

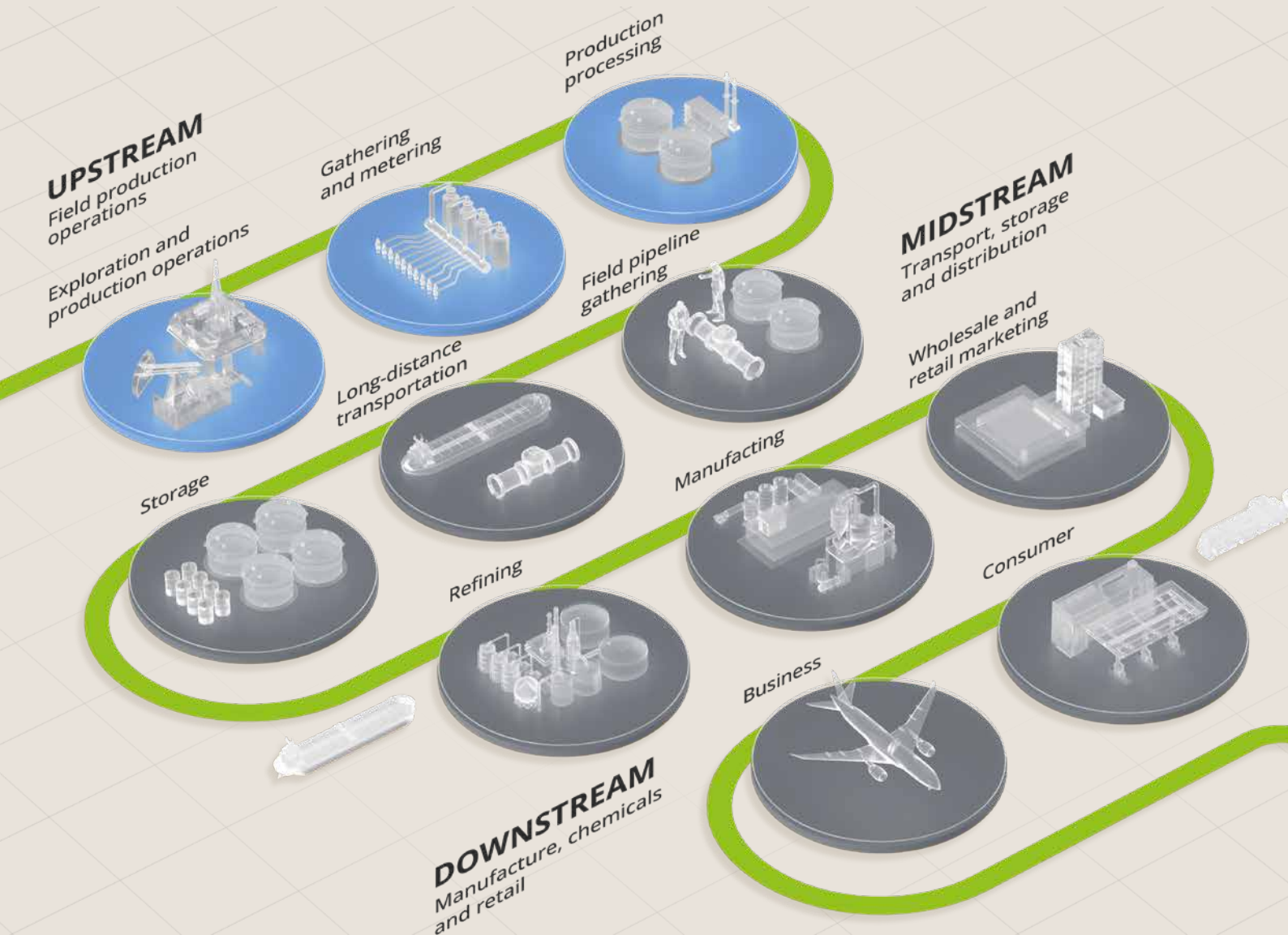
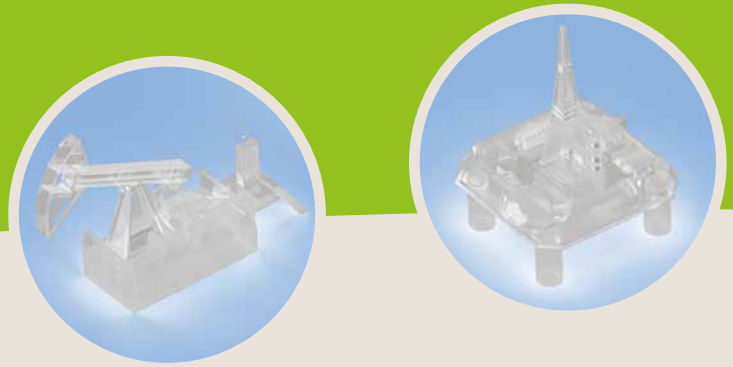
samson

