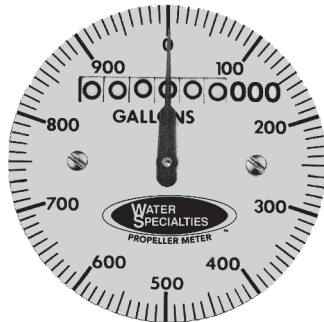




MODEL ML23
 150 psi MANHOLE FLANGE METER
 SEALED METER MECHANISM - MAGNETIC DRIVE
 SEALED TOTALIZER
 SIZES 16" thru 120"



TOTALIZER



DESCRIPTION

MODEL ML23 MANHOLE FLANGE METERS are manufactured to the highest standards. Materials used on all meters and flow ranges for the low velocity meter meet or exceed AWWA standard C704-02. The bolt-on design permits use in a wide range of applications with up to 150 psi working pressure. The meter head conforms to ANSI class 125 drilling. It is necessary, upon ordering, to furnish the I.D. dimension of the pipe the meter is to be mounted on for calibration purposes.

INSTALLATION is made to any standard manhole saddle. The meter can be installed in any of the following positions: vertically, horizontally or inclined on suction or discharge lines. The meter must have a full flow of liquid for proper accuracy. Fully opened gate valves, fittings or other obstructions that tend to set up flow disturbances should be a minimum of ten pipe diameters upstream and two pipe diameters downstream from the meter. Installations with less than ten pipe diameters of straight pipe require straightening vanes. Meters with straightening vanes require at least five pipe diameters upstream and two pipe diameters downstream of the meter.

PROPELLER is magnetically coupled with the drive mechanism through the sealed oil filled gearbox. This completely eliminates water entering the meter assembly, as well as the need for any packing gland. The propeller is a conical shaped three bladed propeller, injection molded of thermoplastic material resistant to normal water corrosion and deformity due to high flow velocities.

BEARING is a water lubricated ceramic sleeve and spindle bearing system with a ceramic/stainless steel spindle. Dual ceramic thrust bearings, standard on all meters, handle flows in both forward and reverse directions. The bearing design promotes extended periods of maintenance free propeller operation. Bearings within the sealed meter mechanism are shielded precision stainless steel bearings and are factory lubricated for the life of the meter.

TOTALIZER is o-ring sealed and magnetically coupled with the driving mechanism, and features a six digit totalizer with a full 3" diameter, 100 division, center sweep dial that permits extremely accurate readings for timing purposes in determining flow rates. The totalizer dial can be furnished in gallons, cubic feet, acre feet, or any standard liquid measuring units. The bonnet, with padlock hasp, can be positioned in four different directions for the easiest possible reading when the meters are mounted in unusual positions.

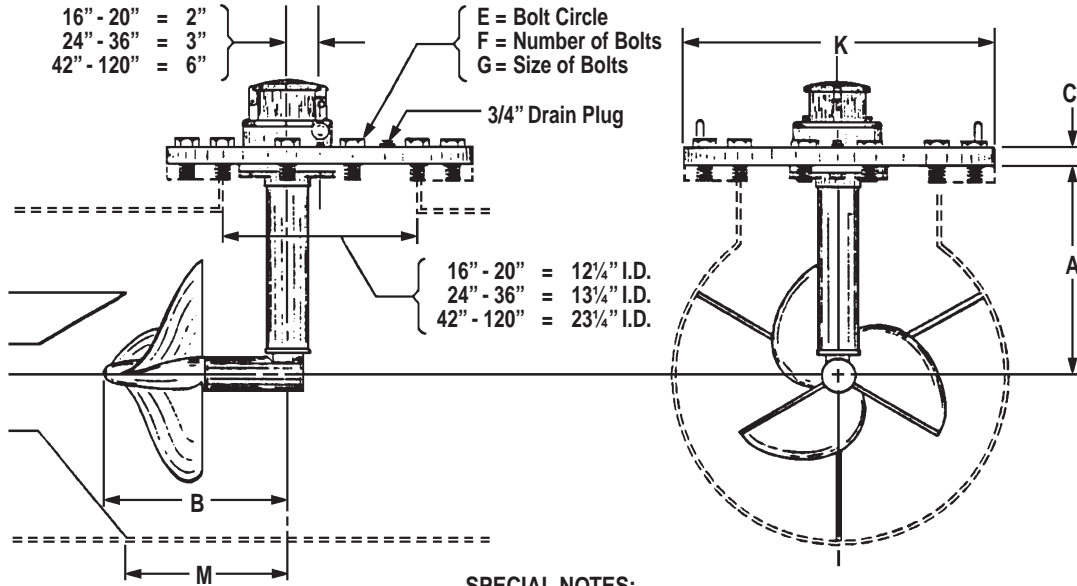
CHANGE GEARS may be easily exchanged in the field when changing the dial, or when recalibrating for different pipe sizes. It is not necessary to remove pressure from the line for these changes.

