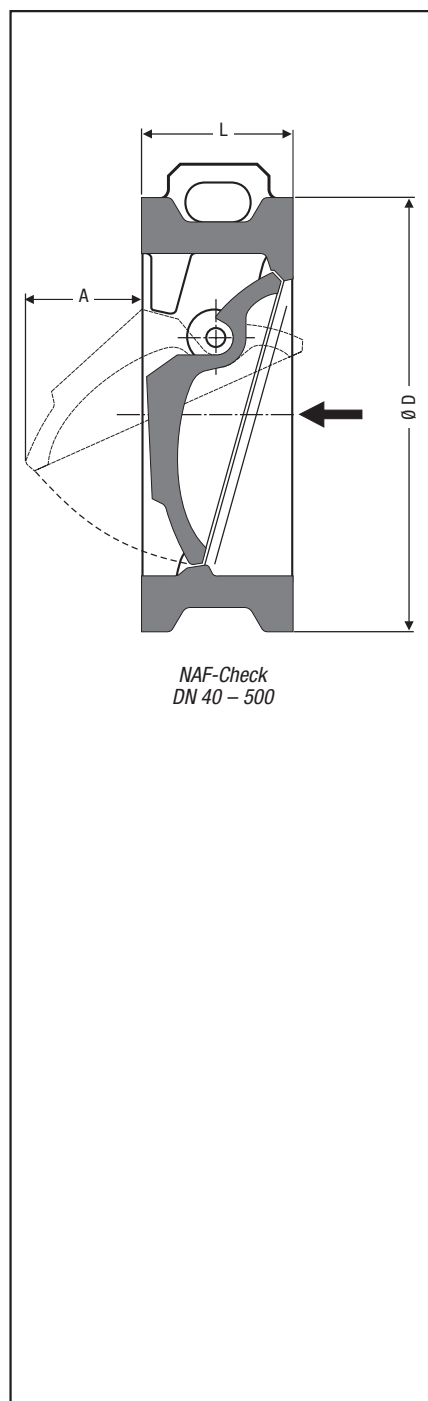


NAF-Check Valves DN 40 – 500 mm, PN 10 – 40

EN Series, short overall length to DIN EN 558-1, table 11, series 16 (corresponds to DIN 3202, part 3, series K 3)



Application and Features

Type	PN	Application	Features
		for liquids, gases and vapours	
NAF-Check	PN 10 – 40	particularly suitable for fibrous media, e. g. in paper industry	excellent hydrodynamic properties, excentric flap suspension, low resistance coefficient

Materials

Design	Part designation	Nominal size DN [mm]	EN / ASME	Equivalent
Steel	Body	40 – 50	1.4404	A316 L
		65 – 200	1.4308	A351 CF8
		250	1.4408	A351 CF8M
		300 – 500	1.0619	ASTM A216 WCB
	Flap	40 + 50	ASTM A487 Gr CA6NM	EN 1.4313
		65 – 500	1.4317	ASTM A743
Stainless steel	Body	40 – 50	1.4406	ASTM A316 L
		65 – 500	1.4408	ASTM A351 CF8M
	Flap	40 – 500	1.4470	ASTM A890

Weight and Dimensions

Type	PN	DN [mm]	Dimensions [mm]			Weight [kg]
526 620 ¹⁾ 526 630 ²⁾ 528 620 ¹⁾ 528 630 ²⁾	PN 10 – 40	40	84	33	15	1.2
		50	92	43	5	1.7
		65	108	46	12	1.7
		80	128	64	16	3
		100	158	64	26	5
		125	180	70	36	7
		150	203	76	51	9
		200	263	89	71	16
		250	315	114	90	28
526 520 ¹⁾ 528 530 ²⁾ 528 520 ¹⁾ 528 530 ²⁾	PN 10 – 25	300	370	114	125	41
		350	432	127	146	48
		400	480	140	175	65
		450	530	152	188	94
		500	592	152	228	115

