

spirax/sarco®

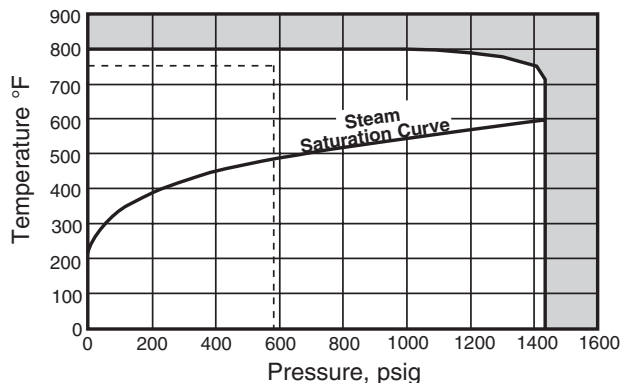
A3S Bellows Sealed Stop Valve

The A3S is a Class 800 bellows sealed isolation valve used on steam, gas, liquid, condensate, and water systems. The metallic bellows replaces conventional stem packing and acts as an impervious barrier between the fluid and environment. This design guarantees zero emissions from the stem seal.

Model	A3S
Sizes	1/2" to 2"
Connections	NPT, Socketweld
Body Design	ANSI Class 800
Construction	Forged Steel
Options	BSP

Limiting Operating Conditions

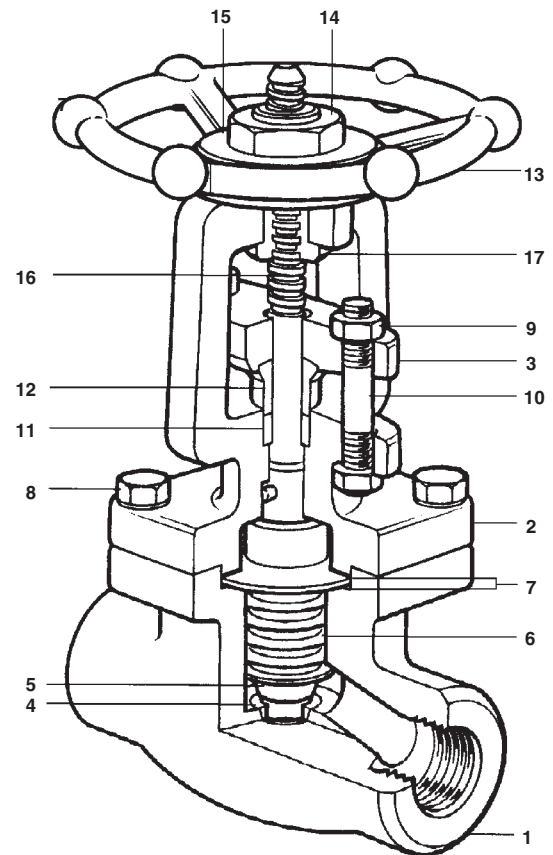
Body design conditions	ANSI 800
Maximum design temperature	797°F
Maximum hydraulic test pressure	2175 psig



■ The product must not be used in this region.
 ---- Operating restriction to conform to BS 5352.

Construction Materials

No.	Part	Material	
1	Body	Forged Steel	ASTM A105
2	Bonnet	Forged Steel	ASTM A105
3	Gland Flange	Forged Steel	ASTM A105
4	Integral Seat	Stellite	Gr. 6
5	Disc	Stainless Steel	ASTM A276 Type 410 + stellite Gr. 6
6	Bellows	Stainless Steel	ASTM A479 Type 321
7	Gaskets	Stainless Steel/Graphite	
8	Body Bolts	Carbon Steel	ASTM A276 B7
9	Gland Nuts	Carbon Steel	ASTM A194 2H
10	Gland Studs	Stainless Steel	AISI 410
11	Stem Packing	Graphite	
12	Gland Follower	Stainless Steel	ASTM A276 Type 410
13	Handwheel	Carbon Steel	
14	Wheel Nut	Carbon Steel	
15	Nameplate	Stainless Steel	
16	Stem	Stainless Steel	ASTM A276 Type 410
17	Yoke Nut	Stainless Steel	ASTM A582 Type 416



Standards

Valve bellows fatigue life conforms to BS 5352 for globe valves.

Certification

All valves are EN 10204 (3.1.B) certifiable as standard and certificates are available on request.

Seat Leakage

Disc to seat shut off conforms to API 598 and DIN 3230 leakage rate B01.

C_v Values

Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
	1.5	3.7	6.8	10.5	19.9	22.5

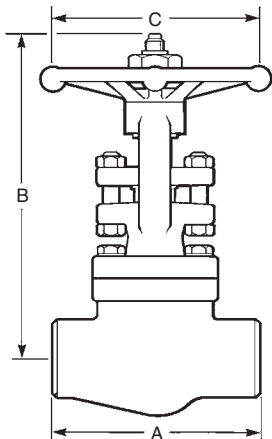
Sample Specification

1" Spirax Sarco Type A3S bellows sealed stop valve screwed NPT.

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
 In the interests of development and improvement of the product, we reserve the right to change the specification.

TI-7-221-US 7.08

A3S Bellows Sealed Stop Valve



Dimensions (nominal) in inches and millimeters

Size	A	B (valve open)	C	Weight
1/2"	3.15 80	5.35 136	2.76 70	3.8 lb 1.7 kg
3/4"	3.54 90	5.67 144	3.54 90	5.0 lb 2.3 kg
1"	4.33 110	6.57 167	4.33 110	8.0 lb 3.6 kg
1-1/4"	5.0 127	7.64 194	4.33 110	13.0 lb 5.9 kg
1-1/2"	6.1 155	8.66 220	5.12 130	18.7 lb 8.5 kg
2"	6.7 170	9.06 230	7.09 180	25.5 lb 11.6 kg

Safety Information, Installation and Maintenance

For full details see the Installation and Maintenance Instructions (IM-P132-11) supplied with the product.

Install in the direction of flow given by the arrow on the body with the handwheel in a suitable position. The preferred position is with the spindle vertical.

Disposal

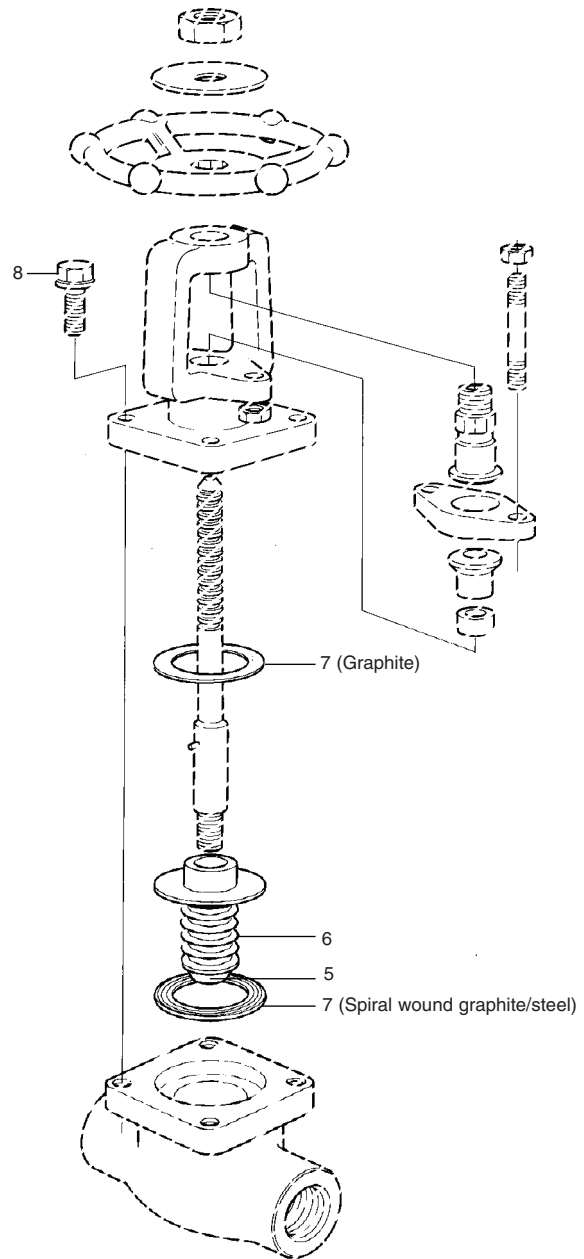
The product is recyclable. No ecological hazard is anticipated with the disposal of this product, providing due care is taken.

How To Order

Example: 1 off Spirax Sarco A3S bellows sealed stop valve having screwed NPT connections.

Recommended tightening torques

Item	Part	Size	or mm	lb f/ft
8	Body bolt	1/2"	M10	22 - 27
		3/4"	M10	22 - 27
		1"	M12	38 - 90
		1 1/4"	M12	38 - 90
		1 1/2"	M14	59 - 71
		2"	M16	87 - 103



Spare Parts

The spare parts available are shown in heavy outline. Parts drawn in broken line are not supplied as spares.

Available spares

Set of body gaskets	7
Disc and bellows assembly	5, 6

How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of valve.

Example: 1 - Disc and bellows assembly plus 1 - Set of body gaskets for a 1" Spirax Sarco type A3S bellows sealed stop valve having screwed NPT connections.

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