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Common Processes. Varying Fluids. For Your Diverse Industrial Applications...

Rely On
THE FLOW MEASUREMENT
Resource.

I N D U S T R I A L





In the industrial arena, measuring the flow of liquids and gases involved in a wide range of manufacturing and production processes demands superior instrument performance. High operating pressures, pulsating flow streams and corrosive environments present difficult flow metering challenges.

When Reliability Counts, Turn To Flow Technology

In critical industrial applications, Flow Technology's flow measurement systems meet — and exceed — the highest expectations. With proven reliability, superior accuracy, and virtually maintenance-free service, they provide unsurpassed total performance.

Our rugged positive displacement flowmeters and precision turbine flowmeters can be used to measure the flow of acids, chemicals, hydrocarbons, solvents, heat transfer fluid, hydraulics and other fluids critical to production in industrial plants. Indeed, Flow Technology flowmeters routinely perform under conditions that most flowmeters wouldn't even dare to attempt.

Installed With Confidence Around The World

From the petrochemical refineries of the Gulf Coast, to process plants around the world, industrial manufacturers and OEMs rely on Flow Technology — *The Flow Resource* — to meet their most critical flow measurement requirements. Our flow metering solutions are utilized in both routine and ultra high-accuracy applications, including (partial list):

Air	Isocyanates
Acids	Lube Oils
Adhesives	Lubricants
Asphalt	Methanol
Caustic	Natural Gas
CO ₂	Paints
Coatings	Polymers
Coolants	Polyols
DI Water	Resins
Diesel Fuel	Sealants
Fuel Oil	Solvent
Hydraulic Fluid	Water
H ₂	Wax

Proven Performance For Any Industrial Requirement

Look for any flow measurement environment with high accuracy requirements, or rigorous, day-to-day production demands, and you'll find Flow Technology. Typical industrial applications for our flow metering systems include:

Additives

At almost any process plant, there are numerous additive flow streams. Because of today's increasing business demands, however, precise metering of costly additives, such as mercaptin and dyes, has never been more important to your bottom-line.

No matter what your process, Flow Technology can deliver effective solutions for metering a host of key additives. Our customers, including many of the world's largest OEMs, choose either our positive displacement or turbine flowmeters to measure the flow of clean-to-abrasive and low-to-high viscosity additives.



Fuel Oil

Measuring fuel consumption in a power plant is critical in establishing unit working efficiency, and calculating fuel billing costs. But accurately measuring the flow of fuel oil can be a problem for many flowmeter designs.

With a choice of turbine or PD flowmeters, Flow Technology has the correct device for measuring clean, light fuels or heavier fuel oils.

A system consisting of a Flow Technology flowmeter, temperature-compensating flow computer and rate/totalizer provides the optimum solution for measuring volumetric or mass flow rate. This data, in turn, can be used for a precise determination of net fuel oil consumption.

Chemical Dispensing

Few industrial flow measurement applications are as widespread, or diverse, as chemical dispensing. From shampoo, liquid soap and bleach, to various types of acids, chemical dispensing requires the ability to measure precise amounts of typically corrosive, low-viscosity fluids.

Flow Technology flowmeters are built to handle the most aggressive chemical dispensing applications. Our industrial PD meters feature engineered, thermoplastic impellers that resist the effects of harsh and damaging conditions. With a compact design, the meters are easily integrated into most dispensing systems.

We also offer an all-plastic meter designed for use in highly-corrosive chemicals and acids.

Turbine Generators

Turbine generators are employed by power plants, hospitals, government agencies and other mission-critical users to gain additional power generating capacity during periods of peak demand, and as an emergency backup system in the event of outages. Manufacturers of these generators utilize Flow Technology turbine flowmeters to measure inlet/outlet fuel, as well as water injected into the system for NO_x control. The meters provide repeatability of $\pm 0.05\%$ and linearity up to $\pm 0.1\%$ of reading.

Manufacturers of gas seals for large industrial turbines also use Flow Technology's turbine flowmeters to precisely meter seal leak rate. Excess leakage is an indicator of seal failure.

Featuring up to 100:1 turndown and fast speed-of-response, our turbine meters are ideally suited for such high-accuracy, repeatable flow measurement applications.

Sealants/Adhesives

In the sealants and adhesives market, it's not uncommon for processes to employ little or no automation. This situation frequently results in inconsistent product quality.

OEMs faced with measuring the flow of high-viscosity fluids in sealant and adhesive blending applications can achieve improved performance thanks to the "Simply Accurate" design of Flow Technology's PD meters. With a reputation for high-resolution outputs, they can be used in conjunction with metering pumps to provide precise, automated or semi-

automated control in ratio blending and other low-flow batch applications.

Heat Transfer Fluids

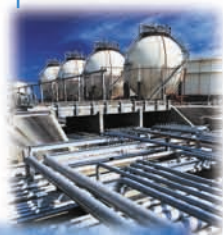
Injection molding machines produce a wide range of molded plastic products, such as soft drink bottles, containers, etc. Heat transfer fluid circulated through these machines maintains a proper manifold temperature level, and in doing so, ensures the consistency of molded parts. This environment requires that a flowmeter be able to withstand high fluid temperatures, while providing dependable, accurate flow rate measurements.

