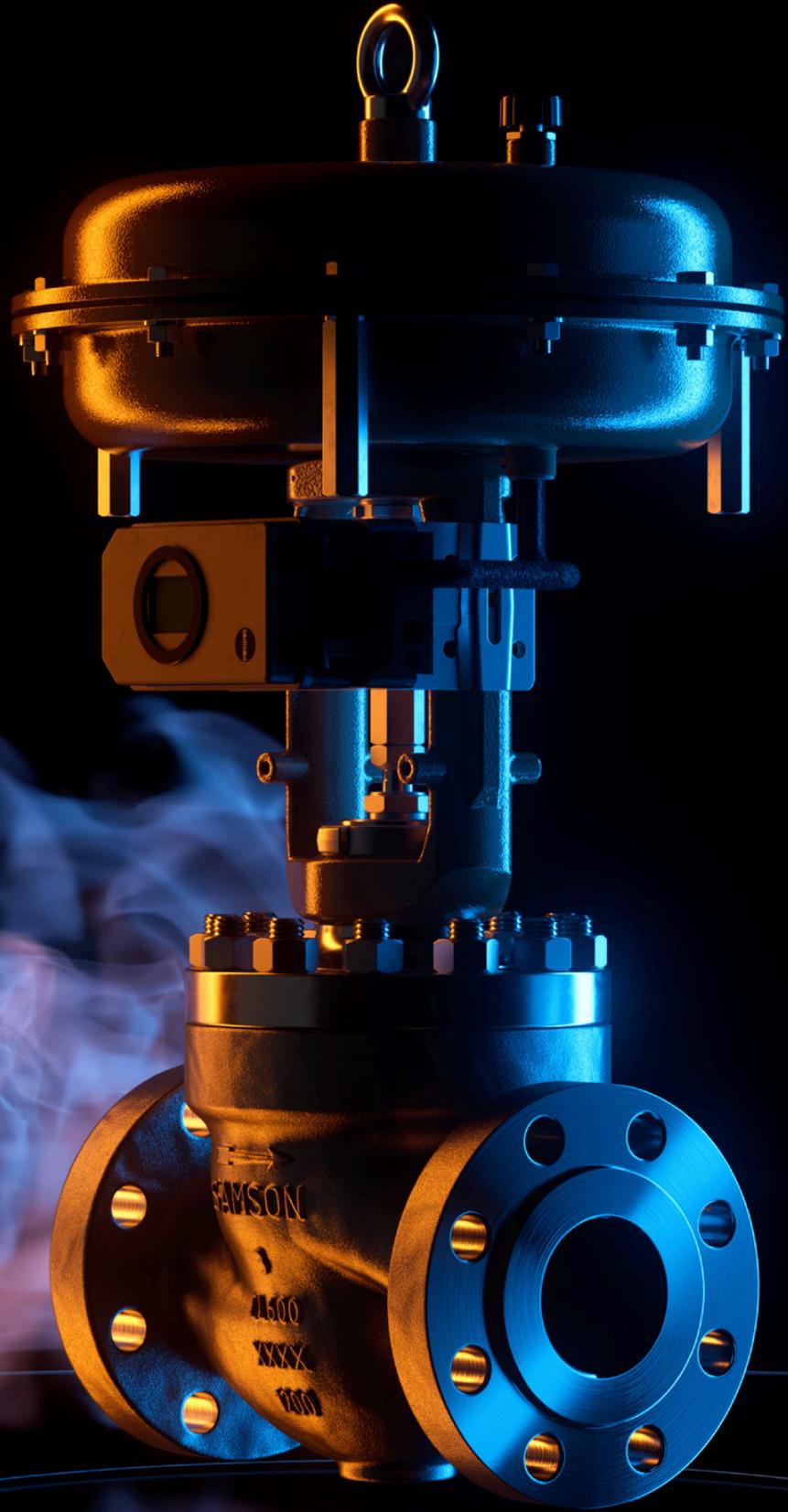




AND
EVERYTHING
FLOWS



SMS - SHARED MODULAR SYSTEM

Type 251 & 261

MODULARITY

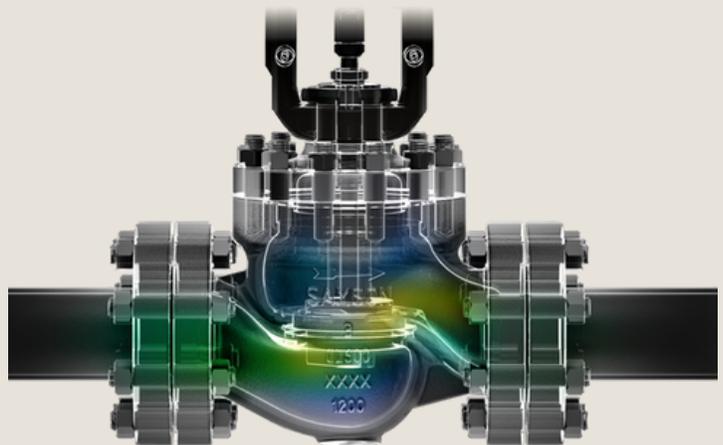


The 251GR utilizes a single valve body that can accommodate cage guided, clamped seat, and threaded seat designs.