AND
EVERYTHING
FLOWS

**SOLUTIONS
FOR THE
UPSTREAM PROCESS
OIL AND GAS**



EXCELLENCE AND SAFETY





SAMSON stands for operational excellence and safety in the oil and gas industry

For over 100 years, SAMSON has developed valve technology to maximize your plant's productivity and meet the strictest safety standards. Find out how SAMSON can optimize your upstream processes.

Our products are tailor made for use under extreme conditions: onshore or offshore, to handle high pressure drops, corrosive media or severely fluctuating process parameters.

Global projects call for a local presence. With SAMSON's global sales and service network, a competent contact person is never far away. This is how we manage fast deliveries and start-up, provide expert support and offer prime-quality service throughout the entire service life of your plant.

Our products are developed and tested to comply with international standards, such as API 6A/6D, ATEX and SIL. Clearly focused on safety, a long service life and digital diagnostics, we support our customers in minimizing plant downtimes, optimizing plant performance and reliably complying with regulatory requirements.



GLOBAL REFERENCES AND MILESTONES

UPSTREAM APPLICATION MILESTONES IN SAMSON'S OIL AND GAS ACTIVITIES

1 Major **LNG project** off the coast of Australia



2 First **oilfield** off the coast of Norway



3 Integrated project to process **sour crude oil and gas** in Abu Dhabi





4 Offshore gas and condensate production off the coast of southern Vietnam



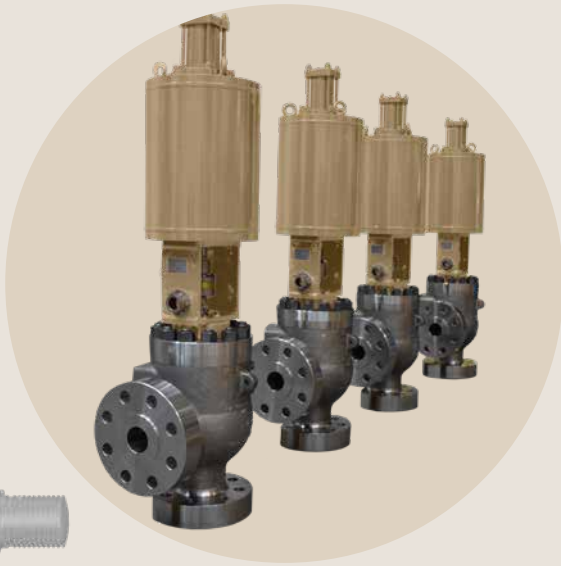
5 FPSO at the coast of North America operating the deepest oil and gas production site worldwide



