



# STERI-TROL™ Aseptic Service 'S' series Two-port Pneumatic Control Valves - DN15 (1/2") to DN100 (4")

## Description

STERI-TROL™ 'S' series are two-port control valves manufactured using 316L stainless steel. They are designed for modulating control of clean steam, pure steam and process fluids. The valve is operated by a pneumatic actuator and may be interfaced with a control system using any of the Spirax Sarco range of positioners.

## Available types

**SB** Two-port angle pattern design with aseptic steam sanitized bonnet

**SA** Two port angle pattern design (for chemical free steam)

## Valve characteristics - options:

**SBE Equal percentage (E)** - Suitable for most modulating process control applications good control providing at low flowrates.

**SBL Linear (L)** - Primarily for liquid flow control where the differential pressure across the valve is constant.

## Approvals and certification

Compliant to ASME BPE SF4 2019, internal surface finish 0.375 µm, FDA, and USP 26 Class VI approved sealing materials.

EN 10204 type 3.1 certificates supplied as standard. Surface finish certificate supplied as standard.

## Valve seating - options:

**V** **White Viton** - USP 26 Class VI approved

## Valve stem sealing - options:

**S** **Metal-to-metal (as standard)** - Stainless steel

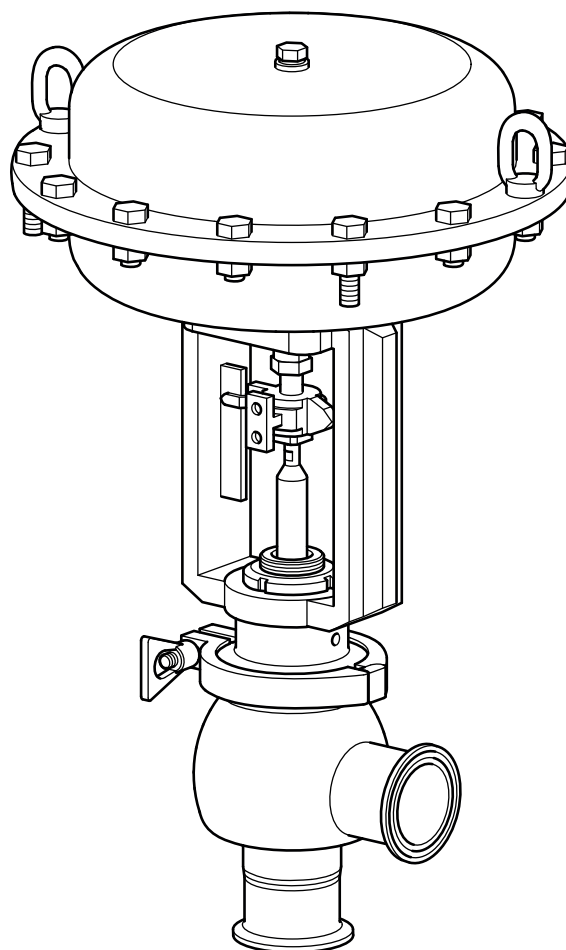
## The STERI-TROL™ can be used with the following actuators and positioners:

**Pneumatic** PNS3000, PNS4000, PN9000E and PN9000R series

PP5 (pneumatic) or EP500 (electropneumatic)

**Positioners** ISP5 (intrinsically safe electropneumatic)

SP500 (smart electropneumatic)



Refer to the relevant actuator Technical Information sheet for further details.

## Maximum differential pressures for Class IV shut-off SB and SA valves

### PNS4000 spring-to-extend actuators

Valve size				DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	
				½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	
K <sub>v</sub>				58	6.3	10	16	25	36	63	100	160	
Travel mm				20 mm						30 mm			
Actuator	Spring range	Positioner required	Minimum air pressure	Maximum differential pressure Class IV (psi)									
PNS4220	0.2 - 1.0	Optional	20	232	203	103	58	35					
	0.2 - 1.0	Yes	29	232	232	232	219	148	77				
	0.2 - 1.0	Yes	43	232	232	232	232	232	184				
	0.2 - 1.0	Yes	58	232	232	232	232	232	232				
PNS4320	0.2 - 1.0	Optional	20	232	232	232	165	110	55				
	0.2 - 1.0	Yes	29	232	232	232	232	232	184				
	0.2 - 1.0	Yes	43	232	232	232	232	232	232				
PNS4420	0.2 - 1.0	Optional	20			232	232	232	6.8				
	0.2 - 1.0	Yes	29			232	232	232	232				
	0.2 - 1.0	Yes	43			232	232	232	232				
PNS4430	0.2 - 1.0	Optional	20							49	29	17	
	0.2 - 1.0	Yes	29							155	100	66	
	0.2 - 1.0	Yes	43							232	217	148	
	0.2 - 1.0	Yes	58							232	232	15.8	