DN 600 – DN 1000 on request

¹⁾ without spring

²⁾ with spring

Pressure/Temperature Ratings

Design	Type	PN	DN [mm]	Max. service pressure [bar] / related temperatures [°C] ³⁾										
				20	100	150	200	250	300	350	400	450	500	525
Steel down to –10 °C at nominal pressure	526 620/30	PN 40	40 – 250	40.0	36.3	32.7	26.9	27.6	25.7	24.5	23.8	–	–	–
	526 520/30	PN 25	300 – 500	25.0	23.2	22.0	20.8	19.0	17.2	16	14.8	–	–	–
Stainless steel ⁴⁾ down to –30 °C at nominal pressure	528 620/30	PN 40	40 – 250	40.0	40.0	36.3	33.7	31.8	–	–	–	–	–	–
	528 520/30	PN 25	300 – 500	25.0	25.0	22.7	21.0	19.8	–	–	–	–	–	–

³⁾ Max. temperature rating for design with spring: + 300 °C.

⁴⁾ If the operating temperatures exceed 300 °C intercrystalline corrosion may occur. Do not subject the equipment to operating temperatures higher than 300 °C unless intercrystalline corrosion can be ruled out.

Pressure Drop Chart

The curves given in the chart are valid for water at 20 °C. To read the pressure drop for other fluids the equivalent water volume flowrate must be calculated and used in the graph $\dot{V}_w$.

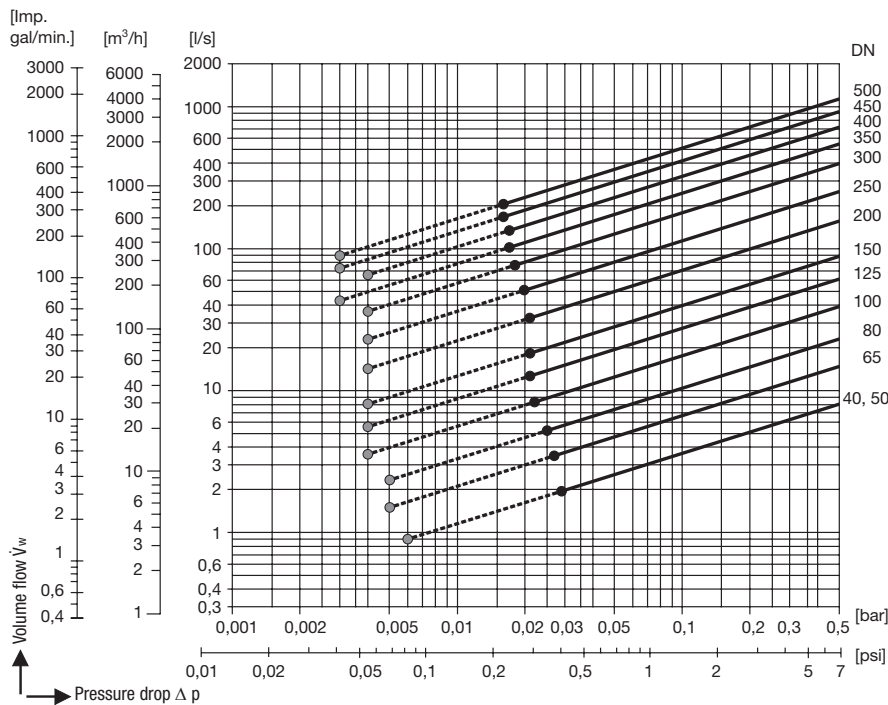
The values indicated in the chart are applicable for spring-assisted valves with horizontal flow and to valves without spring installed in vertical pipes with upward flow.

$$\dot{V}_w = \dot{V} \cdot \sqrt{\frac{\rho}{1000}}$$

$\dot{V}_w$ = Equivalent water volume flow
in [l/s] or [m³/h]

ρ = Density of fluid
(operating condition) in [kg/m³]

$\dot{V}$ = Volume of fluid (operating
condition) in [l/s] or [m³/h]



- Required minimum volume flow $\dot{V}_w$ for equipment without spring installed in vertical pipes with upward flow.
- Required minimum volume flow $\dot{V}_w$ for equipment with standard spring and horizontal flow.