HIGHLIGHTS

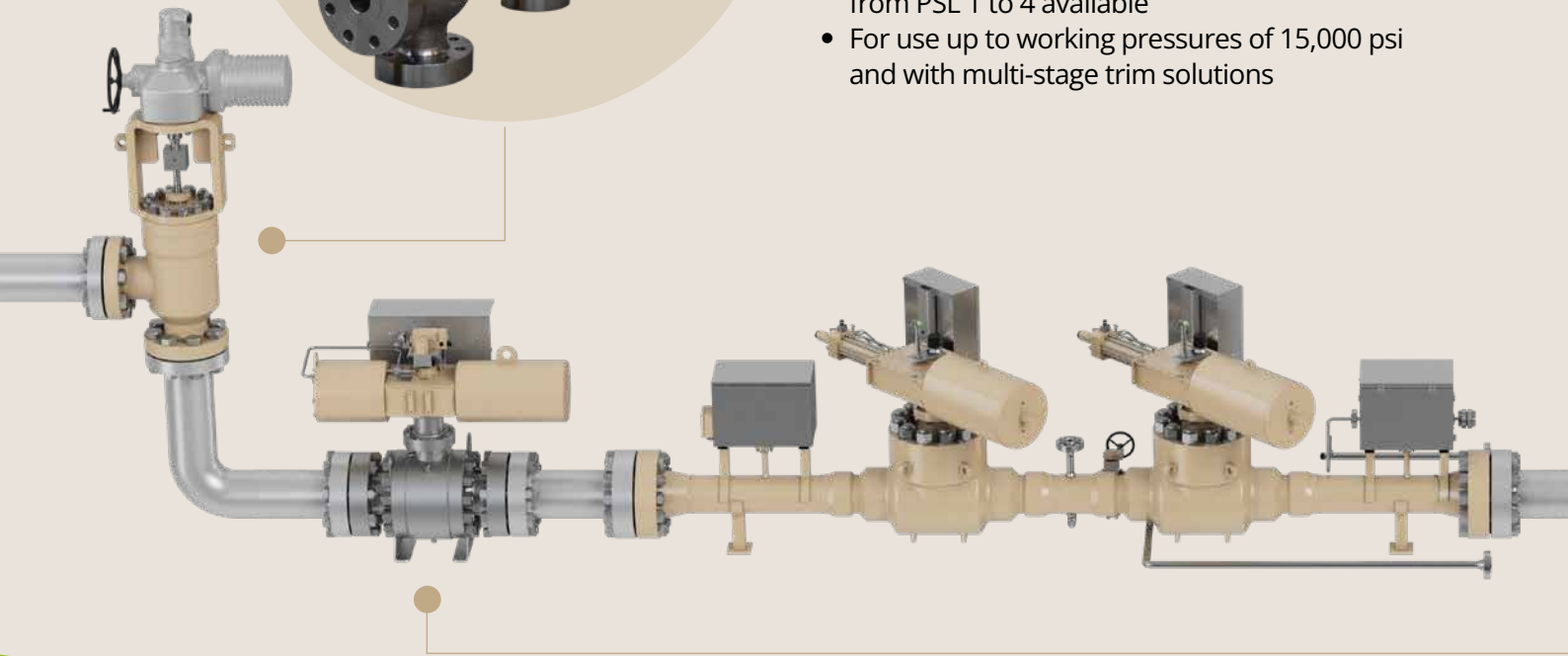
FOR THE UPSTREAM PROCESS

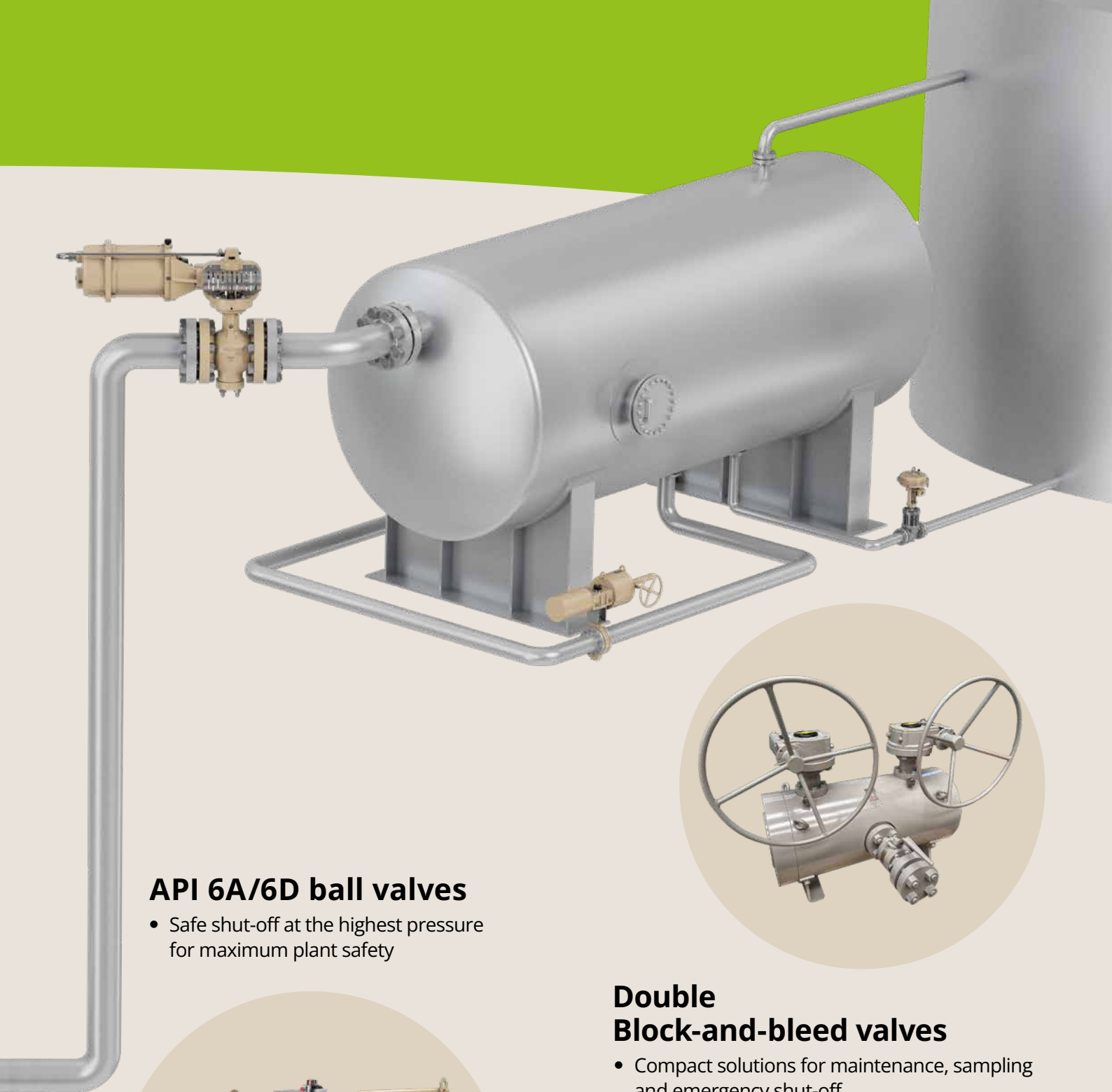
SAMSON has a comprehensive product range for critical control and safety applications in upstream processes. Valve engineering and process equipment manufactured to meet the highest standards and tested to exceed the strictest requirements. Our valves are designed to handle operating pressures of up to 15,000 psi.



