

<b>Model Industrial Turbo</b>	<b>Turbine Meter</b>	<b>Technical Brief</b>
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#### 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 pressure 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, electromechanical and state-of-the-art electronic transmitters, totalizers, indicators and process controllers.



#### OPERATION

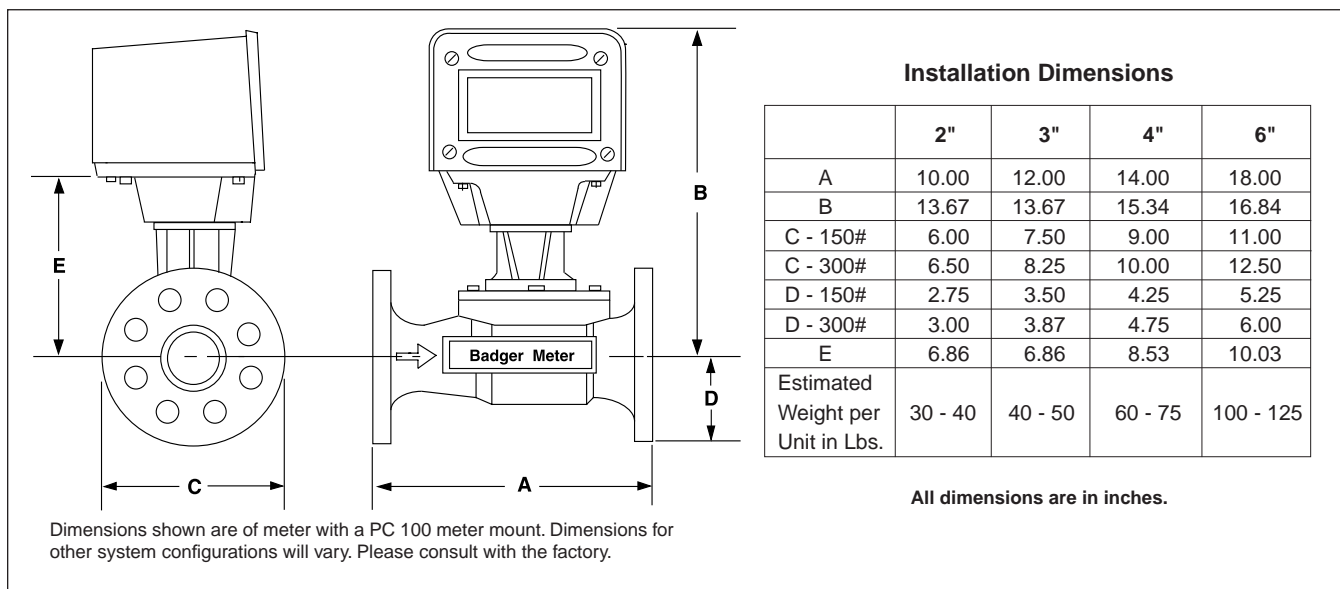
The Badger Meter Industrial Turbine is a volumetric liquid flow meter which works on the time proven principle of a rotor turning at an angular velocity proportional to the fluid velocity through the turbine. The meter has straightening vanes and a nose cone in the inlet side which minimize upstream 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 electromechanical 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.

#### FEATURES

- **Long Lasting Ceramic Bearings**
- **Simple In-Line Serviceability**
- **Three (3) Housing Materials Available**
- **1.5% Accuracy**
- **0.25% Repeatability**
- **Low Pressure Loss**



## METER SPECIFICATIONS

Accuracy:	$\pm 1.5\%$	
Repeatability*:	$\pm 0.25\%$	
Temperature Range (° F):	-30 to 250	
Flow Range - GPM:	2"	8 - 160
	3"	10 - 350
	4"	25 - 1000
	6"	40 - 2000
Maximum Operating	125/150 psi, standard	
Pressure (PSI):	250/300 psi, optional (cast iron / bronze only)	

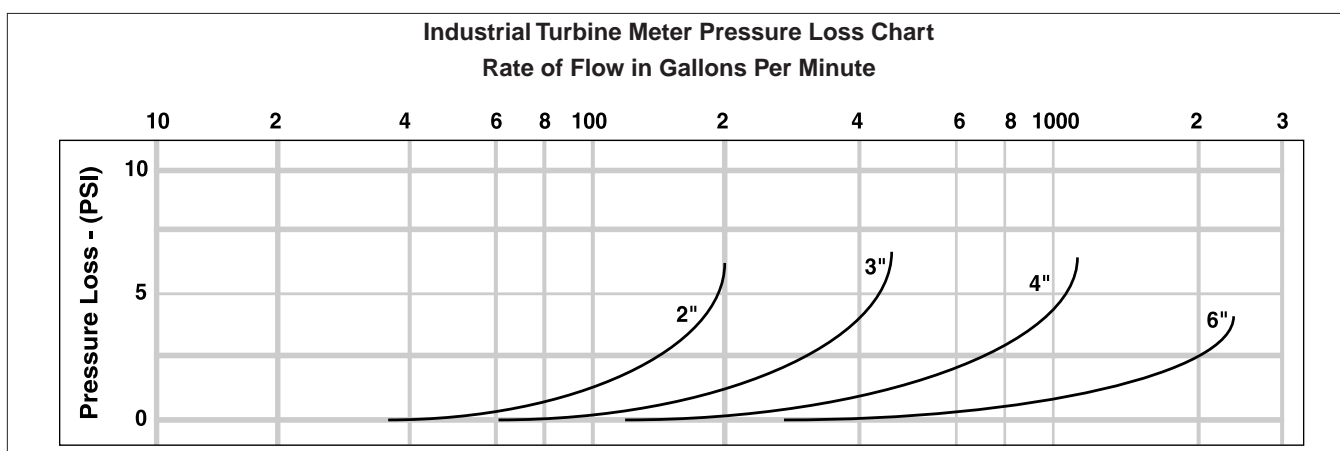
\* Reading over full range tested with potable water at 60° F.

### Flange Face Configurations: (ANSI Standards)

Flat Faced Flanges: 125 lb. Cast Iron, 150 lb. and 300 lb. Bronze Housings

Raised Face Flanges: 250 lb. Cast Iron, 150 lb. Stainless Steel Housings

Housing Materials:	Cast Iron Bronze 316 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:	<ul style="list-style-type: none"> <li>Nitrile Binder (Used with Buna N Seals)</li> <li>Chloroprene Binder (Used with EPR and Viton Seals)</li> </ul>



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 bid obligation exists.



Please see our website at  
[www.badgermeter.com](http://www.badgermeter.com)  
 for specific contacts.



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