

# SPIRA-TROL

general service control valves



**spirax**  
**/sarco**

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## general service control valves

### About the SPIRA-TROL

The SPIRA-TROL has been developed using the very latest in Computational Fluid Dynamics and rapid prototyping techniques to provide a modern valve for today's demanding industries.

The control valve has a modular design concept and incorporates many options within one body envelope. Both ASME (ANSI) and EN versions share the same internals and only three pneumatic actuators are required for valves up to DN200, 8" in size. This leads to a low number of components and a highly flexible system, where one valve can satisfy the needs of numerous industrial requirements. The outcome for the user is a general service control valve with exceptionally low cost of ownership.

### A general service control valve with a winning formula

General service application  
+  
Precise control  
+  
High performance stem sealing  
+  
Long life internals  
+  
Low number of components  
+  
Quick and easy maintenance  
=

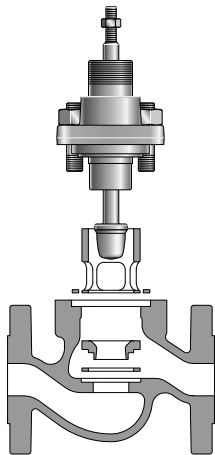
Low cost of ownership  
and higher profits for you



# The range at a glance

Valve name	Valve type	Body materials	Valve sizes	Connections	Flow characteristics	Special trims	Stem seals	Actuation
<b>SPIRA-TROL</b>	2-port globe to ASME (ANSI) or EN	Cast iron	DN15 to DN200	Flanged: ASME 125 ASME 150 ASME 300	Equal percentage	Low noise	Spring loaded chevron	Pneumatic
		SG iron	1/2" to 8"	PN16	Linear	Soft seal	and 'O' ring	Electric
		Carbon steel		PN25	Fast opening	Hard facing		Modulating
		Stainless steel		PN40	Reduced flow including microflute	Balanced option	Graphite	On / Off
		NACE		JIS 10			Bellows	
				JIS 20			Bonnet extension	
				KS 10				
				KS 20				
				Screwed: BSP NPT				
				Socket weld				

## Clamp in place, free float design



All trim components are designed to clamp in place so the valve can be quickly configured to the user's specific process needs.

The free float of the seat and plug during assembly means that stem, plug and seat alignment is easily achieved.

When compared to alternative designs, the free float design provides the user with longer stem seal life and better valve shut-off performance.

The simplicity of build also means that maintenance is quick and easy, with no special tools required to achieve the design performance of the valve.

- Quick to configure
- No special tools required
- Design performance easily achieved after maintenance

## Industries, fluids and applications -

Where the SPIRA-TROL has been frequently used

### Industries

Food  
 Pharmaceutical  
 Rubber  
 Electronics  
 Chemicals  
 Prisons and educational facilities

Beverages  
 Medical  
 Plastics  
 Metals  
 Healthcare

### Fluids

Saturated steam  
 Superheated steam  
 Chilled water  
 Hot water  
 Deionised water  
 Sea water  
 A variety of other chemicals and gases

Lubricant oils  
 Nitrogen  
 Petroleum  
 Natural gas  
 Thermal oils  
 Compressed air

### Applications

Temperature, pressure, level, humidity and flow control

Heat exchangers  
 Pressure vessels  
 Storage vessels  
 Unit heaters  
 Hot water generators

Cooking pans  
 Reactors  
 Ovens  
 Chillers  
 Humidifiers

# Available options

**Reduced flow trim**

Between three and five reduced flow trims per valve size, with further reductions available to special order, allows precise matching to the process load.



**Chevron**      **Graphite**

Valve stem sealing options include PTFE chevrons and high temperature graphite rings.



**Bellows sealed bonnet**

Extended bonnets for high and low temperature service and stainless steel bellows for low maintenance, high temperature and zero emission requirements.



**Standard**      **Low noise**

Simple solutions to aerodynamic noise reduction.



**Trim**

Equal percentage, fast opening and linear flow characteristic for process load matching.

**Micro-flute**

**Soft seal**



# Summary of key features and benefits

Key features	Key reasons	Key benefits
 <p><b>General service application</b></p>	<p>Many body material options.</p> <p>Large number of trim designs including low noise and micro-flute.</p> <p>Electric or pneumatically operated.</p> <p>Easily interfaced with a control system using:</p> <ul style="list-style-type: none"> <li>- Double mount actuator yoke.</li> <li>- A control valve interface device from Spirax Sarco that includes smart and communicating positioners for use in hazardous and non-hazardous environments.</li> </ul>	<p>Standardised control valve for your plant, which minimises maintenance, training and spares inventory.</p>
 <p><b>Precise control</b></p>	<p>Designed using in-house Computational Fluid Dynamics and rapid prototyping to optimise flow paths, flow characteristics and rangeability.</p> <p>Sizing and selection software to determine the most suitable valve configuration.</p> <p>Accurate pneumatic and electric actuators.</p> <p>Optional non-contact feedback positioners.</p>	<p>Excellent control performance across a wide range of applications.</p>
 <p><b>High performance long life stem seal</b></p>	<p>Top and bottom guided valve stem ensures excellent alignment and long stem seal life.</p> <p>Scraper ring and dust ring ensures the stem seal is not damaged by the flow media or particles from the atmosphere.</p> <p>'O' ring ensures excellent sealing on low pressure and temperature media.</p>	<p>Low emissions from the valve stem, which means a better environment and no loss of valuable product or energy.</p> <p>Infrequent seal replacement, leaving maintenance personnel free for other work.</p>
 <p><b>Long life valve internals</b></p>	<p>Hard trim materials as standard on iron and carbon steel valves.</p> <p>Diffused discharge from the seat and plug reduces the possibility of jet stream damage to the body.</p> <p>Large gallery area reduces the flow velocity, which means reduced body erosion and noise.</p>	<p>Fit and forget.</p>
 <p><b>Low number of components</b></p>	<p>Fully modular design through the sizes.</p> <p>ASME (ANSI) and EN valves share the same internals.</p> <p>Two ranges of pneumatic actuators to suit valves up to DN200 / 8".</p>	<p>Highly flexible supply.</p> <p>Minimises spares inventory.</p>
 <p><b>Quick and easy maintenance</b></p>	<p>Standard size fixings eliminating the need for specialist tools.</p> <p>Self-aligning, clamp-in-place internals.</p>	<p>Limited plant downtime.</p>
 <p><b>Low cost of ownership</b></p>	<p>General service application.</p> <p>Excellent control over a wide range of fluids and conditions.</p> <p>Long service life.</p> <p>Low number of components.</p> <p>Quick and easy maintenance.</p>	<p>Larger profits for you.</p>

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Some products, services or solutions may not be available in certain markets

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