



Cert. No. LRQ 0963008

ISO 9001

spirax sarco

TI-P137-03
ST Issue 5

BSA1 Bellows Sealed Stop Valve

Description

A flanged PN16 and JIS/KS 10 bellows sealed, in-line stop valve for use on steam, gas, liquid, condensate and water systems. Soft seats and balancing discs are available for certain applications.

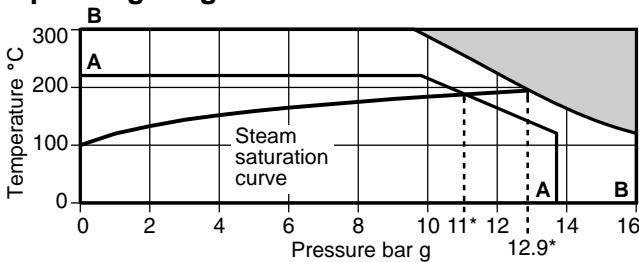
Sizes and pipe connections

DN15, 20, 25, 32, 40, 50, 65, 80, 100, 125, 150 and 200
Flanged BS EN 1092 / ISO 7005 PN16 and
JIS B 2210 / KS B 1511 10K
Face-to-face EN 558

Limiting conditions

Body design conditions	PN16	JIS/KS 10
Maximum design temperature	300°C	220°C
Designed for a maximum cold hydraulic test pressure of:	24 bar g	20 bar g

Operating range



The product must not be used in this region.

*PMO Maximum operating pressure for saturated steam service.

A - A Flanged JIS / KS10

B - B Flanged PN16

Materials

No.	Part	Material
1	Body	Cast iron DIN 1691 GG25
2	Bonnet	SG iron DIN 1693 GGG 40.3
3	Seat	Stainless steel AISI 420
4	Disc	Stainless steel DIN 17440 X30 Cr13
5	Bellows	Stainless steel DIN17440 X6 Cr Ni Ti 1810
6	Stem	Stainless steel AISI 420
7	Handwheel	Pressed steel BS 1449 CR4
8	Stem packing	Graphite
9	Bonnet bolts	Steel DIN 931 Gr. 5.6
10	Body/bonnet gasket	Graphite laminated with stainless steel insert

