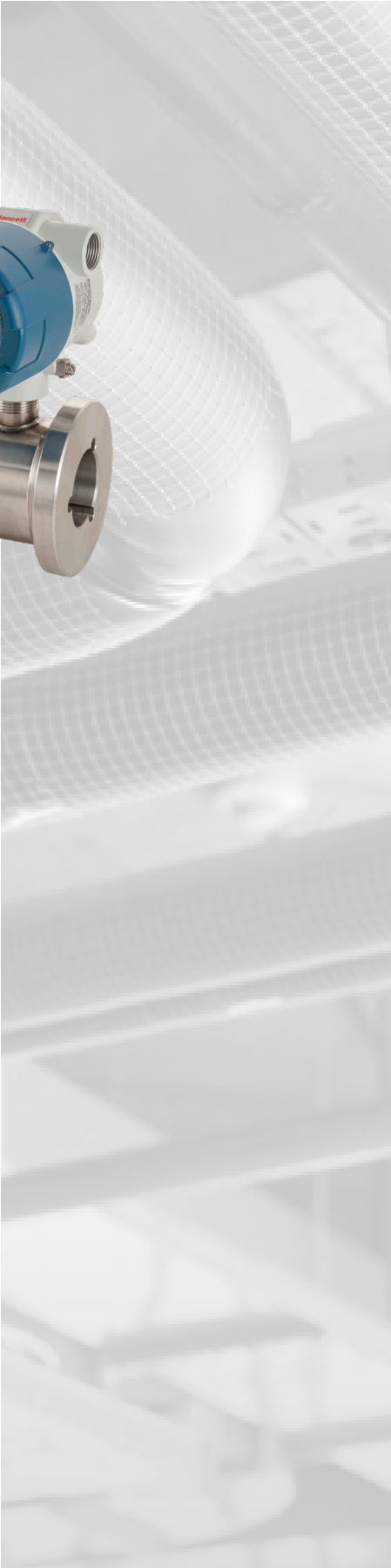# Turbine Flow Meter Solutions

Blancett®
Turbine Flow Meters

Rugged, Accurate and Reliable.

Badger Meter

Turbine Flow Meter Solutions

Accurate, Consistent, Reliable and Informative

Badger Meter offers the Blancett® family of turbine flow meters to measure everything from water in hydraulic fracturing and mining operations, to gases and liquids from wellheads to sanitary environments. Our turbine meters deliver accurate, consistent, reliable and informative flow measurements for both liquid and gas applications.

Blancett turbine meters are also cost-effective and easy to repair. Field repair kits (not available for the B1500 meters) are also compatible with turbine meter models of several manufacturers. Both complete meters and repair kits receive a five-point NIST traceable calibration at the factory. Additional calibrations are available to achieve a higher accuracy rating or to custom-calibrate for a specific viscosity. The B1500 meters receive a 10-point NIST traceable calibration.

To complete your flow metering needs, Badger Meter provides a full line of cost effective flow monitors to fit a variety of application constraints including hazardous area locations, pulse and network communications and a variety of mounting options. The flow monitors are designed to be used with Blancett flow meters, but can be used with almost any flow meter producing a low amplitude AC output.

The Blancett family is offered with an assortment of accessories that deliver output signals to suit the inputs required by data acquisition or control systems. Available accessories include turbine meter pickups, frequency-to-analog transmitters and frequency-to-square wave transmitters.

Committed to fast deliveries, Badger Meter maintains a factory lead time of five days for standard Blancett configurations. Expedite options are also available.

Industries Served

- Petrochemical
- Oil and Gas
- Food and Beverage
- Semiconductor
- Irrigation
- Chemical
- Industrial
- Refining

Blancett®
Turbine Flow Meters

Turbine Meters

Blancett® turbine flow meters are available in sizes from 1/4…10 inches (6.35…254 millimeters). The meters are compatible with Blancett accessories and support various mounting styles.

With accuracies ranging from ±0.25…1 percent of reading, repeatability ranging from 0.02…0.1 percent and stainless steel body construction, Blancett turbine meters provide precision measurements while being resistant to most chemicals. These meters are used to measure a wide range of liquids, including water, process water, chemicals and refined fuels.

