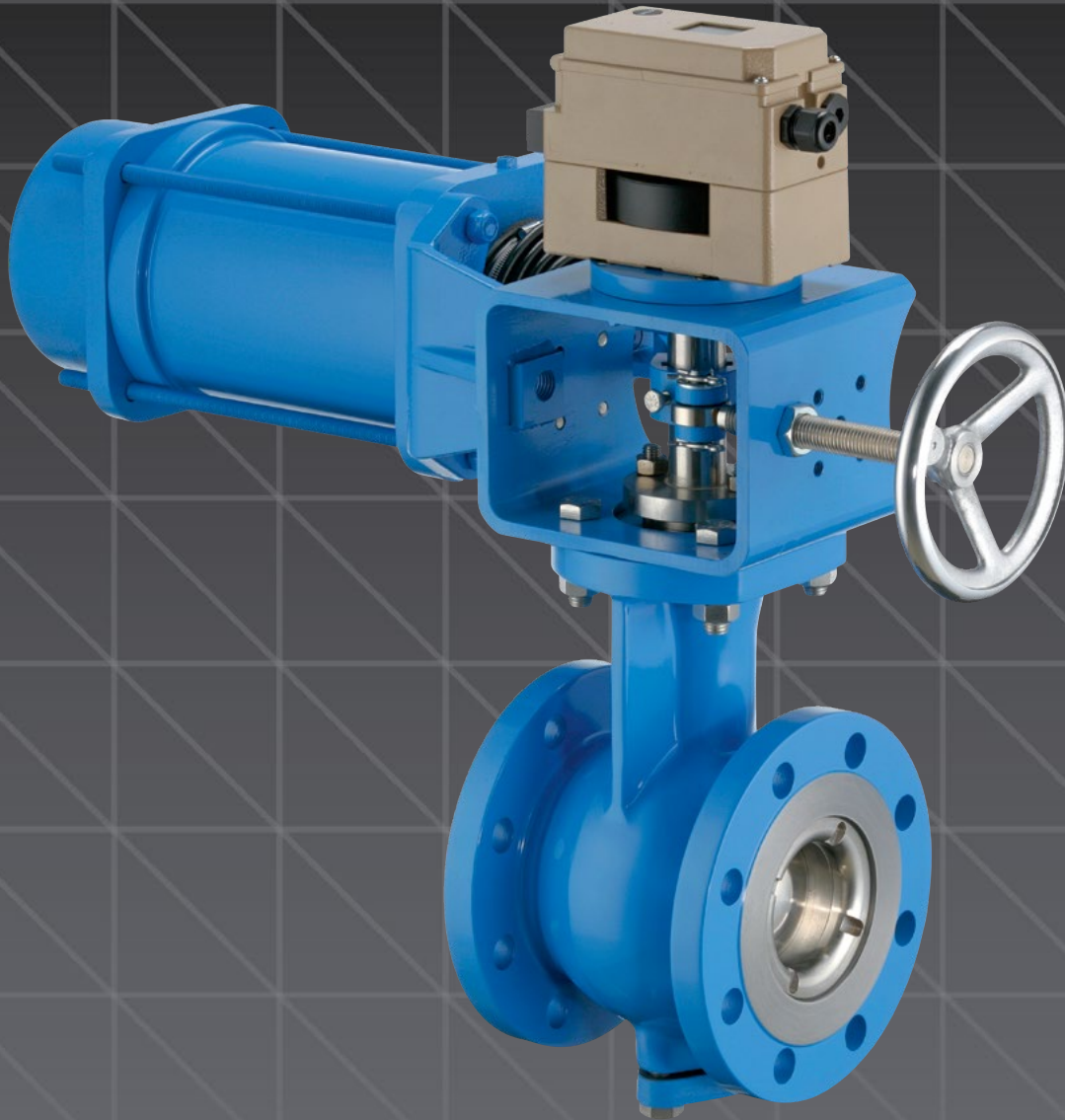
