

Pressure Reducing Valve

BRV2

Description :

The BRV2 is a direct acting pressure reducing valve suitable for steam or gases such as compressed air.

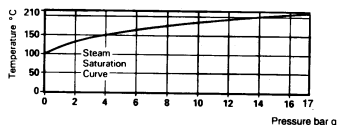
Available types :

- BRV2 with S.G. Iron body - Screwed
- BRV2 with S.G. Iron body - Flanged

Limiting Conditions :

body design conditions PN 25
 Maximum design temperature 210° C.
 Maximum cold hydraulic test 38 barg
 Maximum recommended turn down ratio 10.1 at maximum flow.

Operating range :



Downstream pressure ranges available, and shown by colour identification on adjustment hand wheel (16).

Grey - 0.14/1.7 bar g - Green 1.4/4.0 barg - Orange 3.5/8.6 bar g.

Maximum downstream reduced pressure 8.6 barg.

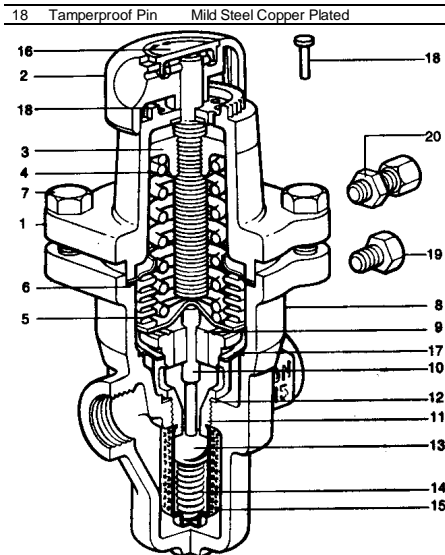
Note : where control spring ranges overlap always use the tower range to give better control.

Sizes and Pipe connections :

DN 15, 20, and 25 Flanged BS 4504 PN 25
 1/2", 3/4", 1" Screwed BSP (BS 21Rp) or NPT.

Materials :

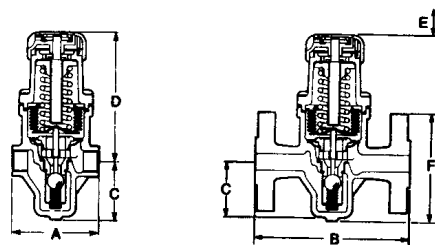
No.	Part	Material
1	Spring Housing	Aluminium - Epoxy coated LM 24
2	Adjustment Hand Wheel	Plastic - Polypropylene
3	Top spring Plate	Cast Iron DIN 1691 GG 20
4	pressure Adjustment spring	Silicon chrome Spring Steel BS 2803 685 A55 Range 2
5	Bellows assembly	Stainless Steel 316Ti/316L
6	Bellows Assembly Gasket	Stainless Steel Reinforced Exfoliated Graphite
7	Cap Screws	Steel - Zinc plated BS 3692 Gr 8.8 M 8 X 25mm.
8	Body Screwed	SG Iron DIN 1693 GGG 40.3
	Flanged	SG Iron
9	Guide Bush	Graphite filled PTFE
10	Pushrod	Stainless Steel ASTM A 276 316L
11	Valve Seat	Stainless Steel BS 970 431 S29
12	Valve Seat Gasket	Stainless Steel BS 1449 316 S11
13	Valve	Stainless Steel AISI 420
14	Valve Return Spring	Stainless Steel BS20056 316 S42
15	Strainer Screen	Stainless Steel BS 1449 316 SH
16	Spring range Identification Plate	Polypropylene
17	Bulkhead Plate	Stainless Steel 316 L



Capacities :

See TIS 3.108 for steam and compressed air Sizing
 Full lift capacity for safety valve sizing purposes are shown below.

