

Flow Meter Product Guide

Blancett



DYNASONICS



Flo-tech



HEDLAND



PRESO



racine



RFI Racine Flow Meter Group



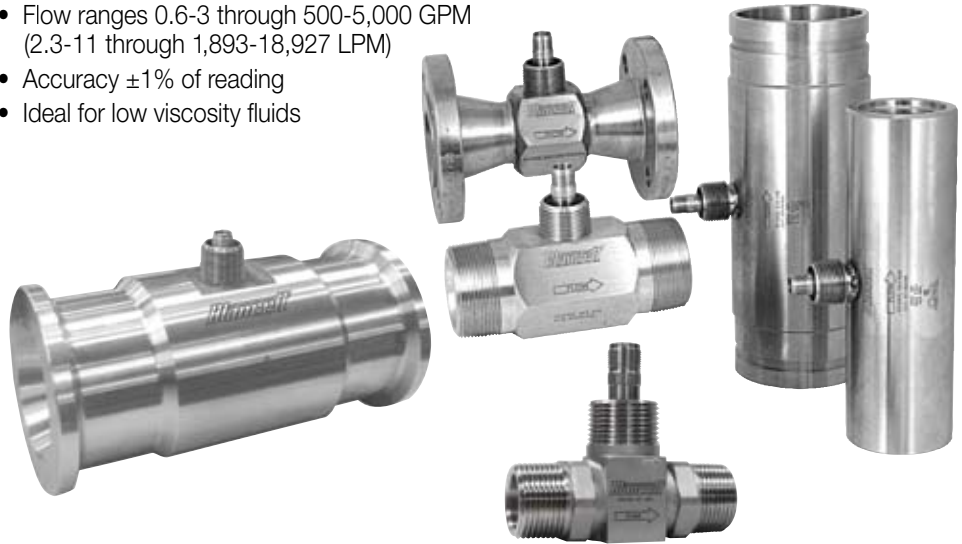
Blancett offers durable stainless steel turbine flow meters for liquids. These products are offered especially to the oil and gas industry and for industrial applications where severe conditions are common. Blancett turbines are also well-suited for the semiconductor and chemical processing industries; applications with high corrosive, temperature or pressure environments; and food/beverage applications requiring 3-A sanitary certified equipment.



Turbine Flow Meters

Turbine flow meter features:

- Pipe sizes from ½" to 10" (12 mm to 250 mm)
- Threaded, flange, wafer and sanitary versions available
- Operating pressures to 5,000 psig (344 barg)
- Operating temperatures up to 450 °F (232 °C)
- Flow ranges 0.6-3 through 500-5,000 GPM (2.3-11 through 1,893-18,927 LPM)
- Accuracy ±1% of reading
- Ideal for low viscosity fluids



Flow monitor/transmitter (Model B2800) features:

- Microprocessor-based; loop or battery-powered
- Digital display of flow rate and total
- Programmable keypad; selectable engineering units, in-field linearization
- Multiple mounting options: including meter, remote and explosion-proof
- CSA and CE approved



Ultrasonic Flow Meters

Transit time ultrasonic flow meters:

- Suitable for most full-pipe, clean liquid applications
- Clamp-on, non-invasive flow measurement
- Fixed position, portable and multi-channel products available
- Pipe sizes of ½" (12 mm) and higher
- Accuracy $\pm 1\%$ of reading
- Variety of output options: including 4-20 mA, frequency pulse, control relay and data logging
- Ethernet, Mod Bus, and BACnet communications options
- CE, CSA approved



Doppler ultrasonic flow meters:

- Suitable for most full-pipe, dirty liquid applications (liquids having a high concentration of suspended solids or entrained gases)
- Fixed position, portable, hand-held and insertion products available
- Pipe sizes ¼" (6 mm) and higher
- Fluid velocities up to 30 feet (9 meters) per second
- $\pm 2\%$ full scale accuracy
- CE approved



Fusion™ hybrid ultrasonic flow meters:

- Water flow meter optimized for CBM well installation
- Automatically switches between Doppler and transit time to determine best technology and calculate accurate flow rates
- Rugged, all metal construction ensures a long service life in harsh outdoor environments
- Modbus command set permits flow rate, total and total reset access



MagProbe™ insertion magnetic flow meters:

- Suitable for most conductive (non-hydrocarbon) liquids
- 316 stainless steel probe with titanium electrodes
- Pipe sizes 4" (102 mm) and higher
- Fluid velocities up to 30 feet (9 meters) per second, bi-directional
- $\pm 2\%$ full scale accuracy



Dynasonics manufactures transit time and Doppler ultrasonic flow meters, in fixed position, portable and multi-channel versions, as well as insertion magnetic flow meters for liquids. The Dynasonics transit time ultrasonic flow meters are completely non-invasive, while its Doppler meters are available in non-invasive and insertion types. Dynasonics products are used in water and wastewater treatment; coal-bed methane extraction; power generation; mining; machine tool and semiconductor process cooling; HVAC and other process applications.



