

## **BULKMETERS**



**TYPE: MIC 200, 400, 600**

**Application**

- Bulk loading for tank trucks, bunkers, barges etc.
- Aircraft refueling
- For depots, refineries for petrochemical products
- High precision meter for testing room, for meter and vessel calibration

**General Characteristics**

		<b>MIC 200</b>	<b>MIC 400</b>	<b>MIC 600</b>
Max. Rated capacity		1300 l/m	2200 l/m	3400 l/m
Min. Rated capacity		100 l/m	200 l/m	300 l/m
Vol. Per cycle		2,275 l	4,55 l	6,825 l
Indicator graduation		liter / deciliter	deciliter	deciliter
Max. Operating pressure	ANSI 150	10,5 bar	10,5 bar	10,5 bar
	ANSI 300	21 bar	21 bar	21 bar
Test Pressure		30 bar	30 bar	30 bar

**Materials of components**

- Manifold: Steel
- Body: Ni-resist cast iron
- Flanges: Steel
- Rotor: Aluminum or Ni-resist
- Vanes: Carbon
- Seals: Nitrile, Viton or Teflon

**Accessories:**

The liquid supplied to the meter must be correctly filtered and air separated in order to protect the meter against mechanical damage and inaccurate metering.

Benefits from bulk metering can be considerably improved by installation of some other additional accessories:

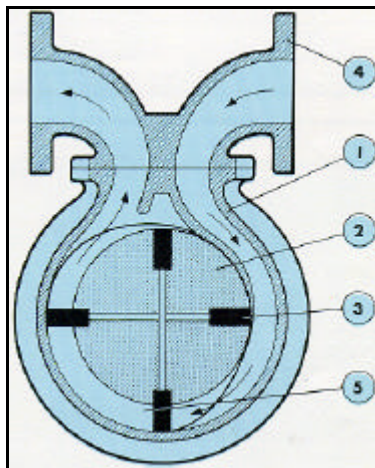
- Flow governors to protect the meter against a rise in the flow rate
- Ticket printer which is a standard Veeder-Root instrument mounted on top of the Veeder-Root counter head
- Flow-meter showing constantly the instant rate of flow variation (mostly used for aircraft refueling)
- Pulse generators to remotely transfer volume data given by a meter for remote purposes.
- Temperature compensators to transform automatically real volumes at the ambient temperatures to volumes corrected at 15°C
- Additive mechanism

### **Special Executions:**

- Mechanical rotor spindle seal
- Magnetic coupling
- High pressure (up to 50 Kg/cm<sup>2</sup>)
- High temperature (up to 200°C)

### **Operation**

Liquid entering the inlet part from the manifold (4) exerts pressure on the blades (3) and causes the



rotor (2) to turn, so that the measured amount contained between the two set of blades on the measuring crescent (5) passes through to the outlet. The sequence continues with the other sets of blades as they reach the measuring crescent, providing a steady and non fluctuating flow.

An extended shaft through the front cover transmits the movement of the rotor to the calibration gearing which drives the counter head. A pressure-tight gland in the cover prevents leakage. The calibrating mechanism can be adjusted with micrometric precision without changing any component, maintaining the error as close to zero as desirable.

Very low pressure head loss for utilisation of lower loading racks, lower pressure heads, smaller pumping units requiring less power.

### **Description**

O.M. Meters are exceptionally efficient instruments of the positive displacement. MIC 400 and MIC 600 models are obtained by compounding two or three metering compartments and rotors:

- Bulk meters of this type, by virtue of excellent design and development over a number of years, are noted for their exceptional accuracy over a very wide range, and in service, this accuracy is maintained over long periods of use;
- Simplicity is a noteworthy feature, the rotor and rotor blades, which are constantly immersed in liquid, being the only moving parts;
- The counter head is a standard Veeder-Root unit, registering on five large-figure drums. A level provides zero resetting to. A smaller eight-figure series of drum gives the total

