

# Company Products



## SAMSON Product Highlights for the Process Industry

**SMART IN FLOW CONTROL**

# GLOBE CONTROL VALVES

SAMSON globe control valves provide measured control of your fluid processes, such as non-corrosive, corrosive and erosive media, steam, hygienic and aseptic fluids.



**SMS · High Pressure · 3251-E**

Designed for more demanding applications with field interchangeable seat retention designs combined with multi-plug options, this new modular design meets the requirements of the highest standards.

Pressures up to: Class 600  
 Sizes up to: NPS 8



**Standard · 3241**

Robust design for all control valve applications with optional bellows sealing, insulating sections and the ability to use in cryogenic applications.

Pressures up to: PN 40/Class 300  
 Sizes up to: DN 300/NPS 12



**General Service · 3321**

The perfect economic solution for less demanding applications: the 3321 is available with alternative actuator options 3371 and 3372.

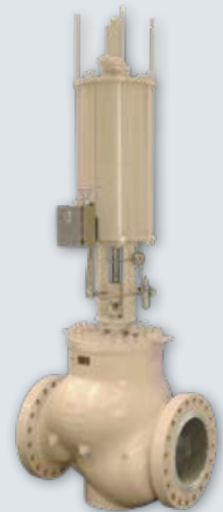
Pressures up to: PN 40/Class 300  
 Sizes up to: DN 100/NPS 4



**Three-Port · 3244**

Based on the 3241 standard globe valve, the three-port 3244 provides both mixing or diverting options and has many of the options offered on the 3241 including bellows sealed and temperature extensions.

Pressures up to: PN 40/Class 300  
 Sizes up to: DN 150/NPS 6



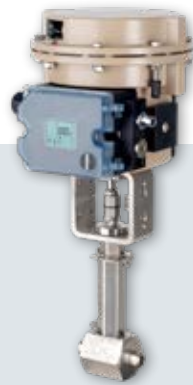
**Severe Service · 3595**

For the toughest applications with globe or angle style bodies, the plug is cage guided through the entire travel range with minimal clearance to reduce vibrations. Optional trims for liquids and gases to minimise noise and wear.

Pressures up to: Class 2500  
 Sizes up to: NPS 32

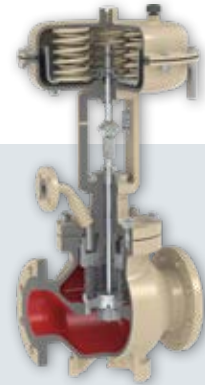
# SPECIAL GLOBE CONTROL VALVES

SAMSON has built on the success of its standard range of control valves to develop application-specific products tailored for maximising control for those specific industries.



**Mirco flow · 3510**

Designed for very low flow control applications with options of bellows sealing and insulating sections. Suitable for throttling service and available in special materials and high pressure versions.  
 Pressures up to: PN 400/Class 2500  
 Sizes up to: DN 25/NPS 1



**Steam Conditioning · 3281**

Designed to reduce the pressure and the temperature of steam to controlled set points by the introduction of water to the downstream side of the valve.  
 Pressures up to: PN 160/Class 900  
 Sizes up to: DN 300/NPS 12



**FROSTY · Top-entry cryogenic · 3598**

Designed and prepared for cold-box applications with minimal loss of energy by using a circulation inhibitor and a cryogenic extension bonnet. In-line serviceability for low operational costs on all cryogenic applications to -273 °C.  
 Pressures up to: Class 900  
 Sizes up to: NPS 8



**Clean Utility · 3321CT**

Full stainless design for hygienic and corrosive environments uses EN 1935/FDA-compliant seals as standard and combined with the 3379 piston actuator, it is suited for utility applications in the food and beverage and pharmaceutical industries.  
 Pressures up to: PN 40  
 Sizes up to: DN 50



**Hygienic · 3347**

Self-draining angle design for hygienic applications, wetted sealing materials comply with EN 1935/FDA regulations. Metal or soft sealing plug. Bar stock and cast bodies available.  
 Pressures up to: 40 bar/580 psi  
 Sizes up to: DN 150/NPS 6



# ROTARY CONTROL VALVES

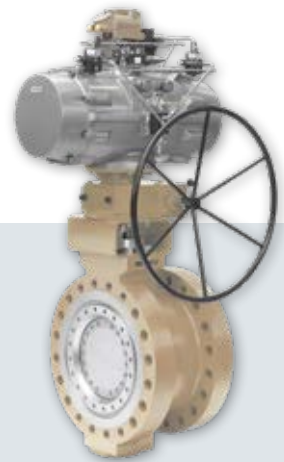
SAMSON manufactures a variety of rotary control valves that provide high flow capacity in a compact envelope to meet specific application needs.



