#### NUFLO™ & BARTON®

## Turbine Meters - Gas and Liquid

For the past 50 years, NUFLO and BARTON turbine meters have developed alongside the requirements of the international oil & gas and process control industries. Each brand has a reputation for withstanding severe environmental punishment while maintaining operational and measurement integrity.

### **NUFLO Liquid Turbine Meters**

- Accurate and repeatable measurement
- Long service life even in severe applications
- Easy installation
- Broad range of end connections including: threaded, grooved, flanged, EZ-IN™, and WECO® 1500

#### **NUFLO Gas Turbine Meters**

- Single meter handles wide range of flow rates
- Carbide bearing design eliminates need for lubrication and withstands difficult service conditions
- Low inertia rotor design provides quick response to flow rate changes
- Two-bladed rotor offers large unobstructed flow area
- Electrical output signal adapts readily to a variety of readout devices

### **Barton High Accuracy Gas and Liquid Turbines**

For more than 30 years BARTON turbine meters have provided fiscal accuracy to a broad base of gas measurement applications including aerospace, cryogenic metering, pipeline applications and gas service. These meters are manufactured to order with options that include materials of construction, bearing systems and end connections.

## NUFLO™

## **Totalizers**



The NUFLO MC™ Family of Flow Electronics delivers a broad range of functionality and capability from the straightforward MC-I Totalizer, which provides rate and flow, to the MC-III EXP Flow Analyzer, which utilizes Modbus® communications to download extensive archival logs in less than a minute.

MC Flow Analyzers are ideal for use with NUFLO's comprehensive line of turbine meters or any other turbine brands on the market today.

Successfully operating in: test separators; flow lines; wellheads; truck loading and unloading stations





#### **BARTON®**

## **PD Meters**

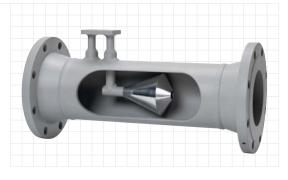


Floco® and Flotrac® meters operate in harsh environments that demand consistent, repeatable and rugged performance. Originally designed for raw crude oil production, the Floco F Series meter has proven itself to be a versatile unit that performs easily in a broad range of high viscosity fluids. Ideal for oils and grease, paints and coatings and even paraffin, the Floco meter can also be used to drive a proportional sampler to provide volume as well as product quality data. The Flotrac meter is a highly durable unit that provides accurate, high-pressure measurement of low viscosity liquids.

#### NUFLO™

## Differential Pressure Cone Meter

The differential pressure-based NUFLO Cone Meter is a process control and multi-fluid meter that provides accurate, repeatable and cost optimized measurement solutions. Designed to work in both unprocessed and processed applications, the NUFLO Cone Meter is ideal for upstream, midstream and downstream applications that present a wide range of measurement challenges. Key advantages include optimal operations in small spaces, extreme temperatures and diverse conditions; the device also offers an economic, compact design, low cost of ownership and since there are no moving parts, a long, virtually maintenance free lifespan. For more information on the NUFLO DP Cone/Scanner 2000 Flow Computer Package see page 8.



### CALDON®

## **Ultrasonic Meters**



The Caldon line of ultrasonic meters uses advanced transit time ultrasonic technology to provide measurements based on the movement of sound waves through fluids. With Caldon ultrasonic meters in its product portfolio, Cameron has inherited a specialty in providing solutions for demanding high performance applications from clean liquids to natural gas in both the nuclear and oil and gas industries.

For more information on Caldon Ultrasonics, including a complete capabilities overview, specific application expertise and the Caldon Hydrocarbon Calibration Laboratory see page 9.

#### **BARTON®**

## Differential Pressure Unit (DPU) Sensors



Cameron's Measurement Systems division supplies reliable and accurate chart recorders, indicators, switches and pneumatic controllers. The BARTON differential pressure technology features a welded bellows assembly that increases accuracy while dramatically reducing the effects of wear. To facilitate quick and easy repairs all DPU based instruments are supported with pre-calibrated exchange or repaired sub-module bellows assemblies.

- Chart Recorders and Controllers
- Differential Pressure Indicators
- Differential Pressure Indicating Switches

### BARTON® & NUFLO™

## Flow Computers & Automation Products

With an installed base of more than 40,000 units worldwide, the Scanner line plays an integral role in the current move towards automation.

Cameron is committed to strengthening the Scanner product line by supporting its worldwide installed base of BARTON 1100 series flow computers and aggressively supporting the introduction of the ground-breaking NUFLO 2000 series – an easy to use, ultra low power microEFM that delivers flow computer functionality at chart recorder pricing.

Cameron is also committed to investing millions of dollars researching and developing additional functionality to ensure the entire Scanner family continues to meet both existing and changing needs of operators, integrators and end users.





