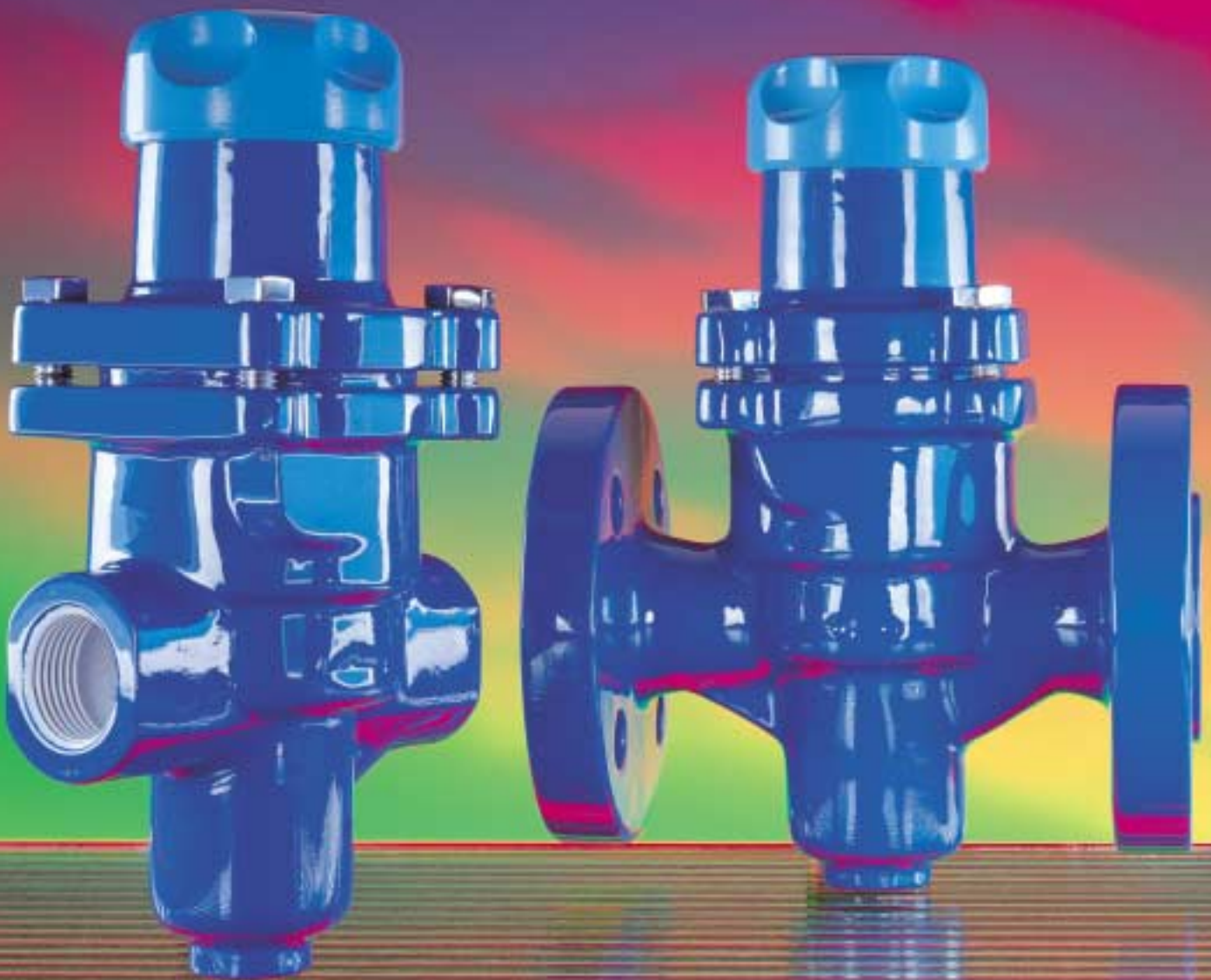


BRV2

Compact direct acting pressure reducing valve

for steam, compressed air and other gases



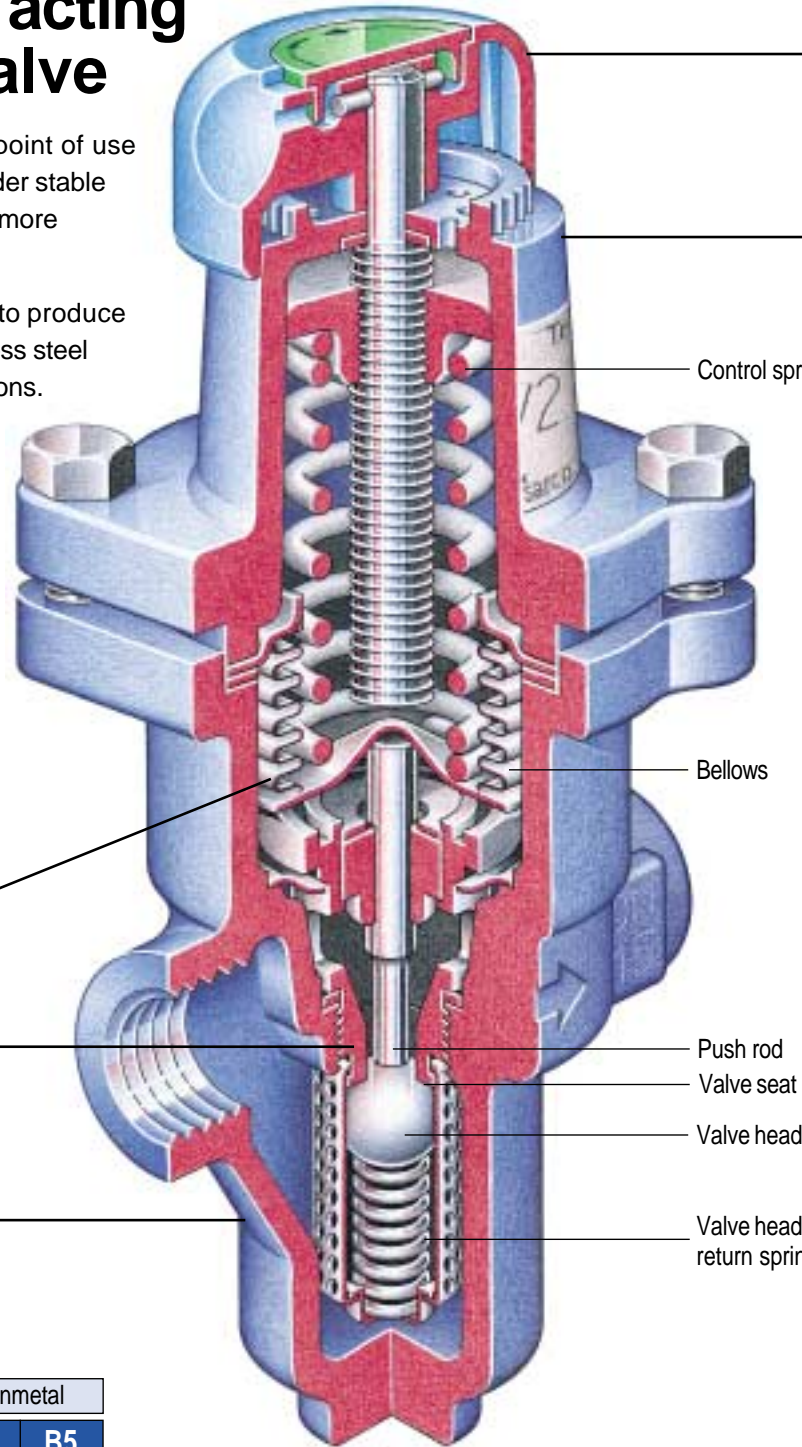
spirax
/sarco

BRV2 compact direct acting pressure reducing valve

The compact design of the BRV2 makes it ideal for point of use installations, providing accurate control of pressure under stable load conditions. It offers a cost effective alternative to more sophisticated pilot or piston operated valves.

Advanced manufacturing technology has been used to produce a highly durable pressure reducing valve, with all stainless steel internals to meet the needs of most industrial applications.