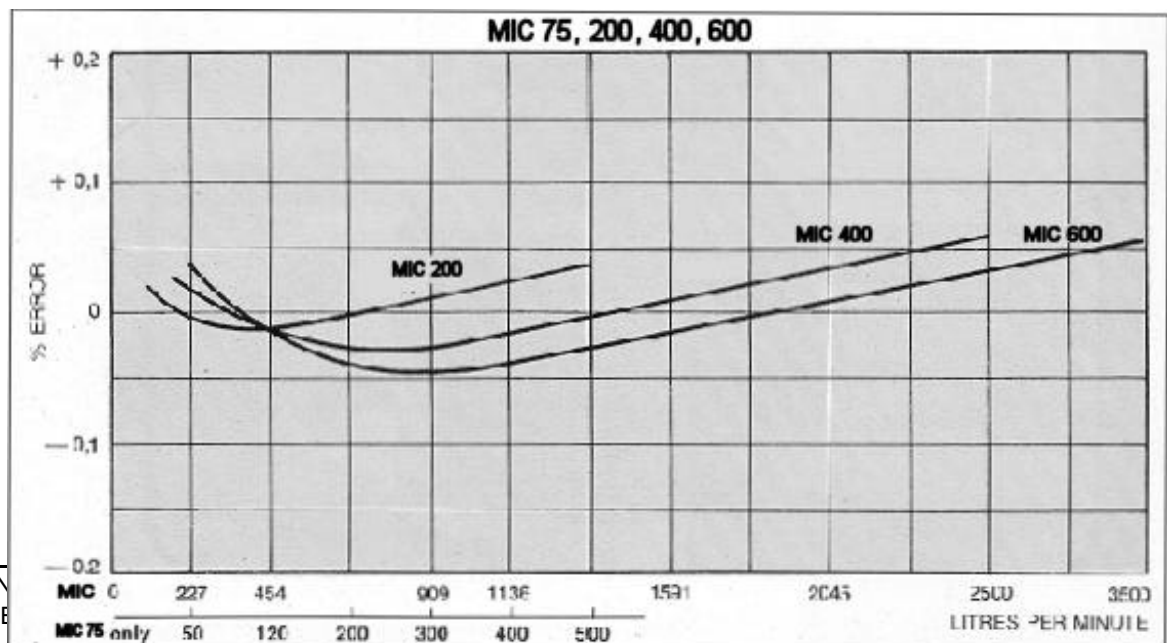
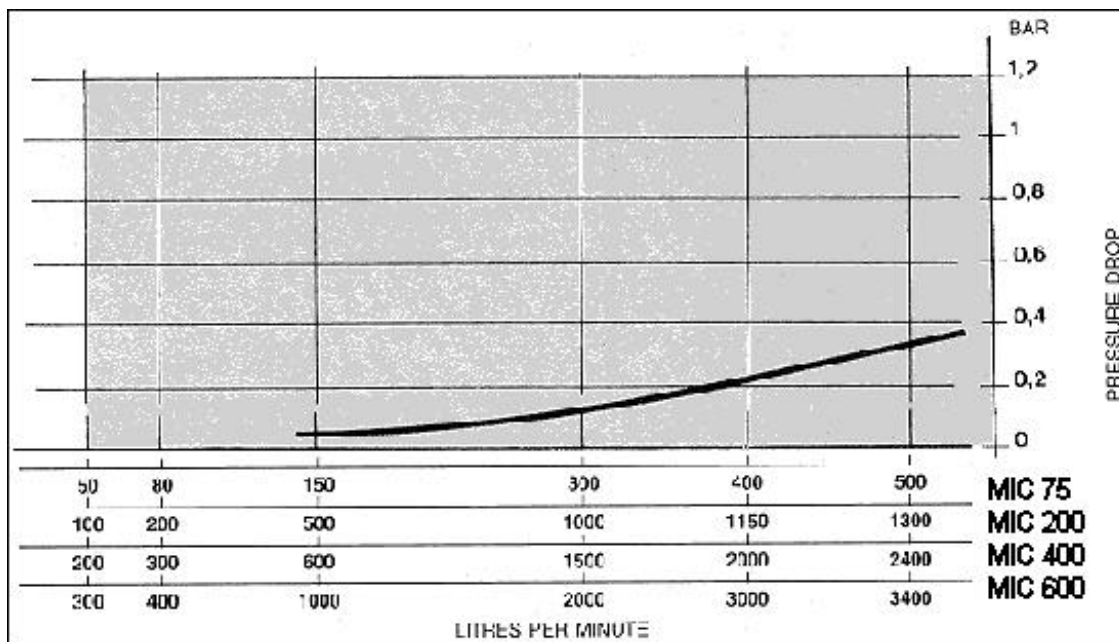
quantity and this totalizer is not resettable. Bulkmeter may be fitted with one or more ancillary items described in this folder;

- Service and maintenance of O.M. Series Bulkometers are facilitated by the use of many parts that are identical and interchangeable in the three models.

### Remark

When ordering please specify flow direction by indicating " when facing the meter" the liquid should flow from left to right or vice-versa.

### Accuracy and Head Losses Curves





**Flange Drilling ANSI 150 and ANSI 300 RF**

Dimensions in mm.	MIC 200		MIC 400		MIC 600	
	ANSI 150	ANSI 300	ANSI 150	ANSI 300	ANSI 150	ANSI 300
Nominal diameter	80	80	100	100	150	150
Outer flange diameter	190	210	229	254	280	318
Holes circle diameter	152,4	168,3	190,5	200	241,3	269,9
Number of holes	4	8	8	8	8	12
Diameter of holes	19	22	19	22	22	22
<b>Shipping Specifications:</b>						
Net Weight (Kg)	64		103		136	
Gross Weight (Kg)	89		148		194	
Packing dimensions	45x60x39 cm		63x64x65 cm		85x65x75 cm	

Approved by Weight & Measure Office, German PTB and by the EEC  
 Can be equipped with Strainer, air separator, mechanical and electrical preset, electrical or pneumatic pulse transmitter, one or two stage automatic valve, ticket printer, magnetic drive and automatic temperature compensator.

**Dimensions**