### PN9000 spring-to-extend actuators

Valve size				DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	
				½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	
K <sub>v</sub>				58	6.3	10	16	25	36	63	100	160	
Travel mm				20 mm						30 mm			
Actuator	Spring range	Positioner required		Maximum differential pressure Class IV (psi)									
PN9120R	0.2 - 1.0	Optional		232	232	232	232	232	232				
	0.4 - 17	Optional		232	232	232	232	232	232				
PN9126R	1.0 - 29	Yes		232	232	232	232	232	232				
PN9123R	29 - 58	Yes		232	232	232	232	232	116				
PN9220R	0.2 - 1.0	Optional		232	232	232	232	232	232				
	0.4 - 17	Optional		232	232	232	232	232	232				
PN9226R	1.0 - 29	Yes		232	232	232	232	232	232				
PN9223R	29 - 58	Yes		232	232	232	232	232	232				
PN9320R	0.2 - 1.0	Optional		232	232	232	232	232	232				
	0.4 - 17	Optional		232	232	232	232	232	232				
PN9330R	0.4 - 17	Yes								232	232	232	
PN9336R	1.0 - 29	Yes								232	232	232	
PN9337R	2.5 - 3.5	Yes								116	72	43	

## Technical data

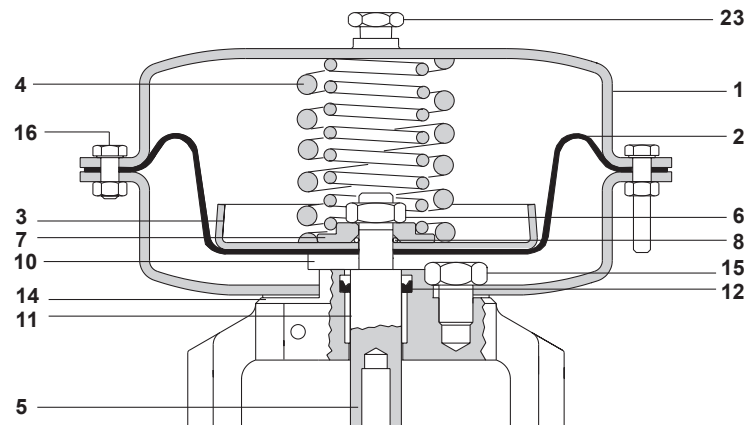
<b>Plug design</b>	DN15 to DN100	Parabolic
<b>Leakage</b>	Metal-to-metal	(0.01% of $K_v$ )
	Soft seal	IEC 534-4 Class VI
<b>Rangeability</b>	Equal percentage	50:1
	Linear	30:1
<b>Travel</b>	DN15 to DN50 ( $\frac{1}{2}$ " to 2")	20 mm ( $\frac{25}{32}$ " )
	DN65 to DN100 ( $2\frac{1}{2}$ " to 4")	30 mm ( $1\frac{3}{16}$ " )
<b>Surface finish</b>	Internal (Mechanical or electro polished)	0.4 $\mu$
	External	< 0.6 $\mu$

## Sizes and end connections

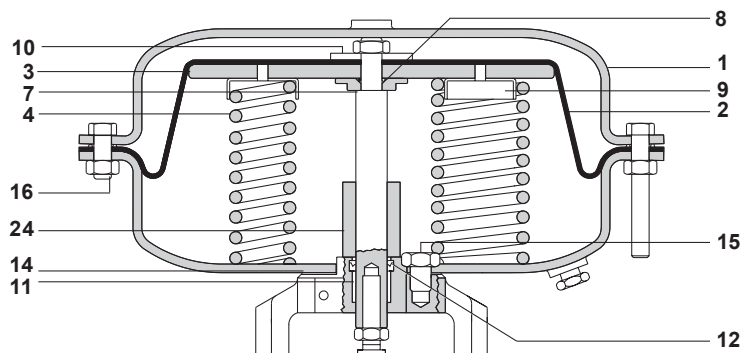
<b>Connections</b>	<b>Size range</b>
Butt weld/tube weld, screwed, flanged and sanitary clamp	DN15, DN20, DN25, DN32, DN40, DN50, DN65, DN80 and DN100
	$\frac{1}{2}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ ", $1\frac{1}{2}$ ", 2", $2\frac{1}{2}$ ", 3" and 4"

- Notes:**
- DN15, DN20 and DN32 is not available for certain end connections - see page 10.
  - If you require a pipe end connection which has not been mentioned within this document, please contact Spirax Sarco sales office for further advice and information regarding availability.