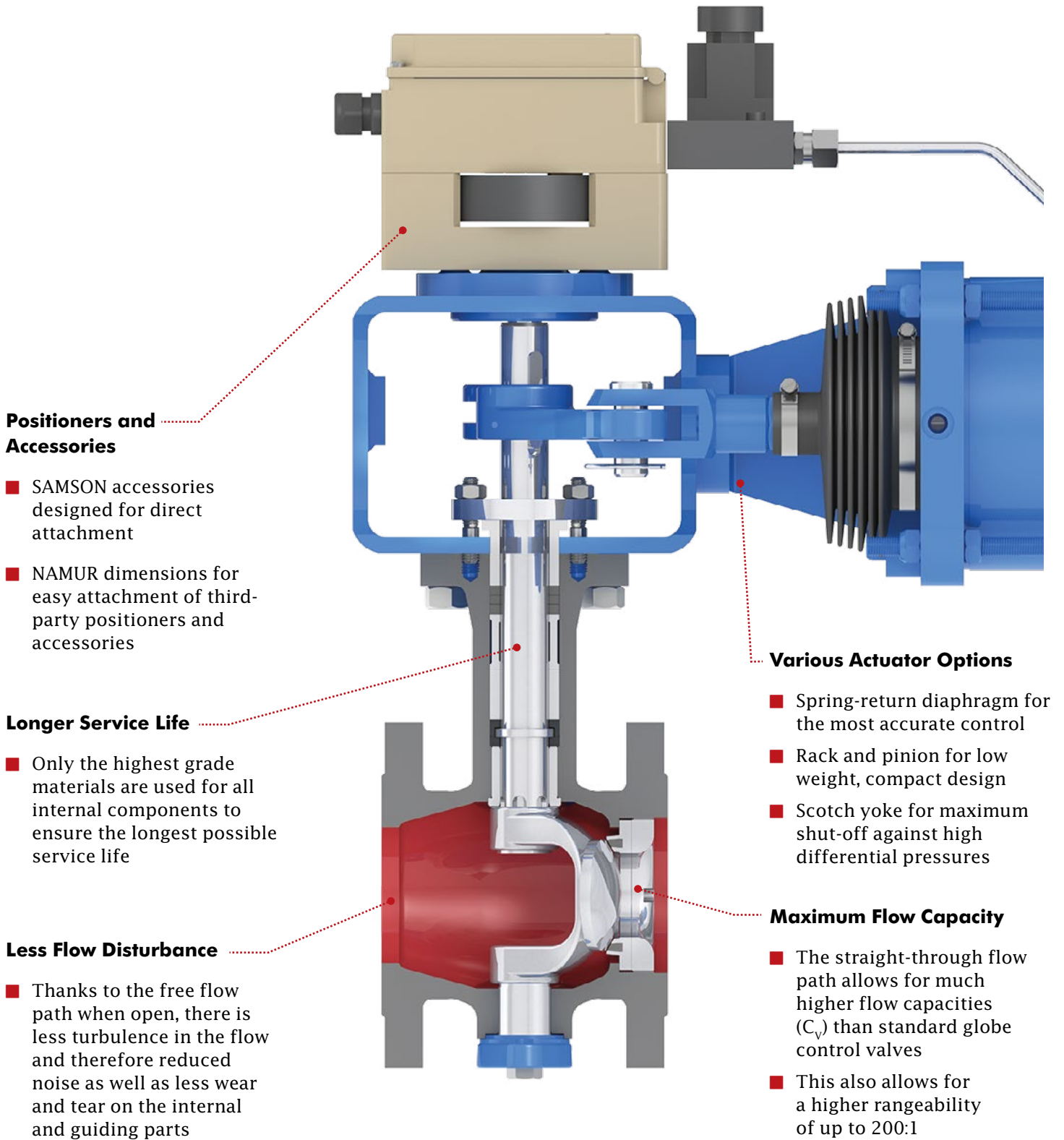