A bronze bellows version is available for special applications where Halide contamination may exist.



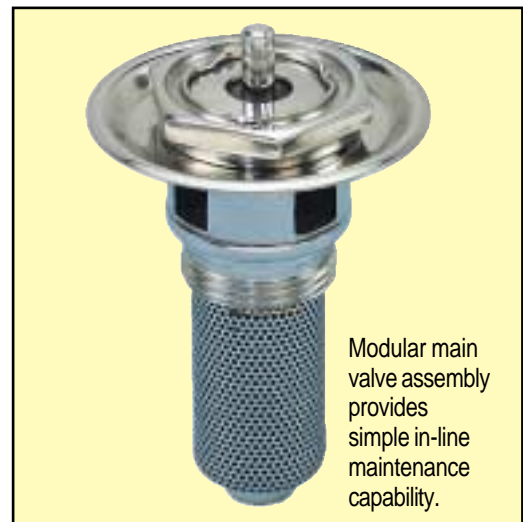
Stainless steel bellows assembly

Stainless steel valve and seat assembly provides high wear resistance under low load conditions.

PN25 SG iron body with screwed or flanged connections.
Please note: Optional PN25 gunmetal body is available with screwed connections only.

BRV2 range and options

Body material		SG iron				Gunmetal	
Model	BRV2_	S	SP	B	BP	S5	B5
Body design rating		PN25	PN25	PN25	PN25	PN25	PN25
Sizes	DN15 - 1/2"	●	●	●	●	●	●
	DN20 - 3/4"	●	●	●	●	●	●
	DN25 - 1"	●	●	●	●	●	●
Connections	Screwed BSP or NPT	●	●	●	●	●	●
	Flanged BS 4504 PN25	●	●	●	●		
Main valve stainless steel	Stainless steel bellows	●	●			●	
	Bronze bellows			●	●		●
External pressure sensing			●		●		
Pressure ranges and spring / ID disc colour		Grey	0.14 - 1.7 bar g			2 - 25 psi g	
		Green	1.40 - 4.0 bar g			20 - 58 psi g	
		Orange	3.50 - 8.6 bar g			50 - 125 psi g	



Modular main valve assembly provides simple in-line maintenance capability.

Anti-vibration adjustment handwheel with colour indication of control spring range.

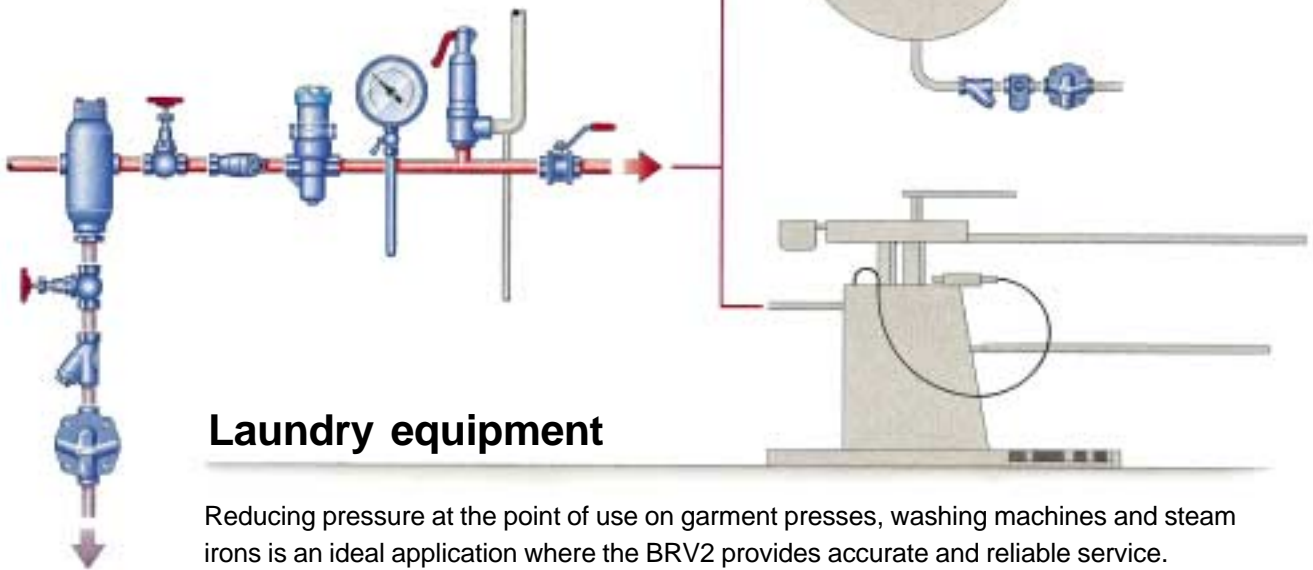
Alloy spring housing with 4 bolts removal for easy in-line access to all internals.