## Materials



**PNS3000 series**



**PNS4000 series**

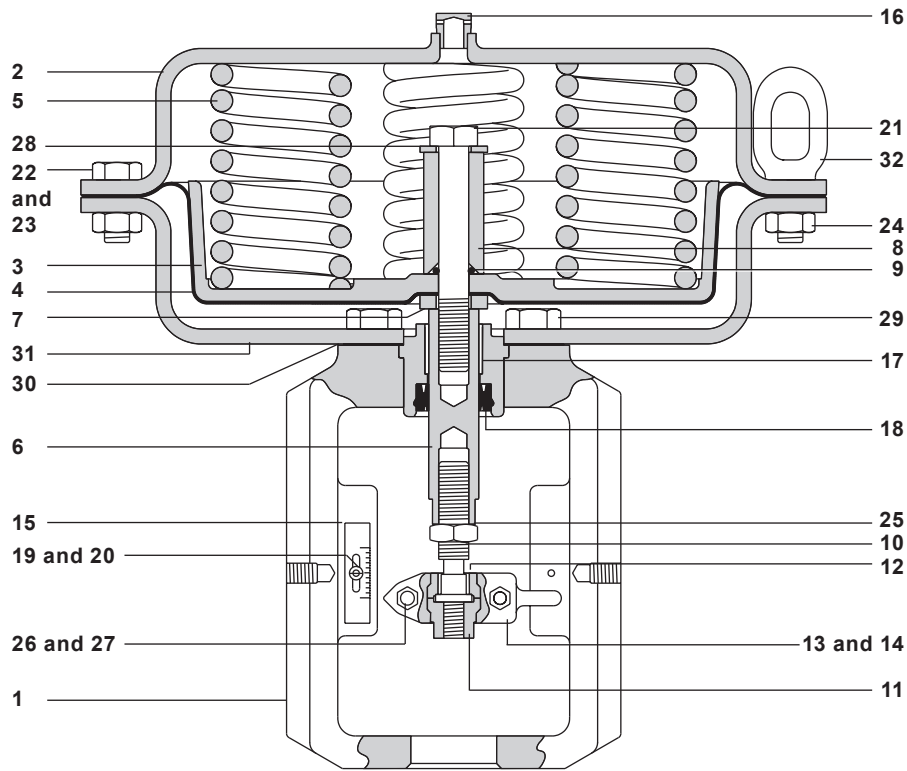
### PNS3000 and PNS4000 series actuators

No. Part	Material
1 Diaphragm housing	Stainless steel 304
2 Diaphragm	Reinforced nitrile rubber
3 Diaphragm plate	Pressed steel
4 Springs	Spring steel
5 Spindle	Stainless steel
6 Lock-nut	Stainless steel
7 Spacer	Zinc plated steel
8 'O' ring	Rubber
9 Spring guide	Zinc plated steel
10 Diaphragm clamp	Zinc plated steel
11 Bearing	Bronze
12 'V' ring	Rubber

No. Part	Material
13 Yoke	Stainless steel 304
14 Gasket	Non asbestos fibre
15 Fixing screwed	Stainless steel
16 Housing bolts and nuts	Stainless steel
17 Top adaptor	Stainless steel
18 Lock-nut	Stainless steel
19 Bottom adaptor	Stainless steel
20 Connectors	Stainless steel
21 Connectors bolts and nuts	Stainless steel
22 Travel indicator	Aluminium
23 Cap (with vent hole)	Nickel plated brass
24 Spacer	Zinc plated steel

**Materials (continued)**

**PN9000**



**PN 9000 series actuators**

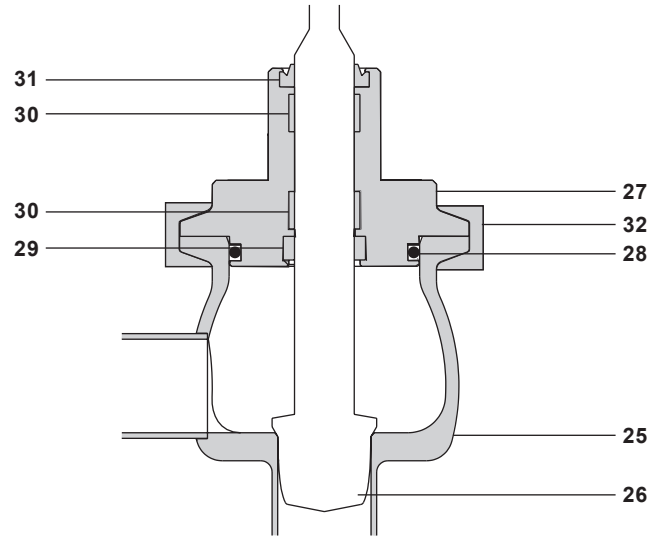
No.	Part	Material
1	Yoke	SG iron
2	Upper diaphragm housing	Carbon steel (plated)
3	Diaphragm plate	Aluminium
4	Diaphragm	Reinforced NBR
5	Spring	Spring steel
6	Spindle	Stainless steel
7	Washer	Carbon steel (plated)
8	Spacer	Carbon steel (plated)
9	'O' ring	Viton
10	Connector	Carbon steel (plated)
11	Adaptor	Carbon steel (plated)
12	Collar	Carbon steel (plated)
13	Clamp front	Stainless steel
14	Clamp rear	Stainless steel
15	Scale	Stainless steel
16	Vent plug	Brass
17	Bearing	PTFE/steel composite