The sophisticated construction principle maximizes available solutions with standardized parts. These trim designs allow for standard flow conditions as well as various severe service applications. This also allows for better material management and availability. Increased efficiency and reduced material usage result in fewer valves being required.

The valve body is designed utilizing over 100 years of experience and is validated by state-of-the-art technology, including machine learning algorithm and Computational Fluid Dynamics (CFD).

- Environmentally friendly design
 - Optimized valve geometry
 - Minimized material usage
 - Minimized carbon footprint
- Rugged and robust design
 - Made for tougher applications
- More options in planning and managing flow control with less effort.
- Higher Cv in smaller valves
 - Due to our optimized flow paths
- Best overall performance in class
- Design optimized over all standards



FEATURES AND BENEFITS

Field Reversible Nested Multi-spring Actuator

- Reduced height and weight
- Easily convert between fail actions in the field with minimal effort

Rolling Diaphragm

- Greatly reduces diaphragm wear compared to stretching diaphragm design
- Diaphragm design results in very small external air loss

Low Emission Designs

- Live loaded, low emissions packing
 - Central threaded
 - Bolted and Flanged
 - <100 ppm VOC
- Optional bellows seal
 - 0 ppm VOC

SAMSON Smart Devices

- Easy push-button positioner initialization
- Intrinsically safe and explosion proof options available
- EXPERTPlus diagnostics

Optimized Valve Geometry

- Streamlined flow path for maximum flow capacity and reduced internal wear
- Minimal material usage for reduced weight and carbon footprint

Multi-Stage Stem Diameter

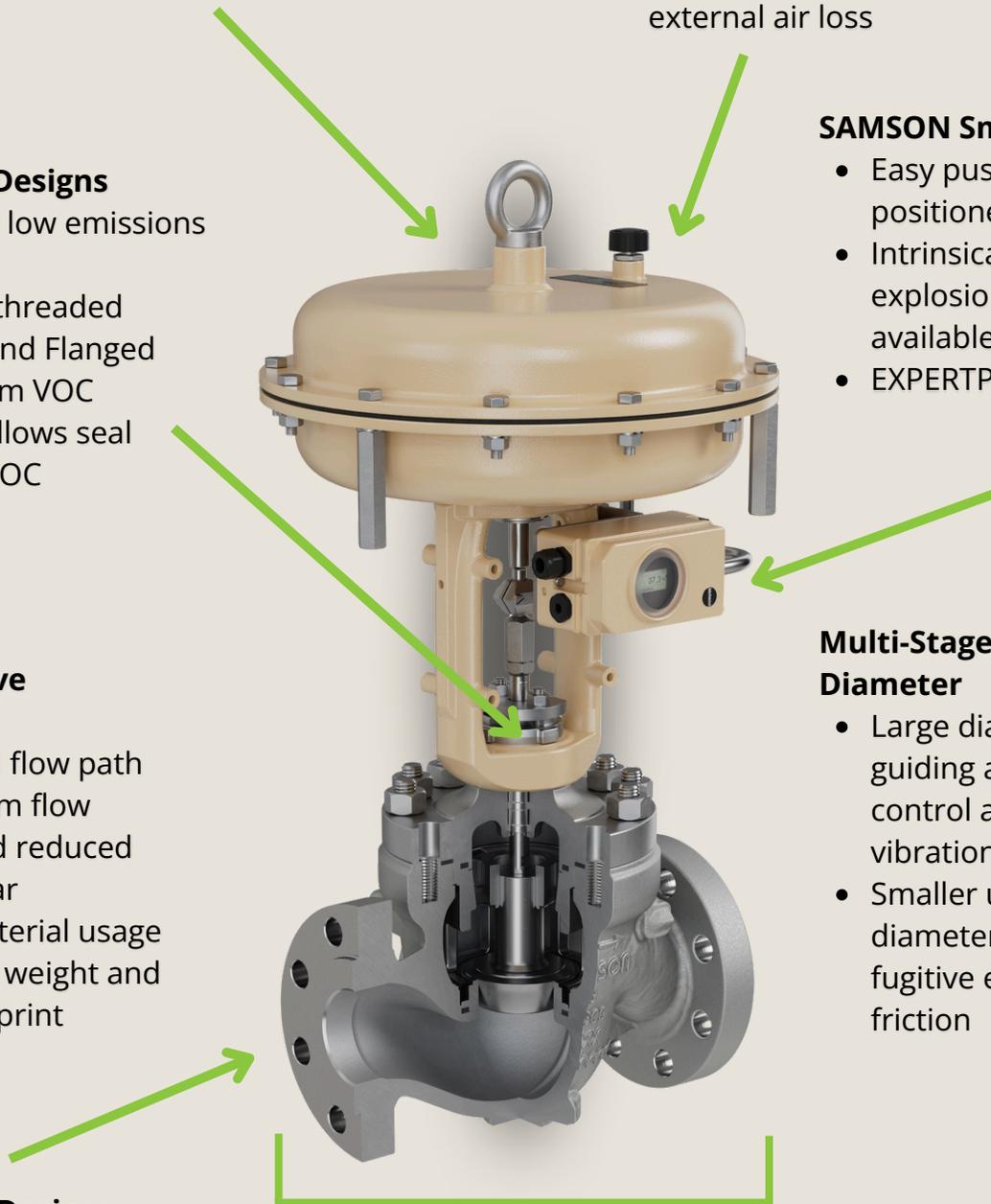
- Large diameter guiding area for stable control and reduced vibration
- Smaller upper diameter to reduce fugitive emissions and friction