**Ceramic-lined KST**

Ceramic-lined ball valve suitable for corrosive media with abrasive solids content. The high quality ceramic internal parts provide excellent wear resistance and the valve can operate as an on/off as well as a control valve when using the V-ball.

Pressures up to: PN 100/Class 600  
 Sizes up to: DN 300/NPS 12



**Triple Offset Butterfly · LTR 43**

The triple-offset design ensures only seat contact when fully closed, minimizing wear but providing high flow capacity when fully open. The low operating torque reduces the actuator size, resulting in a compact control solution. Cryogenic and high-temperature options available and also suitable for on/off applications.

Pressures up to: PN 420/Class 2500  
 Sizes up to: DN 3000/NPS 118



**Segmented Ball · 3310**

The combination of high rangeability and precise control, the 3310 offers high flow in a compact design with both linear or equal percentage trim available. The 3310 also has EN 1935/FDA seals and optional ISO 15848 approved packing.

Pressures up to: PN 40/Class 300  
 Sizes up to: DN 300/NPS 12



**Axial Flow · 3599**

Giving precision control with high flow capacity combined with high rangeability in a compact design with balanced plug and stem guiding for smooth operation and a variety of cage designs to handle critical applications.

Pressures up to: PN 40/Class 2500  
 Sizes up to: DN 1200/NPS 48



**Rotary Plug**

With a double eccentricity design the rotary plug valves are perfectly suited for applications where high volume flow vs. size ratio or the outstanding rangeability is a decisive factor with extremely low sensitivity to dirt and particles in severe service applications.

Pressures up to: PN 420/Class 2500  
 Sizes up to: DN 600/NPS 24

# ON/OFF VALVES

SAMSON produces a wide range of on/off valves for applications to complement the control valve range providing a full valve product range portfolio.



**Globe · 3351**

Utilising the functionality of a globe control but for on/off applications requiring class VI shut-off. Complete with self-adjusting stem packing and actuator. The 3351 also has EN 1935/ FDA seals available on request.  
 Pressures up to: PN 40/Class 300  
 Sizes up to: DN 100/NPS 4



**Ball · BR 26d**

Full bore design available in both DIN and ANSI face-to-face lengths. Corrosion resistant with loaded stem packing available.  
 Pressures up to: PN 40/Class 300  
 Sizes up to: DN 150/NPS 4



**Severe Service Ringo**

Wide range of pressure and design standards with fully welded, top entry and trunnion-mounted options. API 6A compatible with a range of seat options to meet application requirements.  
 Pressures up to: Class 2500  
 Sizes up to: NPS 56



**Diaphragm · KMA 905**

Cavity-free diaphragm valve with rising handwheel with optical safety indicator, sealed bonnet with internal travel stop and locking device. CDSA sealing concept eliminates product entrapment increasing cleanliness and drainability.  
 Pressures up to: 10 bar/150 psi  
 Sizes up to: DN 50/NPS 2



**Butterfly · BR 14b**

Double-eccentric design for general service applications with low and high temperature options available. Lugged design with anti-blowout stem for safety.  
 Pressures up to: PN 40/Class 300  
 Sizes up to: DN 800/NPS 32

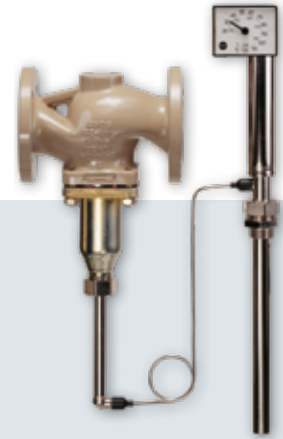
# SELF-OPERATED REGULATORS

SAMSON self-operated regulators for liquids, gases and vapors use the process medium to function. Auxiliary energy is not required. SAMSON offers self-operated regulators for pressure, temperature, differential pressure, flow, as well as combination regulators.