SAMSON 82.7



Double – Eccentric Rotary Plug Valve

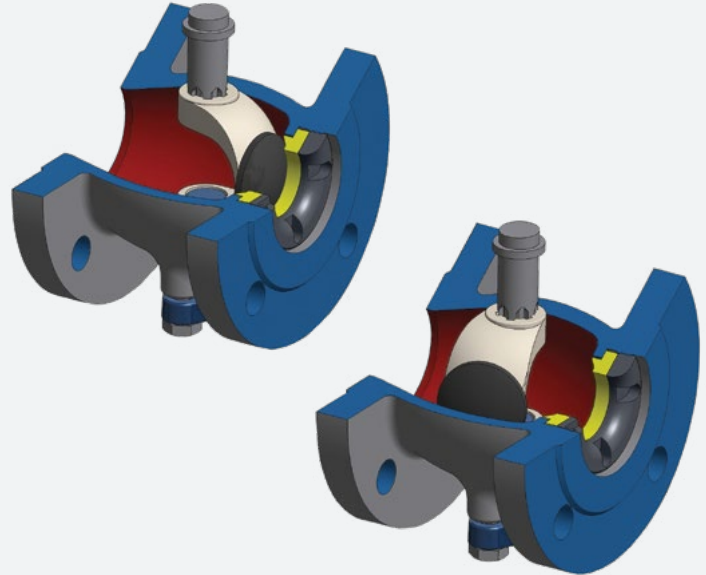
FEATURES AND BENEFITS



DESIGN ADVANTAGES

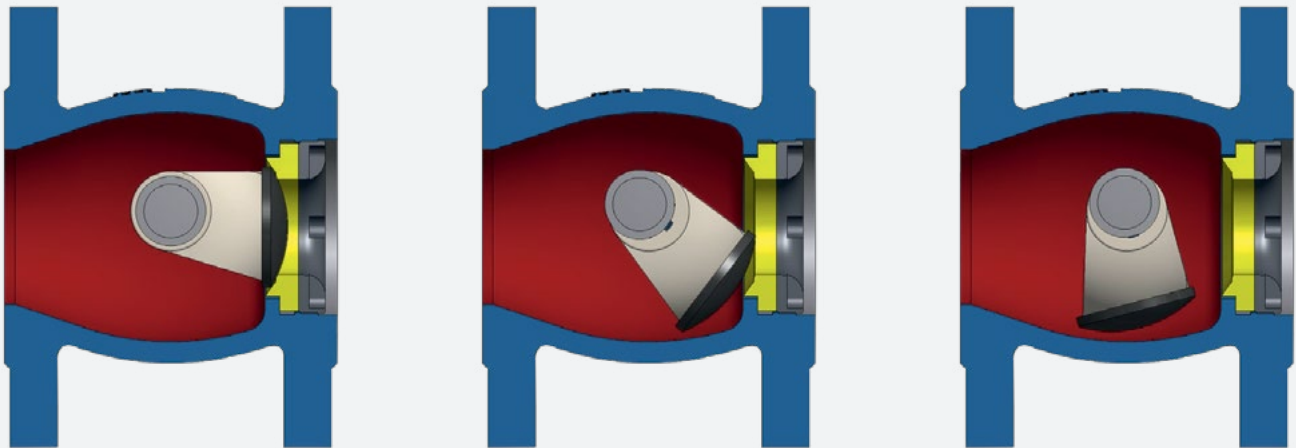
ROTARY PLUG VALVES

- The plug is rotated in and out of the flow path to control either the flow rate passing through the valve or the downstream pressure
- Rotary plug valves are typically used for throttling service due to their excellent control abilities; however, they may also be used for isolation (on/off) applications requiring tight shut-off
- Different types of pneumatic actuators, electric actuators, or manual hand-wheels/gears may be used to operate the valves



DOUBLE-ECCENTRIC DESIGN

- The plug shaft is offset from the centerline of the valve
- The face of the plug is offset from the centerline of the plug shaft



DESIGN BENEFITS OF A DOUBLE-ECCENTRIC ROTARY PLUG VALVE

- Eliminates friction when the valve is opening or closing
- Reduces wear on internal parts
- Reduces the required breakaway torque
- Allows for more accurate control than other rotary valve types

SPECIAL APPLICATIONS

Cavitation and Flashing

INDUSTRIES: All

CHALLENGES: Severe damage caused by the following phenomena;

- Cavitation: Formation of vapor bubbles in a liquid flow during throttling
- Flashing: Phase change from liquid to vapor during throttling

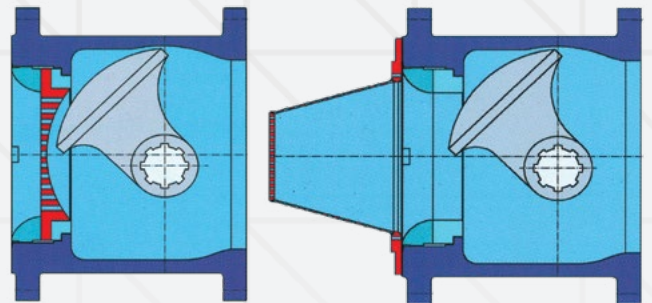


SOLUTION: The straight-through flow path as well as the use of high-quality trim and guiding materials allow the 82.7 to withstand the effects of these phenomena and continue to offer superior service life.

Special Trims for Noise Reduction

INDUSTRIES: All

CHALLENGES: High pressure drops in gaseous/vapor flow or cavitation in liquid flows can often cause severe noise emissions, particularly as flow rates get higher.



SOLUTION: SAMSON offers several low-noise and anti-cavitation options to reduce the sound pressure level (SPL) of the valves.

