

Primary characteristics

There are two versions of these safety valves:

With lifting lever - for steam, air and gas.

With closed bonnet - for liquids.

Features of the valves:

- Stainless steel inlet nozzle with integral seat
- Accurately guided stainless steel disc
- The disc guides are above the disc and are thus protected from the erosive action of the medium
- The orifice and internal parts are designed to give high capacity and smooth operation without disc flutter

Design

The valve body is relieved from the high pressure because the inlet nozzle and valve seat are made in one piece, which is screwed into the valve body. The seatings are machined directly on the seat and disc. The safety valves for steam, air and gas are of the highlift type and have two adjustable rings for adjustment of the blow down.

These valves have a lifting lever.

The valves for liquids have a nozzle ring but no lifting lever.

They have a closed bonnet and screwed cap.

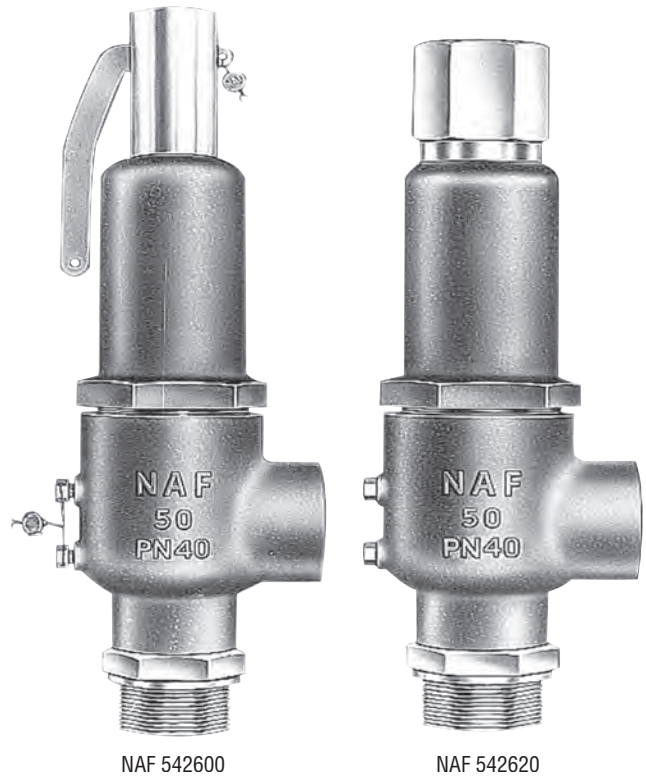
Each valve is tested before delivery and is adjusted to the required set pressure.

CE-marked according to Pressure Equipment Directive (PED 97/23/EG). For fluid group 2. Module H1, category IV.

Application

For steam, air and water, see the table overleaf. Capacity details for gas will be given on request.

Max. back-pressure for NAF 542620: 5% of set pressure.



Working pressure and temperature

NAF 542600 and NAF 542610	max.	40 bar*	air	150°C
	max.	36 bar*	steam	250°C
	min.	2 bar*		

NAF 542620	max.	40 bar*	liquid	150°C
	min.	2 bar*		

*Gauge pressure

Connections

NAF 542600 and 542620 have screwed BSP male Parallel thread at the inlet and a female thread at the outlet. NAF 542610 has a steel flange acc. to EN1092-1 at the inlet and screwed BSP female Parallel thread at the outlet.

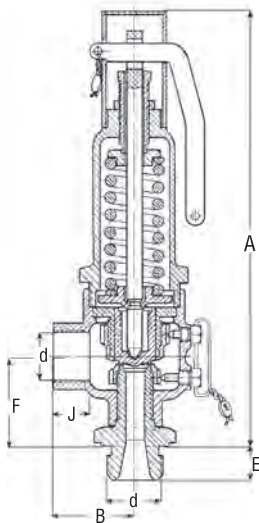
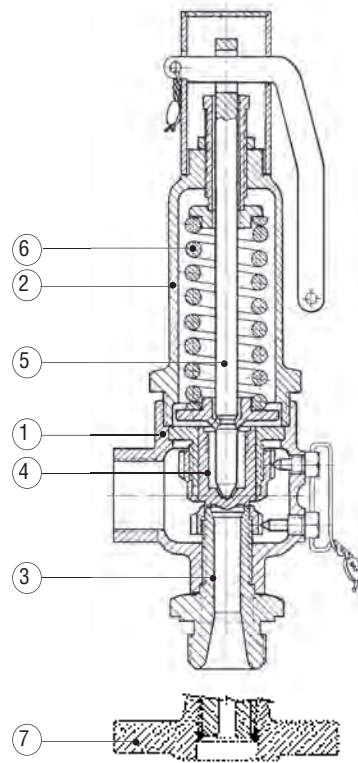
Ordering example