Typical applications

Reducing steam pressure at the point of use, allows steam distribution at high pressure using smaller pipe sizes, whilst utilising the increased latent heat content at low pressure to maximise process heating efficiency. Steam pressure reduction on platen presses, boiling pans, small sterilisers and oil outflow heaters are all examples of point of use pressure reduction applications.

Boiling pans

Reducing steam pressure at the point of use on boiling pans provides simple, accurate control to meet safety requirements and achieve maximum heat transfer efficiency.



Laundry equipment

Reducing pressure at the point of use on garment presses, washing machines and steam irons is an ideal application where the BRV2 provides accurate and reliable service.

How the BRV2 works

On start-up, upstream pressure, aided by a return spring, holds the valve head against the seat in the closed position.

Downstream pressure is set by rotating the handwheel in a clockwise direction, which compresses the control spring and extends the bellows. This downward movement is transmitted via a push rod which causes the main valve to open.

Steam then passes through the open valve into the downstream pipework and also surrounds the bellows.

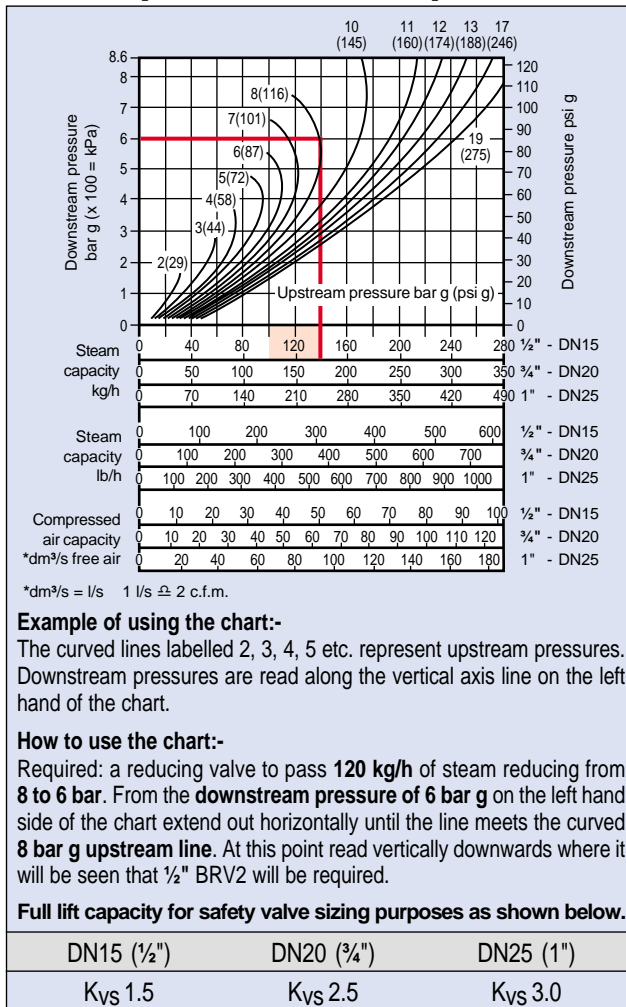
As downstream pressure increases, it acts through the bellows to counteract the spring force and closes the main valve when the set pressure is reached.

The main valve modulates, to give constant pressure.

