

Products

Brodie International offers a wide array of industry-leading positive displacement measurement solutions. Our portfolio includes meters ranging from 1/2" to 16" in size, capable of measuring flows from 0.9 GPM to 13,000 BPH (2.7 LPM to 2,066 M3/HR).

BiRotor Plus Meter

The BiRotor Plus is the industry leading positive displacement meter with an accuracy of $\pm 0.075\%$ and repeatability 0.02%. Applied in custody transfer of petroleum products, the BiRotor Plus provides outstanding service. With a compact, lightweight design, flexibility of vertical or horizontal mounting & extremely low pressure drop, the BiRotor Plus is pre-eminent meter of choice.

The double-case design incorporating dual helical rotors combines the rugged durability and long service life of the traditional BiRotor meter with the improved accuracy and reliable pulse output demanded by today's industry requirements.

The best-in-class BiRotor Plus meter is proven in challenging applications such as new age crude oil extraction and refined product pipelines where DRA is present, providing both excellent performance whilst solving end-user challenges where other measurement technologies have failed to produce long-term success. Check out our case studies available on the Brodie website.



"In refined product service, the BR+ meter's repeatability and linearity is by far better than any other meter on the market."

Measurement Director -
Major US energy corporation

BiRotor Meter

The Brodie BiRotor meter is a positive displacement meter utilized in the most demanding applications requiring accuracy, long-life and ruggedness. The legacy BiRotor is available in two configurations: integral mechanical registration or electronic pulse output (P-Style)

The mechanical meter utilizes a series of toothed gears (gear train) to transfer mechanical rotation of the rotors to a mechanical or electronic register for totalization of liquid throughput. Via the use of magnetic pickoffs and a pulse wheel, the electronic pulse (P-Style) output meter produces a high-resolution signal, which is directly proportional to the rate of liquid-flow through the meter.



Oval Gear Meter

The Brodie Oval Gear flowmeters are positive displacement meters designed for use in the Chemical Processing, Industrial, Food and Beverage, and Hydrocarbon processing industries.

Utilizing precision matched oval gears for exact liquid measurement, these high-performance meters are virtually unaffected by changes in viscosity and maintain accuracy even when handling low viscosity products at low flow rates.



Vane Meter

The Brodie Vane meter, designed for oilfield waste water disposal applications, is compact and reliable with only one moving part.

The corrosion resistant materials of the case and internal construction were selected specifically for secondary recovery water service, or oil service.



Cyclone Meter

The Model 2200 Cyclone meter is a 2-inch, single-case, positive displacement meter designed for the high-speed measurement of petroleum products. Its simple design utilizes the rotating crescent principle of operation which allows for high-accuracy performance that exceeds requirements found in aircraft refueling, tank truck and general petroleum applications.



Piston Control Valves

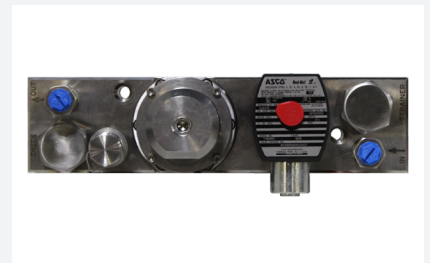
Offering accurate flow control of liquid petroleum products, the Brodie Piston Operated Control Valve ensures a positive seal, linear movement and uniform speed-of-response. This adaptable, efficient valve utilizes a single-body design that can be equipped with a variation of external pilots, allowing one valve to serve various functions.



The cartridge design allows internal components to be removed without interfering with the valve body or external connections, streamlining maintenance and maximizing operational availability. Available functions include: check valve, pressure control, flow limiting & digital control.

Additive & Dye Injection System

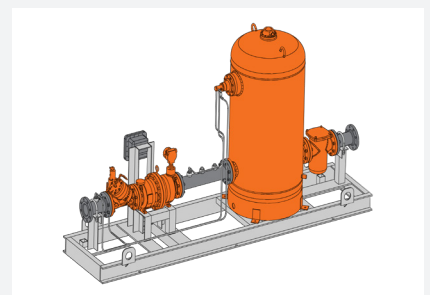
Brodie's ADDPAK additive injection block is offered as a stand-alone product or part of our chemical transfer systems that are designed to operate in additive, dye and marker applications.



Offered in both single or dual configurations with mag-drive pumps, the Brodie Chemical Transfer Systems are assembled complete to include system piping, fittings, isolation valves, inlet strainer and adjustable relief valve.