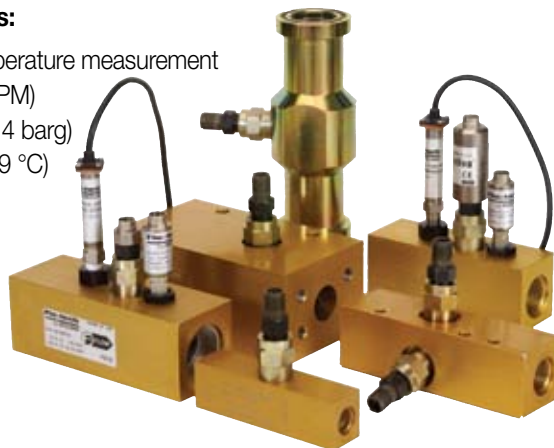
Flo-tech manufactures exceptional turbine flow sensors for hydraulic fluids. These are available as stand-alone flow meters; multi-ported test stand meters with flow, pressure and temperature sensors; and portable hydraulic testers for on-site diagnostics and troubleshooting of hydraulic machinery. Flo-tech products are used extensively in hydraulic testing and analysis; and commonly used on equipment in a variety of industries, including: agriculture, automotive, construction, forestry, marine and mining.



Hydraulic Diagnostic Products

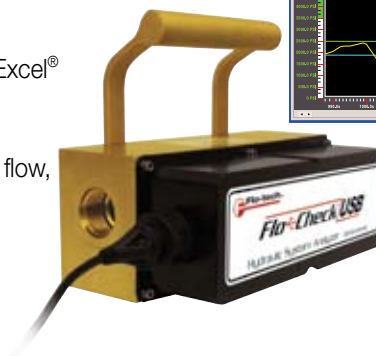
In-line hydraulic turbine flow sensors:

- Simultaneous flow, pressure and temperature measurement
- Flow ranges up to 350 GPM (1,324 LPM)
- Operating pressures to 6,000 psig (414 barg)
- Operating temperatures to 300 °F (149 °C)
- Accuracy $\pm 1\%$ of full scale
- Frequency pulse, 4-20 mA and voltage outputs



Flo-Check™ USB hydraulic system analyzer:

- Simultaneous flow, pressure and temperature measurement
- Captures pressure spikes up to 10,000 PSI (0.2 milliseconds response time)
- USB powered
- Exports saved data to Microsoft Excel® and other spreadsheet programs
- Logs up to 12 hours
- High and low set point alarms for flow, pressure and temperature



Portable hydraulic testers:

- Simultaneous flow, pressure and temperature measurement
- Battery operation
- Digital display of flow rate, temperature; analog dial or digital pressure gauge
- Flow ranges up to 200 GPM (757 LPM)
- Operating pressures to 6,000 psig (414 barg)
- Operating temperatures to 300 °F (149 °C)
- Optional bi-directional function; optional power measurement in HP or kW
- Accuracy $\pm 1\%$ of full scale
- CE approved



Variable Area Flow Meters

In-line variable area flow meters:

- Flow ranges from 0.02-0.2 through 20-300 GPM (0.1-0.75 through 100-1,100 LPM)
- Operating pressures to 6,000 psig (414 barg)
- Operating temperatures up to 500 °F (260 °C)
- Pipe sizes from ¼" to 3" (6 mm to 76 mm); NPT, BSP or SAE ports
- Meter materials in aluminum, brass or stainless steel
- ±2% full scale accuracy



MR flow transmitters:

- Microprocessor-based, patented device combines variable area and advanced sensor technologies
- Analog outputs: 4-20 mA, 0-5 VDC or 0-10 VDC
- Digital display of flow rate and total
- Programmable keypad; selectable engineering units, in-field linearization
- CE approved



Flow-Alert™ flow switches:

- Single and double switch versions
- Latching micro-switch and Reed proximity switch versions
- ¼" to 1½" (6 mm to 38 mm) port sizes



EZ-View® variable area flow meters:

- Low cost, in-line flow meter
- Pipe sizes from ½" to 2" (12 mm to 50 mm); NPT and BSP ports
- Operating pressures to 325 psig (22.4 barg)
- Operating temperatures up to 250 °F (121 °C)
- ±5% full scale accuracy
- Flow switch version also available



Hedland offers over 15,000 in-line variable area flow meters, for hydraulic fluids, water, compressed air and many other liquids and gases. Meters are available as a visual-only gauge, flow switch, or as an advanced flow transmitter with digital display and analog output. Hedland variable area flow meters are unique in that they may be installed in any position and at any angle. Hedland flow meters are used extensively in fluid power applications and other industrial and manufacturing processes, including: machine tool cooling and lubrication; packaging; semiconductor manufacture; die casting and plastic injection molding. Hedland products also serve the automotive, aviation and mining industries.