No.	Part	Material
18	Seal	Polyurethane
19	Pan head screw	Carbon steel (plated)
20	Nyloc nut	Carbon steel (plated)
21	Bolt	Carbon steel (plated) Gr. 8.8
22	Hex. head screw (short)	Carbon steel (plated) Gr. 8.8
23	Hex. head screw (long)	Carbon steel (plated) Gr. 8.8
24	Nut	Carbon steel (plated) Gr. 8.8
25	Lock-nut	Carbon steel (plated)
26	Socket head screw	Carbon steel (plated) Gr. 8.8
27	Nut	Carbon steel (plated) Gr. 8.8
28	Washer	Carbon steel (plated)
29	Screw	Carbon steel (plated) Gr. 8.8
30	Gasket	Reinforced graphite
31	Lower diaphragm housing	Carbon steel (plated)
32	Lifting eye	Cast steel

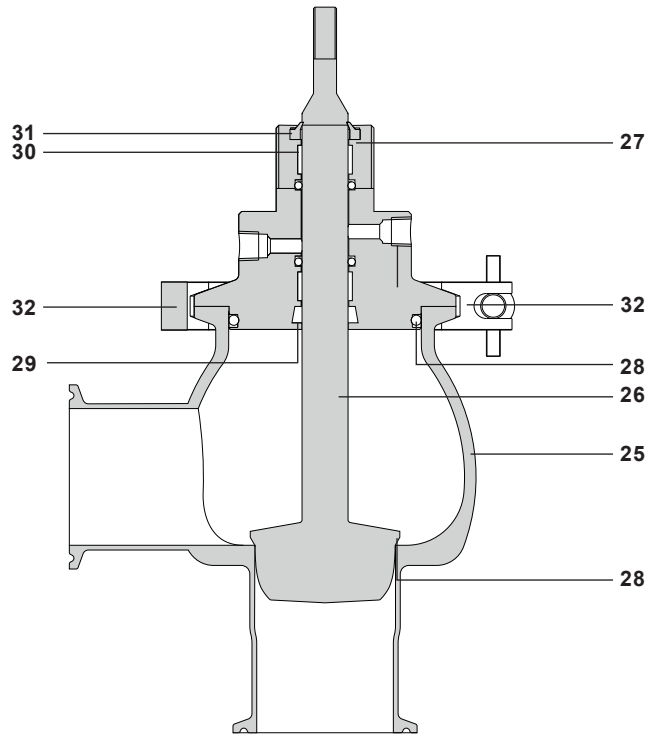
**Materials (continued)**

**SA and SB control valves**

No.	Part	Material
25	Body	Stainless steel ASTM A479-316L
26	Valve plug, stem and soft seal	Stainless steel ASTM A479-316L Stainless steel 316L
27	Bonnet	Stainless steel ASTM A479-316L
28	Body seal	Viton (FKM)
29	Stem seal	Viton (FKM)
30	Stem bushes	PTFE-FC
31	Seal washer	White Viton or EPDM
32	Body clamp	Stainless steel 304

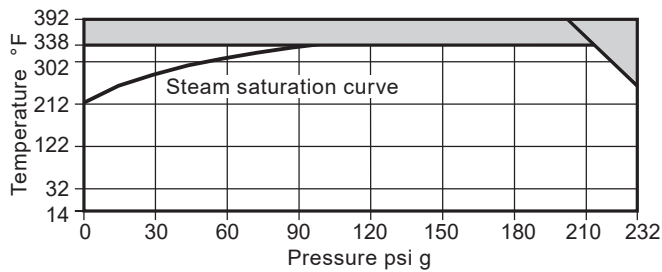


**SA 2-port control valve**



**SB 2-Port control valve with aseptic steam sanitized bonnet (Provided as standard)**

## Pressure/temperature limits



The product **must not** be used in this region.

**Viton (V)** stem seals must be selected for use in this region.

Body design conditions	PN16
Maximum design pressure	232 psi g @ 248 °F
Maximum design temperature	392 °F @ 203 bar g
Minimum design temperature	-4 °F
Maximum operating temperature	Viton (FKM) (V) 338°F
Minimum operating temperature	14 °F
<b>Note:</b> For lower operating temperatures consult Spirax Sarco.	
Maximum differential pressure	See pages 7 to 12
Designed for a maximum cold hydraulic test pressure of:	348 psi g

## K<sub>v</sub> values (SB and SA models)

Flow characteristic	Valve size	K <sub>v</sub> by valve size and trim reduction								
		DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
		½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"
	Travel	20 mm ( <sup>25</sup> / <sub>32</sub> "					30 mm (1 <sup>3</sup> / <sub>16</sub> "			
Equal percentage and linear	Standard	4	6.3	10	16	25	36	63	100	160
	Reduction 1	-	4	6.3	10	16	25	36	63	100
	Reduction 2	-	-	4	6.3	10	16	25	36	63
	Reduction 3	-	-	-	4	6.3	10	16	25	36

## Micro-flow trim for all valves ≤ DN25

Micro-flow trim	Travel	20 mm ( <sup>25</sup> / <sub>32</sub> "				
	Trim size	⅛"	⅜"	¼"	¼"	⅜"
Linear characteristic	K <sub>v</sub>	0.4	0.63	1.0	1.6	2.5

For conversion:  $K_v = C_v(US) \times 0.855$      $C_v(UK) = C_v(US) \times 0.833$