NACE / Sour Gas Service

INDUSTRIES: Oil & Gas, Refineries

CHALLENGES: When oil and gas are first recovered, hydrogen sulfide (H_2S) may be present, which can cause hydrogen-induced cracking in certain metals.

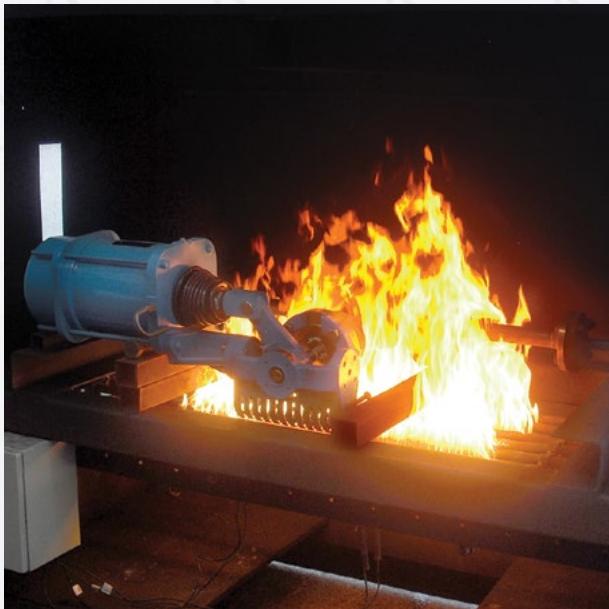
SOLUTION: The 82.7 NACE version uses only materials in compliance with NACE MR0175/ ISO 15156 specifications certified for use with H_2S .

Fire Safe

INDUSTRIES: Oil & Gas, Chemical & Petrochemical, Refineries, Steel plants

CHALLENGES:

- Increased risk of fire in certain areas
- Control valves must be able to withstand fire without catastrophic failure

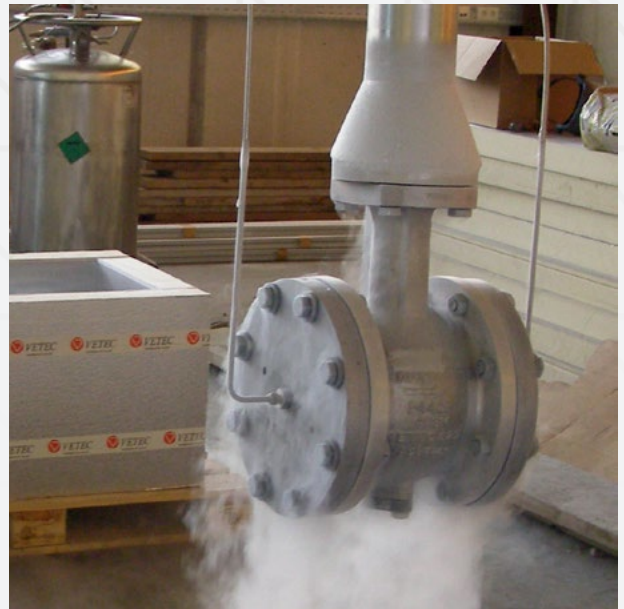


SOLUTION: The 82.7 is fire-safe certified according to API 607 and ISO 10497 for use in these areas.

Cryogenics

INDUSTRIES: Oil & Gas, LNG, Industrial gas production, Refineries, Food & Beverage

CHALLENGES: Extremely low temperatures, typically below -238 °F (-150 °C), can push the material properties to their limits and pose many additional leakage challenges that would not exist at standard operating temperatures.



SOLUTION: The strict machining tolerances and high-quality materials used in the 82.7 allow the valve to function as designed, even in low temperatures down to -320 °F (-196 °C).

In addition, the 82.7 has been typetested and certified according to EN 1626 for use in cryogenic applications.

TECHNICAL DETAILS

Valve Size	NPS 1 to 12
Pressure Rating	ANSI Class 150 and 300
End Connections	RF Flanged
Materials	<ul style="list-style-type: none">■ Carbon Steel (A216 WCC, A352 LC3)■ Stainless Steel (A351 CF8M)■ Special Materials (Monel, Hastelloy C, Duplex, etc.)
Temperature Range	-320 to +1022°F (-196 to 550°C)
Internal Leakage Rate (According to ANSI/FCI 70-2)	<ul style="list-style-type: none">■ Class IV: Metal Seat■ Class VI: Soft Seat
Face-to-Face Dimensions	ANSI/ISA S75.08.02 (IEC 60534-2-3)

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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