

**Model FSMA-01**

**8" Model FSMA-01  
FM Approved - 175 PSI Flanged  
UL Listed  
Fire Series Meter  
Turbine Meter with Strainer**

# Technical Brief

## DESCRIPTION

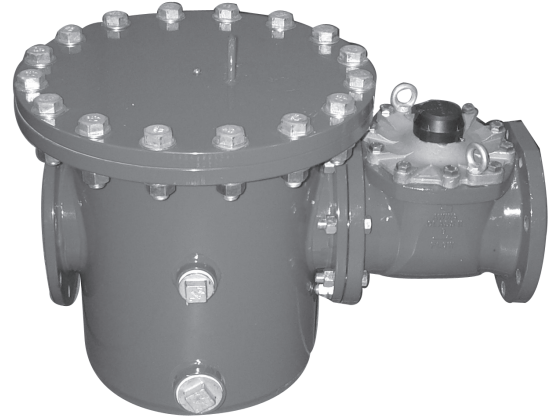
**MODEL FSMA-01 FIRE SERIES METER** consists of at least a six times open area strainer and an 8" Recordall® Turbo Series Meter with AWWA class II measuring chamber. The Fire Series Meter is designed to measure high volume usage, such as when a building's fire sprinklers are activated, through a single water supply line.

**INSTALLATION** is made similar to placing a length of flanged end pipe in the line. The AWWA Class "D" steel flanged end design permits use in a wide range of applications. The meter must have a full flow of liquid for proper accuracy. It must be installed in horizontal applications only.

**STRAINER** is at least six times open area and is used exclusively in fire series systems to prevent clogging. The strainer is equipped with a 3" flushing port for flushing debris from the upstream side of the strainer screen. Optional valve available for flushing port.

**TURBINE METER:** Water flows into the meter's measuring element contacting the multi-vaned rotor. Flow readings are obtained by rotor revolutions transmitted by magnetic drive coupling through the meter's cover plate to the sealed register. Magnetic drive is achieved by a right angle worm drive, coupling the rotor to a vertical transmission spindle, driving a gear set rotating the magnet carrier. A ceramic magnet in a carrier rotates around a vertical axis. Rotor rotation is transmitted to the register gearing through this magnetic coupling.

The turbo measuring element is designed to greatly reduce wear by reducing friction potential between the moving parts of the rotor and bearing system. Less wear, in this critical area of the design, provides the utility manager with a lower life cycle cost for meter application. Throughout the normal operating range of the meter, the rotor floats between the thrust bearing system.



## SPECIFICATIONS

<b>TYPICAL OPERATING RANGE</b>	30-4500 GPM. (100% ± 1.5%)
<b>MAXIMUM OPERATING PRESSURE</b>	175 PSI.
<b>MAXIMUM OPERATING TEMPERATURE</b>	120° F.
<b>TYPICAL LOW FLOW (95% MIN.)</b>	20 GPM.
<b>MAXIMUM CONTINUOUS OPERATION</b>	3500 GPM.
<b>MAXIMUM INTERMITTENT FLOW</b>	4500 GPM.

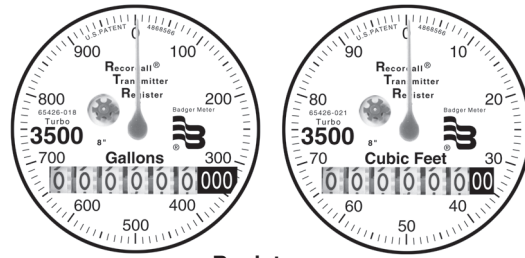
## MATERIALS

<b>NOSE CONE AND STRAIGHTENING VANES</b>	thermoplastic
<b>ROTOR</b>	thermoplastic
<b>ROTOR RADIAL BEARINGS</b>	lubricated thermoplastic
<b>ROTOR THRUST BEARINGS</b>	sapphire jewels
<b>ROTOR BEARING PIVOTS</b>	passivated 316 stainless steel
<b>CALIBRATION MECHANISM</b>	stainless steel and thermoplastic
<b>MAGNET</b>	ceramic
<b>REGISTER LID AND SHROUD</b>	thermoplastic, bronze
<b>TRIM</b>	stainless steel, zinc plated carbon steel
<b>TURBINE SHAFTS &amp; BOLTS</b>	stainless steel
<b>METER HOUSING</b>	fusion bonded epoxy coated ductile cast iron
<b>STRAINER SCREEN</b>	stainless steel
<b>STRAINER BODY</b>	fusion epoxy coated steel

