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 flow monitors are shipped pre-configured when ordered with a Blancett turbine flow meter.

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

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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**	**B20 with B3000**	**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 (25.4)	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)	5…50 (18.9…189)	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	Up to ±1% of reading
Repeatability	±0.1%	±0.02%	±0.1%	±0.5%	±0.1%	±0.1%	±0.1%
End Fittings	NPT, BSP, Victaulic, flange, grayloc, hose-barbed	NPT, flange	Wafer		Tri-clamp	NPT	NPT
Application	Oil Fields Water Flood	General Industries	Oil Fields	Flare Gas	Food and Beverage	Secondary Oil Field	Petrochemical

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

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Flow Monitors

	B3000	B2900	B2800
Explosion-Proof Option	✓		✓
Meter Mount	✓	✓	✓
Swivel Mount	✓	✓	✓
Remote Mount	✓	✓	✓
Panel Mount			✓
Modbus RTU Capable	✓	✓	
Pulse Output	✓	✓	✓

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 that provide greater control of batching operations, with the larger and rugged enclosure of the B2800. The flow monitor is Modbus RTU capable and provides multiple baud rate options for faster communications over the network.

B2800 Flow Monitor for Basic Flow Monitoring

The B2800 flow monitor is available in easy-to-use simplified and advanced programming models to fit basic flow monitoring needs.

Data Acquisition Solutions and 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 345WT 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, B2800 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 345WT
Radio Transceiver

- Communicates with other 345WTs via 900 MHZ radio frequency
- Modbus RTU capable
- Forms a self-healing wireless mesh network with other 345WTs
- Inter-device range of 1500 feet indoors, seven miles outdoors
- Outdoor enclosure options available

Batch Controllers

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, B2900 and B2800.

PC200 Full-Featured

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

CB-30 Basic

- Single-direction batching
- DC pulse input to
- 5 kHz or 150 Hz

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

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 of the ten 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.

Variety of Flow Instrumentation Solutions

M-Series® Mag
Flow Meters

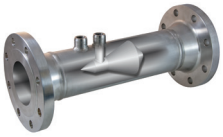
Coriolis
Flow Meters

Dynasonics® Ultrasonic
Flow 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

Flow Dynamics®
calibration services

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

NVLAP®
Lab Code 200668-0

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

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TRB-BR-00252-EN-03 (March 2016)