**Pressure · 41-23**

Requiring no auxiliary energy the valve closes as the downstream pressure increases. Wide set point range with easy adjustment with low noise plug as standard and optional control line directly from valve cavity. Also available as excess pressure valve (opens as the upstream pressure increases).  
 Pressures up to: PN 40/Class 300  
 Sizes up to: DN 100/NPS 4



**Temperature · Type 4/2231**

Low maintenance requiring no auxiliary energy with a wide set point range with easy adjustment. Suitable for liquids, gases, and vapors, especially for heat transfer media, such as water, oil and steam.  
 Pressures up to: PN 40/Class 300  
 Sizes up to: DN 150/NPS 6



**Flow · 42-36 E**

Designed to control the flow rate in the pipeline with an adjustable set point at restriction. Can be installed in either the flow or return pipe giving high control authority. Screw connection option available.

Pressures up to: PN 40/Class 300  
 Sizes up to: DN 250/NPS 10



**Differential Pressure · 42-24**

Low-noise, medium-controlled proportional regulator requiring little maintenance. Suitable for circuit water, water/glycol mixtures, steam and air as well as other liquids, gases and vapors. Wide range of set point adjustment.

Pressures up to: PN 40/Class 300  
 Sizes up to: DN 250/NPS 10



**Hygienic · 2371**

Designed especially for pressure reducing applications within food and beverage and pharmaceutical industries. EN 1935/FDA/USP-VI compliant materials. Self-draining design with no dead space within the cavity. Also available as excess pressure version.

Pressures up to: 10 bar/150 psi  
 Sizes up to: DN 50/NPS 2

# PTFE/PFA-LINED VALVES

SAMSON specialises in tailoring lined valves to meet strictest requirements and offers solutions across the entire valve size range: lined ball and globe valves in small and medium sizes as well as lined butterfly valves in medium and large sizes.



**Globe Control · BR 1a/b**

Fully lined for corrosive applications with exchangeable PTFE seat and plug. Stem sealing with PTFE bellows and monitoring port for primary stem leakage.

Pressures up to: PN 16/Class 150

Sizes up to: DN 200/NPS 8



**Microflow · BR 6a**

Globe control for very low flow rates, fully lined for corrosive applications with PTFE bellows seals as standard, special material trims available.

Pressures up to: PN 10

Sizes up to: DN 15  
(female thread)



**Ball · BR 20a**

For on/off applications in extremely corrosive media. Two-piece design for easy maintenance with exchangeable PTFE seat rings. Compact solution.

Pressures up to: PN 16/Class 150

Sizes up to: DN 200/NPS 8



**Diaphragm · KMA 495**

With a PFA lining generating smooth internal surfaces particles cannot adhere easily making this ideal for corrosive gases, liquids fine chemical and sea water applications.

Pressures up to: 10 bar

Sizes up to: DN 50/NPS 2



**Butterfly · BR 10a**

Optimal solution for aggressive and corrosive media with all wetted parts PTFE coated. Double-eccentric design to reduce seat wear and disc can be removed with the shaft for maintenance purposes.

Pressures up to: PN 16/Class 150

Sizes up to: DN 800/NPS 32



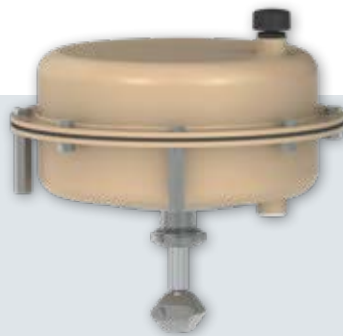
# ACTUATORS

SAMSON offers pneumatic, electric, electropneumatic, and hydraulic actuators for linear and rotary high and low pressure valves of all sizes for all applications including speciality applications such as cryogenic, food and beverage, and severe service.



**Pneumatic - Hygienic - 3379**

Piston design, linear fail-safe actuator directly integrated with hygienic and aseptic valve bonnets and is 3A certified. Suitable for caustic washdown with optional 3724 integrated 4 to 20 mA positioner.



