plants
- Municipal Projects
- Tidal drainage

Round opening for heads up to 15m

Opening size DN (mm)	Swing Door Radius (mm)	Dimension A (mm)	Opening size DN (mm)	Swing Door Radius (mm)	Dimension A (mm)
100	185	133	500	666	412
150	298	209	600	793	488
250	387	241	685	914	539
300	425	260	762	977	590
350	501	317	914	1155	692
400	539	330	1066	1358	825
450	635	400			