<b>OPTIONAL EQUIPMENT</b>	Includes transmitter with remote read capabilities, companion flanges, and various pipe sizes are available in CI or bronze.
<b>SHIPPING WEIGHT</b>	700 pounds shipped fully assembled.
<b>CERTIFICATION</b>	Fire Series Meter Assembly conforms to UL 327, FM 1044 and AWWA C703. Strainer conforms to UL 321 and FM 5551. Strainer open area is at least six times the area of the nominal pipe size. Meter measuring chamber is class II.
<b>ORDERING INFO</b>	Must be specified by the customer and includes: Size, minimum & maximum flow range, register units, optional equipment desired.

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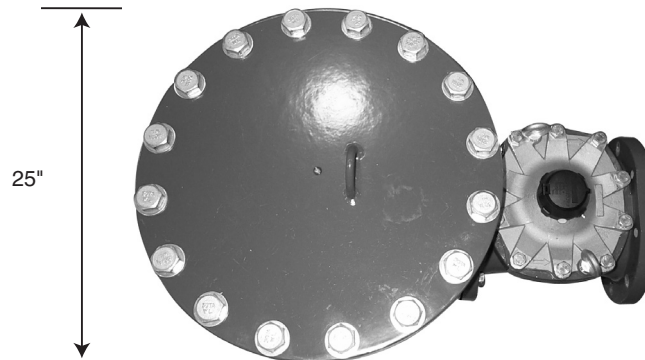
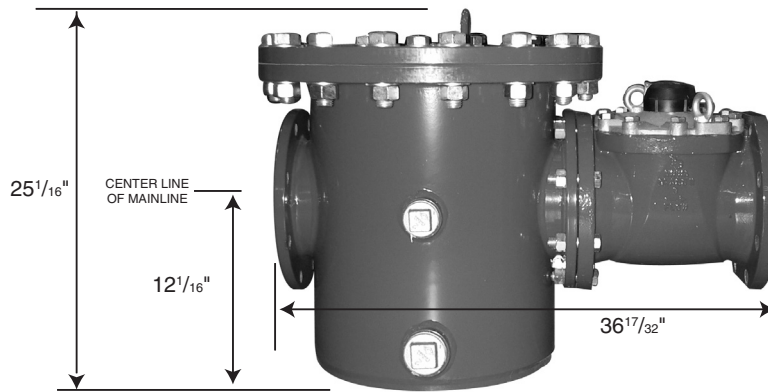
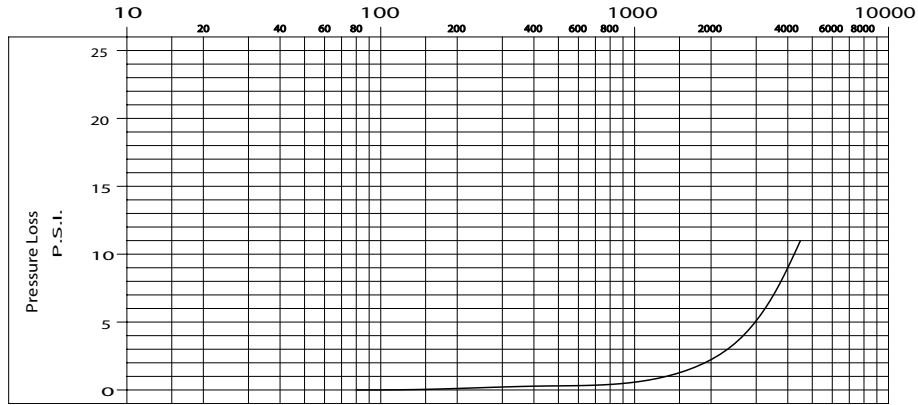
# 8" MODEL FSMA-01



Registers

## PRESSURE LOSS CHART

CONSISTS OF CAST IRON TSM WITH AMES SHORT STRAINER  
 RATE OF FLOW IN GALLONS PER MINUTE



Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.



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