Gillain & Co
HYGIENIC EQUIPMENT FOR FOOD & LIFE SCIENCES

The Safe Choice For High Purity Applications

LKC UltraPure Non-return Valve

Concept
LKC is a non-return valve preventing reverse flow in a system. The UltraPure execution is designed and documented to meet the demand in industries like BioPharm and Personal Care.

Working principle
The spring acts on the valve plug and keep the valve closed until the force from the pressure in the inlet exceeds the force of the spring. If a reverse flow should occur the spring force and the pressure from the outlet will keep the valve closed.

Standard Design
The valve body is made in two parts that are assembled with a clamp ring. A guide disc and four legs guide the spring loaded valve plug in the valve body.

TECHNICAL DATA
Max. product pressure: . . . . . 1000 kPa (10 bar)
Required differential pressure for opening the valve when fitted in a vertical pipe, as shown in fig. 2, is approx. 6 kPa (0.06 bar).

PHYSICAL DATA

Product wetted steel part	1.4404 (316L)
	Acc. to EN 10088 or equal (AISI 316L)
Other steel parts	1.4301 (304)
	Acc. to AISI 304
Spring	Electropolished

Elastomers

Product wetted elastomer	EPDM
	Acc. to FDA and USP Class VI
	Temperature: -10°C - 140°C
Product wetted elastomer	FPM
	Acc. to FDA
	Temperature: -10°C - 180°C

Surface specification (Product wetted steel parts)

Alfa Laval designation 7	Internal: Ra < 0.8 µm
	ASME BPE designation: SF3
	External: Ra < 0.8 µm
Alfa Laval designation PL	Internal: Ra < 0.5 µm
	ASME BPE designation: SF1
	External: Ra < 0.8 µm

Connections

Weld ends	Matching tubes and fittings: ISO 2037 / Series A/DIN
	Acc. to ISO or DIN
Clamp ends	Matching tubes and fittings: ISO 2037 / Series A/DIN
	Acc. to ISO or DIN

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Pressure drop/capacity diagram

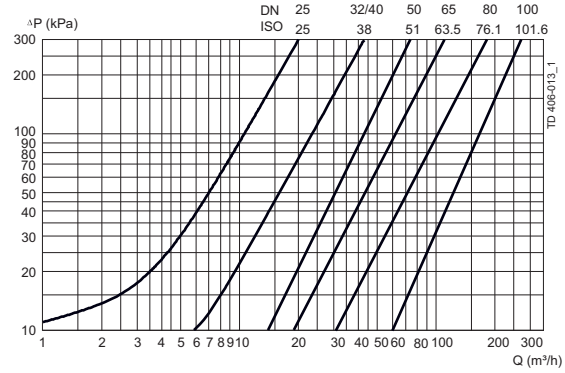

Fig.1. **Note!**
For the diagram the following applies:
Medium: Water (20°C).
Measurement: In accordance with VDI 2173.

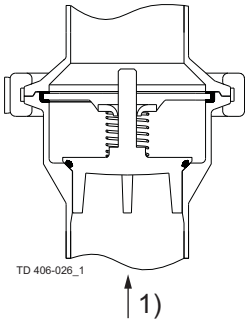

Fig.2.
1 = Flow direction.
Shows the optimal built-in situation to make sure the valve is drainable. The four guide legs of the valve cone ensures good alignment.
90° rotation.

Dimensions (mm)

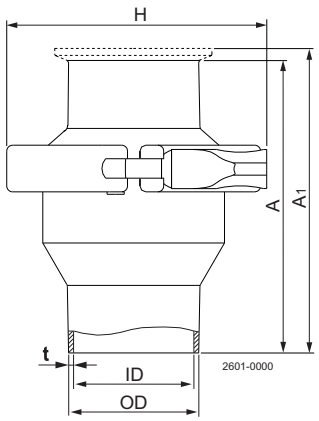

Table 1. Dimensions.

	ISO						DIN						
Size	**25**	**38**	**51**	**63.5**	**76.1**	**101.6**	**25**	**32**	**40**	**50**	**65**	**80**	**100**
A	62.5	75.0	87.5	95.0	115.0	155.0	62.5	75.0	75.0	87.5	95.0	115.0	155.0
A_1	105.5	118.0	130.5	138.0	158.0	198.0	105.5	118.0	118.0	130.5	151.0	171.0	211.0
OD	25.4	38.4	51.4	63.9	76.4	102.0	30.0	36.0	42.0	54.0	70.0	85.0	104.0
ID	22.5	35.5	48.5	60.5	72.0	97.6	26.0	32.0	38.0	50.0	66.0	81.0	100.0
t	1.45	1.45	1.45	1.7	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0
H	77.4	90.4	103.6	132.6	144.0	164.0	77.4	90.4	90.4	103.6	132.6	144.0	164.0
Weight (kg):													
Welding ends	0.7	1.0	1.3	2.1	2.9	4.3	0.7	1.0	1.0	1.3	2.1	2.9	4.3
Clamp ends	0.9	1.1	1.4	2.5	3.4	4.7	0.9	1.1	1.1	1.4	2.5	3.4	4.7

TD 900-563

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