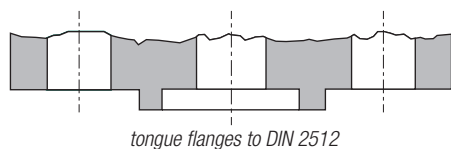
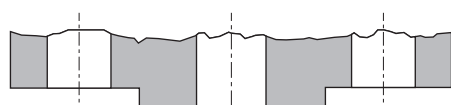


DN 15-100

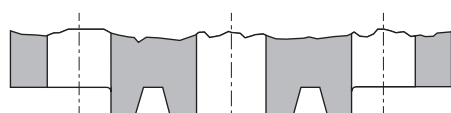
Machining of facing, e. g. for



tongue flanges to DIN 2512



male flanges to DIN 2513



ANSI 150 RJ, ANSI 300 RJ

Non-Return Valve

RK 16C, PN 40, DN 15-100

Hastelloy C

Application for particularly aggressive fluids, e. g. in the chemical industry.

Pressure & temperature ratings

Nominal sizes	DN	15 – 100			
Nominal pressure	PN	40 ¹⁾			
Service pressure	[barg]	40	36	34	32
Service temperature	[°C]	120	200	250	400
Minimum temperature	[°C]	-200 ²⁾			

¹⁾ Mechanical strength of the equipment also approved for ANSI 125/150/300.

²⁾ Minimum temperature for nominal pressure rating.

End connections of wafer-type valves

DIN	For fitting between flanges to BS	ANSI
DIN 2501 PN 10-40 ³⁾ DIN 2512 Form F 2513 Form V13	BS 10 Table D, E or Table F or Table H, J	ANSI B 16.1 Class 125 FF ANSI B 16.5 Class 150 RF or RJ ANSI B 16.5 Class 300 RF or RJ

³⁾ Order nominal size 100 for PN 10/16 or PN 25/40.

Dimensions for DIN connections ⁴⁾

Nominal size		[mm] [inch]	15 ½	20 ¾	25 1	32 1¼	40 1½	50 2	65 2½	80 3	100 4
Dimensions indicated in mm	L ⁵⁾		25	31.5	35.5	40	45	56	63	71	80
	D	DIN 2501 PN 10-40									
		DIN 2512	52	63	72	81	93	108	128	143	163 ⁶⁾
		DIN 2513									
Weight		[kg]	0.26	0.42	0.62	0.88	1.28	2.2	3.4	4.8	7.4

⁴⁾ Note that Ø D is different for connections to BS or ANSI.

⁵⁾ Short overall length to DIN EN 558-2, series 52 (≠ DIN 3202, part 3, series K5).

⁶⁾ For counter-flanges PN 25/40 with raised face: Ø D = 169.

Materials

Design	DN 15-100 Hastelloy C	
Body, seat and guide ribs	NiMo16Cr16Ti	2.4610
Valve disc		
Spring retainer		
Spring to close		

Non-Return Valve
RK 16C, PN 40, DN 15-100
Hastelloy C

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

Special springs for given opening pressures available on request at extra cost.

Specification Text

GESTRA Non-return valves RK.
Wafer-type design with short overall length to DIN 3202.K5.
Suitable for fitting between pipe flanges to DIN, BS or ANSI..
Indication of nominal pressure, nominal size, body material and type of end connection.

Inspection & Certification

Documentation regarding material tests and in-house examination with test report EN10204-2.2 or inspection certificate EN10204-3.1 or 3.2 available at extra cost. All inspection requirements have to be stated with the enquiry or order. After supply of the equipment certification cannot be established. Charges and extent of the above mentioned test certificates as well as the different tests confirmed therein are listed in our Price List "Test and Inspection Charges for Standard Equipment". For other tests and inspections than those listed above, please consult us.

Order Specifications

Type RK 16C, DN.....,
For flanges to DIN..... or BS..... or ANSI.....
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.