**Pneumatic - Linear - 3277/3271**

Rolling diaphragm design with integrated accessory attachment. Suitable up to 250 mm linear travel with handwheel and travel stop options.



**Electric - Linear 3374**

The actuators are used in HVAC applications, district heating and cooling networks and processing plants. They can be configured to perform specific control tasks. Actuator versions with communication interface are suitable for connection to the SAM DISTRICT ENERGY web portal or a process control system.



**Pneumatic - Diaphragm Rotary - R**

With a linear travel of 200 mm this pneumatic diaphragm actuator provides a highly accurate degree of rotation and combined with virtually no friction gives an incredible hysteresis-free control performance. Available with a maximum torque of 1000 Nm and supply pressure up to 6 bar.



**Pneumatic - Rotary - BR 31a**

Rack and pinion design with limit stops as standard and encapsulated springs for safe and easy maintenance. VDI/VDE 3845 and VDI/VDE 3847 accessory mounting and available in a large range of sizes to economically match torque requirements.



# POSITIONERS

With over 60 years control experience SAMSON manufactures pneumatic, electropneumatic and smart positioners for all linear and rotary actuator applications, complying to all international standards and communication protocols.



**Pneumatic · 3766**

Pneumatic positioner suitable for single-acting, pneumatic linear or rotary actuators. Suitable for hazardous environments or where electrical input signals are not available.



**Standard · TROVIS 3730**

Smart with non-contact travel sensing and optional limit contacts and feedback transmission. Auto calibration and tuning with LCD display and connection with TROVIS-VIEW software (free). Available with HART® communication protocol. Stainless steel and hazardous area options available.



**General Purpose · 3725**

Electropneumatic, compact design suitable for linear and rotary actuators. Three touch-sensitive keys and LCD display provide intuitive operation with auto-calibration function. Protected non-contact sensor for precise control, UV-resistant housing and attachment options. Hazardous area option available.



**Explosion Proof · 3731**

Ex d electropneumatic, compact design suitable for linear and rotary actuators. Auto calibration and tuning with LCD display and connection with TROVIS-VIEW software (free). Available with HART® and FOUNDATION™ fieldbus communication protocols.



**High Capacity · TROVIS 3793**

Smart with high air capacity for larger linear or rotary actuators without the use of additional accessories. Auto calibration and tuning with LCD display and connection with TROVIS-VIEW. Suitable for single and double acting with hazardous area available.

# AUTOMATION ACCESSORIES

SAMSON manufactures a wide range of its accessories to complement its actuator products but also to be used on third-party equipment.



**Supply Pressure Regulator - 4708**

Provides constant air supply independent of upstream pressure with optional set point ranges. Suitable for direct or panel mounting.



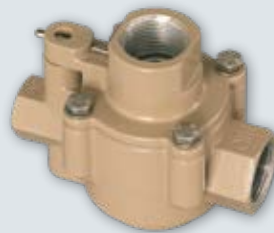
**Limit Switches - 3738**

For on/off applications both rotary and linear, self-calibrating, contactless position sensing and integrated partial stroke test diagnostic function.



**Solenoids - 3967**

Suitable for linear or rotary actuators with a wide range of switching functions. Explosion-proof option 3966 available.



**Quick Exhaust Valve - 3711**

Allows for quick venting/operation of actuator, available in both aluminium and stainless steel housing with integrated restriction to adjust venting speed.



**Volume Booster - 3755**

Designed to increasing the positioning speed on actuators by mounting between the positioner and the actuator.



**Lock-up Valves - 3709**

Used to shut off the signal pressure when the air supply falls below an adjusted limit or fails completely. This causes the actuator to fail in place.



**Signal Converter - 6111**

This i/p converter changes a direct-current input signal into a pneumatic output signal. Suitable as intermediate element between electric control devices and pneumatic control valves.



**Signal Converter - 6116**

Based on the 6111, this i/p converter proportionally converts the electric input signal into a pneumatic output signal but within a certified explosion-proof housing.

# DIGITAL SOLUTIONS

SAMSON is taking on the challenge of digitalisation. We are working to become the first choice for smart valves, flexible production processes. SAM is not just an abbreviation of the SAMSON name, but also stands for SAMSON ASSET MANAGEMENT.



