



automatic valve



**PRESSURE REDUCER AND
RELIEF VALVES WITH METALLIC
BELLOW FOR WATER STEAM**

PRESSURE REDUCER AND RELIEF VALVES

APPLICATION

These devices are used to reduce and control a gaseous flow pressure (air, steam, gas...).

The PRESSURE REDUCER reduces and controls downstream pressure at set point.

The RELIEF VALVES keeps and control upstream pressure at a set point.

OPERATION

PRINCIPLE

Pressure reduction is obtained by flow passage through valve seat and plug (1). This involves the increase of the flow speed. Reducing value depend on plug opening.

Pressure control is obtained by direct pressure action on the metallic bellow (2), which is screwed on the valve stem, and by reverse spring (3) tension action on the bellow.

ADJUSTING

Reduced pressure value depends on the control spring tension.

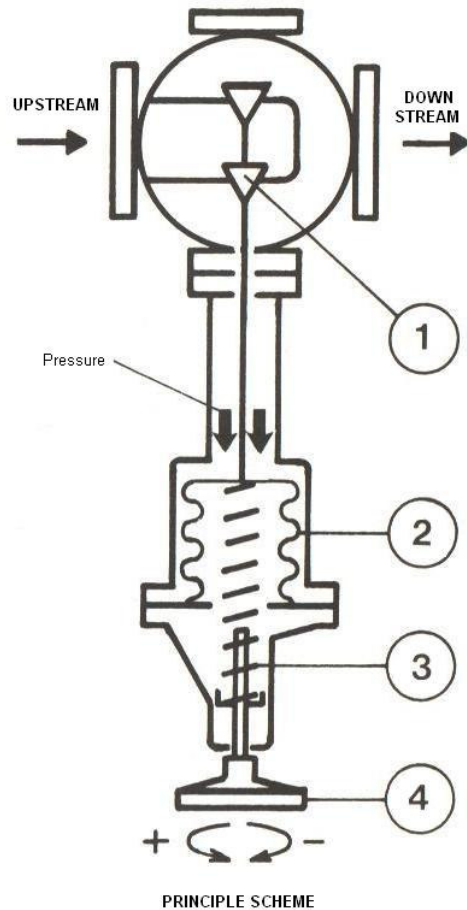
Spring tension is obtained by turning handwheel (4).

If handwheel is turned to the right, spring is released and downstream pressure is lower.

If handwheel is turned to the left, spring is stretched and downstream pressure is higher.

DOWNSTREAM CONTROL RANGE

SCALE	DOWNSTREAM PRESSURE		BARS
	Mini	Maxi	
1	0,1	1,5	
2	0,5	3	
3	1	6	
4	3	10	
5	6	16	



ORIGINAL FEATURES

1. METALLIC CONTROL BELLOWS

The larger sized stainless steel control bellow allows high temperature and pressure, without reduce reliability.

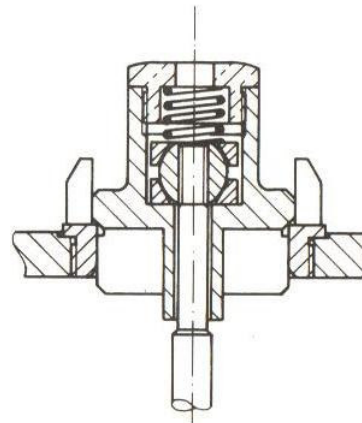


2. AUTO-TACKING UP THE PLAY AND AUTO-CENTRING PLUG

Plug coupling with the valve stem is realised with swivel and spring.

It ensures :

- Plug auto-centring on the seats ;
- Tacking up the play on plugstem coupling.



TYPE D 100

APPLICATION

Pressure reducer type D 100 is suitable for the following conditions :

1. Low pressure reduction: upstream – downstream pressure ratio does not exceed 4.
2. Plants where downstream pressure never falls to zero (leakage allowed): double seat valve is only half tight.

TECHNICAL DATA

Inlet and outlet same dimension.

Double seat balances trim, half tight, leakage lower than 1% of the maximal flow.

Highest upstream pressure: 20 bars.

Highest downstream pressure: 16 bars.