Various Trim Designs

- Cage guided
- Top guided
 - Clamped seat
 - Threaded seat

Highest Modularity and Efficiency

- Combines several valve designs in one
- Adaptable to varying process conditions
- Higher CV in smaller valves
- Compact



INTERNAL STRENGTH & APPLICATIONS

Solutions for Critical Flow Conditions.

Specialized trim designs for critical applications

- **Perforated Plug** - Plug design divides flow into smaller flow streams for reduced noise and velocity
- **Flow Divider Cage (FDC1)** - Specifically design hole patterns and diameters reduce noise generated by gases and vapors
- **Anti-Cavitation Cage (ACC1)** - Uniquely design cage hole geometry increases vena contracta pressure to minimize or eliminate cavitation bubble formation in liquid flows



Packing

The 1st line of defense

- Standard live-loaded V-ring packing
 - Maintenance free & self adjusting
 - Available as centrally threaded or flanged/bolted design
- Pure graphite or pure PTFE options
- Adjustable packing options
- Fulfills all major global emission standards
 - EPA Method 21
 - ISO 15848
 - TA-Luft

Special Applications

- **Steam Service** - By making use of metal hardening and sealing surface protection, we provide a variety of solutions to resist wear from these processes.
- **NACE Service** - The 251 NACE version only uses materials in compliance with NACE MR0175/ISO 15156 specifications certified for use with H₂S
- **Toxic and Corrosive Processes** - SAMSON valves are trusted in some of the world's most toxic and hazardous applications. From Phosgene to Hydrofluoric Acid, the 251GR can be customized to overcome the challenges of corrosive applications.



SEVERE SERVICE

261 GR Tackles even the most challenging conditions

- The flow path with redirection, splitting, converging and multi-staging of the medium flow prevents cavitation and reduces noise emissions and erosion
- Available with 3-, 4- and 6-stage trims to match the application parameters (such as pressure drop)
 - To handle cavitation, solid particles and other critical flow conditions
 - Customized for specific operating conditions
- Wide flow path to prevent clogging by solids up to 11 mm/0.4 inch in size
- Zero travel to prevent damage of the sealing area and ensure a tight shut-off over a long period of time
- Pressure balancing available for smaller actuator size



ENGINEERED SOLUTIONS FROM A SINGLE SOURCE

Combined with valve accessories, control valves serve as engineered solutions for many process control applications. SAMSON has been developing and manufacturing high-quality valves, actuators and valve accessories for over 100 years. Our experience and expertise allows us to continuously develop our products to provide a complete solution for your application.

OUR HISTORY AND EXPERTISE

SAMSON's technology has proven its value worldwide 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. The SAMSON product portfolio offers 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 are carefully selected and sized to ensure reliable operation with reduced maintenance requirements. The latest in positioner technology offers precise control, seamless integration into process control systems, and advanced diagnostics to allow for predictive maintenance. The modular design of our products allows customers to benefit from a tailor-made solution at an affordable cost. Furthermore, the interchangeability of spare parts between different valve models and sizes contributes to keeping inventory costs low. 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.

SAMSON
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AIR TORQUE · CERA · VETEC · LEUSCH

SAMSON Controls Inc.

4111 Cedar Blvd. Baytown TX 77523-8588 USA
Phone: +1 281-383-3677 Fax: 281-383-3690

www.samsoncontrols.com



contact-us@samsongroup.com