Choke valves

- Adjustable chokes for handling high-pressure drops, sour gas, multi-phase flows and J-T conditions
- Certified according to API 6A/6D with quality levels from PSL 1 to 4 available
- For use up to working pressures of 15,000 psi and with multi-stage trim solutions





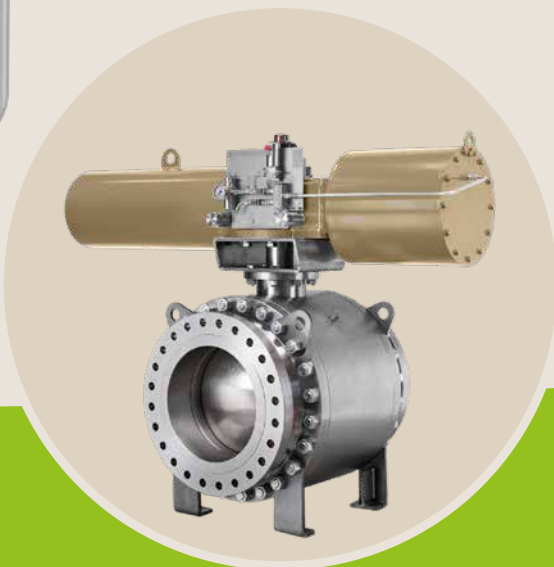
API 6A/6D ball valves

- Safe shut-off at the highest pressure for maximum plant safety



Double Block-and-bleed valves

- Compact solutions for maintenance, sampling and emergency shut-off
- Versions available with metal seat, for cryogenic and high-temperature applications, in API 6A/6D design, compact face-to-face dimensions

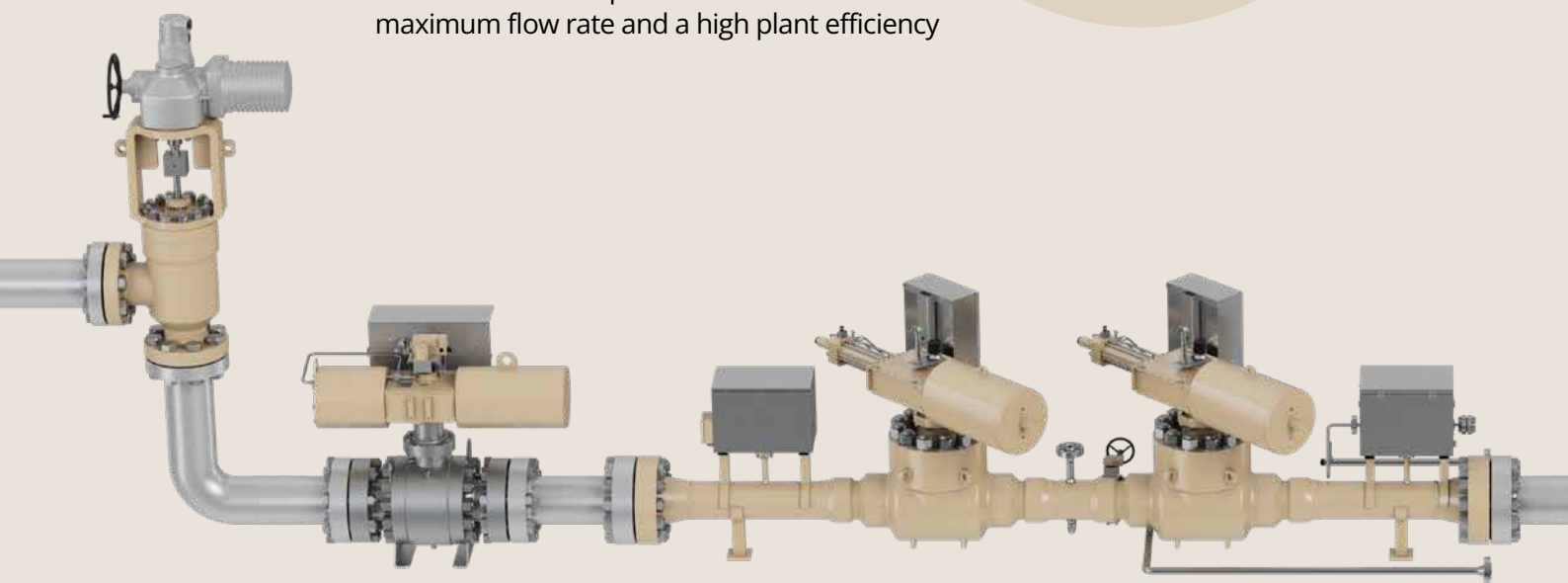
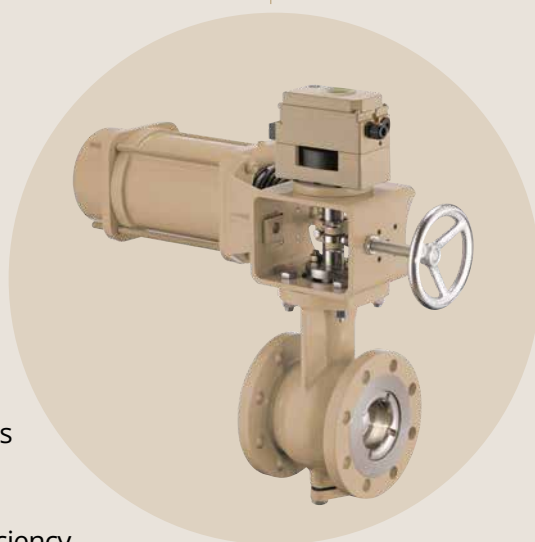


