

### FIG 542L PRESSURE RELIEF VALVE

#### FEATURES & BENEFITS

The NABIC Fig 542L is designed primarily for use where high tightness is required on the discharge side. A sealed spring cover prevents the possibility of back pressure leakage through the top of the valve. The lift is progressively proportional to flow. All wetted parts are manufactured from dezincification resistance materials. Designed and tested to BS EN ISO 4126 -1. WRAS approved\*.

\*See Table 1

- Size Range: DN15 - DN80
- Resilient PTFE seating design with high degree of seat tightness
- Pressure tight on discharge side
- Suitable for liquids and inert gases
- Available with Viton seat design
- Pressure setting locked and sealed
- Drain plug fitted on sizes DN40 and above
- WRAS approved



#### PRESSURE RATINGS & TEMPERATURE RANGE

MIN - MAX SET PRESSURE (bar)	MIN - MAX SET TEMPERATURE (°C)
DN15 to DN25 1.0 to 10.5	-20 to 195
DN32 to DN80 0.3 to 10.5	-20 to 195

#### DIMENSIONS & WEIGHTS

SIZE DN	Rp BSP Inlet & Outlet	A (mm)	B (mm)	C (mm)	WEIGHTS (kg)
15	1/2"	30	23	113	0.50
20	3/4"	34	23	118	0.70
25	1"	39	27	132	0.93
32	1 1/4"	46	33	158	1.50
40	1 1/2"	54	38	200	2.41
50	2"	64	46	239	4.32
65	2 1/2"	76	55	285	8.24
80	3"	90	65	345	12.60

#### PART NAME & MATERIALS

ITEM NO.	PART NAME	MATERIAL
1	Leak Proof Dome	Bronze, BS EN 1982 CC491K
2	Locknut	Brass, BS EN 12164 CW609N
3	Dome 'O' Ring	Viton
4	Spring	Chrome Vanadium Alloy Steel, BS 2803 735 A50 HS (Stainless Steel, BS 2056 302S26 Opt)
5	Label	Yellow kapton
6	Spring Cover	Bronze, BS EN 1982 CC491K
7	Piston	Brass, BS EN 12164 CW609N
8	Cover Seal	Viton
9	Seat Seal Holder	Bronze, BS EN 1982 CC491K / Brass BS EN 12164 CW602N (DZR)
10	Seat Seal	PTFE (Viton Opt)
11	Starlock Washer	Stainless Steel
12	Body	Bronze, BS EN 1982 CC491K
13	Adjusting Screw	Brass, BS EN 12164 CW609N
14	Spring Plate	Brass, BS EN 12164 CW609N
15	Spindle	Brass, BS EN 12164 CW721R
16	Seat Seal Retaining Plate	Bronze, BS EN 1982 CC491K / Brass BS EN 12164 CW602N (DZR)
17	O-Ring	Viton

#### MEDIUM

Hot water, steam, compressed air, inflammable liquids and inert gasses, CO2 (to 20°C), ethylene glycol, potable water.

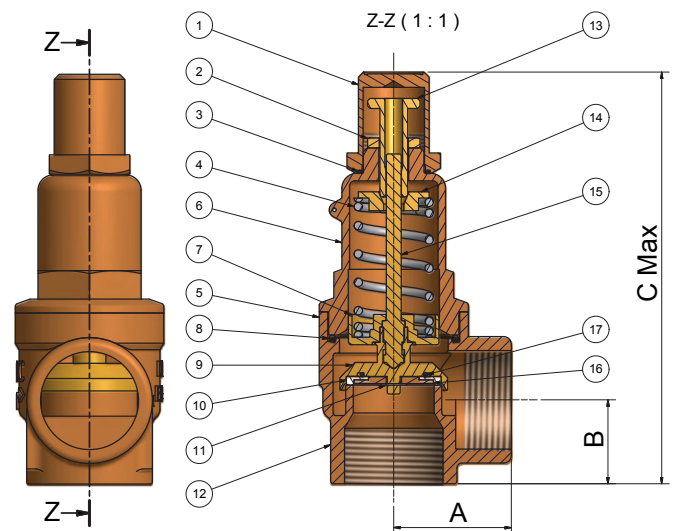
#### PIPE CONNECTIONS

Screwed female inlet and outlet connections. Inlet and outlet connections are of equal size. Threaded connections are 'Rp' BSP parallel to BS EN 10226-1. NPT connections are available upon request.

#### PRODUCT TESTING

All valves are shell and seat tested (to confirm set pressure) before leaving the factory and all valves are supplied pre-set with a tamper proof seal. Pressure Test Certificate and Letters of Conformity available on request.

#### DIMENSIONAL DRAWING



#### APPROVALS



FM 00311 EMS 553775



### DISCHARGE CAPABILITIES

The discharge capacity of a safety valve must be equal to or greater than the output of the boiler or system it is protecting. To ensure that the correct method of sizing is used, reference should be made to the relevant BS specification for the design of the boiler or system. Fig 542L capacities are tabulated below to assist selection.

AIR CAPACITY - 10% OVERPRESSURE (BS EN 4126-1)							
SET PRESSURE BAR	std. litres/sec						
	DN15	DN20	DN25	DN32	DN40	DN50	DN65
1.0	10	18	28	46	72	113	191
2.0	16	28	43	71	110	172	291
3.0	21	37	58	95	148	231	391
4.0	26	46	73	119	186	291	491
6.0	37	65	102	167	262	409	691
8.0	48	84	132	216	338	527	891
10.5	61	108	169	277	432	675	1141

WATER - UNVENTED SYSTEM - 10% OVERPRESSURE (BS EN 4126-1)							
SET PRESSURE BAR	kg/min						
	DN15	DN20	DN25	DN32	DN40	DN50	DN65
1.0	22	40	62	102	159	248	419
2.0	32	56	88	144	225	351	593
3.0	39	69	107	176	275	430	726
4.0	45	79	124	203	318	496	839
6.0	55	97	152	249	389	608	1027
8.0	63	112	176	287	449	702	1186
10.5	72	129	201	329	515	804	1359

To convert to galls/min multiply by 0.22.

**Table 1**

FIG. NO	DN SIZE	MIN - MAX SET PRESSURE (BAR)	SEAT SEAL AVAILABLE	WRAS APPROVED WITH VITON SEAL* (BAR)	WRAS APPROVED WITH PTFE SEAL* (BAR)
542L	15-25	1.0 to 10.5	PTFE/Viton	1.0 to 3.2	3.3 to 10.5
542L	32-65	0.3 to 10.5	PTFE/Viton	0.3 to 3.2	3.3 to 10.5

\*Viton seals are not suitable for steam applications.

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