## Maximum differential pressures for Class IV shut-off SB and SA valves

### PNS3000 spring-to-extend actuators

Valve size			DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
			½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"
K <sub>V</sub>			58	6.3	10	16	25	36	63	100	160
Travel mm			20 mm ( <sup>25</sup> / <sub>32</sub> "						30 mm (1 <sup>3</sup> / <sub>16</sub> "		
Actuator	Spring range	Positioner required	Maximum differential pressure Class IV (psi)								
PNS3220	0.2 - 1.0	Optional	120	59	20						
	0.4 - 17	Optional	232	203	103	58	35				
PNS3320	0.2 - 1.0	Optional	232	232	232	58	35				
	0.4 - 17	Optional	232	232	232	165	110	55			
PNS3326	1.0 - 43	Yes	232	232	12.8	232	232	184			
PNS3420	0.2 - 1.0	Optional	232	232	232	111	72	33			
	0.4 - 17	Optional	232	232	232	232	185	98			
PNS3426	1.0 - 43	Yes			232	232	232	232			
PNS3430	0.4 - 17	Optional							49	29	17
PNS3436	1.0 - 43	Yes							155	100	66

### PN9000 spring-to-extend actuators

Valve size			DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
			½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"
K <sub>V</sub>			58	6.3	10	16	25	36	63	100	160
Travel mm			20 mm ( <sup>25</sup> / <sub>32</sub> "						30 mm (1 <sup>3</sup> / <sub>16</sub> "		
Actuator	Spring range	Positioner required	Maximum differential pressure Class IV (psi)								
PN9120E	0.4 - 17	Optional	203	116	58	29	14	-			
PN9126E	1.0 - 29	Yes	232	232	217	130	87	43			
PN9123E	29 - 58	Yes	232	232	232	232	217	116			
PN9220E	0.2 - 1.0	Optional	232	232	145	87	43	1.0			
	0.4 - 17	Optional	232	232	232	217	145	72			
PN9226E	1.0 - 29	Yes	232	232	232	232	232	232			
PN9223E	29 - 58	Yes	232	232	232	232	232	232			
PN9320E	0.2 - 1.0	Optional	232	232	232	203	145	72			
	0.4 - 17	Optional	232	232	232	232	232	129			
PN9330E	0.4 - 17	Yes							87	58	43
PN9336E	1.0 - 29	Yes							232	129	116
PN9337E	2.5 - 3.5	Yes							232	232	232



## Valve dimensions (approximate in inches)

Valve Size	Connection and Dimensions								
	Tube end		Threaded	Sanitary clamp	Flanged	Dimensions common to all connections			
	A	B	A and B	A and B	A and B	B1	C	D	E
DN15	2 <sup>3</sup> / <sub>4</sub> "	1 <sup>5</sup> / <sub>16</sub> "	-	12 <sup>1</sup> / <sub>32</sub> "	3 <sup>35</sup> / <sub>64</sub> "	3 <sup>5</sup> / <sub>64</sub> "	2 <sup>33</sup> / <sub>64</sub> "	1 <sup>11</sup> / <sub>16</sub> "	2 <sup>13</sup> / <sub>64</sub> "
DN20	2 <sup>3</sup> / <sub>4</sub> "	1 <sup>1</sup> / <sub>32</sub> "	-	14 <sup>7</sup> / <sub>64</sub> "	3 <sup>47</sup> / <sub>64</sub> "	5 <sup>5</sup> / <sub>8</sub> "	2 <sup>33</sup> / <sub>64</sub> "	1 <sup>11</sup> / <sub>16</sub> "	2 <sup>13</sup> / <sub>64</sub> "
DN25	2 <sup>3</sup> / <sub>4</sub> "	1 <sup>37</sup> / <sub>64</sub> "	2 <sup>11</sup> / <sub>64</sub> "	2 <sup>3</sup> / <sub>8</sub> "	3 <sup>15</sup> / <sub>16</sub> "	2 <sup>5</sup> / <sub>32</sub> "	2 <sup>7</sup> / <sub>8</sub> "	2 <sup>1</sup> / <sub>4</sub> "	3 <sup>5</sup> / <sub>32</sub> "
DN32	2 <sup>3</sup> / <sub>4</sub> "	1 <sup>11</sup> / <sub>16</sub> "	2 <sup>19</sup> / <sub>32</sub> "	2 <sup>35</sup> / <sub>64</sub> "	4 <sup>9</sup> / <sub>64</sub> "	2 <sup>9</sup> / <sub>32</sub> "	2 <sup>51</sup> / <sub>64</sub> "	2 <sup>1</sup> / <sub>4</sub> "	3 <sup>5</sup> / <sub>16</sub> "
DN40	2 <sup>3</sup> / <sub>4</sub> "	1 <sup>59</sup> / <sub>64</sub> "	2 <sup>3</sup> / <sub>4</sub> "	2 <sup>3</sup> / <sub>4</sub> "	4 <sup>17</sup> / <sub>32</sub> "	1 <sup>1</sup> / <sub>16</sub> "	3 <sup>5</sup> / <sub>32</sub> "	2 <sup>1</sup> / <sub>4</sub> "	3 <sup>45</sup> / <sub>64</sub> "
DN50	3 <sup>11</sup> / <sub>32</sub> "	2 <sup>1</sup> / <sub>8</sub> "	3 <sup>15</sup> / <sub>64</sub> "	3 <sup>1</sup> / <sub>2</sub> "	4 <sup>59</sup> / <sub>64</sub> "	1 <sup>17</sup> / <sub>64</sub> "	3 <sup>37</sup> / <sub>64</sub> "	2 <sup>9</sup> / <sub>16</sub> "	4 <sup>9</sup> / <sub>16</sub> "
DN65	4 <sup>9</sup> / <sub>64</sub> "	2 <sup>43</sup> / <sub>64</sub> "	4 <sup>9</sup> / <sub>64</sub> "	3 <sup>1</sup> / <sub>2</sub> "	5 <sup>45</sup> / <sub>64</sub> "	1 <sup>1</sup> / <sub>16</sub> "	3 <sup>47</sup> / <sub>64</sub> "	3 <sup>1</sup> / <sub>32</sub> "	4 <sup>31</sup> / <sub>64</sub> "
DN80	4 <sup>9</sup> / <sub>64</sub> "	3 <sup>17</sup> / <sub>64</sub> "	4 <sup>21</sup> / <sub>64</sub> "	3 <sup>3</sup> / <sub>4</sub> "	6 <sup>7</sup> / <sub>64</sub> "	2 <sup>3</sup> / <sub>64</sub> "	4 <sup>49</sup> / <sub>64</sub> "	3 <sup>1</sup> / <sub>32</sub> "	6 <sup>17</sup> / <sub>32</sub> "
DN100	5 <sup>1</sup> / <sub>8</sub> "	3 <sup>25</sup> / <sub>32</sub> "	5 <sup>29</sup> / <sub>32</sub> "	4 <sup>1</sup> / <sub>2</sub> "	6 <sup>57</sup> / <sub>64</sub> "	2 <sup>23</sup> / <sub>64</sub> "	5 <sup>15</sup> / <sub>64</sub> "	3 <sup>13</sup> / <sub>16</sub> "	7 <sup>3</sup> / <sub>32</sub> "

## Valve weights (lb)

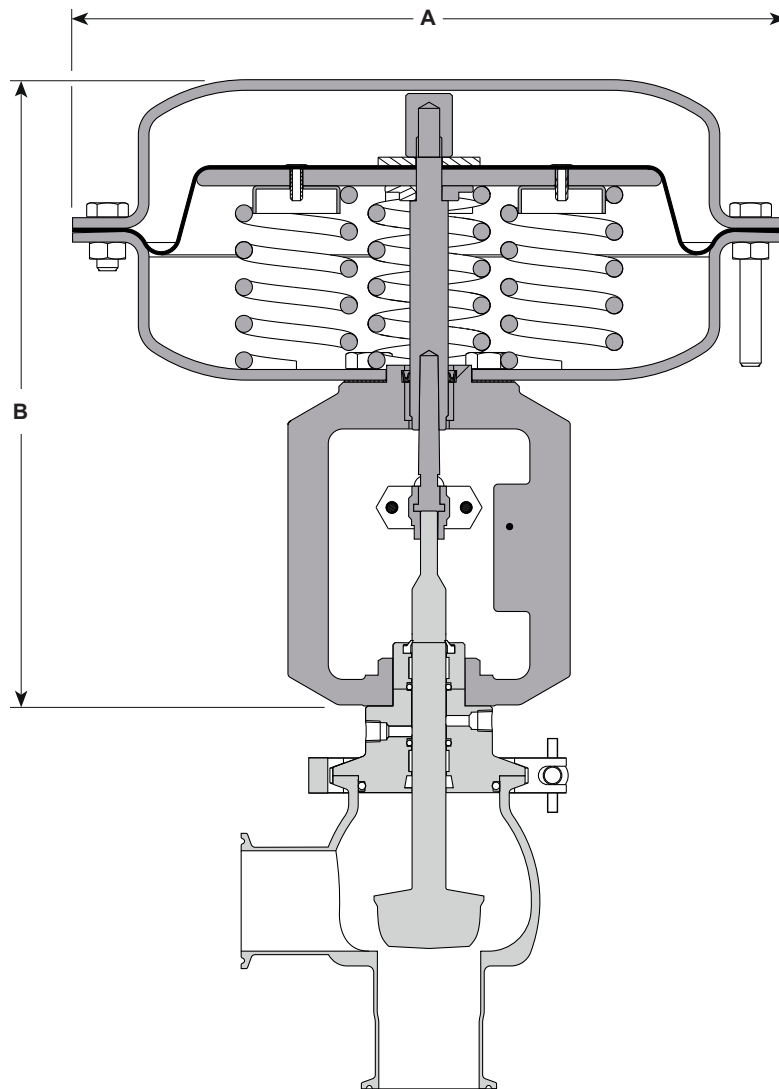
Valve size	Model SB, SA	
	Sanitary clamp and screwed	Tube end
DN15	3.3	2.2
DN20	3.3	2.2
DN25	5.5	4.4
DN32	6.6	4.4
DN40	6.6	5.51
DN50	8.8	6.6
DN65	14.3	12.1
DN80	17.6	15.4
DN100	24.2	22.0

