Product Data Sheet
PDS-142
2021-01-09

Waterworks Intake Meter

Description
A Waterworks Intake Meter is an economical and easily installed meter for large volume flow measurement at the discharge end of a closed conduit, inverted siphon, and reservoirs. Existing structures often provide an excellent mounting for the meter.

Certified Accuracy
Accuracy is within 2% of actual flow for the specified meter range. This accuracy is guaranteed by certified wet calibration at three test points in Sparling's NIST traceable primary flow laboratory. Each meter is tested at low flow, mid-range, and high flow. A test certificate is provided with each meter.

Installation
The meter propeller, fully submerged and facing the center of the flow at the discharge end of a pipe, closed conduit, or inverted siphon, is suspended from a pipe column attached to a wall or simple support structure. Concrete pipe or a simple culvert structrue is a satisfactory meter tube. Gate valves or other obstructions should be at least ten pipe diameters upstream from the meter. Straightening vanes may be furnished as a separate item to insure straight flow conditions and accurate measurement.

Materials
All materials used in manufacturing are highly resistant to normal water corrosion and recommended for water works application. Special materials are utilized for highly corrosive conditions. Liquid temperatures should not exceed 100°F.

Propeller Design Minimizes Maintenance - The propeller is made of a tough , durable, abrasion-resistant material. The conical shape and the ability of the material to flex under stress allows the propeller to shed debris such as clumps of algae or rags without damage.

Rugged Construction Guarantees Long Life - Materials of construction have been selected to provide many years of service. Shafts and bearings are stainless steel, bearing housings are Brass (10" - 30") and Cast Iron (36" - 72"). Drop pipes are Brass (10" - 30") and Steel (36" - 72").

Rate Indication and Totalizer
Total flow is shown on a 6-digit Straight Reading Clock which registers in units or multiple units of Gallons, Cubic Feet or other standard units.

Flow Rate is easily obtained by timing the register clock test hand.

Flow Ranges
These meters measure accurately over a wide flow range of 10:1 or greater. The maximum flow ranges can be safely exceeded by 50% when used intermittently. Flow rates are provided in the table under specifications for each of the sizes.

Anticipated flow ranges and minimum and normal flow rates should always be specified on application sheets accompanying your order.

