

EZ Flow Ramp Flume



The Simplest, most accurate solution to your water metering requirements!

In today's resource conscious world, accurate measurement of water consumption is more important than ever. The Ramp Flume provides an economical way to accurately measure water.

Two models are available. The Adjust-A-Flume and the EZ Flow Ramp Flume. The main difference between the two is that the Adjust-A-Flume has an adjustable sill feature that allows the user to relocate the level of the sill after installation where the EZ Flow has a stationary sill. The EZ Flow is more economical, but if a user can afford the small additional expense the Adjust-A-Flume offers additional flexibility in measurement range and simpler overall installation.

Many different features have been tried in past adjustable flume designs. For example, fixed, portable, and vertically movable gates have been described by Bosetal. (1991). Small water trays have been used for leveling, as well as radial gates and vertical slide gates to regulate and estimate flow rate. Their range of utility is limited, and accuracy is a persistent problem in these past designs, with errors frequently exceeding +/-20%. The Adjust-A-Flume™ represents the "state-of-the-art" in flume design, achieving amazing flow metering accuracy.

Measurement Accuracy

Extensive testing and evaluation under field and laboratory conditions, have shown the Adjust-A-Flume™ and EZ Flow Ramp Flumes consistently achieve accuracies to within +/- 3%, when properly installed. The increased flow velocity in the throat section discourages sediment accumulation in this important part of the flume. The approach section near the gage, while somewhat less self-cleaning, is tolerant of considerable sediment accumulation before significantly altering the flumes function. This provides for long periods of time between cleaning and maintenance.

Durable Construction

The Adjust-A-Flume™ and EZ Flow are made of high quality galvanized steel for years of trouble free service. They are designed with extremely rigid "flanged" construction throughout and utilize heavy cross bracing. The design allows the installation of the Adjust-A-Flume™ and EZ Flow Ramp Flume in locations with heavy soil backfill or in concrete channels.

Economical

The manufacturing process allows us to keep prices very affordable. Unlike other flumes where you may pay as much for shipping (because of the dimensional size and weight) as for the flume itself, the Adjust-A-Flumes™ and EZ Flow Ramp Flume are shipped unassembled for lower cost shipping and handling. In fact, most of the smaller sized flumes can be shipped via FedEx or UPS.

Installation

The Adjust-A-Flume™ and EZ Flow Ramp Flumes are easy to assemble, even in the field. Initial assembly usually takes less than an hour for the smaller flumes and no more than two hours for the larger flumes. After installing the flume in the water channel, just assure that the flume is level both end to end, and side to side and that the top of the fixed frame is 2 to 5 inches above the high water mark. Adjust the height of the sill on the Adjust-A-Flume, and the flume is ready for service. It really is that easy. Unlike some other flume designs, the Adjust-A-Flume™ and the EZ Flow Ramp Flume do not require sight surveying or complicated excavation for proper and accurate installation. For more information on installation of the Adjust-A-Flume™, and the EZ Flow Ramp Flume contact us, or visit the "Flume" pages on our web site at www.inmtn.com.



Choosing the Correct Size

Choosing the correct flume size for your application is important. It is suggested that the smallest size flume that will accommodate the correct flow be used. On the back page is a listing of the standard available sizes. We can also design and manufacture other custom sizes upon request.

Adjust-A-Flume

Max Cat. No.	Flow Rate	Length	Throat Width	Height	Shipping Weight
					lbs.
AF0.45				1/16	23
AF2				7/8	82
AF4				7/8	103
AF6	6	56-5/8	36	14-7/8	123
AF11	11	91-7/8	30	28	412
AF15	15	91-7/8	30	34	511
AF25	25	111	38	38-3/8	698
AF35	35	111	38	43-3/4	793

Discontinued



The Adjust-A-Flume™ is Accurate, Durable, Economical, Easy to Install, and Simple to Use. It is the ideal primary device for many water measurement applications.

EZ Flow Ramp Flume

Cat. No.	Max Flow Rate cfs	Length in.	Throat Width in.	Height in.	Shipping Weight lbs.
EF3.5	3.5	47-1/2	12-1/8	14-7/8	62
EF7	7	47-1/2	24-1/8	14-7/8	86
EF10	10	47-1/2	36-1/8	14-7/8	108
EF20	20	80	30-1/8	26	400

Additional Features & Benefits

- Flexible in matching site requirements (being adaptable to earthen or concrete lined channels)
- Quick and easy installation in unlined channels. Sealing against water leakage is easily accomplished with compacted earth
- Causes very little upstream ponding, usually less than one inch, so it can be used in flatland farming areas
- Direct reading sidewall gauges eliminate the need to carry rating tables or to calculate flow rates. Gauges can usually be read from a vehicle on the channel bank. A stilling well can be added for sensors and data logging instruments
- Adjust-A-Flume is adaptable to changes in channel flow caused by weed growth or sedimentation in the channel by simply raising the sill slightly

- Adjust-A-Flume simplifies vertical placement problems. Vertical placement is one of the most critical field decisions for installing flumes and weirs, and it must be completely supervised to avoid costly refitting or improper function. (See the diagram below). Quickly install flumes into earthen or small concrete lined channels without expensive and complicated surveying equipment.
- Adjust-A-Flume allows sediment to be flushed by simply raising the ramp to allow the water to flow under the sill for a short period.