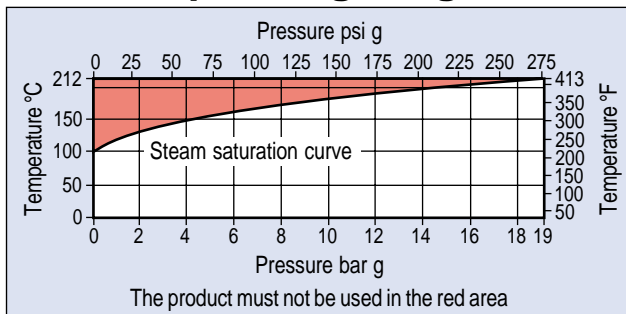
User benefits

- Security of set pressure by use of a tamper-proof pin inside the handwheel.
- Quick in-line maintenance through use of modular internals reduces downtime and maintenance cost.
- Compact and lightweight design reduces piping stress and cost of installation.
- Robust design using stainless steel internals, extends working life and reduces maintenance problems.
- No multiple joints to leak - only one recessed body gasket.
- Option of bronze bellows for systems with Halide contamination.
- Option of external downstream pressure sensing for increased control sensitivity.

Steam and compressed air capacities



Operating range

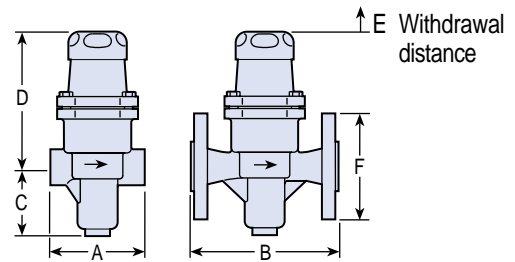


Limiting conditions

Body design conditions PN25
Maximum design temperature 212°C
Maximum cold hydraulic test 38 bar g
Maximum recommended turndown ratio at maximum flow 10:1
Maximum upstream pressure 19 bar g
Maximum downstream reduced pressure 8.6 bar g

Some of the products shown may not be available in certain markets.

Dimensions (approximate in mm)



Size	A	B	C	D	E	F	Weight (kg)	
							Scr	Flg
DN15 - ½"	83	150	60	126.5	25	97	1.55	3.85
DN20 - ¾"	96	150	60	126.5	25	107	1.65	4.20
DN25 - 1"	108	160	60	126.5	25	117	1.90	4.60

Materials

Spring housing	Aluminium - epoxy coated	LM24
Adjustment handwheel	Mineral filled nylon	
Top spring plate	Cast iron	DIN 1691 GG 20
Pressure adjustment spring	Silicon chrome Spring steel range 2	BS 2803 685 A55
Bellows assembly	Stainless steel (Option - Phosphor bronze / brass)	316Ti / 316L
Bellows assembly gasket	Stainless steel reinforced exfoliated graphite	
Spring housing bolts	Steel - zinc plated M8 x 25 mm	BS 3692 Gr 8.8
Body	BRV2 S, SP, B, BP BRV2 S5, B5	SG iron Gunmetal DIN 1693 GGG 40.3 BS 1400 LG2
Guide bush	Graphite filled PTFE	
Push rod	Stainless steel	ASTM A276 316L
Valve seat	Stainless steel	BS 970 431 S29
Valve	Stainless steel	AISI 420
Valve return spring	Stainless steel	BS 2056 316 S42
Strainer screen	Stainless steel	BS 1449 316 SH
Bulkhead plate	Stainless steel	316L

Installation

The valve should be installed in a horizontal pipeline with the direction of flow as indicated by the arrow on the valve body. Full installation and maintenance instructions are supplied with the product.

Typical specification

The pressure reducing valve shall be a Spirax Sarco DN15 direct acting pressure reducing valve type BRV2, with SG iron body, flanged to BS 4504 PN25 with all stainless steel internals.

The valve shall be fitted with an orange spring adjustable for downstream pressures of 3.5 to 8.6 bar g.

The handwheel shall be supplied with a tamper-proof pin and positive locating mechanism to prevent pressure changes due to system vibration.

BRV

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