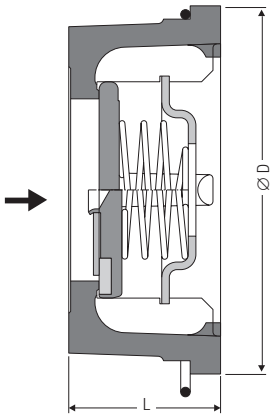
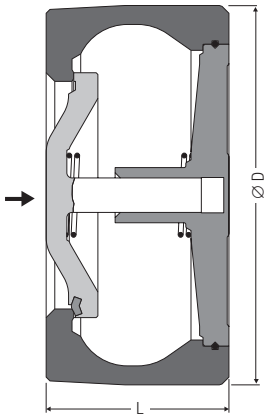


DN 15 to 100



DN 125 to 200

Non-Return Valve
RK 44S, PN 6/10/16, DN 15-200

Application for liquids, gases, vapours, sea water, drinking water, low temperatures.

Pressure/Temperature Ratings for valves with metal-to-metal seat

Nominal sizes	DN	15-200
Nominal pressure	PN	16[1])
Service pressure Service temperature	[barg] [°C]	16 90[2])
Minimum temperature	[°C]	-200[3])

[1]) Mechanical strength of the equipment also approved for ANSI 125
[2]) Without spring for upward flow up to 16 bar and 120 °C or up to 13 bar and 250 °C.
[3]) Minimum temperature for nominal pressure rating.

Soft seals (Application only within the limits for metal-to-metal seating.)
EPDM: –40 to +150 °C for water, condensate and steam.
FPM (FKM): –25 to +200 °C for oils, gases and air.

These values are only applicable if they are within the rated limits for metal-to-metal seats.

Tightness with soft seats of EPDM and FPM in accordance with DIN 3230, part 3, leakage rates BN 1, BO1. Permissible leakage rates with metal-to-metal seats in accordance with DIN 3230, part 3, leakage rates BN 2, BO 3.

For additional information on chemical resistance go to www.gestra.de and click on “Technical Support” and then on **“Chemical Resistance”**

End connections of wafer-type valves[4])

Standard valves for fitting between flanges to		
DIN	BS	ANSI
DIN 2501 PN 6/10/16	BS 10 Table D, E, F	ANSI B 16.1 Class 125 FF

[4]) DN 15–100 with spiral centering ring.

Dimensions

Nominal size	[mm] [inch]	15 ½	20 ¾	25 1	32 1¼	40 1½	50 2	65 2½	80 3	100 4	125 5	150 6	200 8
Dimensions [mm]	L[5])	16	19	22	28	31.5	40	46	50	60	90	106	140
	∅ D	42	49	58	74	84	97	117	132	152	184	209	264
Weight	[kg]	0.1	0.2	0.25	0.5	0.7	1.1	1.4	2	3.2	9	12.9	25.5

[5]) Short overall length to DIN 3202, part 3, series K4.

Materials

DN 15-100	DIN	
Body, seat and guide ribs	CC480K-GS	2.1050
Valve disc	CC483K-GS	2.1052
Spring retainer	CW352H	2.0872
Spring to close	CuSn6 F 90	2.1020
Centering ring	X12CrNi17 7	1.4310
DN 125-200		
Body, seat	CC483K-GC	2.1052
Valve cone, guide	CC480K-GS	2.1050
Spring to close	CuSn6 F 90	2.1020

Non-Return Valve

RK 44S, PN 6/10/16, DN 15-200

Opening Pressures

Differential pressures at zero volume flow.

DN	Opening pressures [mbar]			
	Direction of flow			
	without spring	with spring		
	↑	↑	→	↓
15	2.5	25	22.5	20
20	2.5	25	22.5	20
25	2.5	25	22.5	20
32	3.5	27	23.5	20
40	4.0	28	24.0	20
50	4.5	29	24.5	20
65	5.0	30	25.0	20
80	5.5	31	25.5	20
100	6.5	33	26.5	20
125	12.5	35	22.5	10
150	14.0	38	24.0	10
200	13.5	37	23.5	10

Specification Text

GESTRA Non-return valve RK 44s, PN 6/10/16.

Wafer design with extremely short overall length to EN 558-1, table 11, series 49.

Suitable for fitting between pipe flanges to DIN, BS and ANSI.

Indication of nominal pressure, nominal size and body material.

Metal-to-metal seat or soft seat (EPDM or FPM).