Preso manufactures a complete line of precision engineered primary flow elements, including the patented Ellipse® Pitot tube, Venturi and COIN® segmented wedge flow meters for the industrial, municipal and commercial (HVAC) markets. Preso can provide a meter for any process that can be measured with differential pressure technology, often at calibrated accuracy better than $\pm 1\%$ and with exceptional turndown ratios. Preso also manufactures the B-Plus® and C+ lines of metering and balancing valves for the HVAC industry.



Differential Pressure Flow Meters

Ellipse® Pitot tube flow meters:

- Patented elliptical design offers 17:1 turndown ratios and very low pressure loss
- For liquids, gases or steam
- Pipe sizes from 2" to 120" (50 mm to 3,048 mm)
- Uncalibrated accuracy $\pm 0.75\%$ of reading



Venturi flow meters and Venturi inserts:

- Three unique designs for optimal combination of accuracy, repeatability and cost
- Pipe sizes $\frac{1}{2}$ " to 60" (12 mm to 1,524 mm) and larger
- Calibrated accuracies to $\pm 0.25\%$ of reading
- Maximum pressure loss: 6% of DP
- Custom designs



COIN® wedge flow meters:

- Fluid viscosities to 3,000 cP; Reynolds Number values as low as 300
- Suitable for abrasive slurries, viscous or dirty fluids such as bitumen or coal tar
- Pipe sizes from $\frac{1}{2}$ " to 48" (12 mm to 1,219 mm)
- Custom designs



Balancing valves, models B-Plus® and C+:

- Low pressure loss Venturi design
- $\pm 2\%$ accuracy
- Installs in any position
- Pipe sizes from $\frac{1}{2}$ " to 12" (12 mm to 304 mm); NPT, flange or sweat end connections available
- High pressure versions available





Vortex Flow Meters

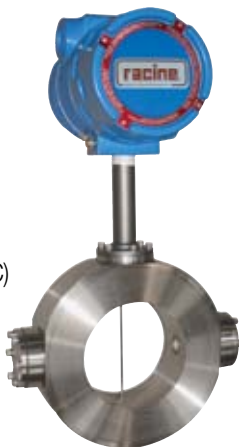
Liquid vortex flow meters:

- Insertion, wafer and in-line versions
- Operating pressures to 400 psig (27.5 barg)
- Operating temperatures to 300 °F (149 °C)
- Accuracies up to $\pm 1\%$ of reading
- Repeatability up to $\pm 0.25\%$ of actual flow
- Applications range from corrosive chemicals to ultrapure water



Gas vortex flow meters:

- Insertion and wafer versions
- Microprocessor-based flow transmitter; HART® Communication Protocol
- Operating pressures from -5 to 250 psig (-0.34 to 17 barg)
- Operating temperatures to 360 °F (182 °C)
- Accuracy $\pm 1\%$ of reading
- Up to 70:1 turndown ratio
- CE and ATEX approved



Saturated steam vortex flow meters:

- Insertion and wafer versions
- Microprocessor-based flow transmitter; HART® Communication Protocol
- Operating pressures from -5 to 140 psig (-0.34 to 9.7 barg)
- Operating temperatures to 360 °F (182 °C)
- Accuracy $\pm 1\%$ of reading
- CE and ATEX approved

Racine Vortex manufactures vortex-shedding flow meters for accurate measurement of liquids, gases and steam. Vortex meters have no moving parts and are virtually maintenance-free when installed. Meters are offered in wafer, insertion and flange designs. Racine Vortex meters are used in petrochemical and industrial processing, semiconductor, biogas and natural gas applications, environmental monitoring, and water supply and treatment. Gas and steam meters include HART® Communication Protocol and optional hazardous area certification.





RACINE FEDERATED INC.

RFI is a private corporation celebrating over 35 years of continuous operation in Racine, Wisconsin, USA. The company is comprised of several divisions that serve the construction, industrial, municipal and commercial markets worldwide. This includes six flow meter divisions representing a variety of measurement technologies. With this unique product mix and a team of dedicated and experienced personnel, RFI offers high quality and cost-effective solutions for most flow measurement applications.

Blancett®
DYNASONICS®
Flo-tech™
HEDLAND®
PRESO®
racine™

RFI Racine Flow Meter Group

MAILING ADDRESS

P.O. Box 081580
 Racine, WI 53408-1580 USA

SHIPPING ADDRESS

8635 Washington Avenue
 Racine, WI 53406-3738 USA

TELEPHONE

Tel: 262-639-6770
 Fax: 262-639-2267

www.racinefed.com/flow

RFI Europe

ADDRESS

Suite 1, Trident Business Village
 Kilverstone Estate
 Thetford, Norfolk
 IP24 2RL, U.K.

TELEPHONE

+44 (0)1842 753 456

FAX

+44 (0)1842 752 424

E-MAIL

sales@rfieurope.com

www.rfieurope.com

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