### Valve Identification Data Matrix Code

The Data Matrix code on SAMSON controls valves provides a unique valve identifier that relates back to the valve build on the SAMSON website.



### Differential Pressure Meters - Media 7

The Media 7 Differential Pressure Meter and the SAM Connect gateway are suitable for wireless connection to SAM TANK MANAGEMENT. This ensures safe data exchange all across the world, polling of states, monitoring of limits and operation of Media devices.



### SAM GUARD®

The SAM GUARD® predictive analytics solution for the process industry quickly and accurately identifies equipment failures and suspicious operating modes days to weeks in advance. It provides an average of five early, accurate and actionable alerts a day.



### SAM VALVE MANAGEMENT

SAM VALVE MANAGEMENT is a web-based solution for the smart monitoring and management of control valves installed in process plants. It provides a complete overview of all connected control valves fitted with smart SAMSON positioner.



### SAM TANK MANAGEMENT

SAM TANK MANAGEMENT is a web-based application specifically developed for monitoring the filling levels of liquids, gases and vapors stored in stationary or truck-mounted pressure vessels. Any smart mobile device can be used to access SAM TANK MANAGEMENT.

# SAMSON AT A GLANCE



## STAFF

- Worldwide 4,500
- Europe 3,700
- Asia 600
- Americas 200
- Frankfurt am Main, Germany 2,000

## INDUSTRIES AND APPLICATIONS

- Chemicals and petrochemicals
- Food and beverages
- Pharmaceuticals and biotechnology
- Oil and gas
- Liquefied Natural Gas (LNG)
- Marine equipment
- Power and energy
- Industrial gases
- Cryogenic applications
- District energy and building automation
- Metallurgy and mining
- Pulp and paper
- Water technology
- Other industries

## PRODUCTS

- Valves
- Self-operated regulators
- Actuators
- Positioners and valve accessories
- Signal converters
- Controllers and automation systems
- Sensors and thermostats
- Digital solutions

## SALES SITES

- More than 50 subsidiaries  
in over 40 countries
- More than 200 representatives

## PRODUCTION SITES

- SAMSON Germany, Frankfurt, established in 1916  
Total plot and production area: 150,000 m<sup>2</sup>
- SAMSON France, Lyon, established in 1962  
Total plot and production area: 23,400 m<sup>2</sup>
- SAMSON Turkey, Istanbul established in 1984  
Total plot and production area: 11,053 m<sup>2</sup>
- SAMSON USA, Baytown, TX, established in 1992  
Total plot and production area: 9,200 m<sup>2</sup>
- SAMSON China, Beijing, established in 1998  
Total plot and production area: 10,138 m<sup>2</sup>
- SAMSON India, Pune district, established in 1999  
Total plot and production area: 18,000 m<sup>2</sup>
- SAMSON Russia, Rostov-on-Don, established in 2015  
Total plot and production area: 5,000 m<sup>2</sup>
- SAMSON AIR TORQUE, Bergamo, Italy  
Total plot and production area: 27,684 m<sup>2</sup>
- SAMSON CERA SYSTEM, Hermsdorf, Germany  
Total plot and production area: 14,700 m<sup>2</sup>
- SAMSON KT-ELEKTRONIK, Berlin, Germany  
Total plot and production area: 1,060 m<sup>2</sup>
- SAMSON LEUSCH, Neuss, Germany  
Total plot and production area: 18,400 m<sup>2</sup>
- SAMSON PFEIFFER, Kempen, Germany  
Total plot and production area: 35,400 m<sup>2</sup>
- SAMSON RINGO, Zaragoza, Spain  
Total plot and production area: 18,270 m<sup>2</sup>
- SAMSON SED, Bad Rappenau, Germany  
Total plot and production area: 10,370 m<sup>2</sup>
- SAMSON STARLINE, Bergamo, Italy  
Total plot and production area: 26,409 m<sup>2</sup>
- SAMSON VDH PRODUCTS, the Netherlands
- SAMSON VETEC, Speyer, Germany  
Total plot and production area: 27,090 m<sup>2</sup>

## SAMSON AKTIENGESELLSCHAFT

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