Flow Technology's turbine flowmeters can handle the rigors of demanding heat transfer fluid applications. Unlike typical "low-end" meters, they provide exceptionally reliable digital and analog outputs, and are constructed from rugged stainless steel for extended service life.

Pulsating Flow

Contrary to the claims of some flowmeter manufacturers, not all meters are suited to the pulsating flow streams found in many industrial processes. Flow Technology's flowmeters, which provide accurate measurements, easy maintenance and a low cost-of-ownership, are the answer.

Our PD meters withstand the shock produced in pulsating flow streams. In addition, specialized electronics are used to ensure a steady, accurate flow rate in these conditions.



Hydrocarbons

Measuring the flow of hydrocarbons, whether they be oils, polymers, etc., isn't a job for just any flow metering device. For this reason, industrial users turn to Flow Technology — a recognized flow measurement resource. We offer a choice of positive displacement and turbine meters that can meet virtually any hydrocarbon flow measuring requirement.

Feedback Controls

Steam generating stations seeking a reliable pH monitoring solution for de-mineralized or purified water choose Flow Technology. Unlike magnetic and Coriolis flowmeters, our cost-effective PD meters allow maintenance to be performed in-line. And they're built with 316 stainless steel cases to ensure utmost chemical resistance.

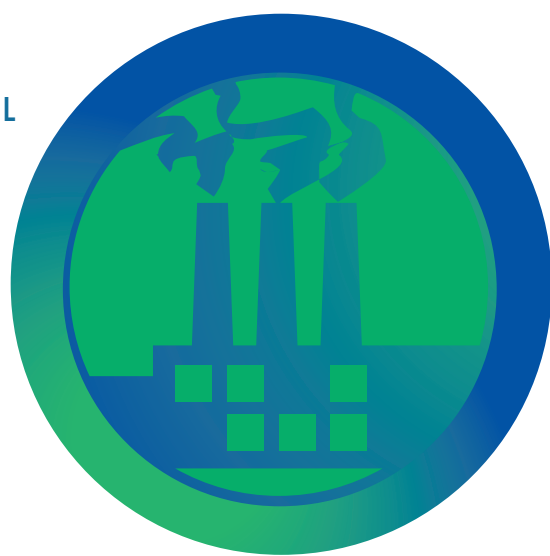
Users can also add a Flow Technology rate/totalizer with an optional 4–20 mA analog output signal and 16-point linearization to configure a complete flow control system. These units allow plants to maintain local indication of total consumption, as well as providing an analog signal to the feedback control loop that monitors and adjusts the pH level of the de-mineralized water.

Hydraulic Systems

Hydraulic test stand manufacturers and plants operating hydraulic controls recognize the quality, reliability and accuracy of Flow Technology flowmeters. Our meters are frequently employed in feedback control systems and on equipment that tests and calibrates hydraulic pumps, filters and cylinders.

In many hydraulic applications, operating temperature and pressure vary a great deal. This can cause variations in viscosity and create effects such as water hammer that need to be addressed. To deal with these demands, Flow Technology's turbine flowmeters are available in "High Shock" configurations with stepped housings and reinforced rotor blades. High Shock meters hold up under the most extreme pressure spike conditions.

Temperature-compensating electronics that provide frequency and analog outputs corrected to the actual operating temperature and viscosity are also available.

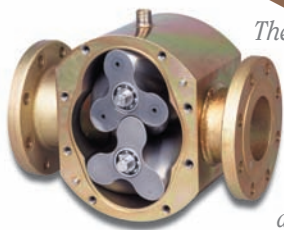


In high viscosity applications, our PD meters are the preferred option. Designed for ease of maintenance and long service life, they're a proven choice when viscosity levels are above the flowmeter's threshold viscosity.

OTHER APPLICATIONS:

- **Batching**
- **Coatings**
- **Feedstock Processing**
- **Intermediates**
- **Skid Packages**
- **Water Purification**





◀ VECTOR™ PD Flowmeter ▶

The patented VECTOR™ positive displacement flowmeter features a unique, double-helical, three-lobe impeller design. The specially-shaped impellers add an advantage of high throughput at low RPM, while providing exceptional accuracy and long life. Additionally, they create low pressure drop and allow the flowmeter to be used with high- or low-viscosity liquids. VECTOR™ handles flow rates up to 700 GPM, and temperatures as high as 450° F.

▶ DC-I Series ▶

Flow Technology's patented Decathlon Series of in-line, positive displacement flowmeters, including both standard industrial and economical models, are ideal for a wide variety of liquid flow applications. These flowmeters are both highly accurate and easily adaptable to most industrial applications. They are available in 1/8" to 4" line sizes, and provide reference accuracy of $\pm 0.05\%$ of rate. The meters also handle viscosities of 1,000,000 cP+, and operating temperatures up to 400° F.



