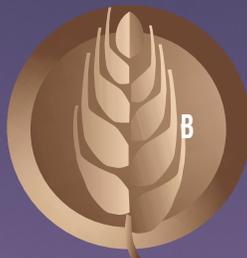


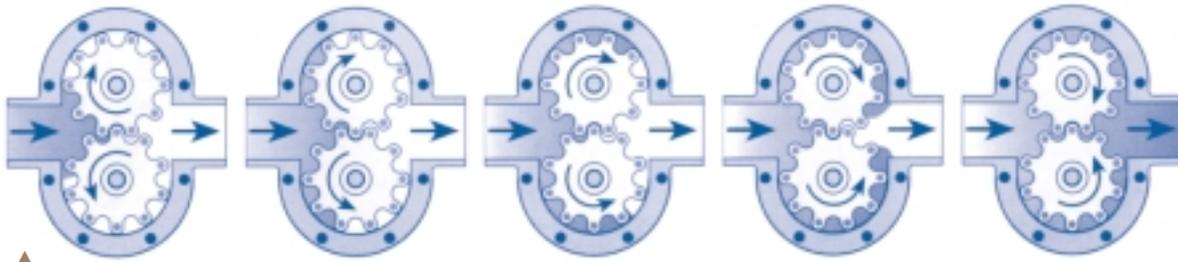
**Strict Standards.
Diverse Fluids.**

**For Your Wide-Ranging
Sanitary Applications...**

***Rely On
THE FLOW MEASUREMENT
Resource.***

F O O D & B E V E R A G E





▲ PD Meter Operational Diagram

Flow Technology's positive displacement flowmeters employ an innovative, patented measurement technology which greatly enhances reliability and ease-of-use. The meters incorporate two rotating impellers driven by the liquid flow. An impeller-activated, non-intrusive sensor generates a pulsed output signal. Each pulse represents a known volume of liquid captured in between the lobes of the impellers. A K-Factor converts the pulses into engineering units for remote data collection and digital display.



◀ SL9000 Series

The advanced SL9000 Series flow computer can be configured for either volumetric or compensated mass flow measurement, and is designed for use on liquid, gas and steam flow service. The SL9000 offers many programmable features, including various hardware inputs and outputs that can be "soft" assigned to meet specific application requirements. This capability provides exceptional flexibility in configuring the instrument for batch control, rate alarming and/or transmission of process variables.

▶ DC-F Series

Flow Technology's patented DC-F Series positive displacement flowmeter is ideal for liquid flow applications in the food, dairy and pharmaceutical industries. These highly accurate and durable flowmeters, which are CIP-compatible without disassembly, meet all applicable 3A, USDA and USPHS standards, and are available in 1/8" to 4" line sizes. The meters have a reference accuracy of $\pm 0.05\%$ of rate, and operate in temperatures up to 400° F (204° C). They also provide up to 1000:1 turndown.



▶ BR3000 Series

Battery power and a compact size make the BR3000 Series rate/totalizer a versatile local indicator. Available with explosion-proof, waterproof and panel-mount enclosure options, it accepts magnetic pick-up, DC pulse and switch enclosure inputs. Rate and total are shown simultaneously on the easy-to-read, two-line, LCD display. The BR3000 Series utilizes either an internal battery, external DC or 4-20 mA loop power supply.



◀ SA Series

The SA Series turbine flowmeter provides exceptional accuracy, versatility and economy in a wide range of sanitary applications. The meter's smooth finish and 316 SST construction, combined with the flushing effects of the fluid, prevents bacteria breeding entrapment.



The SA Series meets 3A Sanitary Standards #28-02 and withstands clean-in-place (CIP) and sterilize-in-place (SIP) environments. The meters are offered with ceramic bearings for extended wear life, and are available in sizes from 1/2" to 2" with sanitary clamp. They are able to measure flow rates from 0.1 to 250 gallons per minute (GPM) in temperature ranges up to 400° F (204° C).

