

### FIG 500FN PRESSURE RELIEF VALVE

#### FEATURES & BENEFITS

The NABIC 500FN safety valve is 316 Stainless Steel construction, designed and tested to BS EN ISO 4126 -1, fitted with resilient PTFE to metal seating design. To improve flow, the internal surface finish of the body is of a high level by utilising the latest casting techniques.

- Size Range: DN15 - DN25
- High discharge capacity
- Pressure tight on discharge side
- Corrosion resistant and suitable for difficult liquids or gases
- Pressure setting locked and sealed



#### PRESSURE RATINGS & TEMPERATURE RANGE

MIN - MAX SET PRESSURE (bar)	MIN - MAX SET TEMPERATURE (°C)
0.4 to 11	-20 to 195

#### DIMENSIONS & WEIGHTS

SIZE DN	Rp BSP Inlet & Outlet	Rp BSP Outlet	A (mm)	B (mm)	C (mm)
15	1/2"	3/4"	33	24	119
20	3/4"	1"	45	60	132
25	1"	1 1/4"	54	64	157

#### PART NAME & MATERIALS

ITEM NO.	PART NAME	MATERIAL
1	Leak Proof Dome	Stainless Steel, BS 970 316S11
2	Locknut	Stainless Steel, BS 970 316S11
3	Dome 'O' Ring	Viton
4	Spring	Stainless Steel, BS 2056 302S26
5	Label	Yellow kapton
6	Spring Cover	Stainless Steel, BS 3146 ANC 4BFC
7	Piston	Stainless Steel, BS 970 316S11
8	Cover Seal	Viton
9	Seat Seal Holder	Stainless Steel, BS 970 316S11
10	Seat Seal	PTFE (Viton Opt)
11	Starlock Washer	Stainless Steel
12	Body	Stainless Steel, BS 3146 ANC 4BFC
13	Adjusting Screw	Stainless Steel, BS 970 316S11
14	Spring Plate	Stainless Steel, BS 970 316S12
15	Spindle	Stainless Steel, BS 970 316S13
16	Seat Seal Retaining Plate	Stainless Steel, BS 970 316S14
17	O-Ring	Viton

#### MEDIUM

Liquids, acids and gases. For specific technical requirements. Check with Technical Department.

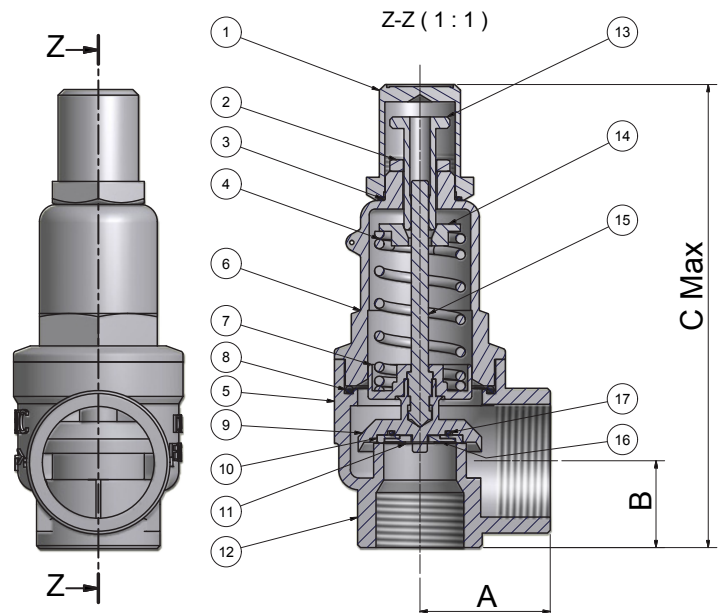
#### PIPE CONNECTIONS

Screwed female inlet and outlet connections. Outlet connection is one size larger than inlet connection. 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



FM00311 ISO 9001



ISO 14001 Reg No. EMS 78657



Pressure Equipment Directive PED 97/23/EC and Article 13 of 2014/68/EU



### 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 500FN capacities are tabulated below to assist selection.

AIR CAPACITY - 10% OVERPRESSURE (BS EN 4126-1)			
SET PRESSURE BAR	std. litres/sec (Kdr=0.275)		
	DN15	DN20	DN25
1.0	20	35	55
2.0	30	53	83
3.0	40	72	112
4.0	51	90	141
6.0	71	127	198
8.0	92	163	255
10.0	113	200	313
11.0	123	218	341

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

STEAM - 10% OVERPRESSURE (BS EN ISO 4126-1:2004)			
SET PRESSURE BAR	kg/hr (Kdr=0.275)		
	DN15	DN20	DN25
1.0	54	95	149
2.0	82	145	227
3.0	110	195	305
4.0	138	245	383
6.0	194	345	539
8.0	250	444	695
10.0	307	544	851
11.0	335	594	929

To convert to lb/hr multiply by 2.2.

HOT WATER - UNVENTED SYSTEM - 10% OVERPRESSURE (BS EN 4126-1)			
SET PRESSURE BAR	Kw (Kdr=0.275)		
	DN15	DN20	DN25
1.0	34	60	93
2.0	51	91	142
3.0	69	122	191
4.0	86	153	240
6.0	122	216	338
8.0	157	278	435
10.0	192	341	533
11.0	210	372	582

To convert to Btu/hr multiply by 3400.

WATER - UNVENTED SYSTEM - 10% OVERPRESSURE (BS EN 4126-1)			
SET PRESSURE BAR	kg/min (Kdr=0.275)		
	DN15	DN20	DN25
1.0	54	77	120
2.0	61	109	170
3.0	75	133	208
4.0	87	154	240
6.0	106	188	294
8.0	123	217	340
10.0	137	243	380
11.0	144	255	399

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) 0.275, approved by AOTC.

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