Inspection & Certification

Documentation regarding material tests and in-house examination with test report to EN 10204-2.2 or inspection certificate EN 10204-3.1 available at extra cost. Please state the inspection and certification requirements when inquiring or ordering. After supply of the equipment certification cannot be established. Charges and extent of the above mentioned certificates as well as the different tests confirmed therein are listed in our price list "Test and Inspection Charges for Standard Equipment". For other test certificates please consult us.

Order Specifications

Type RK 44S, DN . . .
Metal-to-metal seat or EPDM or FPM.
Additional information: Fluid, flowrate, service pressure and temperature. Standard designation of pipe flanges.

Please note:
The valves should not be used on compressors or where pulsating flow exists.
For these applications please consult us.

Supply in accordance with our general terms of business.

Pressure Drop Chart

The curves given in the chart are valid for water at 20°C. For other fluids it is necessary to calculate an equivalent water volume flowrate $\dot{V}_w$ and use this in the chart.

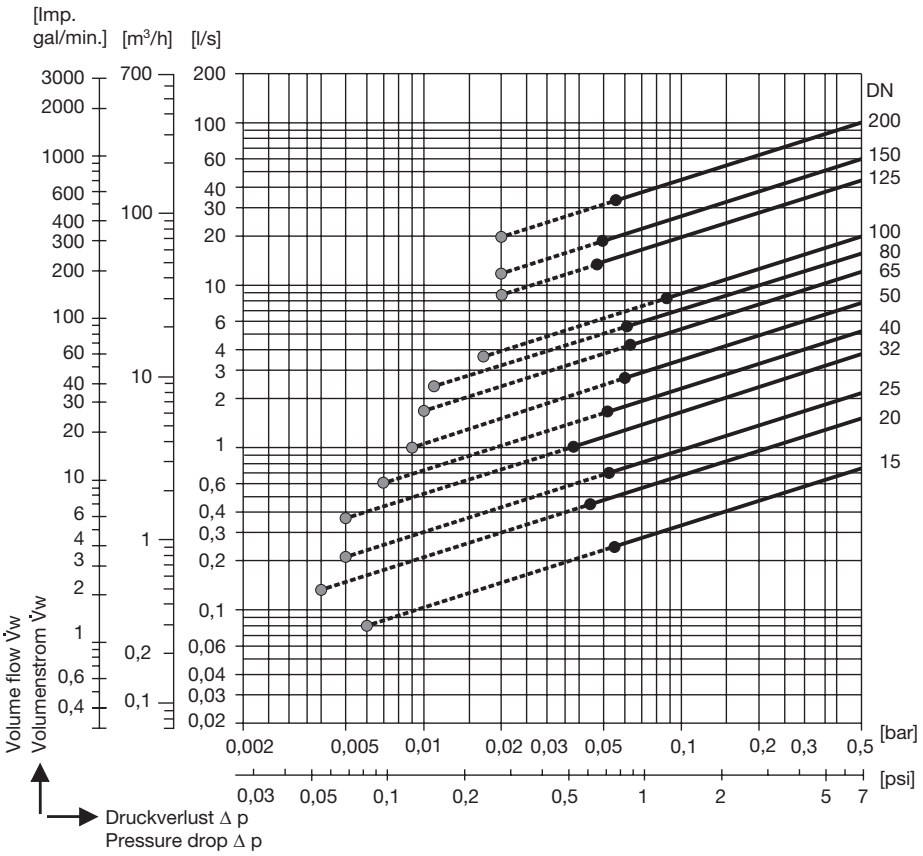
The pressure drop values indicated in the chart are applicable to spring-assisted valves with horizontal flow and to valves without spring mounted in vertical pipes with upward flow.

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

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

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

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



● Required minimum volume flowrate $\dot{V}_w$ for equipment fitted with standard spring and mounted in horizontal pipes.

● Required minimum volume flowrate $\dot{V}_w$ for equipment fitted without spring and mounted in vertical pipes with upward flow.

PED (Pressure Equipment Directive)

The equipment fulfills the requirements of the Pressure Equipment Directive PED 97/23/EC. For use with fluids of group 2. With CE marking (apart from equipment that is excluded from the scope of the PED as specified in section 3.3). For more information please refer to our PED Declaration of Conformity.

ATEX (Atmosphère Explosible)

The equipment does not have ist own potential source of ignition and is therefore not subject to the ATEX Directive 94/9/EC. Applicable in Ex zones 0, 1, 2, 20, 21, 22 (1999/92/EC). The equipment does not bear an Ex marking. For more information refer to our ATEX Declaration of Manufacturer.

GESTRA AG

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