Safety Relief Valve

NABIC®

Applications:

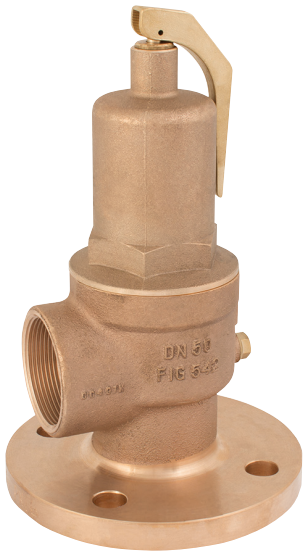
The Fig 542 Safety Valve is an extremely versatile valve, suitable for use on hot water, steam or air. Although designed primarily for the protection of hot water boilers, it's wide range of applicants make it an ideal valve for stocking as a general purpose safety valve.

Construction:

The Fig 542 is of gunmetal construction, with diaphragm protected working parts and PTFE to metal seating. All wetted parts are manufactured from dezincification resistant materials, approved by the Water Research Centre for use on potable water, Inlet and outlet connections are of equal size, with female threads to BS 21. Sizes, from DN32 upwards, are also available with flanged inlet connections.

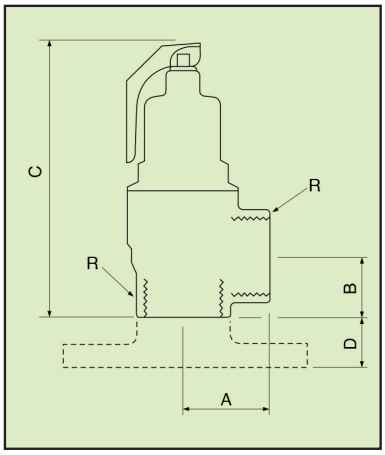
Features:

- Resilient PTFE seating design
- Suitable for hot water, steam or air
- High degree of seat tightness
- Diaphragm protected working parts
- Safe manual testing
- Easy inspection and cleaning
- Pressure setting locked and sealed
- Designed and tested to BS 6759
- Capacities certifiied by AOTC
- Approved by water research centre
- UKWFBS listed
- Padlock available



Body Material: Gunmetal
Max Set Pressure: 10.5 bar
Max Temperature: 195ºC

Dimensions



Size DN	R BSP	A mm	B mm	C mm	D mm
15	1/2	30	23	113	-
20	3/4	34	23	118	-
25	1	39	27	132	-
32	1.1/4	46	33	153	27
40	1.1/2	54	38	198	27
50	2	64	46	236	27
65	2.1/2	76	55	275	28
80	3	90	65	335	31

Discharge Capacities

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 542 capacities are tabulated below to assist selection.

Hot Water - Vented System							
Size	**DN20**	**DN25**	**DN32**	**DN40**	**DN50**	**DN65**	**DN80**
kW	264	352	440	528	732	1142	1640

To convert to Btu/hr multiply by 3400.

The capacities tabulated above include a vent allowance and must only be used for open vented systems.

Hot Water - Unvented System - 10% Overpressure								
Set Pressure bar	**kW**							
	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	47	84	132	216	338	528	892	1351
4.0	60	106	166	271	424	663	1120	1679
6.0	84	149	233	382	597	933	1576	2388
8.0	108	192	301	493	770	1203	2033	3079
10.0	139	246	385	631	986	1540	2603	3943

To convert to Btu/hr multiply by 3400.

Steam - 10% Overpressure								
Set Pressure bar	**kW**							
	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	1058	1787	2708
6.0	134	238	372	610	953	1489	2516	3811
8.0	173	307	480	786	1228	1919	3244	4914
10.0	221	393	615	1007	1573	2458	4154	6293

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 the DN15 size in the above table are for applications outside the scope of these standards.

Air - 10% Overpressure								
Set Pressure bar	**std. litres/sec**							
	DN15*	**DN20**	**DN25**	**DN32**	**DN40**	**DN50**	**DN65**	**DN80**
1.0	14	24	38	62	97	151	256	387
2.0	21	37	58	94	147	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	706	1192	1806
10.0	81	145	226	370	578	904	1527	2313

To convert to ft3/min multiply by 2.1

The unvented hot water, steam and air discharge capacities tabulated above, have been calculated in accordance with BS 6759, using a derated coefficient of discharge (Kdr) of 0.19, approved by AOTC.