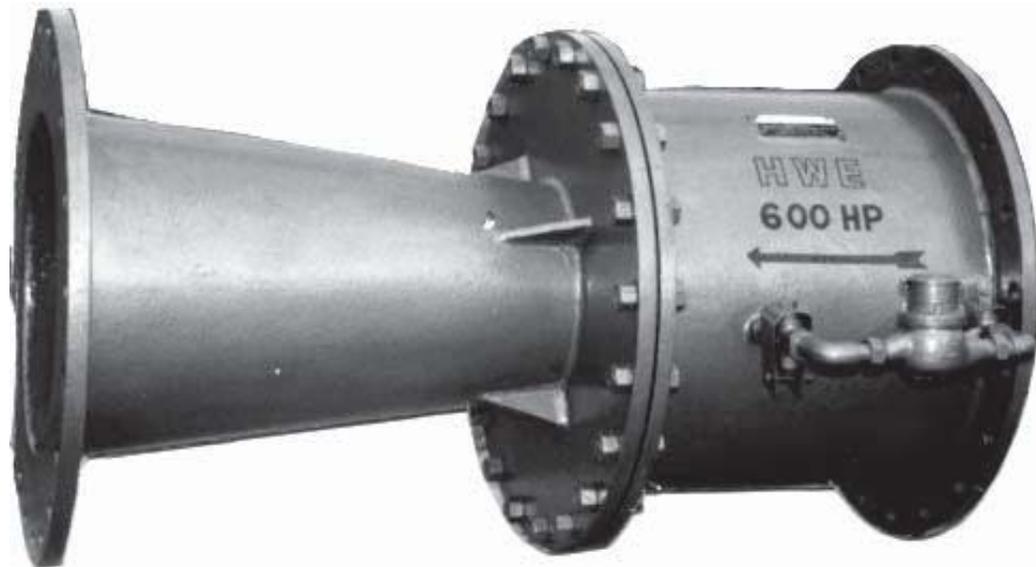


HWE

WATER METERS

- ° HEAVY DUTY
- ° WATER WORKS PATTERN
- ° MAINTENANCE FREE
- ° BULK FLOW
- ° REMOTE READING FACILITY



PROPORTIONAL TYPE

(From 50 to 2000 mm diameter)

We also manufacture :

Raw Water Meter,

Soft Water Meter

Hot Water Meter &

Chemical Meters.

HWE HEAVY DUTY WATER WORKS PATTERN MAINTENANCE FREE BULK FLOW WATER METER PROPORTIONAL TYPE (PAT. PENDING) From 50 to 2000 mm diameter

Introduction

HWE Bulk Flow Water Meter is best suited for the measurement of water used for the public and private water supplies and also for the water used in various industrial processes.

It is the latest improvement in the fluid measuring technology in India.

The use of this meter is economical as its main part is a well designed Venturi Tube which forms the permanent part of the pipe line and the quantity of water passed through it is recorded by a small Shunt Meter of inferential type of size 15 or 20 mm in diameter depending upon the size of the meter.



Normally the meters are made for fixing horizontally but can also be supplied for vertical applications against specific orders.

Material

The Venturi and the Isolating Cocks for cold water i.e. for temperatures upto 45°C are made out of high grade Cast Iron. The Shunt Meter used is of best quality as per I.S. 779. Bye-Pass line consists of heavy quality galvanised pipes and fittings.

For Raw water, Irrigation, Hot water, Chemicals, Oils and other uses the material specifications change accordingly.

Construction

The construction of the meter is very robust and sturdy to withstand the severe working conditions usually met in the water supply industry. Heavy ribbing is provided on the body for additional strength. Meters for use in high pressure installations are also made as per the specific requirements of the client.

Flanges are drilled as per I.S. 2373:1981 but can also be drilled to customer's specifications.

Testing

Every meter is hydraulically tested to withstand a pressure 200 meters head of water and for accuracy as per the procedure laid down in I.S. 2373:1981.

Registration

The reading of the flow past through the Venturi is read on the dial of Shunt Meter either direct or with the help of a multiplier in Litres or M_3 but for industrial uses can also be calibrated in other units.

The Shunt Meter is of integrating type and will automatically set to zero after maximum recording. As such no resetting is required.

Determination of flow rate

Flow rate can easily be obtained by timing the readings shown by the number wheels or the test hand of the clock work of the meter.

Loss of Head

Loss of head across the meter is very low. When passing maximum of its rated capacity, it is about 1 Metre W.G. only.

Sealing

After the meter is successfully tested; it is properly sealed.

Strainer

Strainer is provided in the inlet of the Shunt Meter. As such no dirt box is required for clean water.

Spare parts

The main body of the meter never requires replacement. The spares of Shunt Meter and the Bypass line are readily available.

Installation

The installation of these meters is very simple. They simply need bolting of flanges with the pipe flanges. The meter should always remain under a positive head of atleast 0.15 kg/Cm₂

For fixing of meters in odd positions, reference should be made to the company.

Selection of size of meter

In case the flow passing through a pipe line is lesser than that of the same size of meter, a smaller meter having the required maximum continuous running capacity may be selected.

Removal and refixing of Meter

As the Venturi forms the permanent part of the pipe line, it is not necessary to remove it every now and then.

When required, the Shunt Meter can be taken out of service without stopping the supply. For this purpose, Isolating Cocks have been provided on both the sides of the Shunt Meter.

Locking Clamps with sealing arrangement have been provided on these cocks to prevent unauthorised tampering.

PERFORMANCE DATA			Length over flanges mm
Nominal diameter mm	Max. continuous registration M ₃ /hr	Minimum registration M ₃ /hr	
50	19	2	270
65	32	2.10	300
80	47	2.20	330
100	74	4	410
125	119	6	460
150	166	9	510
200	296	15.50	620
250	462	25	730
300	666	35	850
350	931	45	820
400	1184	62	925
450	1500	80	1000
500	1851	97	1150
600	2655	140	1350

+ 2% at maximum
Accuracy + 3½% at 1/10th
limits + 5% at minimum
(1/15th of maximum)

- Notes :
1. For shorter periods the meters may be loaded to 1.5 times the contineous maximum flow.
 2. Details of larger sizes and for meters for special applications can be given against specific enquiries.
 3. Due to the regular R &-D activities, the design and data are subject to change at any time.

Manufactured by

HINDUSTAN WATER ENGINEERING COMPANY

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