

FIG 500L PRESSURE RELIEF VALVE

FEATURES & BENEFITS

The NABIC Fig 500L 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 - DN65
- 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 DN32 and above
- WRAS approved



PRESSURE RATINGS & TEMPERATURE RANGE

MIN - MAX SET PRESSURE (bar)	MIN - MAX SET TEMPERATURE (°C)
DN15 to DN25 1.0 to 12.5	-20 to 195
DN32 to DN65 0.4 to 12.5	-20 to 195

MEDIUM

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

DIMENSIONS & WEIGHTS

SIZE DN	Rp BSP Inlet	Rp BSP Outlet	A (mm)	B (mm)	C (mm)	WEIGHTS (kg)
15	1/2"	3/4"	33	20	123	0.70
20	3/4"	1"	39	24	136	0.93
25	1"	1 1/4"	45	30	155	1.42
32	1 1/4"	1 1/2"	54	36	201	2.50
40	1 1/2"	2"	64	41	236	4.63
50	2"	2 1/2"	76	47	267	7.00
65	2 1/2"	3"	90	60	330	12.50

PIPE CONNECTIONS

Screwed female inlet and outlet connections. Outlet connection is one size larger than inlet connection. Threaded connections are Rp parallel to BS EN 10226-1.

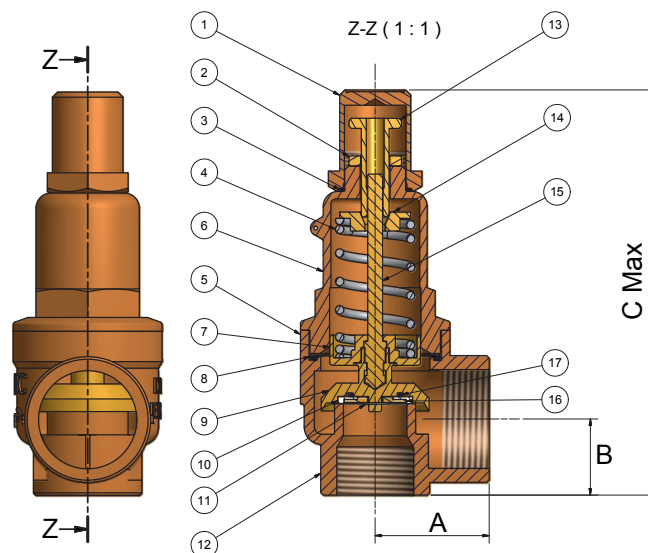
PRODUCT TESTING

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.

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 / Brass, BS EN 12164 CW602N (DZR)
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

DIMENSIONAL DRAWING



APPROVALS



Pressure Equipment Directive
2014/68/EU Certification

FM 00311 EMS 553775

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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 500L 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	25	44	69	112	176	274	464
2.0	38	67	105	171	268	418	707
3.0	51	90	141	230	360	562	950
4.0	64	113	177	289	452	706	1193
6.0	90	159	248	407	636	993	1679
8.0	115	205	320	525	820	1281	2165
10.0	141	251	392	642	1004	1568	2651
12.5	174	308	482	790	1235	1928	3259

WATER - UNVENTED SYSTEM - 10% OVERPRESSURE							
SET PRESSURE BAR	litres/min						
	DN15	DN20	DN25	DN32	DN40	DN50	DN65
1.0	54	96	151	247	386	603	1019
2.0	77	136	213	349	546	853	1441
3.0	94	167	261	428	668	1044	1765
4.0	109	193	302	494	772	1205	2037
6.0	133	236	369	605	945	1476	2496
8.0	154	273	426	698	1092	1705	2881
10.0	172	305	477	781	1220	1906	3222
12.5	192	341	533	873	1364	2131	3602

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)
500L	15-25	1.0 to 12.5	PTFE/Viton	1.0 to 4.0	4.1 to 12.5
500L	32-65	0.4 to 12.5	PTFE/Viton	0.4 to 4.0	4.1 to 12.5

*Viton seals are not suitable for steam applications.

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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 / Brass, BS EN 12164 CW602N (DZR)
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.

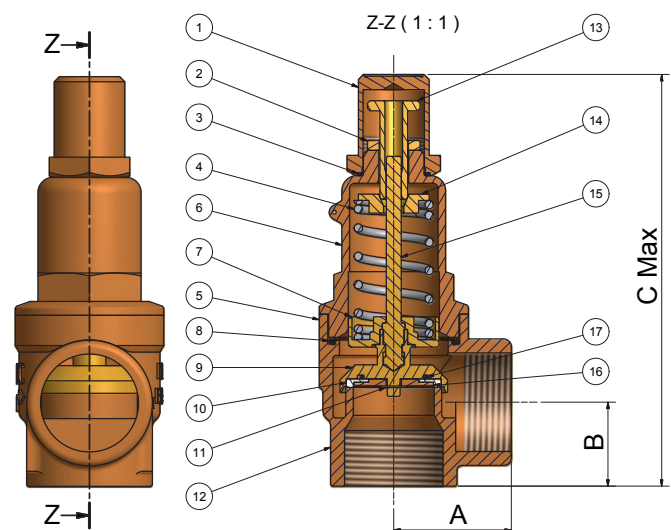
PIPE CONNECTIONS

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.

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



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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	DN80
1.0	10	18	28	46	72	113	191	289
2.0	16	28	43	71	110	172	291	441
3.0	21	37	58	95	148	231	391	592
4.0	26	46	73	119	186	291	491	744
6.0	37	65	102	167	262	409	691	1047
8.0	48	84	132	216	338	527	891	1350
10.5	61	108	169	277	432	675	1141	1729

WATER - UNVENTED SYSTEM - 10% OVERPRESSURE (BS EN 4126-1)								
SET PRESSURE BAR	kg/min							
	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1.0	22	40	62	102	159	248	419	635
2.0	32	56	88	144	225	351	593	898
3.0	39	69	107	176	275	430	726	1100
4.0	45	79	124	203	318	496	839	1270
6.0	55	97	152	249	389	608	1027	1556
8.0	63	112	176	287	449	702	1186	1796
10.5	72	129	201	329	515	804	1359	2058

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	32-80	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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