Flanged check valves with disk counterseat

DIN PN 10 - 40 —— DN 250 to 400 mm
ANSI 125 - 300 —— 10" to 16"

RG 11, 21, 31

Application

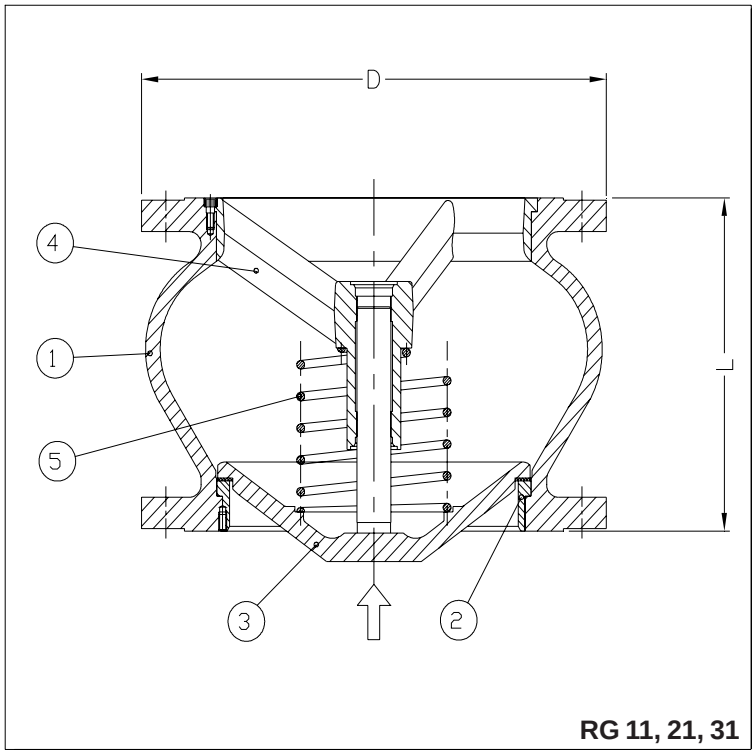
The RG check valves, with conical disk counterseat form are used to avoid the return of liquids, gases and steam in pipings. They are also indicated to be applied as feet valve in pumping lines, ventilation or vacuum arresterelements and as safety devices in rotation lines.

Main characteristics

- Short body, it saves space;
- Lighter weight, easy handling;
- Reduced stroke, it softens the closing blow;
- Soon closing time, it minimizes the reflux;
- Useful long life;
- Minimum maintenance;
- They can be installed in any position.

Presentation

They are basically composed of flanged body, seat, disk, guide and spring.



RG 11, 21, 31

Technical competence, materials and connections

Model			RG 11	RG 21	RG 31
Nominal diameter		(mm) (pol)	250 10"	300 12"	350 14"	400 16"
Max. service pressure		bar (PSI)	10(140) 8(115) 7(100)	25(355) 20(285) 13(185)	40(570) 32(455) 21(300)
Max. correspondent temp.		°C (°F)	120(248) 200(392) 250(482)	120(248) 250(482) 400(752)	120(248) 250(482) 400(752)
Materials	1	Body	Cast iron ASTM A 126 GR. B	Cast steel ASTM A 216 WCB	
	2 3 4	Seat Disk with stem Complete guide	Cast bronze ASTM B 62	Cast stainless steel ASTM A 351 CF 8 (AISI 304)	
	5	Spring	Stainless steel ASTM A 313 (type 302)		
Flanged connections			PN 10 - ANSI 125	PN 25 - ANSI 150	PN 40 - ANSI 300

Measures and weights

Model		RG 11, 21, 31			
Nominal diameter	(mm) (pol)	250 10"	300 12"	350 14"	400 16"
Measures	(mm)				
L		275	355	395	444
D		390	468	536	615
Approximated weight	(kg) (lb)	90 198	135 297	165 363	260 572

Installation

They can be installed in any position, noticing just the flow indicatiing arrow, on
When installed downstrear
compressors drove by a pistor
install a compensation chamber

Optionals*

-Rubber (perbunam) or Teflon
-Basket type filter for the RG's valve.
***The optional items are sup of price increase.**

Operation

The input flow pressure displac the valve against the spring forc Pressure chart) in direction o passage to the fluid. Interrupti the backpressure downstream (3) in direction to the seat (2), closing the valve. The reduced stroke and the actions of the spring shorten the closing time softening the closing blow and minimizing the reflux before complete obstruction of the seat by disk.

Opening pressure (in mbar)

DN		Without spring	With spring		
mm	pol	↑	↑	→	↓
250	10"	2	48	29	12
300	12"	2,3	55	33	12
350	14"	2,5	59	35	12
400	16"	2,6	65	38	14

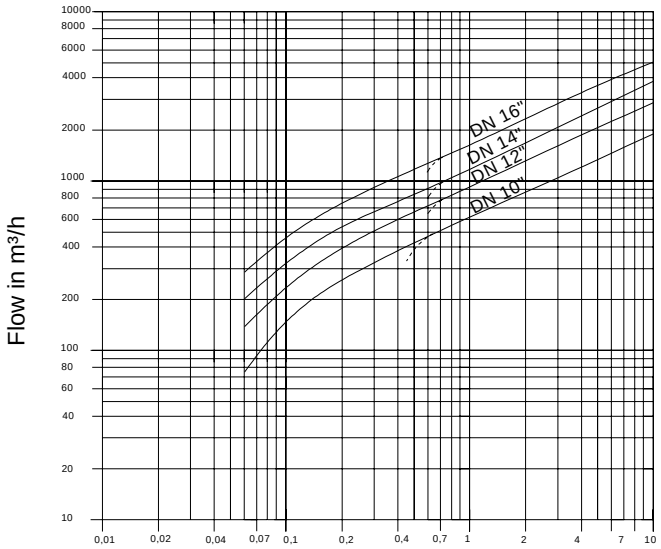
Load loss chart

The curves of the chart prevail for water at 20 °C / 68 °F. To determine the load loss of other fluids, the equivalent water flow is calculated, applying the following formula:

$$V_w = \sqrt{\frac{\rho}{1000}} \cdot V$$ where

V_w = Equivalent water flow in m³/h.
ρ = Fluid density (service condition) in kg/m³.
V = Fluid flow (service condition) in m³/h.

Load loss chart



The values indicated on the chart are based in valves provides of spring and mounted in horizontal position. If the flow is vertical, insignificant variations will occur only within partial opening limits.

Important

We must remember that in the most industrial installations, the Δp of the check valve does not cause any effect in the general performance of the system and, therefore, does not cause any influence in the choice of the valve.

Data for sizing

ASCA will make pleasure the sizing
For this purpose must be supplied:
- Service temperature and pressure;
- Circulating fluid;
- Nominal diameter;
- Pressure norm and class of the flanges between that the valve will be mounted.

Standard specification

Flanged check valves with disk counterseat model RG ..... from ASCA according to prospect PR-02.30.10-I
Flanged connections.....
Pressure class.....
Per norm.....
Nominal diameter.....
Optionals.....

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