Metering Systems

Brodie International manufactures fully integrated fiscal metering systems for a broad range of petroleum and custody transfer applications worldwide. From initial in-house product design through assembly and factory testing in our flow calibration center, Brodie offers one of the industry's most complete turnkey packages.



Brodie's solutions are built to meet a customer's specific requirements, and modular in design to ensure product can be packaged and shipped to the customer's site via land or sea.

Designed with quality and ease of maintenance in mind, our solutions are scalable from a single-lane loading skid to complete pipeline metering stations.

Applications

Truck Loading

Focusing on increasing equipment availability, industry leading meter accuracy, repeatability, and linear flow control is the key to optimizing operations. Improving truck loading efficiency through greater turn-down and improved low-flow control during shutdown will help maximize facility throughput while increasing safety.

The BiRotor Plus/BV88 combination is a pre-eminent choice in truck loading applications worldwide, either as components or parts of a Brodie modular solution.



Transfer Pipeline Metering

Custody transfer is the core application solving complex accounting issues resulting from joint ownership of assets mandating extremely accurate and repeatable measurements for true allocation of revenues and costs between participating entities.

Brodie International addresses these critical requirements through our portfolio of high-precision Fiscal Measurement and Control solutions. We have been delivering on our commitment of excellence for decades, achieving highest marks for customer responsiveness and satisfaction.

Brodie's custody transfer solutions provide industry leading accuracy and reliability through our BiRotor Plus series of positive displacement meter and integrated measurement systems.

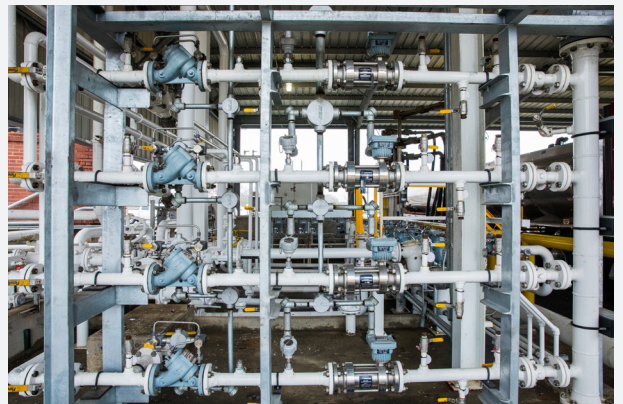


Blending

With energy costs spiraling upwards, and elevation of environmental issues on the global agenda, most oil companies are now looking to benefit on the expansion of blended bio-fuels at the load rack. The requirements for blending one or more liquid products at marketing terminals are dictated by two major factors: the first and most important being safety while the second is to deliver compliant product according to a requested recipe.

Brodie International's blending systems are engineered to meet all user-defined specification, flexible in design, offer a wide range of component selection and integrate seamlessly into existing facilities.

Our blending solutions are custom-designed to provide the transfer of blended fuel in ratios that range from 1% - 99% while remaining fully compliant with all standard local and federal codes for fuel handling. The skids are modular, self-contained, safe and efficient solutions for fuel blending of multiple products well. The blending skid can also be designed to inject additives simultaneously during the fuel blending, meaning your system will meet the requirements for blended fuel truck loading via bottom or top access fill point.



Crude Oil Gathering

The process of gathering consists of aggregated crude oil production primarily through gathering pipeline systems, which deliver crude oil to a combination of other pipelines: rail and truck.

Brodie's BiRotor Plus and its unique twin helical rotor design allows the meter to *chew through paraffin*[™] in an application where other metering technologies have failed to produce long-term stability.

The requirement for high-accuracy, multi-viscosity, low maintenance metering in ACT/LACT and Transloader applications experienced measurable benefits when utilizing our best-in-class positive displacement meter technology.



Rail Car Loading/Unloading

With the domestic transportation of both crude oil and refined liquids on the rise, Brodie International offers cost-effective metering systems.

Decades of knowledge and experience in liquid systems has allowed us to develop high accuracy solutions for the loading, unloading and trans-shipping of petroleum products in rail applications, utilizing Brodie's BiRotor Plus and piston control valve to help optimize profitability.



Marine Measurement

Brodie International provides proven marine metering solutions for both inland and coastal operations that are designed to enhance the integrity, security and efficiency of fuel measurement.

The BiRotor Plus has a proven track record for accuracy, helping ensure that vessel operators receive reliable and consistent fueling, whilst helping to reduce bunkering time via its wider flow capacity and its ability to manage multi-viscous product.