Test certificates according to EN 10204 available on request.

Supply in accordance with our general terms of business.

Pressure Drop Chart

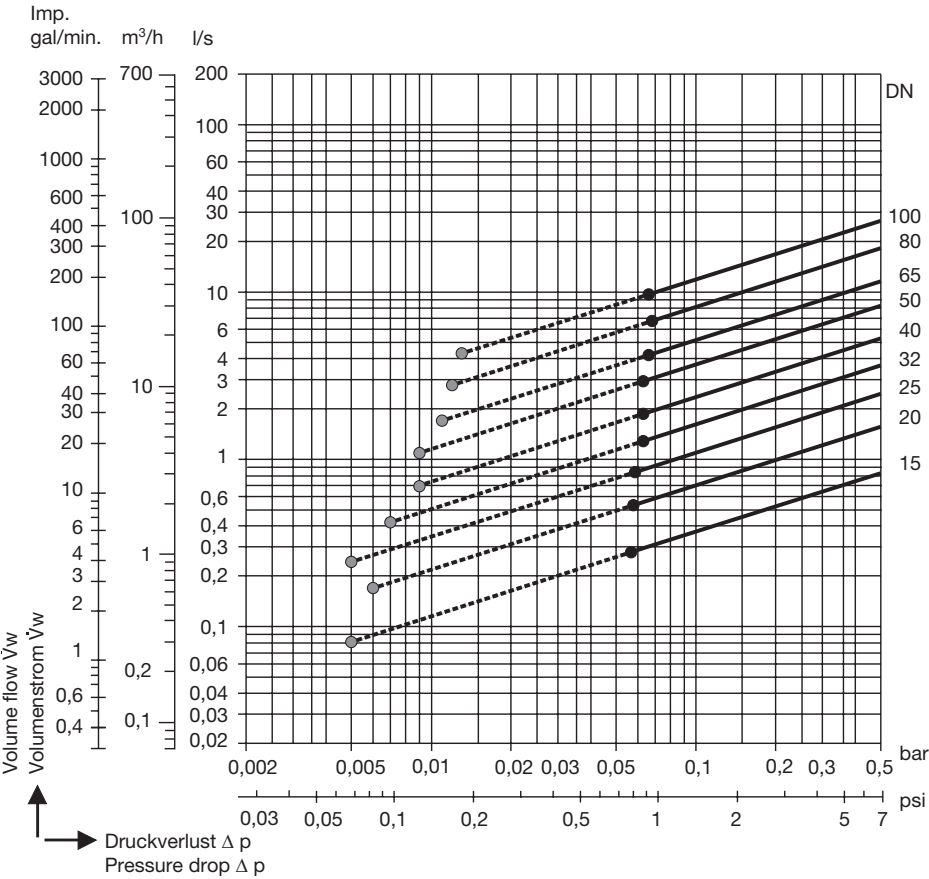
The curves given in the chart are valid for water at 20°C. For other fluids it is necessary to calculate an equivalent water volume flowrate $\dot{V}_w$ and use this in the chart.
The pressure drop values indicated in the chart are applicable to spring-assisted valves with horizontal flow and to valves without spring mounted in vertical pipes with upward flow.

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

$$\dot{V}_w = \text{Equivalent water volume flowrate in [l/s] or [m}^3\text{/h]}$$

$$\rho = \text{Density of the fluid (operating condition) in [kg/m}^3\text{]}$$

$$\dot{V} = \text{Volume flowrate of the fluid (operating condition) in [l/s] or [m}^3\text{/h]}$$



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

PED (Pressure Equipment Directive)

The equipment fulfills the requirements of the Pressure Equipment Directive PED 97/23/EC. For use with fluids of group 1 and 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 its 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 GmbH

Münchener Straße 77, 28215 Bremen, Germany
Tel. +49 421 3503-0, Fax +49 421 3503-393
E-mail info@de.gestra.com, Web www.gestra.com