CONSTRUCTION

ELEMENTS	MATERIALS			
	C't Ir.	Steel	Bronze	SS
Valve body	X	X	O	O
Housing	X	X	O	O
Covers, wheel	X	O	O	O
Plug			O	X
Seats			O	X
Stem				X
Bellow				X
Bellow bottom			X	O
Spring		X		O

X : Standard

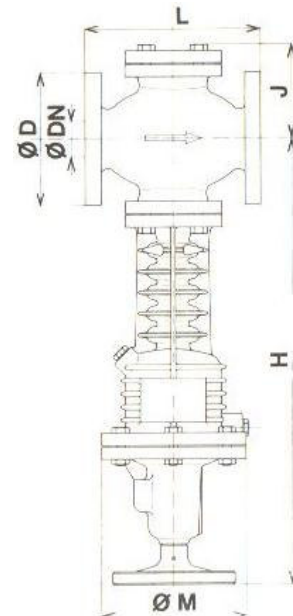
O : Special

OVERALL DIMENSIONS

DN	D	L1	L2	H	J	M	CV maxi	Weight
15	95	150	195	465	79	165	6	18
20	105	150	195	465	79	165	8	18
25	115	160	195	470	83	165	12	20
32	140	180	216	502	94	165	18	25
40	150	200	235	507	99	165	28	28
50	165	230	245	517	110	165	46	35
65	185	290	190	577	122	190	73	45
80	200	310	310	587	132	190	100	55
100	220	350	360	635	156	220	160	80
125	250	400	400	651	172	220	150	95
150	285	480	470	771	192	220	360	110

L1 : cast iron body

L2 : cast steel body



TYPE D 102

APPLICATION

Pressure reducer D 102 is suitable for the following conditions :

1. High pressure reduction: upstream – downstream pressure ratio exceeds 4.
2. Plants where downstream pressure never falls to zero (leakage allowed): double seat valve is only half tight.

TECHNICAL DATA

Outlet doubles of inlet port.

Double seat balanced trim, half tight, leakage lower than 1% of maximal flow.

Highest upstream pressure: 20 bars.

Highest downstream pressure: 16 bars.

CONSTRUCTION

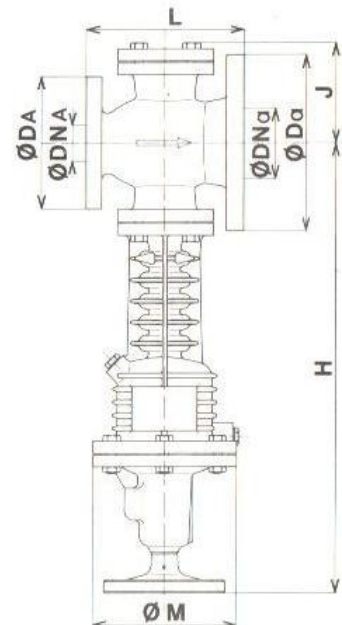
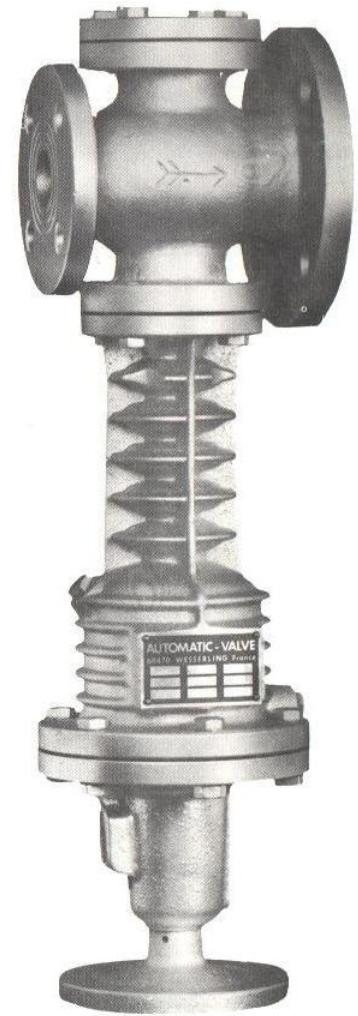
ELEMENTS	MATERIALS			
	C't Ir.	Steel	Bronze	SS
Valve body	X	X	O	O
Housing	X	X	O	O
Covers, wheel	X	O	O	O
Plug			O	X
Seats			O	X
Stem				X
Bellow				X
Bellow bottom			X	O
Spring		X		O

