



**542**  
**Bronze**  
**Safety Relief Valve**  
**Standard Capacity**  
**For Steam, Water, Oil, Air & Inert Gasses**  
**BSP Threaded**



The Nabic 542 safety valve is an extremely versatile valve, suitable for use on hot water, steam or air. Although designed primarily for protection of hot water boilers, its wide range of applications make it an ideal general purpose safety valve.

All wetted parts are manufactured from dezincification resistance materials.

**Approvals, Features & Benefits**

- BS6759 & BS EN ISO 4126
- WRAS approved (1 Bar & above)
- UKWFS listed
- Testing lever
- Resilient PTFE seating design
- Diaphragm protected working parts
- Set, tested and certified prior to despatch

**Pressure & Temperature**

Pressure range:-  
DN15 - DN25: 1.0 to 10.5 bar  
DN32 - DN80: 0.3 to 10.5 bar

Temperature range:-  
-20°C to 195°C

DN (R)	15 (1/2")	20 (3/4")	25 (1")	32 (1 1/4")	40 (1 1/2")	50 (2")	65 (2 1/2")	80 (3")
A	30	34	39	46	54	64	76	90
B	23	23	27	33	38	46	55	65
C	113	118	132	153	198	236	275	335
Weight Kg	0.35	0.53	0.80	1.33	2.30	4.20	7.80	12.50

Materials	
Body & Spring Cover	Bronze
Seat Seal	PTFE (Viton option)
Piston	Brass
Spring	Chrome Vanadium Alloy Steel (Stainless Steel option)
Adjusting Screw	Brass
Lever	Brass
Diaphragm	Silicon Rubber
Spindle	Brass
Seat Seal Holder & Retaining Plate	Bronze/Brass

**Also Available With Dome Top - 542L**

The Nabic 542L range are intended for use where pressure tightness is required on the discharge side of the valve. They are ideal for pump relief, bypass relief, outside installations an inflammable fluids.

The valves are of a gunmetal construction with top guided copper alloy parts, chrome vanadium spring and PTFE to metal seating. O-ring seals ensure pressure tightness at cover and cap joints.



**When ordering, the following information is necessary to ensure that the correct size and type of valve is selected.**

1. Service	2. Application
3. System working pressure	4. Set pressure
5. Required maximum Capacity	6. Connections

# 542

## Capacity Charts/Sizing

AIR CAPACITY - 10% OVERPRESSURE (BS EN 4126-1) std. litres/sec (Kdr = 0.19)								
Set Pressure (Bar)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1.0	14	24	38	62	97	151	256	387
2.0	21	37	58	94	148	230	389	590
3.0	28	50	77	127	198	310	523	793
4.0	35	62	97	159	249	389	657	995
6.0	49	88	137	224	350	547	925	1401
8.0	64	113	176	289	452	705	1192	1806
10.0	78	128	216	354	553	864	1460	2212
10.5	81	145	226	370	578	903	1527	2313

To convert to ft<sup>3</sup>/min multiply by 2.1

STEAM CAPACITY - 10% OVERPRESSURE (BS 6759) Kg/hr (Kdr = 0.19)								
Set Pressure (Bar)	DN15*	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1.0	37	66	103	168	263	411	695	1053
2.0	56	100	157	257	401	627	1059	1604
3.0	76	135	211	345	539	842	1423	2156
4.0	95	169	264	433	677	1057	1787	2707
6.0	134	238	372	610	953	1488	2515	3810
8.0	173	307	480	786	1229	1919	3244	4913
10.0	212	376	588	962	1505	2350	3972	6016
10.5	222	393	615	1006	1574	2457	4154	6292

To convert to lb/hr multiply by 2.2

\* The minimum bore size permitted by BS specifications for steam and hot water boilers is 20mm. Capacities given for DN15 size in the tables are for applications outside the scope of these standards.

HOT WATER - UNVENTED SYSTEM CAPACITY - 10% OVERPRESSURE (BS EN 4126-1) kW (Kdr = 0.19)								
Set Pressure (Bar)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1.0	23	41	64	106	165	258	436	660
2.0	35	63	98	161	251	393	664	1005
3.0	48	84	132	216	338	528	892	1351
4.0	60	106	166	271	424	663	1120	1697
6.0	84	149	233	382	597	933	1576	2388
8.0	108	192	301	493	770	1203	2033	3079
10.0	133	236	368	603	943	1472	2489	3770
10.5	139	246	385	631	986	1540	2603	3943

To convert to Btu/hr multiply by 3400

WATER - UNVENTED SYSTEM CAPACITY - 10% OVERPRESSURE (BS EN 4126-1) kg/min (Kdr = 0.19)								
Set Pressure (Bar)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1.0	30	53	83	136	213	332	561	850
2.0	42	75	117	192	301	469	793	1202
3.0	52	92	144	235	368	575	972	1472
4.0	60	106	166	272	425	664	1122	1700
6.0	73	130	203	333	521	813	1374	2082
8.0	85	150	235	385	601	939	1587	2404
10.0	95	168	263	430	672	1050	1774	2687
10.5	97	172	269	441	689	1076	1818	2754

In the above tables, discharge capacities have been calculated in accordance with BS EN 4126-1 & BS 6759, using a rated coefficient of discharge (Kdr) 0.19, approved by AOTC.