

### Primary characteristics

These safety valves are intended for liquids, air and other gases that do not attack the material of the valve. In this type of valve, the lifting washer above the valve disc gives the disc a high lift and discharge capacity. The version with a bellows seal prevents the medium from escaping to the surroundings.

The safety valves have:

- a spring which is entirely outside the medium
- a cap and cover that prevent unauthorized effect of the spring adjusting screw or spring
- lifting washer

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

### Design

The valves are spring-loaded and are equipped with a lifting lever. The valve body is of angle pattern design and is provided with a tapped drain hole. The joint between the valve body and the yoke bonnet is flanged. On this valve type, the spring adjusting screw is fitted with a cap and the spring is enclosed by a cover to protect these parts. The valve disc is provided with a lifting washer and the seating surfaces of the valve seat and disc are made of stainless steel. These valves are available with or without bellows seal. Valves with bellows seal are used in applications in which escape of the medium to the surroundings is not permissible. Each valve is provided with an identification plate, and is, when delivered, tested and adjusted at the factory for the required set pressure.

### Test pressure

The inlet part of the valve is subjected to hydrostatic testing at a pressure of 1.5 x PN.

Air is used for checking the set pressure and the operation of the valve.

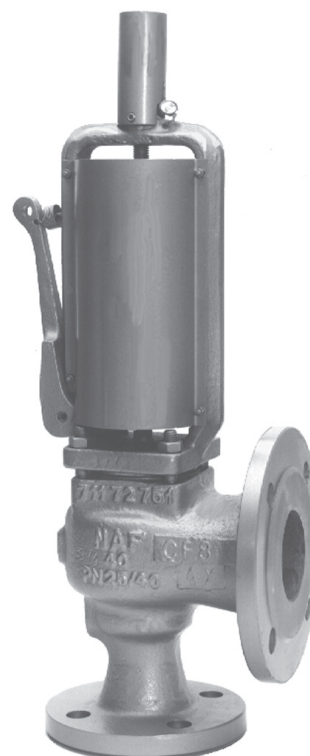
### Connections (Table 1)

The safety valves have drilled flanges with raised face in accordance with the following standards.

Tryck-klass PN	NAF nr	Valve flanges		Counter flanges for welding	
		Inlet	Outlet	Inlet	Outlet
25/40	548645/46	EN1092-1 (PN40)	EN1092-1 (PN16)	DIN2635 (SS2035)	DIN2633 (SS2033)
64/100	548845/46	EN1092-1 (PN100)	EN1092-1 (PN16)	DIN2637 (SS2037)	DIN2633 (SS2033)

### Capacity

For water and air, see pages 3 and 4. For other media, consult NAF.



### Applications

For liquids and gases that do not attack the materials of the valve.

### Pressure and temperature limits (Table 2)

In accordance with en1092-1:2000, although with the pressure and temperature limitations tabulated below

Max. temperature °C	Max. pressure bar (g)	
	PN 25/40	PN 64/100
20	36,4	91,1
50	34,7	86,7
100	31,1	77,8
150	28,1	70,2
200	25,8	64,4
250	24,0	60,0
300	21,3	56,4

### Selection table (Table 3)

The safety valves are manufactured to the following PN, DN and set pressures:

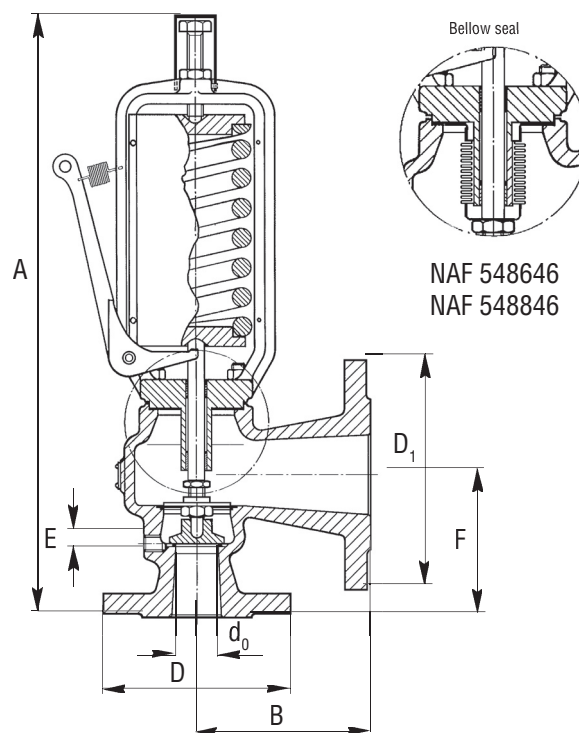
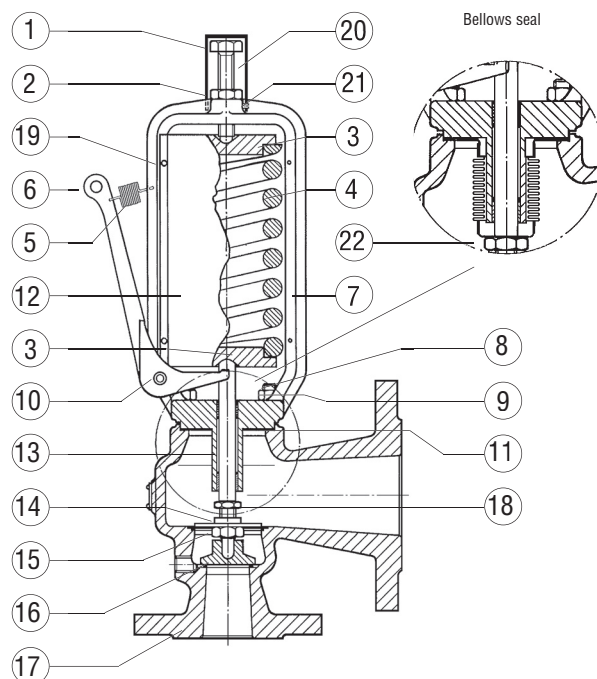
NAF No.		Pressure Class PN	Connection DN	Set Pressure (ps) bar(e)	
Without bellows	With bellows			Min.	Max.
548645	548646	25/40	25,40	1,5	40
			50,80	1,5	16
548845	548846	64/100	25	1,5	100

**Material specification (Table 4)**

Item	Part	Material *
1	Spring adjust screw	Steel St 8.8
2	Locknut	A4
3	Spring washer	A4
4	Spring	Stainless steel SS 1774 / SS 2090
5	Spring	Spring steel SS 1770
6	Lifting lever	Nodular cast iron/steel
7	Yoke bonnet	Stainless steel EN 1.4408
8	Stud	A4
9	Hex. nut	A4
10	Tension pin	Spring steel SS1770
11	Gasket	Graphite
12	Cover	Surface-treated sheet steel
13	Stern	EN1.4460
14	Lifting washer	A4
15	Hex. nut	A4
16	Disc Sealing surface	EN1.4436 Machined in the disc
17	Valve body Valve seat	Stainless steel EN 1.4408 Machined in the body
18	Lift limiter	Stainless steel SS2343
19	Screw	Stainless steel
20	Cap	Surface-treated steel
21	Set screw	A4
22 **	Bälg	EN1.4301

\* The material used conforms to Swedish standards. Nearest corresponding ASTM-standards mentioned.