## Actuator dimensions and weights (approximate) in inches and lbs

Actuator type	F	G	H	Weight
PNS3200 and PNS4200 series	8 <sup>15</sup> / <sub>64</sub> "	9 <sup>29</sup> / <sub>64</sub> "	N/A	15.8
PNS3300 and PNS4300 series	11 <sup>7</sup> / <sub>32</sub> "	10 <sup>23</sup> / <sub>64</sub> "	4 <sup>29</sup> / <sub>64</sub> "	24.6
PNS3420 and PNS4420 series	13 <sup>15</sup> / <sub>64</sub> "	10 <sup>23</sup> / <sub>64</sub> "	4 <sup>29</sup> / <sub>64</sub> "	44.0
PNS3430 and PNS4430 series	13 <sup>15</sup> / <sub>64</sub> "	12 <sup>29</sup> / <sub>32</sub> "	6 <sup>3</sup> / <sub>16</sub> "	44.0
PNS3530 series	15 <sup>15</sup> / <sub>16</sub> "	14 <sup>29</sup> / <sub>64</sub> "	6 <sup>3</sup> / <sub>16</sub> "	49.8
PNS3630 series	18 <sup>5</sup> / <sub>16</sub> "	15 <sup>3</sup> / <sub>4</sub> "	6 <sup>3</sup> / <sub>16</sub> "	83.7

**Dimensions/weights (approximate) in inches and lbs**

Actuator range	A	B	Weight
PN9100E and variants	10 <sup>53</sup> / <sub>64</sub> "	6 <sup>11</sup> / <sub>16</sub> "	13.2
PN9100R and variants	10 <sup>53</sup> / <sub>64</sub> "	6 <sup>11</sup> / <sub>16</sub> "	13.2
PN9200E and variants	11 <sup>13</sup> / <sub>16</sub> "	11 <sup>13</sup> / <sub>16</sub> "	37.4
PN9200R and variants	11 <sup>13</sup> / <sub>16</sub> "	11 <sup>13</sup> / <sub>16</sub> "	37.4
PN9320E and variants	12 <sup>51</sup> / <sub>64</sub> "	15 <sup>23</sup> / <sub>64</sub> "	59.5
PN9320R and variants	12 <sup>51</sup> / <sub>64</sub> "	15 <sup>23</sup> / <sub>64</sub> "	59.5
PN9330E and variants	13 <sup>3</sup> / <sub>16</sub> "	15 <sup>23</sup> / <sub>64</sub> "	59.5
PN9330R and variants	13 <sup>3</sup> / <sub>16</sub> "	15 <sup>23</sup> / <sub>64</sub> "	59.5

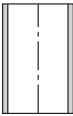

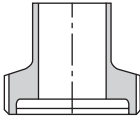


**Actuator and SB valve**

## Connection codes

The codes specified below represent a small selection of pipe end connections that are available. If the connection required is not specified below please contact Spirax Sarco.

Note: All sizes are available for each connection/specification unless otherwise stated.

Connection		Specification	Code
Butt weld and Tube weld		DIN 11850 (Series 2)	OO
		ASME BPE (Not available for size DN32)	OD
Sanitary clamp		ASME BPE (Tri-clamp®) (Not available for size DN32)	AO
Aseptic-thread (fitted on pipe)		DIN 11864 T1 Form A	GS
		DIN 11864 T1 Form B	GT
		DIN 11887 (11851)	GU
		SMS 1146 (Not available for the DN15 and DN20 sizes)	GV

## How to order

### Ordering a control valve

<b>Valve size</b>	DN15, DN20, DN25, DN32, DN40, DN50, DN65, DN80 and DN100 <b>Note:</b> DN15, DN20 and DN32 is not available for certain end connections - see page 14.	<b>DN15</b>
<b>Valve series</b>	SB = Two-port angle pattern design with Aseptic Steam Sanitized Bonnet SA = Two-port angle pattern design	<b>SB</b>
<b>Valve characteristic</b>	E = Equal percentage L = Linear	<b>E</b>
<b>Body material</b>	6 = 316L stainless steel	<b>6</b>
<b>Connection standard</b>	To be specified - See page 14	<b>OO</b>
<b>Seating option</b>	S = Stainless steel	<b>S</b>
<b>Stem and body sealing option</b>	V = White Viton (FDA, USP 26 Class VI approved)	<b>V</b>
<b>Internal surface finish</b>	0 = Standard 0.375 µm mechanical polishing (ASME BPE SFV4)	<b>0</b>
<b>K<sub>v</sub></b>	To be specified	<b>4</b>

