



**500**  
**Bronze**  
**Safety Relief Valve**  
**High Capacity, High Lift**  
**For Steam, Water, Oil, Air & Inert Gasses**  
**BSPB Threaded**



The Nabic 500 safety valve is an extremely versatile valve, suitable for use on hot water, steam or air. Although designed primarily for use on unvented hot water heating systems, where a high capacity, emergency steam relief capability is required, it is also 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)
- Testing lever
- Resilient PTFE seating design
- Diaphragm protected working parts
- Drain plug fitted DN32 & above
- Set, tested and certified prior to despatch

**Pressure & Temperature**

Pressure range:-  
DN15 - DN25: 1.0 to 12.5 bar  
DN32 - DN80: 0.4 to 12.5 bar

Temperature range:-  
-20°C to 195°C

DN	15	20	25	32	40	50	65
<b>R (Inlet)</b>	½"	¾"	1"	1¼"	1½"	2"	2½"
<b>R (Outlet)</b>	¾"	1"	1¼"	1½"	2"	2½"	3"
<b>A</b>	33	39	45	54	64	76	90
<b>B</b>	20	24	30	36	41	47	60
<b>C</b>	120	132	155	201	241	267	330
<b>Weight Kg</b>	0.53	0.76	1.35	2.35	4.20	6.80	12.50

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

<b>When ordering, the following information is necessary to ensure that the correct size and type of valve is selected.</b>	
<b>1. Service</b>	<b>2. Application</b>
<b>3. System working pressure</b>	<b>4. Set pressure</b>
<b>5. Required maximum Capacity</b>	<b>6. Connections</b>

# 500

## Capacity Charts/Sizing

### AIR CAPACITY - 10% OVERPRESSURE (BS EN 4126-1) std. litres/sec (Kdr = 0.479)

Set Pressure (Bar)	DN15	DN20	DN25	DN32	DN40	DN50	DN65
1.0	31	61	95	156	244	381	644
2.0	52	93	145	238	372	581	982
3.0	70	125	195	320	500	780	1319
4.0	88	157	245	401	628	980	1656
6.0	124	221	345	565	883	1379	2331
8.0	160	284	445	728	1139	1778	3006
10.0	196	348	545	892	1394	2178	3681
12.5	241	428	670	1096	1714	2677	4524

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

### STEAM CAPACITY - 10% OVERPRESSURE (BS 6759) Kg/hr (Kdr = 0.479)

Set Pressure (Bar)	DN15*	DN20	DN25	DN32	DN40	DN50	DN65
1.0	93	166	259	425	664	1037	1752
2.0	142	253	395	647	1012	1580	2670
3.0	191	340	531	869	1359	2123	3588
4.0	240	427	667	1092	1707	2666	4506
6.0	338	600	938	1537	2402	3752	6341
8.0	436	774	1210	1981	3098	4838	8177
10.0	534	948	1482	2426	3793	5924	10013
12.5	657	1165	1821	2982	4663	7281	12307

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 = 0.479)

Set Pressure (Bar)	DN15	DN20	DN25	DN32	DN40	DN50	DN65
1.0	59	104	162	266	416	650	1098
2.0	59	158	248	405	634	990	1673
3.0	120	213	333	545	852	1330	2248
4.0	151	267	418	684	1070	1670	2824
6.0	212	376	588	963	1505	2351	3974
8.0	273	485	758	1242	1941	3032	5124
10.0	335	594	929	1520	2377	3712	6275
12.5	411	730	1141	1869	2922	4563	7713

To convert to Btu/hr multiply by 3400

The capacities are for unvented (pressurised or sealed) heating systems.

### WATER - UNVENTED SYSTEM CAPACITY - 10% OVERPRESSURE (BS EN 4126-1) kg/min (Kdr = 0.479)

Set Pressure (Bar)	DN15	DN20	DN25	DN32	DN40	DN50	DN65
1.0	75	134	209	343	536	837	1414
2.0	107	189	296	485	758	1183	2000
3.0	131	232	363	594	928	1449	2450
4.0	151	268	419	685	1072	1674	2829
6.0	185	328	513	840	1313	2050	3465
8.0	213	379	592	969	1516	2367	4001
10.0	239	423	662	1084	1695	2646	4473
12.5	267	473	740	1212	1895	2959	5001

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) 0.479, approved by AOTC.