◀ Linear Link®

The new, sophisticated Linear Link® family of linearizing electronics is redefining the standard of flowmeter performance. Available in a compact, sealed enclosure that withstands hose-down processes in sanitary environments, the Linear Link® eliminates the need for multiple electronic devices by combining — in a single instrument — flow linearization, temperature compensation, viscosity correction and signal conditioning. It linearizes flowmeter outputs to $\pm 0.1\%$ of reading over the maximum repeatable range of the flowmeter, and provides "real-time" corrected K-Factor flow data.





In the food, beverage and pharmaceutical industries, measuring the flow of liquids and gases used in sanitary production environments demands superior instrument performance. From basic water, to liquids with extreme viscosities, high solid concentrations and low conductivity, sanitary applications present a wide range of flow metering challenges.

When Reliability Counts, Turn To Flow Technology

On critical food, beverage and drug manufacturing processes, 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 almost any fluid critical to maintaining production from process industry 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 food hub of California's Central Valley to the major East Coast pharmaceutical production centers, leading sanitary manufacturing operations rely on Flow Technology — The Flow Resource — to meet their most critical flow measurement requirements. Our 3A-recognized and USDA-approved flow metering solutions have been utilized by many of the world's largest food, beverage and drug manufacturing companies to measure the following liquids (partial list):

Beer	Hop Oil
Chocolate	Juice Concentrates
Corn Syrup	Lecithin
Cream Yeast	Liquid Sugar
DI Water	Malt
Edible Oils	Molasses
Flavorings	Peanut Butter
Frostings/Cake Mixes	Shortening
Fructose	Vinegar
HFCs	Water

Proven Performance Where Other Meters Fail

Look for any flow measurement environment with extreme conditions, and demanding performance requirements, and you'll find Flow Technology. Typical sanitary applications for our flow metering systems include:

Batching

In a typical brewing application, corn syrup is trucked to the plant and transferred into large, heated tanks designed to keep the fluid at the proper temperature. The corn syrup is then pumped through lines to vats for batching and deionization.

Unfortunately, deionization can adversely affect the accuracy of mag meters which use the conductivity of the fluid to measure flow. Other meter types, such as mass coriolis flowmeters, provide poor accuracy in low flow conditions due to the lack of zero stability.



For these reasons, many food and beverage producers utilizing deionized high fructose corn syrup (DIHFCS) and other low conductivity liquid sweeteners regard Flow Technology's positive displacement flowmeters as their meter of choice. Our PD meters not only provide precise flow measurements, but with only two moving parts, are easy and inexpensive to maintain.

Continuous Blending

Juice processors frequently convert orange juice concentrate into several products, including single strength juice. The concentrate is transferred from storage tanks to a blending system utilizing metering pumps where it is converted into the desired new product.

A flowmeter provides feedback on the volume of liquid passing through the system, and on variations in the amount of liquid moving through the processing line.

Flow Technology's high accuracy, low maintenance positive displacement flowmeters are impervious to the high solid content of orange juice. They're built with durable materials to

withstand clean-in-place (CIP) cycles and air purges, and have internal components that can be serviced with the meter body in-line. All electronic components are outside the meter for easy access.

Mixing

Materials such as peanut butter present special challenges in mixing processes. They are generally very thick, abrasive, and difficult to clean. Additionally, they must be maintained at a proper temperature so as to not harden in process lines, or burn due to overheating.

Food manufacturers rely on Flow Technology's positive displacement flowmeters in such demanding applications. These rugged, precise meters typically provide $\pm 0.5\%$ accuracy (linearity) with up to 1000:1 turndown. If temperature control is necessary, the meter body can be steam-jacketed or wrapped in electrical heat tracing to maintain a constant temperature inside the device.

Inventory Control

Inventory control is a key concern for food plants, dairies, and other processing facilities. In a chocolate manufacturing plant, for example, one section of the plant produces chocolate which is pumped through lines to other sections where final products are made. Flowmeters are installed on the lines to monitor the amount of chocolate being produced.

However, measuring the flow of dense, viscous materials such as chocolate is a difficult task for most flowmeters. Chocolate is very thick and can clog or damage a flow metering device. It is also non-conductive, and cannot be measured by electromagnetic-type meters.

Flow Technology's positive displacement flowmeters measure the most viscous fluids (up to 1,000,000 cP), and their engineered thermoplastic impellers are designed to withstand fluids with abrasive characteristics.