	1100 Versatile	B1500 High Accuracy	QuikSert®		FloClean Sanitary	1200 Corrosive Environment
			Liquid	Gas		
Size in. (mm)	1/2…10 (13…254)	1/4…2 (6.35…50.8)	1…10 (25.4…254)	2 (50.8)	1…3 (25.4…76.2)	1/4…3/4 (6.35…19)
Flow Rate gpm (lpm)	0.6…5000 (2.27…18,927)	0.25…250 (0.94…946)	0.6…5000 (2.27…18,927)	7…350 ACFM	0.6…400 (2.27…1514)	0.25…25 (6.35…635)
Accuracy	Up to ±1% of reading	Up to ±0.25% with B3000 linearization ±0.5% with single K-factor	Up to ±1% of reading	Up to ±2% of reading	Up to ±1% of reading	Up to ±1% of reading
Repeatability	±0.1%	±0.02%	±0.1%	±0.5%	±0.1%	±0.1%
End Fittings	NPT, BSP, Victaulic, flange, grayloc, hose-barbed	NPT, flange	Wafer		Tri-clamp	NPT
Application	Oil Fields Water Flood	General Industries	Oil Fields	Flare Gas	Food and Beverage	Petrochemical

Blancett®
Turbine Flow Meters

Flow Monitors

	B3100	B3000	B2900
Explosion-Proof Option	✓	✓	
Meter Mount	✓	✓	✓
Swivel Mount		✓	✓
Remote Mount	✓	✓	✓
Modbus RTU Capable	✓	✓	✓
Pulse Output	✓	✓	✓
Data Logging	✓		

B3100 Flow Monitor for Remote Configuration

The B3100 flow monitor incorporates advanced options with full operation through the glass. The B3100 offers data logging and remote data access and programming, all without opening the enclosure. The B3100 utilizes a programming software to make remote configuration easy and efficient.

B3000 Flow Monitor for Compact Areas

The B3000 flow monitor provides a flexible and easy-to-use programming platform in a compact design. The B3000 is available in multiple enclosure options for liquid and gas applications, including a solar power model.

B2900 Flow Monitor for Fast Communication

The B2900 flow monitor combines the more advanced and easy-to-use electronics of the B3000, with a larger and rugged enclosure. The flow monitor is Modbus RTU capable and provides multiple baud rate options for faster communications over the network.

Blancett®
Turbine Flow Meters

Other Meters for Liquid Measurement

Because turbine meters are not suitable for every liquid application, Badger Meter also offers other metering technologies. Two types of adjacent liquid metering applications often associated with common turbine-metering applications are measurement of higher-viscosity liquids and liquids containing small particulates. Positive displacement (PD) and impeller meter technologies are appropriate for these applications.

	B1750 Positive Displacement	900 Series Impeller
Size	1/4…1-1/4 in. (6.35…31.75 mm)	1…2 in. (25.4…50.8 mm)
Flow Rate	0.003…120 gpm (0.011…454 lpm)	2…90 gpm (7.5…341 lpm)
Accuracy	Up to ±0.5% of reading	Up to ±2% of reading
Repeatability	±0.1%	±0.1%
Pressure Rating	Up to 5000 psi (345 bar)	Up to 5000 psi (345 bar)
Temperature Rating	Up to 400° F (204° C)	Up to 200° F (93° C)
Applications	Paint	Floodwater

Industries Served
- Automotive Aftermarket
- Oil and Gas
- Test and Measure
- Refining and Petrochemical
- Water/Wastewater Treatment
- Chemical
- Industrial
- Process Industries

Blancett®
Turbine Flow Meters

Accessories

Servers and Transceivers

Extend your Blancett metering reach with mesh wireless and data acquisition systems from Badger Meter. Both the 3700 data acquisition server and radio transceivers directly accommodate a limited amount of local I/O, expansion I/O cards and Modbus RTU-networked devices. The data acquisition system has input options to accept Blancett pick up outputs, K-Factor Scaler, B3000, B2900, and analog converters.