O-RING SEALS are used at the meter head and all points where seals are required, making the meter mechanism completely immune to any of the corrosive effects of atmospheric moisture or the liquids measured by the meter assembly.

SPECIFICATIONS

ACCURACY	Plus or minus 2% of actual flow within the range specified for each meter size.
PRESSURE RANGE	Up to 150 PSI maximum working pressure.
TEMPERATURE RANGE	140° F Maximum. Consult factory for special construction for higher temperatures.
MINIMUM FLOWS	As shown for each meter size and construction are required for accurate registration. See flow chart. NOTE: Minimum flow will be higher when auxiliary equipment is added.
MAXIMUM FLOWS	As shown for each meter size and construction are rated for continuous operation. See flow chart.
INTERMITTENT FLOWS	As shown for each meter size are rated for 10% to 15% of the total time the meter is operating. Consult factory for High Velocity construction when intermittent flows are higher than shown on flow chart and/or when longer operating periods are required.
MATERIALS	Used in construction are chosen to minimize the corrosive effects of the liquids measured by the meter assembly. MAGNETS - permanent ceramic type INTERIOR BEARINGS - shielded stainless steel PROPELLER BEARING - ceramic sleeve type PROPELLER SPINDLE - ceramic sleeve/stainless steel PROPELLER - injection molded thermoplastic GEARBOX - cast bronze SEPARATOR - stainless steel SHAFTS - stainless steel METER HEAD BOLTS - plated steel METER HEAD - cast iron or fabricated steel, NSF approved, fusion epoxy coated.
OPTIONAL EQUIPMENT	Totalizer Extensions and a wide range of controls and instruments for indicating, totalizing and recording flow data for each meter. Special construction and materials are available upon request.
ORDERING INFO	Specified by the customer and includes: Minimum & maximum flow ranges Temperature of meter environment Totalizer dial units Type of materials and construction Optional equipment desired Pipe I.D.

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- SPECIAL NOTES:**
1. Standard length. Special lengths available upon request
 2. Meter head bolts must straddle centerline of pipe.
 3. Standard head. Other manhole heads available upon request.

METER & PIPE SIZE	FLOW RANGES, GPM		DIMENSIONS								EST SHIPPING WEIGHT POUNDS
	STANDARD CONSTRUCTION MIN. - MAX. - INT.	HIGH VELOCITY CONSTRUCTION MIN. - MAX.	A ₁	B	C	E	F ₂	G	K ₃	M	
16	400-5000-6000	1200-7500	11 1/2	11 1/2	3/4	17	12	7/8	19	10	150
18	700-6000-7500	1500-9000	12 1/2	11 1/2	3/4	17	12	7/8	19	10	170
20	850-8000-9000	2000-12000	13 1/2	11 1/2	3/4	17	12	7/8	19	10	180
24	1000-10000-13500	3000-15000	15 1/2	11 1/2	3/4	18 3/4	12	1	21	13 1/2	190
30	1800-15000-21000	4000-25000	18 1/2	11 1/2	3/4	18 3/4	12	1	21	13 1/2	190
36	2000-20000-30000	5000-35000	21 1/2	11 1/2	3/4	18 3/4	12	1	21	13 1/2	190
42	3000-30000-40000	6000-50000	25 1/2	11 1/2	1	29 1/2	20	1 1/4	32	13 1/2	365
48	5500-35000-50000	7000-60000	28 1/2	11 1/2	1	29 1/2	20	1 1/4	32	13 1/2	365
54	6500-45000-55000	8000-65000	31 1/2	11 1/2	1	29 1/2	20	1 1/4	32	13 1/2	365
60	7500-60000-80000	10000-90000	34 1/2	18 †	1	29 1/2	20	1 1/4	32	22 †	365
66	8500-75000-95000	12000-105000	37 1/2	18 †	1	29 1/2	20	1 1/4	32	22 †	365
72	9500-90000-115000	15000-125000	40 1/2	18 †	1	29 1/2	20	1 1/4	32	22 †	365
84	** -125000-115000	**	46 1/2	18 †	1	29 1/2	20	1 1/4	32	22 †	365
96	** -160000-200000	**	52 1/2	18 †	1	29 1/2	20	1 1/2	32	22 †	365
108	** -200000-250000	**	58 1/2	18 †	1	29 1/2	20	1 1/2	32	22 †	365
120	** -250000-300000	**	64 1/2	18 †	1	29 1/2	20	1 1/2	32	22 †	365

Standard construction will be supplied for all main line meters unless special flow range, materials, or construction are required.

** Consult factory for flow range or special construction.

† On High Velocity Meters the 18" propeller dimension is 11 1/2".



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