◀ HS Series ▶



The HS Series "High Shock" turbine flowmeter is specifically designed to withstand pressure spikes that create hydraulic shock waves in the fluid when actuators or rams are activated. HS Series meters utilize stepped housings and reinforced rotor blades that allow them to hold up in the most demanding conditions. They are available in 3/8" to 2 1/2" sizes, and are capable of measuring liquid flow rates from 0.03 to 450 GPM.

▶ TrickleMeter® ▶

Ideally suited for use in low flow applications, Flow Technology's TrickleMeter® measures flow rates from 0.005 to 0.5 GPM. This innovative meter, which is able to withstand pressures up to 1,000 psig, features a stainless steel case and carbide shafts.



▶ AP-I Series ▶

The patented, high-accuracy AP-I Series positive displacement flowmeter utilizes engineered, thermoplastic materials to handle many aggressive or ultra-pure liquids. The meter is ideal for aggressive liquid flow applications, including acids, caustics, ultra-pure fluids, specialty chemicals and DI water.



▼ FT and FTO Series Turbine Flowmeters ▼

Flow Technology's FT and FTO Series turbine flowmeters feature high accuracy and repeatability, compact size, fast speed-of-response, low pressure drop and low cost when compared with other metering technologies. Standard materials of construction are a corrosion-resistant 316 SS with a 430F SS or 17-4PH SS rotor. A wide variety of end-fittings are available, including ANSI Flanges, NPT, MS, Hose Barb and SAE.



▶ Linear Link® ▶

The innovative Linear Link®, with its advanced "blade averaging" capability, has redefined the method for optimum turbine flowmeter linearization. Meters equipped with this high-performance unit can achieve excellent accuracy over a 100:1 flow range. The simultaneous frequency and analog outputs provide flexibility for any data acquisition system.



◀ BR3000 Series ▶

Battery power and a compact size make the BR3000 Series Rate/Totalizer a versatile local indicator. It accepts magnetic pickup, DC pulse and switch closure inputs. Rate and total are shown simultaneously on the easy-to-read, two-line, LCD display. Loop-powered versions are also available.



▶ SL9000/9100 Series ▶

The SL9000/9100 Series Flow Computers are advanced instruments for liquid, gas, steam and heat applications. They have many programmable features to serve a variety of volumetric or compensated mass flow control functions. For example, various hardware inputs and outputs can be "soft" assigned to meet common application needs.



An Unmatched Flow Measurement Resource For Your Industry.

AEROSPACE

Cryogenic Fluid Metering
Flight Testing
Fuel Metering
Hydraulic Fluid Flow
OEM Components



AUTOMOTIVE

R&D
Production Fluid Fill
Adhesive Dispensing
Paint Mix & Recirc
Coolant & Refrigerant
Fuel & Lubricants
Hydraulic/Trans./
Power Steering Fluids
Emissions Measurement



INDUSTRIAL

Additive Batching
Chemical Dispensing
Feedback Controls
Fuel Oil Systems
Skid Packages
Turbine Generators/
Fuel/NOx Water



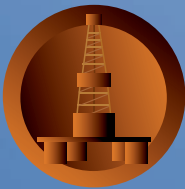
METROLOGY

Primary Standard Liquid &
Gas Calibration Systems
Flow Transfer Standards
Flowmeter Calibrations
Service & Repair Programs



OIL & GAS

Chemical Injection
Subsea Hydraulics
Fuel Measurement
High Pressure Fluids
Ultra-low Flow Rates
Custom Solutions



SANITARY

Batching
Continuous Blending
DI Water
Loading/Unloading
Mixing
Water Filtration



FUEL METERING

Aircraft
Automobiles
Diesel Engines
Gas Turbines
Power
Additives



OEM

Blow-out Preventors (BOPs)
Dispensing Systems
Fuel Management Systems
Hydraulic Test Stands
Skid Packages
Subsea Control Pods
Well Injection Systems
YOUR System



For solutions to demanding flow measurement applications, there's only one place to go — Flow Technology. With more than 50 years of experience, and one of the widest selections of products and services, we offer an unmatched flow measurement resource for your industry.

A complete selection of flow measurement products

- ◆ Precision turbine flowmeters
- ◆ High accuracy positive displacement flowmeters
- ◆ Advanced flow controls and electronics
- ◆ Primary standard flow calibrators
- ◆ EPA-approved vehicle emissions measurement systems



Custom-designed systems for your metering requirements

- ◆ Knowledgeable sales engineering staff
- ◆ Custom meter electronics & packaging
- ◆ Specialized flow measurement systems
- ◆ Solutions for unique OEM applications



Primary standard calibrations for all types of flowmeters

- ◆ One of the world's largest flow calibration labs
- ◆ More than 20 primary standard calibrators
- ◆ NIST-traceable calibrations for most flowmeter designs
- ◆ Choice of calibration, service and repair programs

At Flow Technology, quality isn't just a slogan — it's our way of doing business.

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