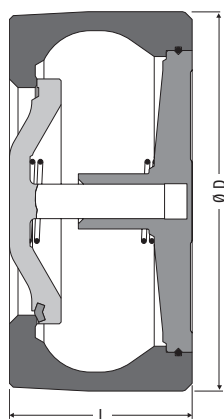
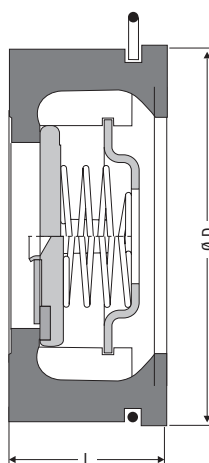


RK 41/RK 44/RK 44S
DN 15 – 100 mm



RK 41/RK 44/RK 44S
DN 125 – 200 mm



RK 76
DN 15 – 100 mm

Application

Type	PN	
RK 41	16	For liquids, gases, vapours. Application as gravity circulation check, vacuum breaker, breather, foot valve, pressure-maintaining valve, check valve. RK 41 especially suited for heating installations, RK 44 and RK 44S for sea water and drinking water, RK 76 for industrial applications
RK 44	16	
RK 44S	16	
RK 76	40	

Body Material

Type		Nominal sizes (DN)	DIN reference	ASTM equivalent ¹⁾
RK 41	Body	15 – 100 mm	Special brass (CW710R)	Special Brass
	Valve disk		1.4571	AISI 316 Ti
	Body	125 – 200 mm	Grey cast iron (EN-JL 1040)	A126 Class B
	Plug		1.4006	A182 F6
RK 44	Body	15 – 100 mm	Bronze (CC480 K-GS)	B584 C90500
	Valve disk		1.4571	AISI 316 Ti
	Body	125 – 200 mm	Grey cast iron (EN-JL 1040)	A126 Class B
	Plug		Bronze (CC480 K-GS)	B584 C90500
RK 44S	Body	15 – 100 mm	Bronze (CC480 K-GS)	B584 C90500
	Valve disk		Bronze (CW352H)	–
	Body	125 – 200 mm	Bronze (CC483 K-GC)	B505 C90700
	Plug		Bronze (CC480 K-GS)	B584 C90500
RK 76	Body	15 – 100 mm	1.4107	A217-CA15
	Valve disk		1.4571	AISI 316 Ti

¹⁾ ASTM material similar to EN material.

Observe different physical and chemical properties!

Dimensions

	DN	[mm]	15	20	25	32	40	50	65	80	100	125	150	200
		[in]	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
	L	[mm]	16	19	22	28	31,5	40	46	50	60	90	106	140
RK 41	D	[mm]	40	47	56	72	82	95	115	132	152	184	209	264
RK 44	D	[mm]	42	49	58	74	84	97	117	132	152	184	209	264
RK 44S	D	[mm]	42	49	58	74	84	97	117	132	152	184	209	264
RK 76	D	[mm]	45	55	65	75	85	98	118	134	154	–	–	–

Pressure/Temperature Ratings with metal-to-metal seat

Type	PN	Nominal sizes DN	PMA / TMA / [bar] / [°C]		
RK 41	16	15 – 100	16 / -60	14 / 200	13 / 250
	16	125 – 200	16 / -10	13 / 200	13 / 300
RK 44	16	15 – 100	16 / -200	14 / 200	13 / 250
	16	125 – 200	16 / -10	14 / 200	13 / 250
RK 44S	16	15 – 200	16 / -200	16 / 90	16 / 90
RK 76	40 / Cl 300	15 – 100	49.6 / -10	35.8 / 200	31.6 / 300

Designs

Type	Seat				Springs			Earthing connection
	metal-to-metal	EPDM (–40 up to 150 °C) ²⁾	FPM (–25 up to 200 °C) ²⁾	PTFE (–190 up to 250 °C) ²⁾	without spring	special spring	Nimonic spring	
RK 41	X	0	0	–	0	0	–	Use RK 86
RK 44	X	0	0	–	0	0	–	
RK 44S	X	0	0	–	0	–	–	
RK 76	X	0	0	0	0	0	0	

²⁾ Observe pressure/temp. ratings of the equipment X : standard 0 : optional – : not available

Pressure Drop Charts

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.

The values indicated in the chart are applicable to spring-loaded valves with horizontal flow. With vertical flow insignificant deviations occur only within the range of partial opening.

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

$\dot{V}_w$ = 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]

Opening Pressures

Differential pressures at zero volume flow.

RK 41, RK 44, RK 76¹⁾

DN	Opening pressures [mbar]			
	Direction of flow			
	without spring	with spring		
	↑	↑	→	↓
15	2.5	10	7.5	5
20	2.5	10	7.5	5
25	2.5	10	7.5	5
32	3.5	12	8.5	5
40	4.0	13	9	5
50	4.5	14	9.5	5
65	5.0	15	10	5
80	5.5	16	10.5	5
100	6.5	18	11.5	5
125	12.5	35	22.5	10
150	14.0	38	24.0	10
200	13.5	37	23.5	10

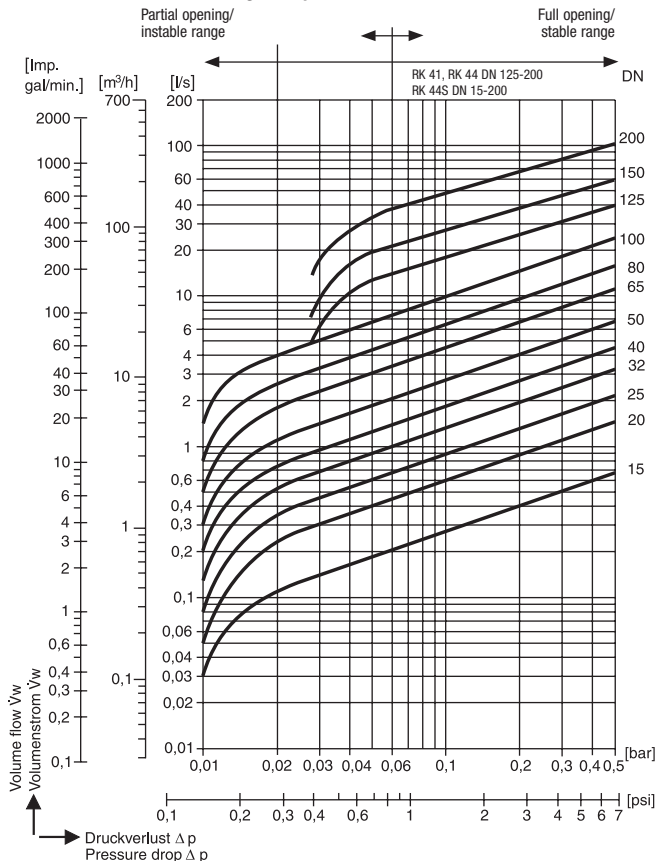
¹⁾ only DN 15-100

RK 44S

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

RK 41, RK 44, RK 44S

When selecting valve please consider:



RK 76

When selecting valve please consider:

