

spirax

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Marshall**
Trusted Partners.
Innovative Solutions.



On-off control simplified!

Energy Conservation | Environment | Process Efficiency

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Spirax Marshall

Forbes Vyncke

For over six decades, Forbes Marshall has been building steam engineering and control instrumentation solutions that work for process industry. Today we have evolved into a leader in process efficiency and energy conservation through technology tie-ups and focused investments in manufacturing and research. Our joint ventures with the world's leading names enable us to deliver quality solutions in 14 countries. Forbes Marshall is probably the only company in the world to have extensive expertise in both steam and control instrumentation. The dual expertise has allowed us to engineer industry specific systems that focus on energy efficiency and utilities management for sectors as diverse as textiles, food processing, paper, power and chemicals.

We have also been adjudged one of India's top "25 Best Places to work - 2008" by Economic Times and the Great Places to Work Institute. Our teams are peopled by some of the finest engineers in the land. These highly trained professionals have developed innovative solutions and saved millions of rupees in process costs for our clients. Our business practices and processes have combined into a singular philosophy of being trusted partners who provide innovative solutions. It's a philosophy we are proud to live up to.

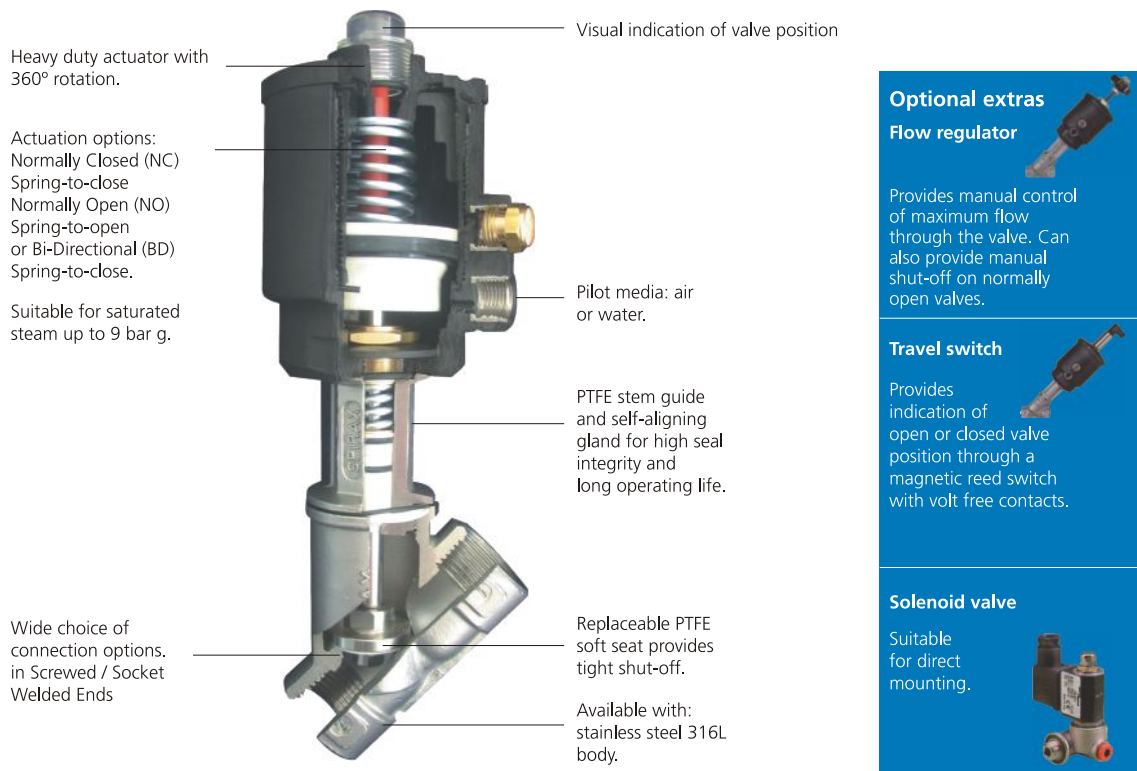
Forbes Marshall began sixty years ago as a company offering steam generation solutions in association with Spirax Sarco of the UK. For decades, we have been designing, manufacturing and supplying steam engineering products and solutions to customers worldwide. Our experience in this area is the benchmark against which all others are compared. While our oldest joint venture is with Spirax Sarco, the world leader in steam engineering, our newest joint venture is with Vyncke Energietechniek, the world leaders in converting biomass into energy.