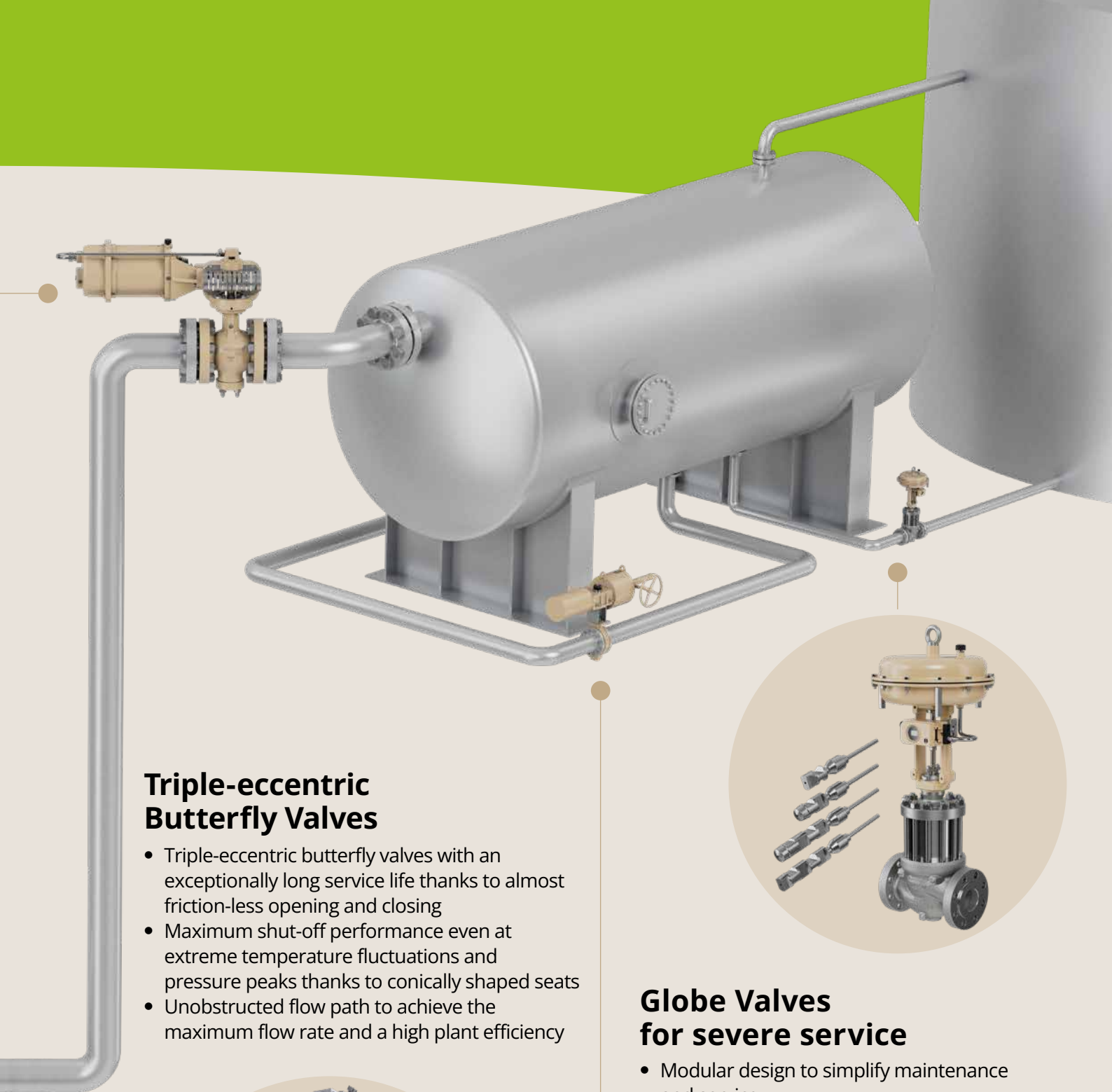
HIGHLIGHTS

FOR THE UPSTREAM PROCESS

Rotary Plug Valves

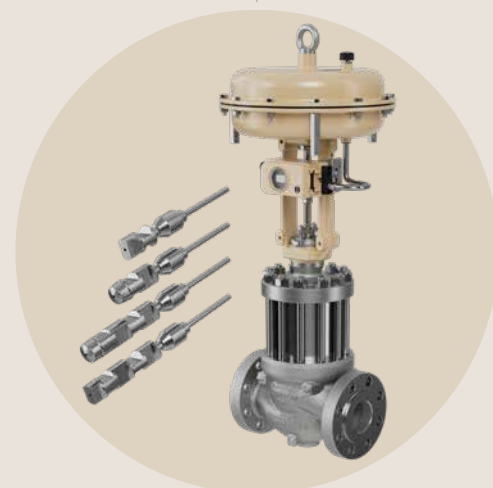
- Perfect to control media containing solids
- Nearly linear control curve possible
- Unobstructed flow path to achieve the maximum flow rate and a high plant efficiency





Triple-eccentric Butterfly Valves

- Triple-eccentric butterfly valves with an exceptionally long service life thanks to almost friction-less opening and closing
- Maximum shut-off performance even at extreme temperature fluctuations and pressure peaks thanks to conically shaped seats
- Unobstructed flow path to achieve the maximum flow rate and a high plant efficiency



Globe Valves for severe service

- Modular design to simplify maintenance and service
- Multi-stage trims to handle media containing solids
- Service on the installed valves to optimize maintenance intervals

