

ETHANOL & BIODIESEL



Solutions
for your industry

SMART IN FLOW CONTROL

OVERVIEW



Ethanol and Biodiesel are a renewable Biofuel because they can be made from biomass. Ethanol is a clear colorless alcohol made from a variety of biomass materials called feedstock. Ethanol feedstocks include grains and crops such as corn, barley, sugar cane and sugar beets. Ethanol can also be made from grass, corn cobs, rice, straw, sawdust, wood chips and agricultural/forestry residues. Biodiesel is a product this is made from biomass materials and organic oils. Biodiesel feedstocks include soybean oil, recycled vegetable oil, hemp oil, algae, sunflower oil, animal fats, palm oil, and sewage sludge. Biodiesel is quickly becoming the preferred fuel for the transportation industries.

In the Ethanol industry, where performance factors like drop tight shut-off, emissions control, safety, and precise control are critical, Samson's extensive range of valves, actuators, and accessories will shine. Our linear and rotary control valves equipped with SAMSON positioners allow a seamless integration into process control systems. SAMSON delivers peace of mind by providing reliable, precise and easy to use solutions quickly.

Applications:

Distillation

Distillation is a process of separating the individual component substances from a liquid mixture by selective evaporation and condensation.

General Service

Our control valves make sure that production plants are supplied with the necessary process utilities, such as air, water, steam or refrigerants. Their high control accuracy optimizes processes and thus reduces the cost of operation.

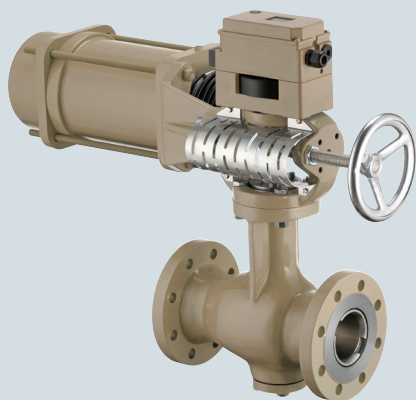
Fermenters

Fermentation is a metabolic process that converts sugar to acids, gases, or alcohol. It occurs in yeast and bacteria, with the goal of producing a specific chemical product.

Slurries

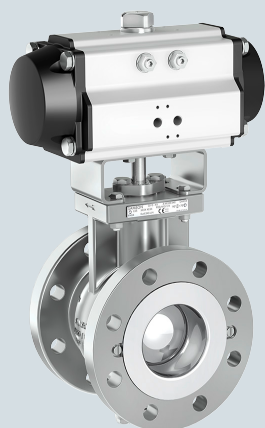
Slurries are a mixture solids suspended in liquid, usually water. The slurries can be abrasive which can lead to piping and valve damage. These slurries can also be a part of the overall process of the plant or a by-product of the process.

SLURRIES



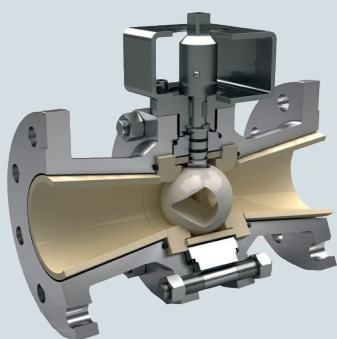
Eccentric Rotary Plug Valves

Also commonly referred to as a rotary globe valve, the eccentric rotary plug valve employs a double offset design to provide superior control, while also offering a much higher flow capacity than a traditional globe valve. The SAMSON rotary plug valves are available with various trim designs, noise attenuation options, and tungsten carbide or ceramic liners for aggressive slurries.



Segmented Ball Valves

Our line of high quality ball valves include designs for both control and on/off applications. The segmented ball valve is used for standard applications where a high flow capacity is desired. Valves for on/off applications are available with cast or forged bodies, and in floating or trunnion mounted designs to meet the demands of a variety of service conditions.