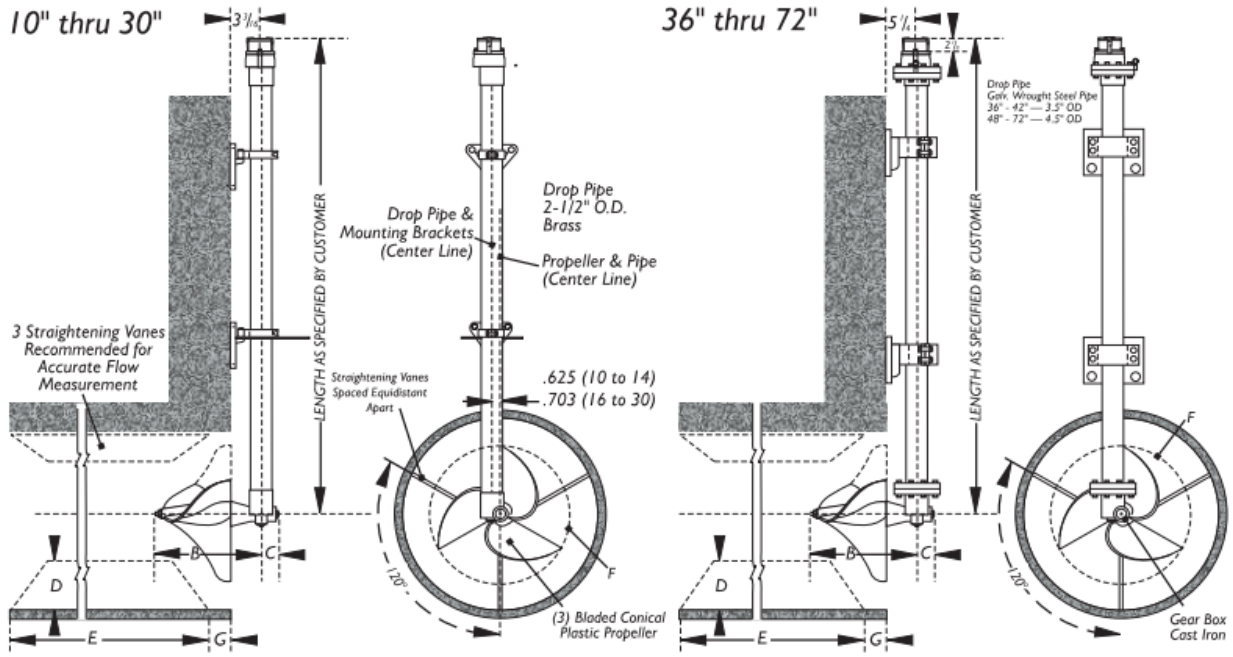


Table 1: Base Model Number
FM142 - Direct Drive Open Flow Meterhead

Table 2: Size

10 - 10"	**12** - 12"	**14** - 14"	**16** - 16"
18 - 18"	**20** - 20"	**24** - 24"	**30** - 30"
36 - 36"	**42** - 42"	**48** - 48"	**54** - 54"
60 - 60"	**66** - 66"	**72** - 72"	

Table 3: Mounting
6 - Standard Wall Brackets

Table 4: Construction
1 - Standard

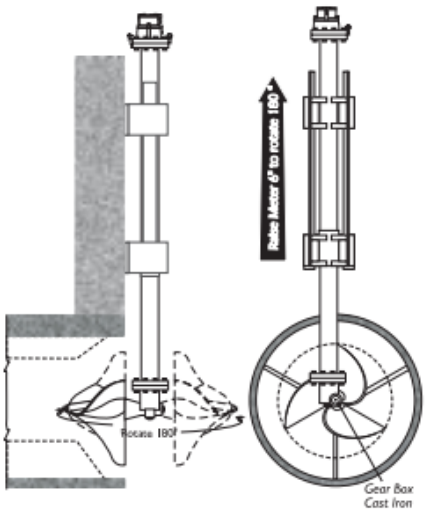
Table 5: Flow Range
1 - Standard Range
2 - High Range

Table 6: Readouts
0 - None

Table 7: Accessories
0 - None
1 - Bolting Vanes

Model	Size	Mount	Const	Flow	Read	Access.
FM142	10	6	1	1	0	0

Optional Revolving Type Bracket Mounting



Size (in)	Weight (lbs)	B	C	D	E	F	G	Flow Range (GPM)	
								Standard	High
10.0	90.0	9.50	2.13	3.38	16.5	8.00	4.00	160 - 1600	360 - 2900
12.0	90.0	9.50	2.13	4.00	16.5	10.0	3.00	200 - 2000	400 - 3600
14.0	90.0	9.50	2.13	4.75	28.0	11.0	2.00	260 - 2600	520 - 4700
16.0	105	12.0	2.63	5.50	28.0	13.0	5.00	300 - 3800	600 - 6800
18.0	105	12.0	2.63	6.00	30.0	16.0	3.00	400 - 4600	800 - 8300
20.0	105	12.0	2.63	7.00	33.0	16.0	2.00	550 - 5600	1100 - 10000
24.0	105	12.0	2.63	8.00	36.0	16.0	1.00	800 - 8500	1600 - 15000
30.0	115	12.0	2.63	10.0	45.0	16.0	1.00	1200 - 12000	2400 - 21000
36.0	350	18.1	4.38	12.0	54.0	25.3	*	1500 - 16000	3000 - 29000
42.0	350	18.1	4.38	14.0	60.0	25.3	*	2100 - 22000	4200 - 40000
48.0	580	20.0	4.50	16.0	72.0	38.4	*	2700 - 28000	5400 - 50000
54.0	580	20.0	4.50	18.0	80.0	38.4	*	3400 - 35000	6800 - 63000
60.0	580	20.0	4.50	20.0	90.0	38.4	*	4200 - 42000	8400 - 75000
66.0	580	20.0	4.50	22.0	96.0	38.4	*	5000 - 50000	10000 - 90000
72.0	580	20.0	4.50	24.0	108	38.4	*	6000 - 60000	12000 - 100000