



Flumes

Flow measuring techniques will vary depending on the application flow type. There are two basic types of flow systems; closed channel, and open channel. A closed channel can be described as water flow through a filled pressurized pipe. Flow measurement is typically performed by inserting a mechanical meter, venture meter, magnetic meter within the pipe. A typical example of a closed channel flow is a city potable water line that is metered with a turbine meter.

The second type of flow type, open channel, is best described as water that flows with a “free surface” typically in a non-pressurized (atmospheric) pipe or channel. Examples are rivers, irrigation/drainage ditches, canals, and sanitary sewer.

The most practical method for open channel flow measurement is accomplished using a hydraulic structure; flumes and weirs. These hydraulic structures enable flow calculation by measuring the water depth at a single point. By using the structure’s associated equation or table, the flow rate can be calculated. Open channels are used to conduct liquids in most sewer systems, sewage treatment plants, industrial waste applications, and irrigation systems.

FLUMES

Applications

- Wastewater
- Industrial plant effluent
- Stormwater
- Irrigation water



WW | FLUMES
Standard



System Components

- Fiberglass or plastic flume insert
- Precast concrete basin
- Ultrasonic transducer

Optional Components

- Steel bar grating and frame
- Ladder
- Stilling well connection

How it Works

A flume is a specially shaped engineered structure that is used to measure flow of water in an open channel. The flow rate through the flume can be determined by measuring the liquid depth at a specific point in the flume and using the flume's associated equation based on the head to flow relationship.

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APPLICATIONS



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Ponds



Wastewater
Treatment Plants



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