	DN 15	DN 20	DN 25
KVs	1.5	2.5	3.0



Dimensions :(approx.) mm

DN	A	B	C	D	Withdrawal Distance		Weight	
					E	F	Scr	Flg
15	83	150	55	126.5	25	97	1.55Kg	3.85Kg
20	96	150	55	126.5	25	107	1.65Kg	4.20Kg
25	108	160	55	126.5	25	117	1.90Kg	4.60Kg

How to specify :

- 1 - DN 15 SPIRAX SARCO BRV2 Pressure Reducing Valve with S.G. iron body flanged and fitted with orange spring (3.5/8.6 barg).

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.

Spare Parts :

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

AVAILABLE SPARE	
Valve and seat assembly	F,K,L,M,N,O,P,R,J
Bellows (stainless steel)	E,F
Spring Housing Cap Screws (set of 4)	G
Pressure Adjustment	D,Q
Spring Grey 0.14/1.7 barg Green 1.4/4.0 barg-Orange 3.8/5.6 barg	
Set of all gaskets	FM
Common to all sizes to all Sizes	

How to order :

Always order spares by using the description given in the column headed Available Spare and stating the size, type and pressure range of the reducing valve.

Example 1 : Pressure Adjustment Spring pressure range 3. 5/8.6 barg (orange) for DN 15 SPIRAX SARCO Type BRV2 Reducing Valve.

How to fit :

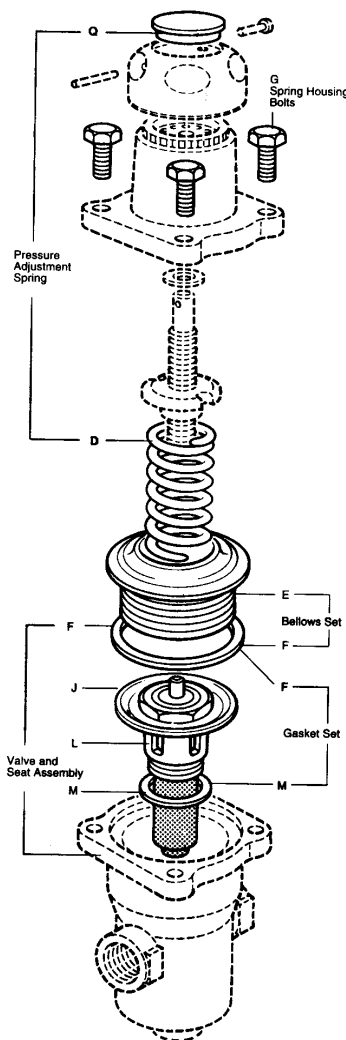
Before carrying out any work on the valve make sure that it is fully isolated.

To fit new valve and seat or to clean strainer screen :

Release adjustment spring pressure turning adjustment knob (2) fully anti-clockwise. Remove spring housing by undoing 4 cap screws (7) Lift out bellows assembly. Using 30 mm A/F Spanner, unscrew seat (11) and remove valve, return spring and strainer screen. Clean strainer screen or replace. Re-assemble in reverse order, using new gaskets, ensuring that components and seating faces are clean. Invert bulkhead plate (17) with sensing hole towards inlet port. Tighten seat to 108/132 NM. Tighten spring housing cap screw to 13/15 NM.

To fit new bellows :

Release adjustment spring pressure by turning adjustment knob (2) fully anti-clockwise. Remove spring housing by removing cap screws. Lift out bellows assembly and gasket (6). Replace bellows gasket and bellows assembly, adjustment spring and



spring housing and replace and tighten cap screws to 13/15 NM.

To fit replacement pressure adjustment spring :

Release adjustment spring pressure by turning adjustment knob (2) fully anti-clockwise. Remove 4 X cap screws. Replace spring and bonnet assembly and tighten cap screws to 13/15 NM. Lift out spring identification plate (16) and press in new plate (if spring range has been changed).

Recommended tighten torque's

Cap screws	3/15 NM
Seat Assembly	08/132 NM