Model 3700
Data Acquisition Server

- 1…60-minute intervals
- Embedded web interface for configuration and set-up
- Send data to SCADA or building automation system

Model R9120-5
Radio Transceiver

- Communicates with other radio tranceivers via 900 MHZ radio frequency
- Modbus RTU capable
- Forms a self-healing wireless mesh network.
- Inter-device range of 3000 feet indoors, fourteen miles outdoors
- Outdoor enclosure options available

Batch Controllers and Flow Computers

For simple applications, Badger Meter batch controllers provide totalization, flow rate and batch counting. Both controllers have a NEMA 4X (IP65) enclosure rating and are compatible with Blancett pick up outputs, K-Factor Scaler, B3000, and B2900.

PC200 Full-Featured

- Bi-directional batching
- Settable batch limits and high- and low-flow alarms or DC pulse input,
- 2 kHz max. frequency

FC 5000 Flow Computer

- 100 point linerization
- Porgrammable relay configuration
- Programmable sealed output
- Robust enclosure, keypad and mechanical relays

Accessories

K-Factor Scaler

- Square-wave output proportional to any desired unit of measure
- Amplifies turbine meter output
- Windows®-based configuration software

Analog Converters

- 4…20 mA (2-wire) or 0…5V DC (3-wire) output
- Analog signal proportional to flow rate
- Windows®-based configuration software
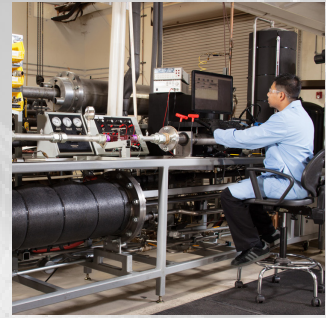
Blancett®
Turbine Flow Meters

About Badger Meter

Badger Meter Flow Instrumentation understands that companies cannot manage what they do not measure—and leverages more than a century of flow measurement expertise and a technology-rich portfolio to optimize customer applications worldwide.

An industry leader in both mechanical and electronic flow metering technologies, Badger Meter offers one of the broadest flow control and measurement portfolios in the industry—a portfolio that includes eight major flow meter technologies. Simply put, Badger Meter Flow Instrumentation provides technology to measure and control whatever moves through a pipe or pipeline—including water, air, steam, oil, other liquids and gases.

**Flow Dynamics®
calibration services**

- Calibration for most meter types
- OEM production calibrations
- NIST-traceable primary standards

NVLAP®
CALIBRATION
NVLAP LAB CODE 200668-0

Note: NVLAP accreditation applies only to the Badger Meter Flow Dynamics calibration lab, located in Racine, WI.

Variety of Flow Instrumentation Solutions

ModMAG® Electromagnetic Flow Meters

Coriolis Mass Flow Meters

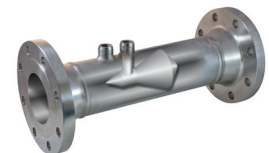Dynasonics® Ultrasonic Flow Meters

Industrial Oval Gear Meters

Research Control® Valves and Positioners

Hedland® Variable Area Flow Meters

Recordall® Disc Flow Meters

Preso® Differential Pressure Flow Meters

Impeller Flow Meters

Cox® Turbine Flow Meters

Vortex Flow Meters

Flo-tech Hydraulic Fluid Testing

Blancett®
Turbine Flow Meters

Control. Manage. Optimize.

www.badgermeter.com

The Americas | Badger Meter | 4545 West Brown Deer Rd | PO Box 245036 | Milwaukee, WI 53224-9536 | 800-876-3837 | 414-355-0400
México | Badger Meter de las Americas, S.A. de C.V. | Pedro Luis Ogazón N°32 | Esq. Angelina N°24 | Colonia Guadalupe Inn | CP 01050 | México, DF | México | +52-55-5662-0882
Europe, Middle East and Africa | Badger Meter Europa GmbH | Nurtinger Str 76 | 72639 Neuffen | Germany | +49-7025-9208-0
Europe, Middle East Branch Office | Badger Meter Europe | PO Box 341442 | Dubai Silicon Oasis, Head Quarter Building, Wing C, Office #C209 | Dubai / UAE | +971-4-371 2503
Asia Pacific | Badger Meter | 80 Marine Parade Rd | 19-07 Parkway Parade | Singapore 449269 | +65-63464836
Switzerland | Badger Meter Swiss AG | Mittelholzerstrasse 8 | 3006 Bern | Switzerland | +41-31-932 01 11