#### NUFLO™

# Orifice Fittings and Meter Runs

With the acquisition of North Star Flow Products, the Measurement Systems division secured its position as one of the largest manufacturers and distributors of orifice fittings, orifice plates, meter runs and accessories. The product line offers both single and dual run fittings and

meter runs as well as a broad spectrum of accessories including plates, seals and straightening vanes.



### NUFLO™ & BARTON®

## **Transmitters**



### **NUFLO MVX®-II Multi-Variable Transmitters**

The NUFLO MVX-II Multi-Variable Transmitter is a gas measurement unit built around a patented, silicon-based DPE cell. It combines the accurate and stable measurement of differential pressure, static pressure and temperature with high speed input sampling/averaging and communications capabilities. This low-powered, field-hardened gas measurement transmitter features an easy-to-use laptop interface and industry standard communication protocol which makes configuration, measurement, and reporting simple, accurate, and reliable.

### BARTON FCX™ All and CII Series Electronic Transmitters

Two decades of experience in developing capacitance based measuring devices has culminated in the FCX All and CII series of transmitters. Models span the entire range of temperature, gauge, absolute and/or differential pressure and include flanged level transmitters.



#### NUFLO™

## **Relief Valves**

In the mid-1940's, a new pilot-operated rather than spring-operated relief valve set a new standard for pressure control. The valve, manufactured over the years by companies such as Garrett, USI and Axelson, is now manufactured and sold by Cameron's Measurement Systems division. The NUFLO pilot-operated pressure relief valve represents a tradition of advanced design and high-quality manufacturing abilities. These valves offer advantages not found in other relief valves – spring or pilot operated.



## CLIF MOCK®

# TrueCut® Sampler Products & Systems



CLIF MOCK and TrueCut are recognized brands in the international sampling industry. From as far back as the 1960's, when CLIF MOCK introduced the first isokinetic sampler, to today, this sturdy, accurate and versatile family of products has proven to be a top performer in a wide range of applications. Cameron continues to differentiate the product line by marrying it to the division's full line of measurement and control instrumentation including its DPU products, flow computers, transmitters, turbine meters and totalizers. In doing so we can provide customized sampling systems that enable a customer's integrated network to operate at peak performance.

For more information on Cameron's worldwide leadership in Sampling and Blending see Page 3.

#### JISKOOT™

# Sampling and Blending Products & Systems

In March 2008 the Measurement Systems division of Cameron acquired JISKOOT Limited, a world leader in the design, manufacture and commissioning of sampling and blending systems for the global oil and gas industry.

For more information on JISKOOT Quality Systems see Page 10. For more detailed information on Cameron's worldwide leadership in Sampling and Blending see Page 3.



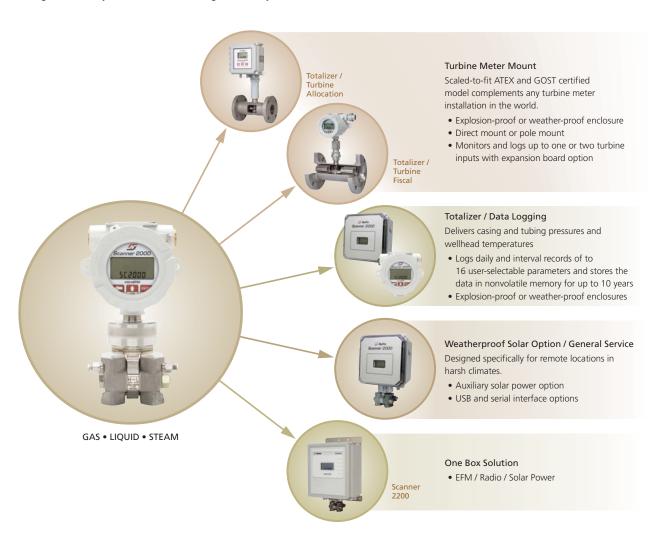


#### PRODUCT FEATURE

# Scanner 2000 series Flow Computer

The Scanner 2000 microEFM packs the gas, steam, and liquid measurement capabilities, traditionally found in large flow computers, into a compact, low-power instrument that operates economically as a stand-alone chart recorder replacement, flow computer, and totalizer or as an integration-ready device for an existing SCADA system.

Simplicity and ease of use are integral to the design of the Scanner 2000 series. Basic parameters can be configured from a keypad inside the enclosure and all other parameters are easily configured using a PC or laptop and the ModWorX<sup>TM</sup> Pro software.



#### Systems, SCADA and the Scanner 2000

With measurement and flow computing there's an application – there's data – there's transmission – and then there's you. Cameron has developed a quick and simple way for you to get your data – whether its right outside

the door of your truck or in a remote field; whether you're accessing a stand alone unit or managing with a large and complex automation project.