### Ordering a PNS, PN or PNP pneumatic actuator

<b>Type</b>	<b>PNS pneumatic actuator</b> <b>PN or PNP pneumatic actuator</b>	PNS = Pneumatic stainless steel PN = Pneumatic epoxy coated PNP = Pneumatic electroless nickel plated (ENP)	<b>PN</b>
<b>Series and action</b>	<b>PNS pneumatic actuator</b> <b>PN or PNP pneumatic actuator</b>	3 = 3000 multi-spring (spring-to-extend) 4 = 4000 multi-spring (spring-to-retract) 9 = 9000 series	<b>3</b>
<b>Diaphragm area</b>	<b>PNS pneumatic actuator</b> <b>PN or PNP pneumatic actuator</b>	2 = 310 cm <sup>2</sup> 3 = 490 cm <sup>2</sup> 4 = 710 cm <sup>2</sup> 1 = 100 cm <sup>2</sup> 2 = 340 cm <sup>2</sup> 3 = 670 cm <sup>2</sup>	<b>1</b>
<b>Travel</b>	<b>PNS pneumatic actuator</b> <b>PN or PNP pneumatic actuator</b>	2 = 20mm 3 = 30mm 2 = 20mm 3 = 30mm	<b>2</b>
<b>Spring range</b>	<b>PNS pneumatic actuator</b> <b>PN or PNP pneumatic actuator</b>	0 = 0.2 to 1.0 bar (0.4 to 17 bar) 6 = 1.0 to 43 bar 0 = 0.2 to 1.0 bar (0.4 to 17 bar) 3 = 29 to 58 bar 6 = 1.0 to 29 bar 7 = 2.5 to 3.5 bar	<b>0</b>
<b>Travel</b>		E = Spring to extend R = Spring to retract	<b>E</b>

### Ordering example:

1 off Spirax Sarco Steri-trol type DN15 SBE6OOSV04 and 1 pneumatic actuator type PNS3320. Having a spring range of 0.4 to 17 bar.

## Spare parts

The available spares are identified by the part numbers listed below. When placing an order for spare parts, always specify the actuator or the valve model (shown on the data plate) and the name of the part as described below.

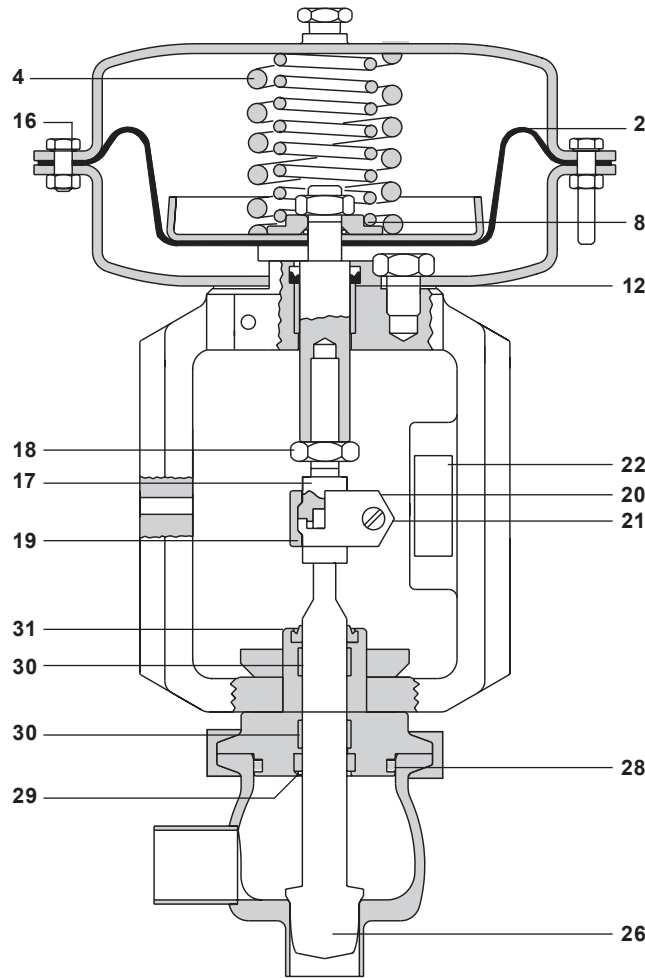
### Available spares for the SA and SB control valves and the PNS3000 and PNS4000 series actuators

Description		Part number
Actuator	Stem seal kit ('O' ring and 'V' ring)	8 and 12
	Diaphragm kit (diaphragm, 'O' ring and 'V' ring)	2, 8 and 12
	Travel indicator	22
	Spring kit (set of springs, included 3 off longer hex, head bolts and nut on some spring range)	4 and 16
	Linkage kit (lock-nut, top adaptor connectors, bolts and nuts)	17, 18, 19, 20 and 21
Valve	SA and SB models	Valve stem seal set (excluding bonnet seal) 29, 30 and 31
		Bonnet seal Viton (packet of 3) 28
		Plug and stem (Equal percentage or Linear) 26

### Spare parts ordering example:

1 off Valve stem seal set for a STERI-TROL™ DN15 SBE6OOSV04 two-port control valve.

1 off Stem seal kit for a type PNS3320 pneumatic actuator having a spring range 0.4 to 17 bar.



Actuator and SA valve

**Note:** For PN9000 actuator spares please refer to TI-P357-30