\*\* Applies to valve with bellows seal



**Dimensions and weights (Table 5)**

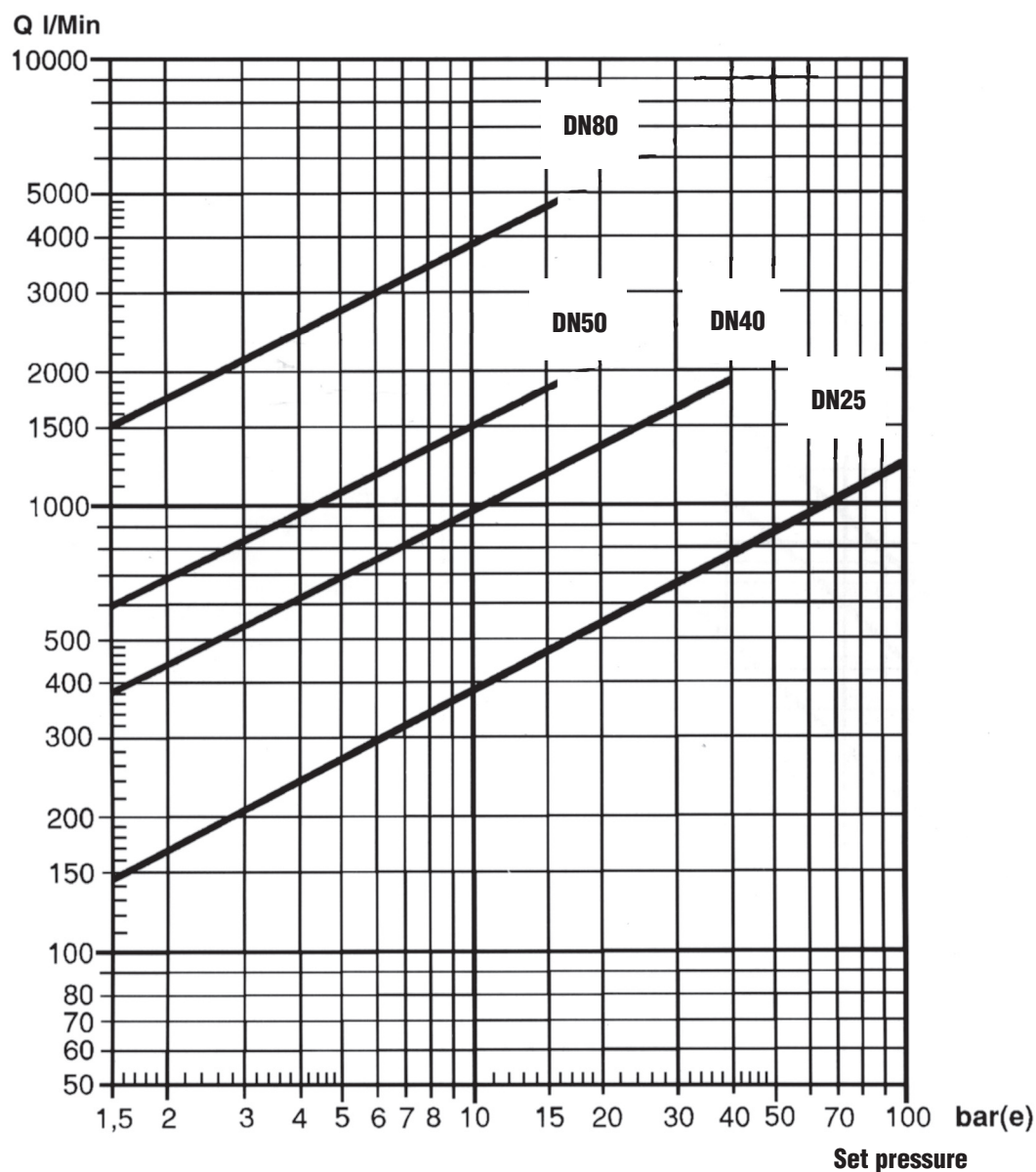
(All dimensions in mm)

NAF No.	Pressure Class PN	DN Inlet/Outlet	d <sub>0</sub>	D	D <sub>1</sub>	A	B	F	E	Mass kg
548645/46	25/40	25 x 40	22	115	150	375	100	105	R 1/4"	5
		40 x 65	35	150	185	515	115	140	R 1/4"	13
		50 x 80	44	165	200	545	120	150	R 1/2"	15
		80 x 125	70	200	250	780	160	195	R 1/2"	41
548845/46	64/100	25 x 40	22	140	150	405	100	105	R 1/4"	11