Plus, non-conductive fluids have no effect on our meters, since they employ a positive displacement principle to measure flow.

Water Dispensing

Pharmaceutical manufacturers can precisely monitor the dispensing of DI water into batch processing vessels by employing an economical sanitary batch control system from Flow Technology. This system, consisting of a sanitary turbine flowmeter and flow computer/batch controller, is highly accurate and easy to operate.

The 3A-recognized turbine flowmeter, with repeatability of $\pm 0.1\%$, offers exceptional performance, versatility and economy for water dispensing and other low-viscosity applications. The flow computer is capable of stop, start and reset functions from the front panel, or if it is more convenient, these functions can be performed remotely.

Water Filtration

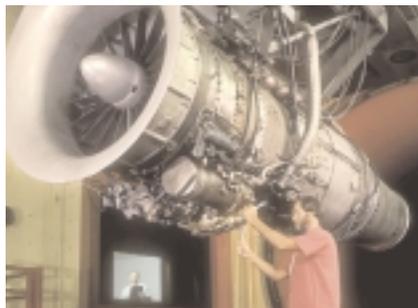
Most pharmaceutical and biotechnology processing plants require filtration equipment capable of producing a wide range of water qualities, including USP, deionized and WFI water. However, production of ultra-clean water is very costly, and requires precise flow measurements at various stages of the process.

Flow Technology's 3A-recognized sanitary turbine meters offer an ideal flow metering solution in purified water applications. Paired with linearizing electronics, the meters provide $\pm 0.25\%$ accuracy. They operate in standard temperature ranges up to 350° F (177° C), and feature rugged ceramic bearings which, unlike tungsten carbide and epoxy-impregnated graphite bearings, are able to withstand the corrosive effects of ultra-clean water.

OTHER APPLICATIONS:

- **Loading/Unloading**
(Food & Beverage Industry)
- **Pill Coating**
(Pharmaceutical Industry)
- **Bottle Filling**
(Food & Beverage Industry)
- **Milk Metering**
(Dairy Industry)
- **Additive Injection**
(Food & Beverage Industry)





A wide range of products and services

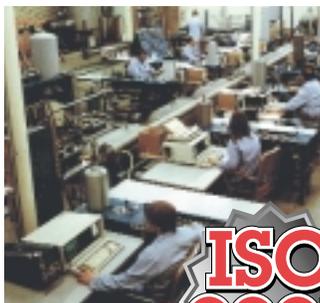
Few companies offer a wider array of flow measurement products and services than Flow Technology. In addition to high-accuracy turbine and positive displacement flowmeters, our product line includes advanced controls and electronics that enhance flow metering performance. We also provide a variety of flowmeter calibrators, bell provers and portable flow transfer standards, and maintain one of the world's largest primary standard flow calibration laboratories. Our complete flowmeter calibration and repair service minimizes downtime and reduces costs.

50 Years of Flow Measurement Experience

Flow Technology, recognized worldwide for providing specialized, high-accuracy flow metering solutions, has joined with industrial flow measurement leader Flowdata. Together, we offer an unmatched flow measurement resource, including a combined 50+ years experience solving the most difficult applications.

Custom-designed systems for any metering requirement

No matter what your application, Flow Technology has the knowledge and resources to develop a custom flow metering system that's right for the job. Our highly-trained sales engineering staff has years of experience in the process, aerospace, automotive and metrology industries, just to name a few, and can serve as a vital asset for customers with specialized requirements.



Certified to the highest quality standards



Strict quality procedures are maintained at every stage of Flow Technology's product design, assembly, testing and delivery. Our manufacturing facilities and processes conform to such recognized international standards as ISO 9001, ANSI Z 540, 3A and CE. Plus, all of

our flowmeter calibrations are directly traceable to standards established by the National Institute of Standards and Technology (NIST).

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



Users of Flow Technology's precision flow metering devices range from major oil and gas companies drilling at the bottom of the North Sea, to leading food and beverage producers, pharmaceutical manufacturers and the NASA space program. Even winning NASCAR™ and NHRA™ racing teams use our flowmeters.



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