

FIG 520 HIGH LIFT SAFETY VALVE

FEATURES & BENEFITS

The NABIC Fig 520 flanged valve has been designed primarily for use on unvented hot water heating systems, where a high capacity, emergency steam relief capability is required. All wetted parts are manufactured from dezincification resistance materials. Designed and tested to BS EN ISO 4126 -1. WRAS approved.

- Size Range: DN65 - DN100
- Resilient PTFE seating design with high degree of seat tightness
- Separate outlets reduce effects of back pressure
- High discharge capacity
- Available with Viton seat design
- Padlock available (complies with M&E3)
- Pressure setting locked and sealed
- Diaphragm protected working parts



PRESSURE RATINGS & TEMPERATURE RANGE

MIN - MAX SET PRESSURE (bar)	MIN - MAX SET TEMPERATURE (°C)
0.4 to 12.5	-20 to 195

DIMENSIONS & WEIGHTS

SIZE DN	Inlet	Ro BSP Outlet	ØA	B (mm)	C (mm)	D (mm)	E (mm)	RD
65	Flange	2"	40	350	152	175	64	1/4"
80	Flange	2 1/2"	50	390	166	195	76	1/4"
100	Flange	3"	65	480	205	210	90	3/8"

PART NAME & MATERIALS

ITEM NO.	PART NAME	MATERIAL
1	Thrust Washer	Brass, BS EN 12164 CW609N
2	Grubscrew	Steel
3	Test Lever	Brass, BS EN 1982 CC754S
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	Diaphragm	Silicon Rubber
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	Lever Pin	Steel
14	Lead Seal	Lead
15	Adjusting Screw	Brass, BS EN 12164 CW609N
16	Spring Plate	Brass, BS EN 12164 CW609N
17	Spindle	Brass, BS EN 12164 CW721R
18	Seat Seal Retaining Plate	Bronze, BS EN 1982 CC491K / Brass BS EN 12164 CW602N (DZR)
19	O-Ring	Viton
20	Seat	Bronze, BS EN 1982 CC491K
21	Seat O-Ring	Viton
22	Drain Plug	Brass, BS EN 12164 CW609N

MEDIUM

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

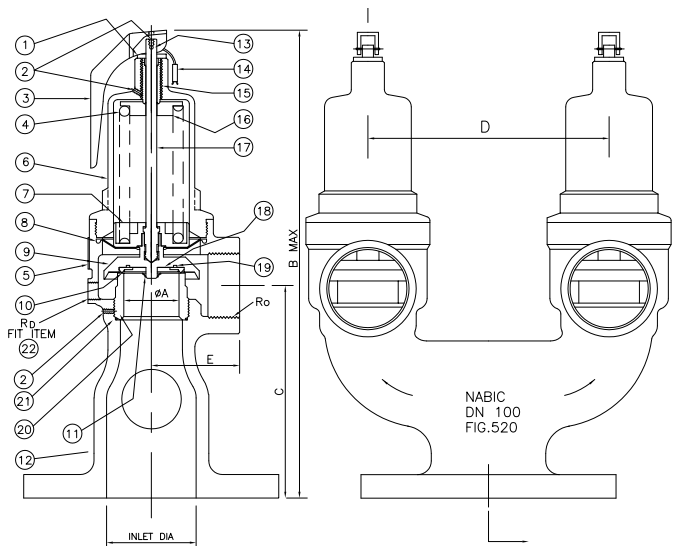
PIPE CONNECTIONS

Flanged inlet connections. Threaded female outlet connections, Rp (BSP) parallel to BS EN 10226-1. Most flange standards can be accommodated.

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 520 capacities are tabulated below to assist selection.

AIR CAPACITY - 10% OVERPRESSURE (BS EN 4126-1)			
SET PRESSURE BAR	std. litres/sec (Kdr=0.479)		
	DN65	DN80	DN100
1.0	488	762	1288
2.0	744	1161	1963
3.0	999	1561	2638
4.0	1255	1960	3313
6.0	1766	2758	4662
8.0	2278	3557	6012
10.0	2789	4355	7362
12.5	3428	5353	9049

To convert to ft³/min multiply by 2.1.

STEAM - 10% OVERPRESSURE (BS6759)			
SET PRESSURE BAR	kg/hr (Kdr=0.479)		
	DN65	DN80	DN100
1.0	1328	2073	3504
2.0	2023	3159	5340
3.0	2718	4245	7176
4.0	3414	5331	9011
6.0	4805	7503	12683
8.0	6196	9675	16354
10.0	7586	11847	20025
12.5	9325	14563	24615

To convert to lb/hr multiply by 2.2.

HOT WATER - UNVENTED SYSTEM - 10% OVERPRESSURE (BS EN 4126-1)			
SET PRESSURE BAR	Kw (Kdr=0.479)		
	DN65	DN80	DN100
1.0	832	1299	2196
2.0	1268	1980	3346
3.0	1704	2660	4497
4.0	2139	3341	5647
6.0	3011	4702	7948
8.0	3883	6063	10249
10.0	4754	7424	12549
12.5	5844	9126	15425

To convert to Btu/hr multiply by 3,400.

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

WATER - UNVENTED SYSTEM - 10% OVERPRESSURE (BS EN 4126-1)			
SET PRESSURE BAR	kg/min water (Kdr=0.479)		
	DN65	DN80	DN100
1.0	1072	1674	2829
2.0	1516	2367	4001
3.0	1856	2899	4900
4.0	2143	3347	5658
6.0	2625	4100	6929
8.0	3031	4734	8001
10.0	3389	5292	8946
12.5	3789	5917	10002

In the above tables, discharge capacities have been calculated in accordance with BS EN 4126-1 & BS 6759, using a derated coefficient of discharge (Kdr) 0.479, approved by AOTC.

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