TRENT

PARSHALL FLUME

INTRODUCTION

In irrigation, water supply and wastes water treatment plants, the measurements of water flow in open channels are common practices. 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, TRENT PF Parshall flumes are used for the measurement of water flow through open channels where the flumes are installed. 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 concentrations of sand, grit or other heavy solids exist and fluid velocities 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, TRENT PF Parshall flumes are not recommended in applications where accurate flow measurements are required.

DESIGN FEATURES

Excellent Corrosion Resistant

TRENT PF Parshall Flumes are manufactured in one piece construction from fiberglass reinforced polyester resin and is excellent in corrosion resistance

Easy installation & Dimensionally stable

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

Sizes

TRENT PF Parshall flumes are available in the following throat sizes:

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

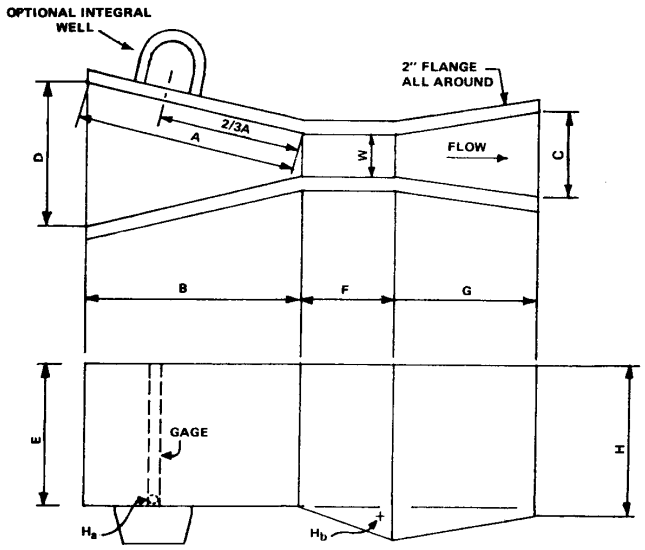
Material of Construction :

TRENT PF 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 paints

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	33–1/4	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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