



# PARSHALL FLUME

## **INTRODUCTION**

In irrigation, water and waste water treatment plants, the measurement of water flow in open channels is a common practice. However, in order for flow measurement in open channels to be carried out, the cross sectional area of the particular open channel must be fixed so that the level of water head measured in the fixed cross sectional area can be used to calculate the amount of water flowing through the open channel. Parshall flume is one type of predetermined cross sectional area device that is widely used for open channel flow measurement.

## **APPLICATION**

When properly installed, parshall flumes are used for the measurement of water flow through open channels. Typical applications include raw water pumping and waste water discharge flow rate measurement with the use of piezoresistive or ultrasonic open channel flow transmitters. Generally, parshall flumes are recommended for applications in which moderate concentration of sand, grit or other heavy solids exists and fluid velocity entering the flume are sub-critical. The flume operates with a small energy loss or change in channel grade. However, due to its limitation in accuracy, parshall flumes are not recommended in applications where accurate flow measurements are required.

## **DESIGN FEATURES**

### **Excellent Corrosion Resistance**

Parshall flumes are manufactured in one piece construction from fiberglass reinforced polyester resin and is excellent in corrosion resistance.



### **Easy Installation and Stable**

The parshall flumes are precisely moulded with smooth surface and rigidly supported for casting into concrete structures. In addition, all parshall flumes are furnished with 50mm wide flange on top and at all ends for added rigidity and stability.

### **Sizes**

Our parshall flumes are available in the following throat sizes:

1, 2, 3, 6, 9, 12, 18, 24, 30in or  
25, 50, 75, 150, 225, 300, 450, 600, 900mm

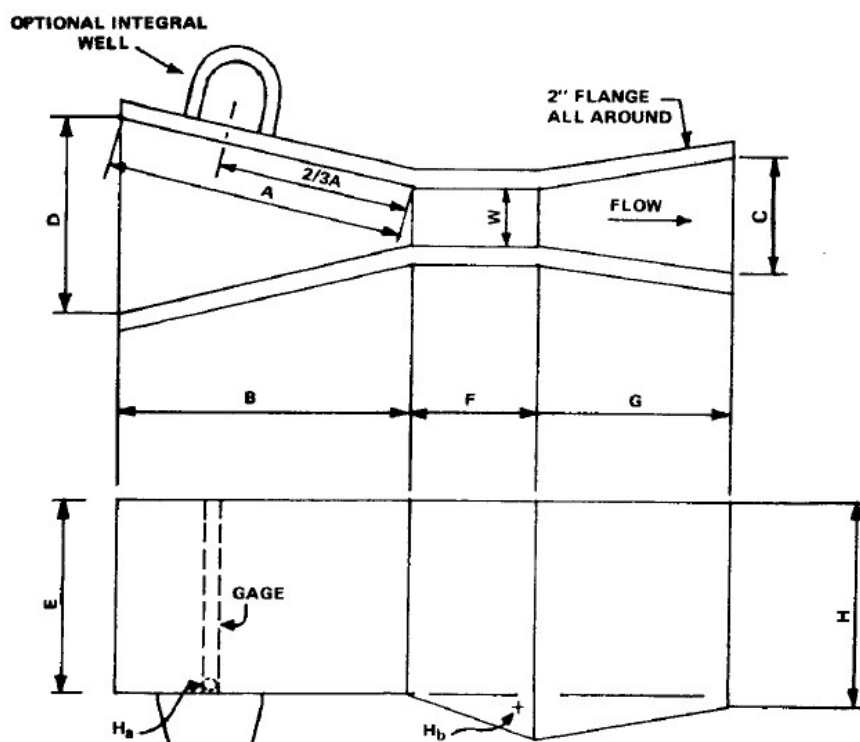
### **Material of Construction**

The parshall flumes are manufactured from high quality fiberglass reinforced polyester resin with embedded mild steel angles as support structures. All exposed support structures are coated with epoxy paint.

## DIMENSIONS AND FLOW DATA

Throat Diameter (W) Inches	Max. Free Flow MGD*	A Inches	2/3 A Inches	B Inches	C Inches	D Inches	E Inches	F Inches	G Inches	H Inches
1	0.13	14-9/32	9-17/32	14	3-21/32	6-19/32	9	3	8	9-3/4
2	0.26	16-5/16	10-7/8	16	5-5/16	8-13/32	9	4-1/2	10	9-7/8
3	1.20	18-3/8	12-1/4	18	7	10-3/32	24	6	12	25
6	2.50	24-7/16	16-5/16	24	15-1/2	15-5/8	24	12	24	27
9	5.70	34-5/8	23-1/8	34	15	22-5/8	30	12	18	33
12	10.30	54	36	52-7/8	24	33-5/8	36	24	36	39
18	15.90	57	38	55-7/8	30	40-3/8	36	24	36	39
24	21.40	60	40	58-7/8	36	47-1/2	36	24	36	39
30	27.10	64-1/4	42-3/4	63	42	54-3/4	36	24	36	39

\* The discharge capacities are for free flow conditions and do not apply in cases of submerged flow. Free flow conditions exist when the level at the downstream gauge does not exceed more than approximately 2/3 of the level of the upstream measuring point.



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