When ordering, state NAF number, set pressure medium and temperature as follows:

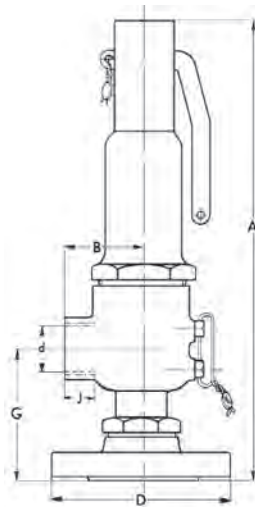
NAF 542600, DN 40, safety valve, 10 bar gauge, saturated steam.

Material specification (Table 1)

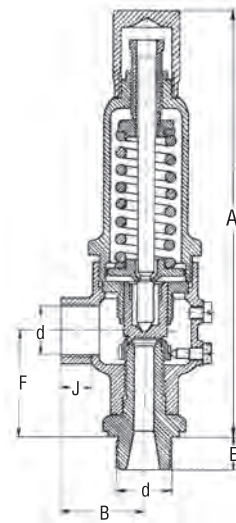
Item	Description	Material
1	Body	Gunmetal EN1982 CC491K
2	Bonnet	Gunmetal EN1982 CC491K
3	Inlet nozzle	Stainless steel SS142303 hardened
4	Disc	Stainless steel SS142303 hardened
5	Stem Stemtip	Brass EN12240 CW614N Stainless steel SS142303 hardened
6	Spring	Springsteel SS 1770 or SS 2090
7	Inlet flange	Carbon steel EN1.0345



NAF 542600



NAF 542610



NAF 542620

(Table 2)

NAF No.	DN	Dimensions										Mass, kg		
		Bore	D	d	E	J	B	F	G	A			Screwed kg	Flanged kg
										542600	542610	542620		
542600 542610 542620	15	7	95	R 1/2"	15	12	35	52	74	205	227	190	1,2	1,8
	20	10	105	R 3/4"	18	16	42	57	85	228	254	213	1,7	2,8
	25	12	115	R 1"	20	20	50	63	91	274	302	253	2,6	4,0
	32	14	140	R 1 1/4"	25	24	58	73	103	308	338	287	3,5	5,7
	40	17	150	R 1 1/2"	25	28	68	84	116	358	390	334	6,0	8,7
	50	20	165	R 2"	30	30	75	96	130	400	425	375	8,0	11,0

Dimensions in mm unless otherwise indicated

(Table 3)

Setting ranges of springs in bar gauges ¹⁾ DN 15-50
2-7
7-12
12-19
19-26
26-32
32-40

¹⁾ If two springs can be used for a pressure range, choose the one with the highest setting range

Capacities (Table 4)