## Capacities

### Cold water

Flow capacities in l/min. including 10% overpressure



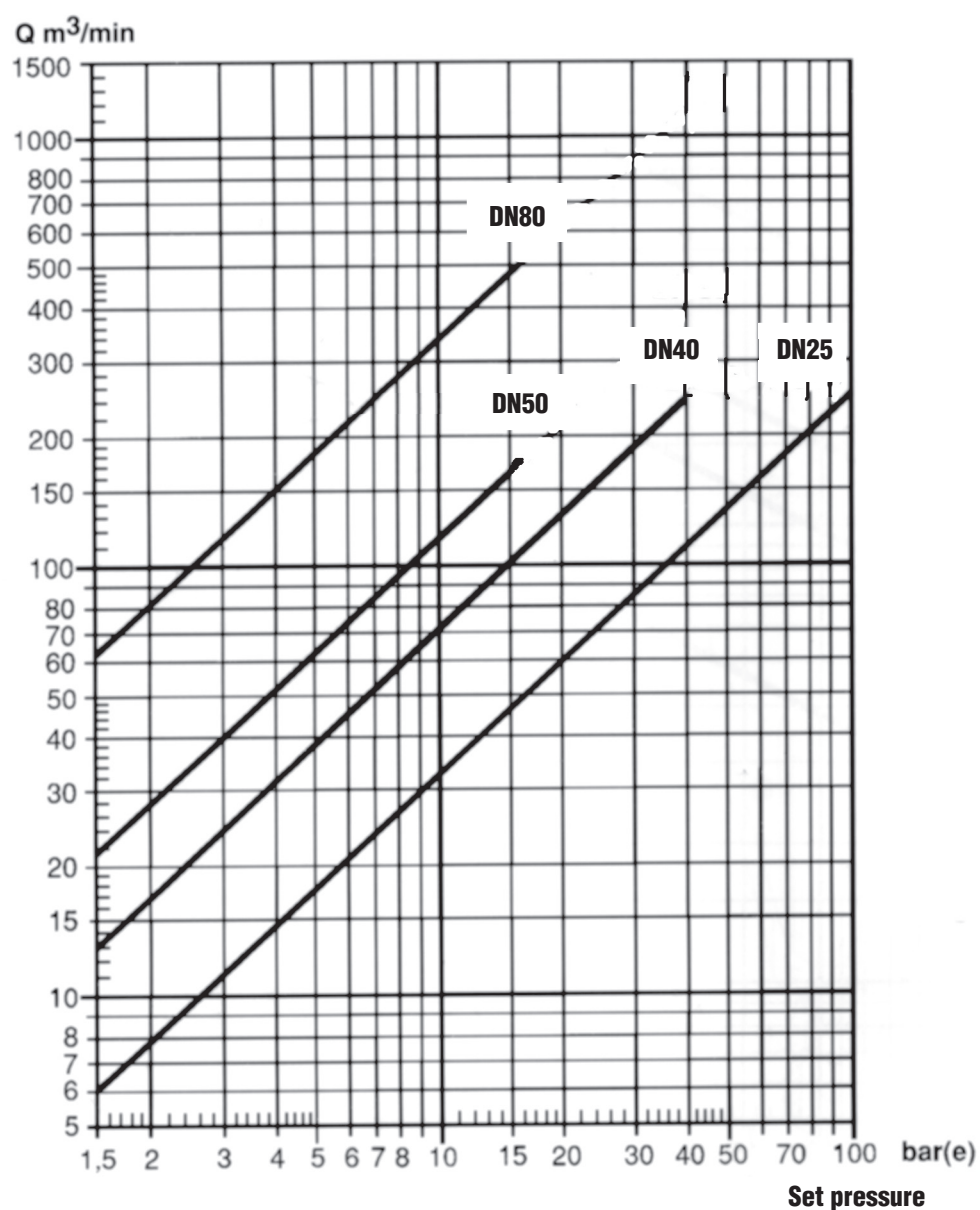
### Ordering example - cold water

When placing the order, please specify the type designation, DN, set pressure, temperature, medium and required capacity as follows:

NAF 548645 DN 40 x 65 for set pressure = 20 bar(g),  
water, 20°C. Capacity of 1200 l/min.

### Air

Capacities in m<sup>3</sup>/min. of free air, including 10% overpressure.



### Instructions

For detailed instructions concerning installation, operation, use and spare parts, see Fi 46.61.