Spirax Piston actuated valves for on/off control

The Spirax range of piston actuated valves provides a competitive solution for on/off control applications by combining many key benefits in one valve.

A unique quality product designed to meet our customer's needs offering reliability combined with high performance shut-off.

Simplicity is the key to providing a product that will suit the needs of a wide range of industrial applications.



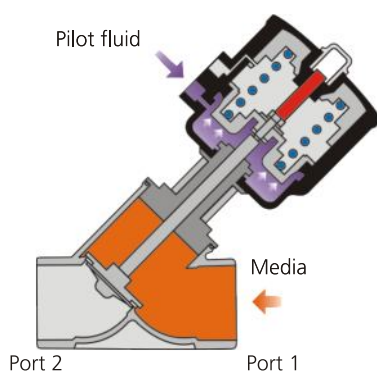
These compact on/off valves provide tight shut-off by utilizing a PTFE plug seal. Valve stem sealing is achieved through self-aligning PTFE chevrons to maximize sealing integrity.

With these features, FM piston actuated valves ensure leakproof isolation up to the range of ANSI class VI. (i.e. bubble tight shut off)

Normally closed and normally open versions are available, as well as a version for special bi-directional flow and anti-water hammer applications. Additional options include a flow regulator, travel switch, and directly mounted solenoid pilot valve.

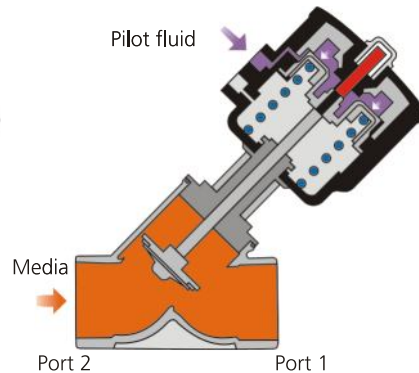
These valves can be used on a wide range of media including steam, air, oil, and other fluids. They can operate at a maximum temperature of 180°C and pressure ratings of PN 25 (upto 1") & PN 16 (1.5" & 2").

Available types



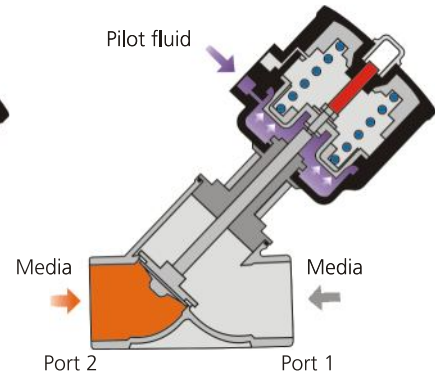
NC (Normally Closed)

These valves are designed for flow over the seat (port 1 to 2). Not recommended for water hammer prevention.



NO (Normally Open)

These valves are designed for flow under the seat (port 2 to 1). Can be used to prevent water hammer on valve closure in liquid applications.



BD (bi-Directional normally closed)

These valves are designed for special applications that require flow in both directions (port 1 to 2 or port 2 to 1) and incorporate anti-water hammer design for liquid applications flowing under the seat (port 2 to 1).

Feature and Benefits

Features

- Normally closed, normally open and bidirectional options
- PTTE soft seal
- Burnished stem guide with self aligning gland
- The actuator can be rotated in 360°
- Visual travel indicator as standard
- Anti water hammer option for liquid flow applications
- Optional magnetic travel switch
- Stainless steel version for use with saturated steam upto 9 bar g
- Optional flow regulator
- Versions available for applications that require bi-directional flow or anti water hammer design
- Optional direct mounted solenoid valves