DN	15	20	25	32	40	50	15	20	25	32	40	50	15	20	25	32	40	50
Set pressure bar *	NAF 542600 / 10** Capacities in kg/h of saturated steam at 10 % overpressure						NAF 542600 / 10 Capacities in m ³ /h of free air at 10 % overpressure						NAF 542620 Capacities in m ³ /h of water at 10 % overpressure					
2	51	104	150	204	300	415	65,2	133,0	191,6	260,8	384,5	532,1	0,72	1,44	2,10	2,82	4,20	5,82
3	68	138	198	270	398	551	87,2	178,0	256,3	348,8	514,3	711,8	1,02	2,10	3,00	4,14	6,06	8,40
4	84	172	247	336	496	686	109,0	223,0	321,2	437,2	644,6	892,3	1,14	2,34	3,36	4,62	6,78	9,36
5	100	205	295	402	593	820	131,0	286,1	385,9	525,2	774,5	1072,0	1,26	2,58	3,72	5,04	7,44	10,26
6	117	239	343	467	689	954	153,0	312,9	450,5	613,3	904,3	1251,6	1,38	2,76	4,02	5,46	8,04	11,10
7	133	282	391	533	786	1087	175,0	358	515,5	701,7	1034,6	1432,0	1,44	2,94	4,26	5,82	8,58	11,88
8	150	305	439	598	882	1221	197,7	403,4	581,0	790,7	1167,0	1613,8	1,56	3,12	4,50	6,18	9,06	12,60
9	166	338	487	663	978	1354	219,6	448,2	645,4	878,5	1254,9	1792,8	1,62	3,30	4,80	6,48	9,60	13,26
10	182	372	535	728	1074	1486	241,5	493,0	709,8	966,1	1424,6	1971,8	1,68	3,48	4,98	6,84	10,02	13,92
11	198	405	583	793	1170	1619	263,6	538,0	774,8	1054,6	1554,9	2152,1	1,80	3,66	5,22	7,14	10,50	14,52
12	215	438	631	858	1266	1752	285,5	582,6	838,9	1149,9	1683,7	2330,4	1,86	3,78	5,46	7,44	10,92	15,12
13	231	471	689	923	1361	1884	307,7	628,0	904,4	1231,0	1815,1	2512,2	1,92	3,90	5,64	7,68	11,34	15,66
14	247	504	726	988	1457	2017	329,6	672,6	968,6	1318,3	1943,9	2690,5	1,98	4,08	5,81	7,98	11,76	16,26
15	263	537	774	1053	1553	2150	351,8	718,0	1034,0	1407,4	2075,2	2872,3	2,04	4,20	6,06	8,22	12,12	16,74
16	280	571	822	1118	1649	2282	374,1	763,5	1099,4	1496,5	2206,0	3054,1	2,10	4,32	6,24	8,46	12,48	17,28
17	296	604	869	1183	1745	2415	396,0	808,1	1163,6	1583,8	2335,4	3232,3	2,16	4,44	6,42	8,70	12,84	17,76
18	312	637	917	1248	1841	2548	417,8	852,7	1227,8	1671,2	2464,1	3410,6	2,22	4,56	6,60	8,94	13,20	18,30
19	328	670	965	1314	1937	2681	440,1	898,1	1293,2	1760,3	2595,5	3592,4	2,28	4,68	6,72	9,18	13,56	18,72
20	345	703	1013	1379	2033	2814	462,4	943,5	1358,7	1849,3	2726,8	3774,2	2,34	4,80	6,90	9,42	13,86	19,20
22	377	770	1109	1509	2225	3079	506,0	1032,7	1487,0	2024,0	2784,5	4130,8	2,46	5,04	7,26	9,84	14,52	20,10
24	410	836	1205	1639	2417	3346	550,5	1123,6	1618,0	2202,2	3249,1	4764,3	2,58	5,22	7,56	10,25	15,12	20,94
26	443	903	1301	1771	2611	3614	594,2	1212,7	1745,3	2376,9	3504,7	4850,9	2,70	5,46	7,86	10,68	15,82	21,78
28	476	971	1398	1902	2805	3882	638,8	1303,6	1877,2	2555,0	3767,5	5214,5	2,76	5,64	8,10	11,04	16,32	22,56
30	508	1038	1494	2034	2998	4150	683,3	1394,5	2008,1	2733,2	4030,1	5578,0	2,88	5,82	8,40	11,45	16,86	23,34
32	541	1105	1591	2166	3193	4419	727,0	1483,6	2136,4	2907,9	4287,7	5934,6	2,94	6,00	8,64	11,82	17,40	24,06
34	575	1173	1688	2298	3389	4690	770,6	1572,8	2264,7	3082,6	4545,3	6291,1	3,06	6,18	8,94	12,18	17,94	24,78
36	608	1240	1786	2431	3584	4961	815,2	1663,7	2395,7	3260,8	4804,0	6654,7	3,12	6,36	9,18	12,48	18,42	25,50
38	-	-	-	-	-	-	859,7	1754,6	2526,5	3439,0	5070,7	7018,3	3,24	6,54	9,42	12,84	18,90	26,16
40	-	-	-	-	-	-	903,4	1843,7	2660,0	3613,7	5328,3	7374,8	3,30	6,72	9,66	13,14	19,38	26,82

* Gauge pressure

** According to Swedish boiler code 90 % of guaranteed capacity should be taken as a basis when selecting safety valves for steam.

Capacity data for media not listed in the table above will be given on request.



V&A

www.valve.co.za

Johannesburg	Tel	: 011-397 2833
	Fax	: 011-397 4700
	E-mail	: sales.jhb@valve.co.za
Durban	Tel	: 031-579 2593
	Fax	: 031-579 2562
	E-mail	: sales@valve.co.za