

# Model industrial turbo Turbine meter

#### **Features**

- Long lasting ceramic bearings
- Simple in-line serviceability
- Three housing materials available
- 1,5 % accuracy
- 0,25 % repeatability
- Low pressure loss



#### General

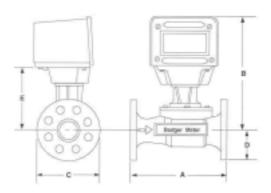
Badger's industrial turbine is a rugged, reliable meter ideally suited for chemical or industrial fluid applications. Its compact size and ease of serviceability without removal from the line, coupled with a choice of materials, make this a cost effective selection. Designed with performance in mind, the meter provides a high level of accuracy over a wide flow range with a minimum of presure loss. The Badger Meter turbine is available in line sizes of 2", 3", 4" and 6" with a choice of flange ratings and three different body materials including stainless steel. Its unique straight through flow profile and ceramic bearing design optimize performance. To complement the meter, Badger offers a complete line of accessories that includes mechanical, pneumatic, electro-mechanical and state-of-the-art electronic transmitters, totalizers, indicators and process controllers.

### Operation

The Badger Meter industrial turbine is a volumetric liquid flow meter which works on the time proven principle of a rotor turning at an angular velocity proportional to the fluid velocity through the turbine. The meter has straightening vanes and a nose cone in the inlet side which minimize upstream turbulence and direct the flow to the rotor effectively. Electronic pickups generate signals from the rotor magnet. This is translated to 4 - 20 mA and / or open collector transistor pulse outputs. Mechanical pickups and electro-mechanical outputs are also available.

## **Applications**

Badger's Turbo meter is used in a wide range of fluid applications covering from water to oils, solvents to acids. The meter has been used in water treatment systems, loading and unloading of tankers or rail cars, batching systems, or simply inventory control of a process fluid. Anywhere high volume and/or high flow rates are at least sometimes required in the application, the Turbo meter is likely the right choice.



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#### **Installation dimensions**

	2"	3"	4"	6"
Α	10,00	12,00	14,00	18,00
В	13,67	13,67	15,34	16,84
C – 150#	6,00	7,50	9,00	11,00
C - 300#	6,50	8,25	10,00	12,50
D - 150#	2,75	3,50	4,25	5,25
D - 300#	3,00	3,87	4,75	6,00
E	6,86	6,86	8,53	10,03
Estimated weight per				
unit in lbs.	30 - 40	40 - 50	60 - 75	100 – 125

All dimensions are in inches

# Meter specifications

Accuracy :  $\pm$  1,5 %

Repeatability :  $\pm$  0,25 % (Reading over full range tested with potable water at 60° F)

Temperature range : -30 to  $250^\circ$  F Flow range – GPM :  $2^{\prime\prime}$  8 – 160  $3^{\prime\prime}$  10 – 350

4" 25 - 1000 6" 40 - 2000

Maximum operating

pressure (PSI) : 125 / 150 psi, standard

250 / 300 psi, optional (cast iron / bronze only)

Housing materials : Cast iron

Bronze

Stainless steel

Head materials : Bronze

Stainless steel

Rotor and nose cone : Ryton
Bearings : Ceramic

Straightening vanes : 316 Stainless steel "O" ring and tetraseal : Buna N (standard)

**EPR** 

Viton

Head gasket : Nitrile binder

(used with Buna N seals) Chloroprene binder

(used with EPR and viton seals)

# Industrial turbine meter pressure loss chart Rate of flow in gallons per minute