X : Standard

O : Special

OVERALL DIMENSIONS

DN A/a	DA	Da	L	H	J	M	CV maxi	weight
15/32	95	140	145	460	74	165	6	18
20/40	105	150	145	465	79	165	8	18
25/50	115	165	150	470	83	165	12	20
32/65	140	185	165	502	94	165	18	25
40/80	150	200	180	512	104	165	28	28
50/100	165	220	200	517	110	165	46	35
65/125	185	250	230	577	122	190	73	45
80/150	200	340	300	51	172	220	160	90
100/200	220	340	300	651	172	220	160	90
125/250	250	395	380	681	202	220	250	110
150/300	285	445	420	801	222	220	360	130



TYPE D 110

APPLICATION

Pressure reducer type D 110 is suitable for the following conditions :

1. Low pressure reduction: upstream – downstream pressure ratio does not exceed 4.
2. Plants where downstream pressure can fail to zero; the valve must be tight.

TECHNICAL DATA

Inlet and outlet same dimension.

Single seat balanced trim, tight.

Downstream pressure connection on housing:

3/8" tapped port (gas thread).

Inside set screw on pressure connection to avoid process cycling.

CONSTRUCTION

ELEMENTS	MATERIALS			
	C't Ir.	Steel	Bronze	SS
Valve body	X	X	O	O
Housing	X	X	O	O
Covers, wheel	X	O	O	O
Plug			O	X
Seat			O	X
Stem				X
Bellow				X
Bellow bottom			X	O
Spring		X		O

X : Standard

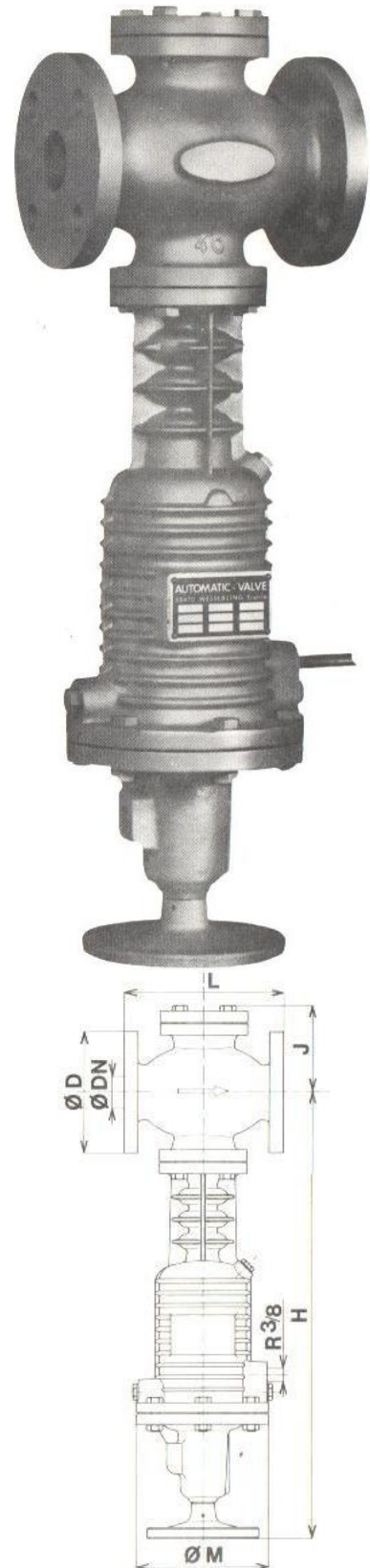
O : Special

OVERALL DIMENSION

DN	D	L1	L2	H	J	M	CV maxi	DP maxi	weight
15	95	150	195	537	79	165	6	12	20
20	105	150	195	537	79	165	8	12	20
25	115	160	195	542	83	165	12	12	22
32	140	180	216	574	94	165	18	10	27
40	150	200	235	579	99	165	28	10	30
50	165	230	245	589	110	165	46	8	35
65	185	290	190	657	122	190	73	8	45
80	200	310	310	657	132	190	100	6	50
100	220	350	360	762	156	220	160	6	75

L1 : cast iron body

L2 : cast steel body



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Covers, wheel	X	O	O	O
Plug			O	X
Seat			O	X
Stem				X
Bellow				X
Bellow bottom			X	O
Spring		X		O

X : Standard

O : Special

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