Ceramic Lined Valves

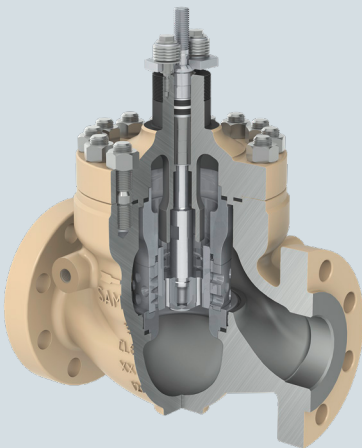
Ceramics are very hard materials that generally provide very good resistance to both abrasion and corrosion. SAMSON offers ceramic lined ball and sliding disc valves for extreme applications where traditional metallic valves cannot hold up to the application.

DISTILLATION



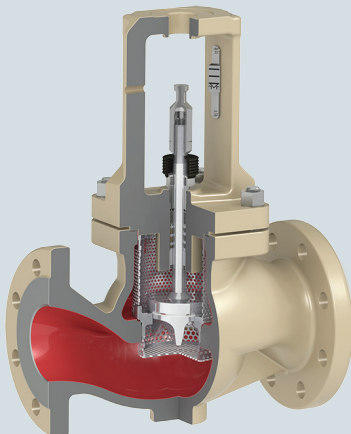
Butterfly Valves

Butterfly valves, known for their high flow capacity and compact design, are commonly used for both control and isolation applications. SAMSON offers a variety of double and triple offset designs, as well as special low noise reduction options.



Modular Design Control Valve

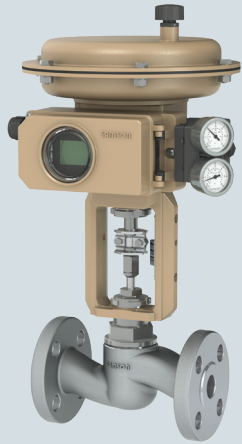
The 3251-E valve is designed to work as all three common types of globe valve design with all the same core components, including the valve body. This means that even after the valve is installed, it can be converted from a stem guided valve to a cage guided valve. Processes in a plant, and process conditions seen by a control valve, can often change dramatically over time. The flexibility of this innovative design makes solving this solution a breeze.



Top Guided Globe Control

Top guided linear globe valves are the most common type of valve used for control due to their superior control performance. SAMSON offers a compact, modular design for practically any application.

GENERAL SERVICES AND UTILITIES



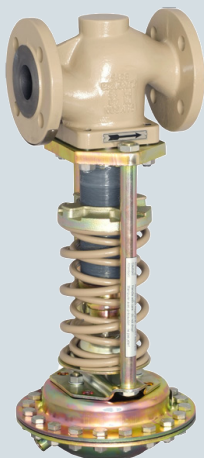
General Service Globe Valve

The 3522 valve greatly reduces diaphragm wear compared to the stretching diaphragm design used by competitors. SAMSON offers a maintenance-free design that ensures precise plug alignment for our stem guided trim.



Temperature Control Valve

The Type 3244 threaded seat three-way control valve is designed for general service applications. These general service applications include both the mixing and diverting of process fluids found in most process control industries. This valve has several standard options such as temperature extensions, metal bellows seals, and heating jacket.



Self-Operated Regulators

Regulators utilize a direct connection to the process to control flow without the requirement for any external signal. SAMSON offers a wide range of regulators to control pressure, temperature and flow.

INTELLIGENT VALVE ENGINEERING

SAMSON

PFEIFFER · RINGO · SED · STARLINE · VETEC
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SAMSON's technology has proven its value world-wide in a variety of industries. We are trusted in many of the world's most challenging applications to achieve precise control with a high level of safety and reliability.

We offer engineered solutions from a single source. With our extensive range of valves, actuators, and accessories we have the right products to suit your requirements.

Our linear and rotary control valves equipped with SAMSON positioners allow seamless integration into process control systems.

Continuous investment in research and development allows us to stay at the cutting edge of technology. With over 100 years of experience and expertise, you can count on SAMSON to provide a robust solution for your application.

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