Benefits

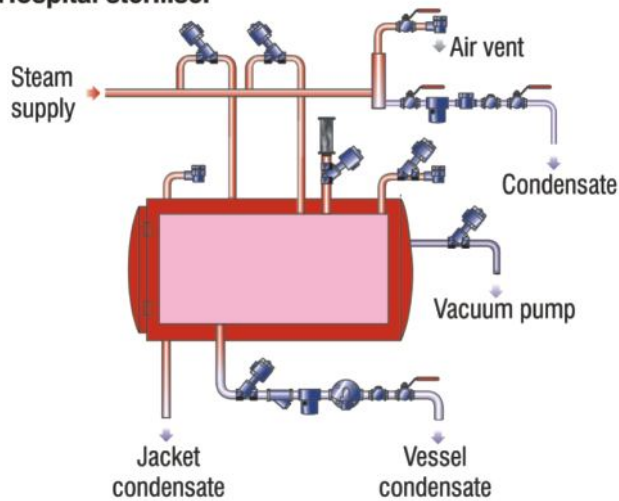
- Suitable for most applications
- Tight shut-off with ANSI class VI isolation
- Long service life
- Pilot media (pneumatic) connection possible around 360°
- Immediate indication of operating status
- Rugged design suitable for adverse plant conditions
- Provision for remote indication of travel status to central plant room, alarm another device, etc.
- Suitable for majority of OEM steam applications
- Matches supply and load demand
- Diverse applications such as CIP (Clean in Place) and higher pressure water systems
- Fully operational compact unit

Typical Industries and applications

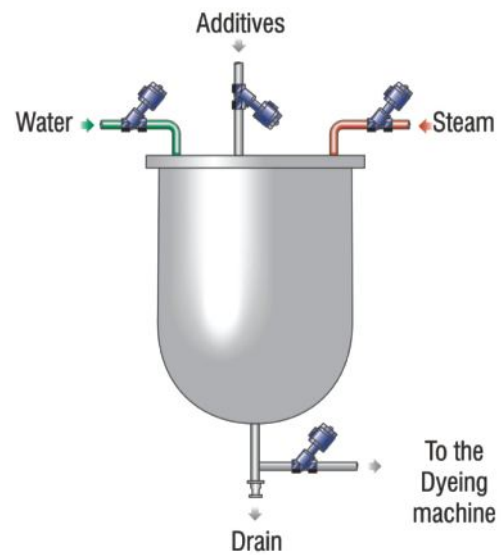
Piston actuated valves the ideal solution for many OEM applications for on/off control including:

Textiles	Food and Beverages	Laundries	and many more
Dyeing machines	Cookers	Washers	Pharmaceutical reactors
Additive mixing	Filling machines	Hot water heating	Hospital sterilisers
Finishing machines	Bottling machines	Dry cleaning	Tyre presses
Caustic washing	Heating cabinets	Tumble driers	Paper driers
Pressing machines	Bottle washers	Extractors	Rubber injectors

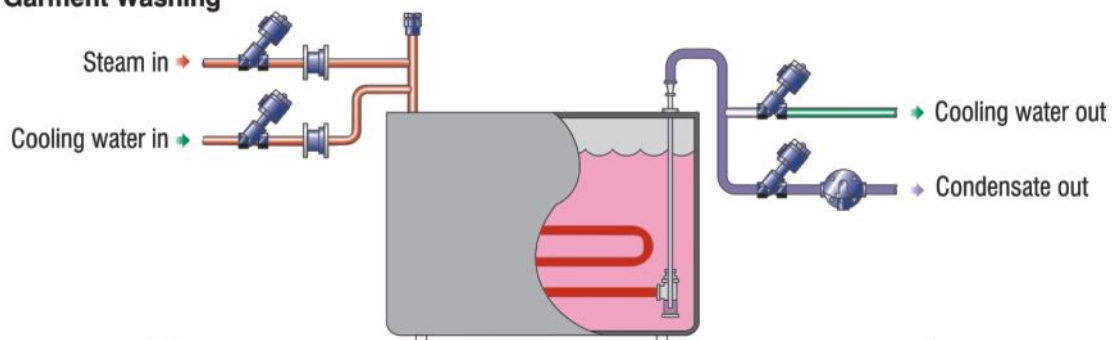
Hospital steriliser



Textile additive



Garment Washing



DCN # SEGSPK0508RZV1 R1

Specifications subject to changes without prior notice

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