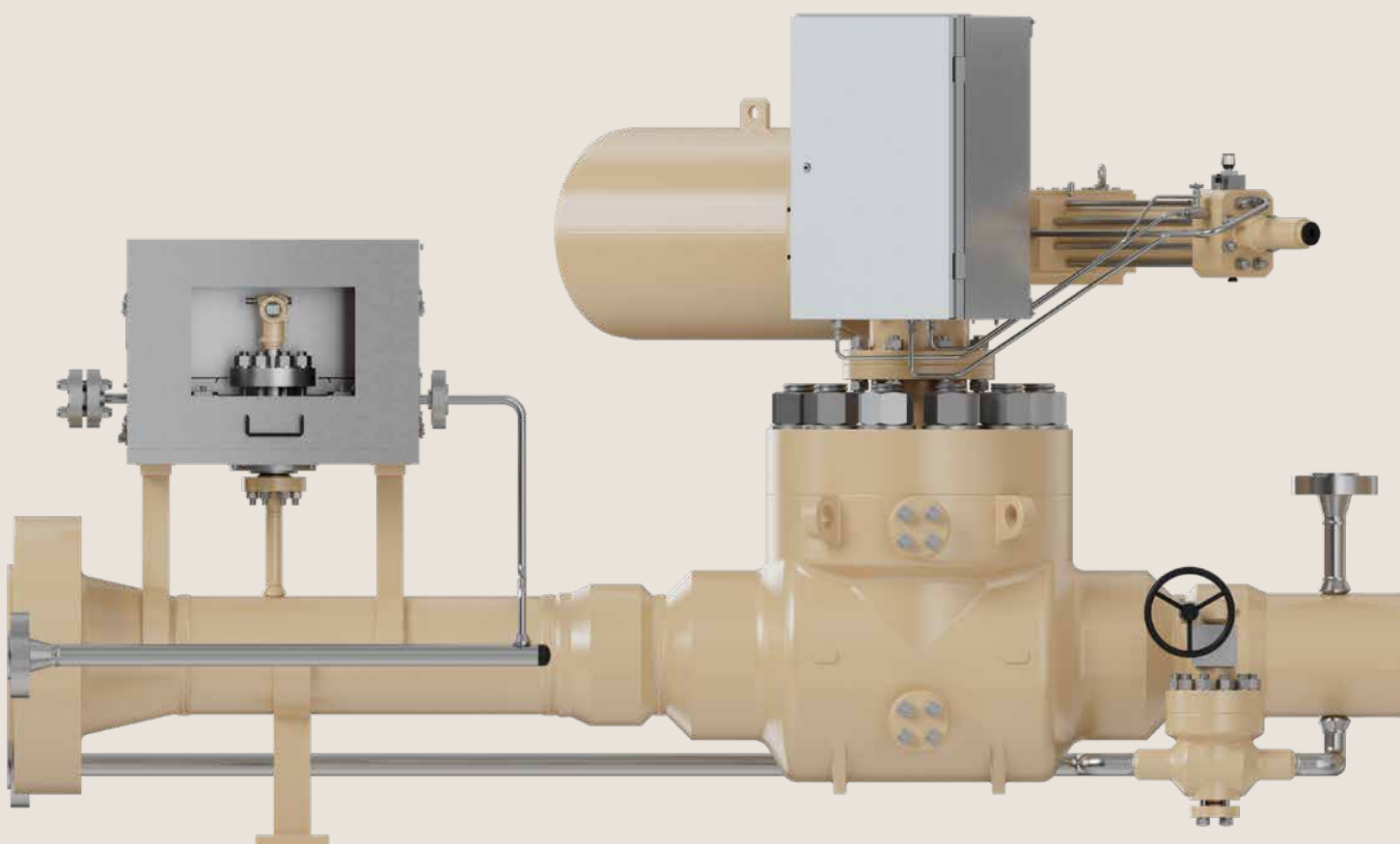
**PROTECT
AND
REDUCE**



High Integrity Manifold Block (HIMB)

PROTECT YOUR CRITICAL ASSETS WHILE REDUCING CAPEX

SAMSON HIPPS is a high-integrity pressure protection system: an advanced, safety-critical technology designed to provide a final layer of protection against overpressure scenarios in the process systems.