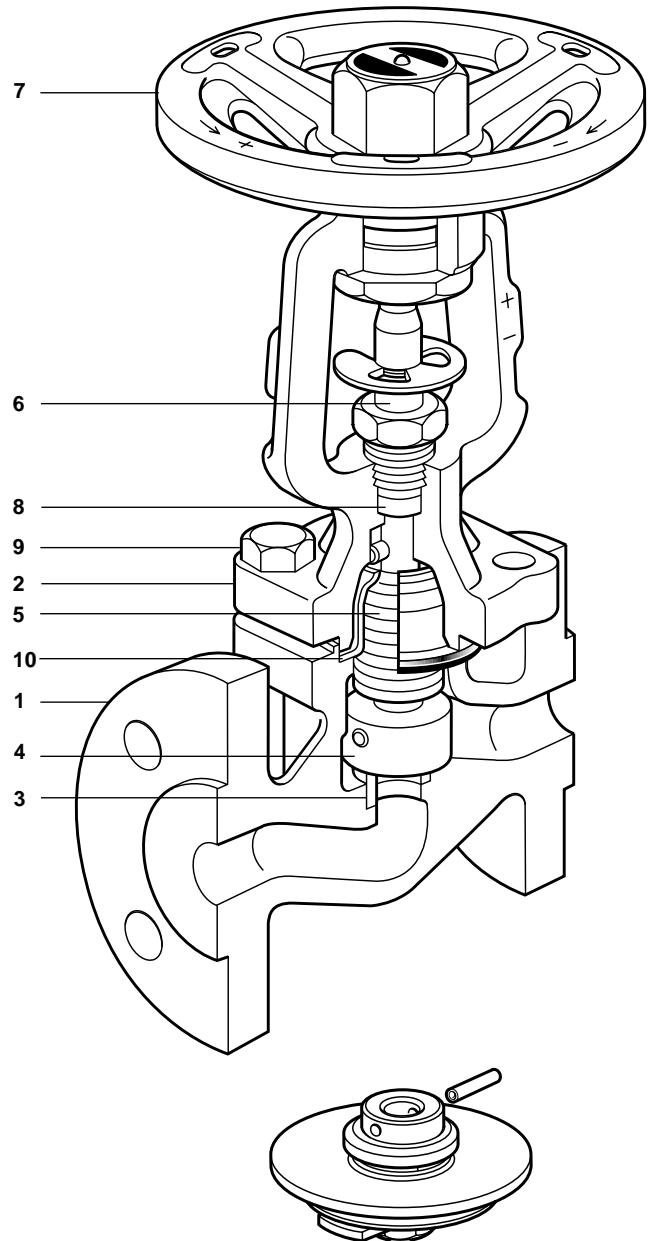
Seat leakage

Disc to seat shut-off conforms to DIN 3230 leakage rate BO1 and ISO 5208 Rate A.

K_v values

Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
K _v	4	7	12	19	30	47	77	120	193	288	410	725

For conversion: C_v (UK) = K_v x 0.97 C_v (US) = K_v x 1.17

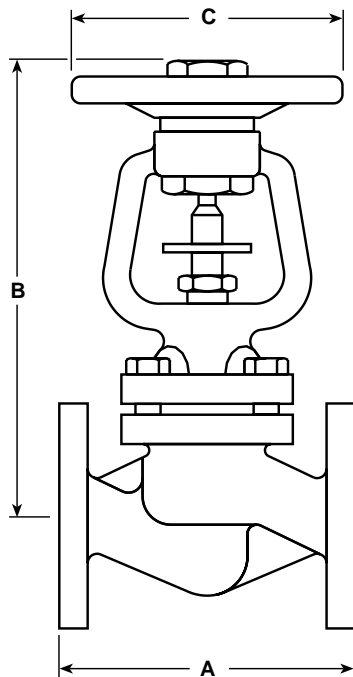


Optional balancing disc assembly

Used above 10 bar ΔP DN200

Dimensions / weights (approximate) in mm and kg

Size	PN16	JIS / KS 10		C	Weight
	A	A	B		
DN15	130	133	205	125	4
DN20	150	153	205	125	4
DN25	160	163	217	125	5
DN32	180	183	217	125	7
DN40	200	203	243	200	10
DN50	230	229	243	200	12
DN65	290	293	263	200	16
DN80	310	309	287	200	21
DN100	350	349	383	315	36
DN125	400	395	416	315	52
DN150	480	479	450	315	75
DN200	600	592	622	500	145



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P137-02) supplied with the product. Install in the direction of flow given by the arrow on the body with the handwheel in a suitable position.

How to order

Example: 1 off DN25 Spirax Sarco type BSA1 bellows sealed stop valve, flanged DIN PN16.

Note: Should the differential pressure exceed 10 bar for a DN200 valve, then please ensure a balancing disc (see illustration overleaf) is specified.

Spare parts

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

Available spares

* Body / bonnet gasket and stem packing	10, 8 (2 off)
Stem and bellows assembly	6, 5
Disc (balancing disc where fitted)	4

* **Note: The gaskets contain sharp metal reinforcement, please handle with care.**

How to order spares

Please note: for customer convenience spares are supplied in kits to ensure all the appropriate replacement parts are supplied to carry out a specific maintenance task. e.g. when a stem / bellows assembly is ordered, parts (10), (8) and (6, 5) will be included in the kit. Always order spares by using the description given above and stating the size and type of stop valve.

Example: 1- Body/bonnet gasket and stem packing for a DN15 Spirax Sarco BSA1 bellows sealed stop valve.