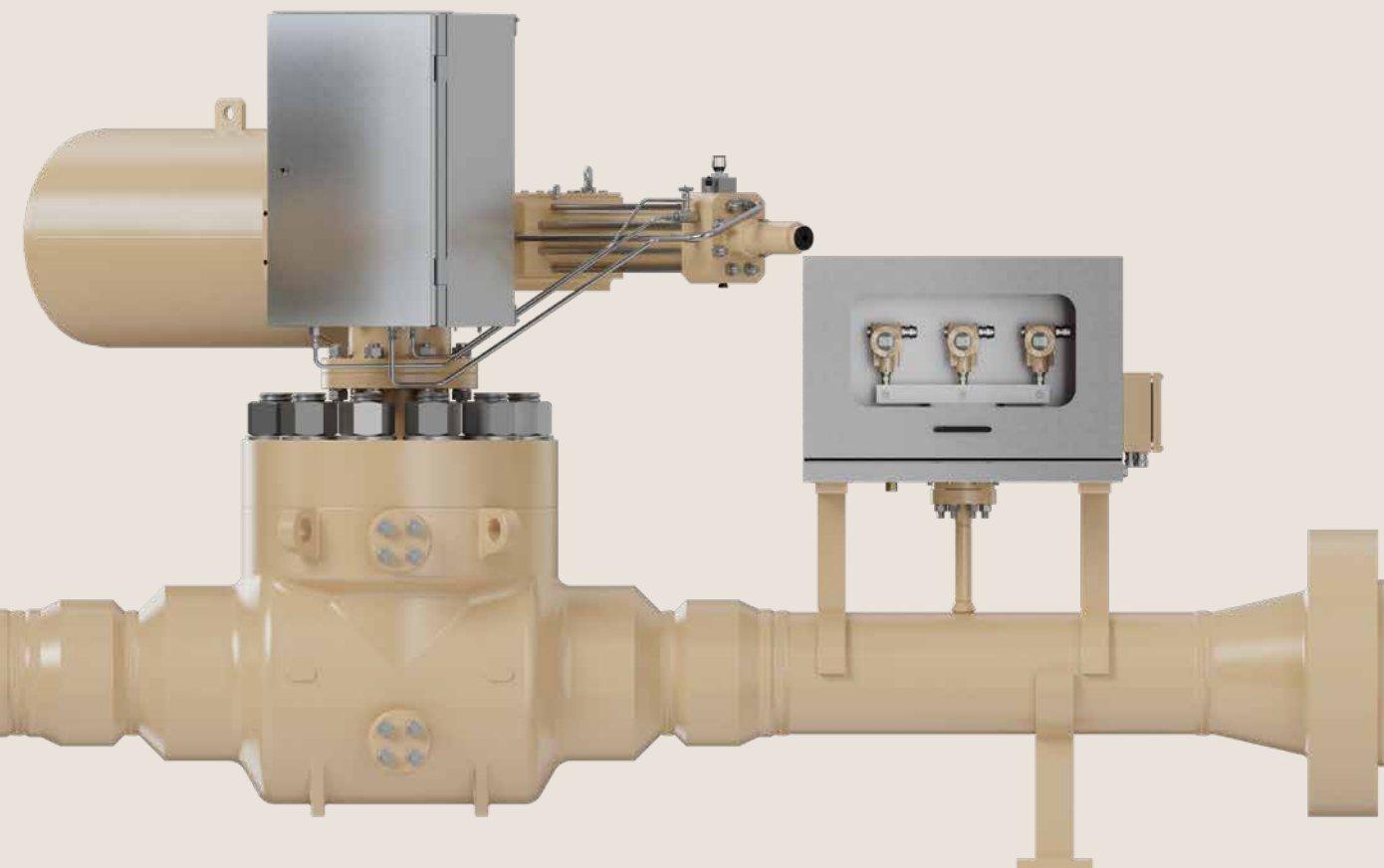


Several units work together to provide an immediate response when critical pressure surges occur:

- Pressure sensors monitor the line pressure (initiators)
- A logic solver processes the signals and decides whether to shut down the plant for safety reasons
- Final Control Element: high-performance valves (such as ball or axial valves) shut off the plant section at risk

SAMSON HIPPS has a number of benefits over classic safety systems:

- HIPPS Components from a Single Source including Interlocking Manifolds, with single point responsibility with complete assembly up to SIL 4 certification
- Flexibility in selecting different types of Final Control Elements - Ball, Axial, Gate and Butterfly Valves
- Global approvals and references for HIPPS Projects:
Heaviest Final Control Element of size 34" 2500 Ball Valve ever made





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