Ball-type non-return valves

XCk

If a liquid ring vacuum pump is put out of operation (by switching off or by power failure), air or gas can enter the suction side out of the discharge orifice through the stopped pump. This causes a reflux of the service liquid into the suction line.

By installation of a ball-type non-return valve, a sudden ventilation of the suction line and at the same lime of the connected vacuum tank, can be avoided; also the reflux of the service liquid will be prevented.

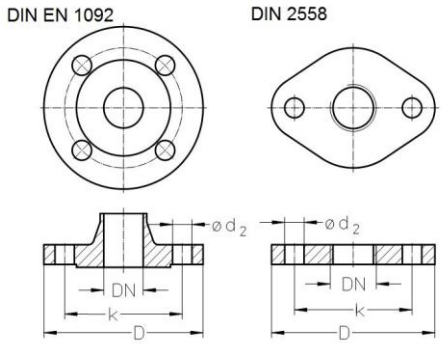
The construction of the valve is very simple. The pressure rise, occurring when the pump is switched off, presses an elastic valve ball into a correspondingly shaped seat in the upper part of the valve.

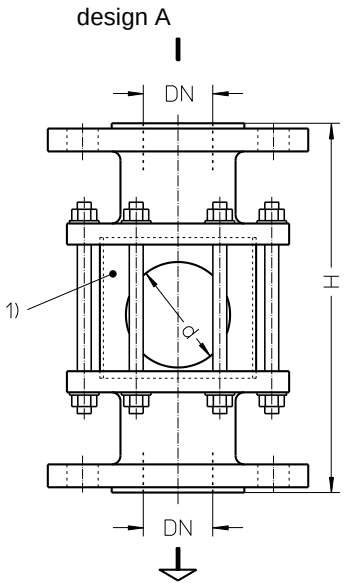
The installation position of the ball-type non-return valve in the space, whether vertical, horizontal or inclined, has no influence on its functionality. The flow direction has to be observed.

The leakage flow of the closed valve is very small. If an extreme tightness is required, a vacuum safety valve is installed additionally after the ball-type non-return valve.

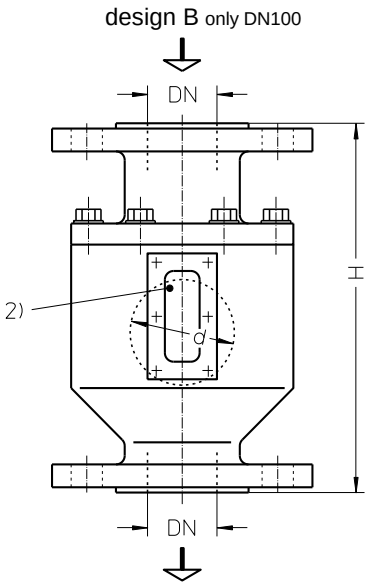
The pressure losses in the valve are very low when it is opened.

series	size	design	DN	H	d	weight abt. kg
XCk	324	A	32	190	50	7
	406		40	210	60	7
	506		50	225	70	8,5
	656		65	240	80	10
	806		80	265	100	12
	1006	B	100	335	120	29





1) glass cylinder
nominal casing pressure 2 bar
temperature max. 60°C



2) sight glass, on both sides
nominal casing pressure 10 bar
temperature max. 60°C

flange connections to DIN EN 1092 PN 10						DIN 2558 PN 6
DN	40	50	65	80	100	32
k	110	125	145	160	180	90
D	150	165	185	200	220	118
number x d_2	4 x 18	4 x 18	4 x 18	8 x 18	8 x 18	2 x 14

Material design and order notes

		order number at material design		
		763	764	211
Flanges		0.6025		1.4408
Cylinder		Jena glass *		
Valve ball		NBR	PTFE	
XCk	324	20 072 832	20 072 833	20 072 831
	406	20 072 835	20 072 836	20 072 834
	506	20 072 838	20 072 849	20 072 837
	656	20 072 851	20 072 852	20 072 850
	806	20 072 854	20 072 855	20 072 853
	1006	20 072 856	20 072 857	-

* XCk 1006 is delivered with cylinder of 0.6025 with sight glass

Any changes in the interest of the technical development are reserved.

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Ball-type non-return valves

XCk

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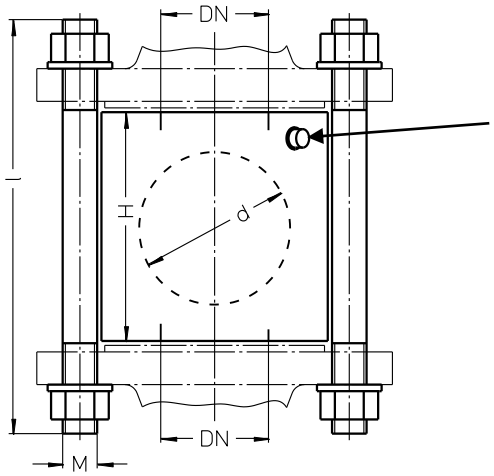
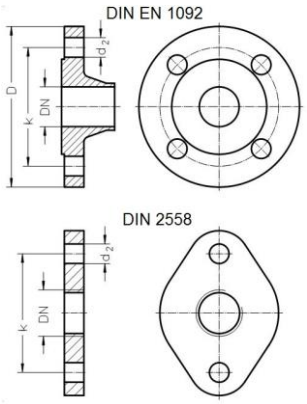


series + size		DN	H	d	number x M x l	weight abt. kg material design		
						767	783/792	784/793
XCk	32	32	80	50	2 x M12 x 150	1,2	1,3	3,0
	40	40	95	60	4 x M16 x 170	2,8	2,8	5,2
	50	50	105	70	4 x M16 x 190	3,6	3,8	10,8
	65	65	135	80	4 x M16 x 220	5,6	5,6	15,8
	80	80	165	100	8 x M16 x 250	12,8	12,8	14,0
	100	100	195	120	8 x M16 x 290	16,0	16,2	17,5
	150	150	270	185	8 x M20 x 370	35,8	36,0	43,0



flange connections to DIN EN 1092 PN 10							DIN 2558 PN 6
DN	40	50	65	80	100	150	32
k	110	125	145	160	180	240	90
D	150	165	185	200	220	285	-
number x d_2	4 x 18	4 x 18	4 x 18	8 x 18	8 x 18	8 x 22	2 x 14

Material design

COMPONENTS	MATERIAL DESIGN - STANDARD		
	767	783	784
Valve casing	0.6025		1.4571 / 1.4408
Valve ball and O-ring	Perbunan	PTFE	

The following requirements must be implemented when using the XCk ball-type non return valves in a potentially explosive atmosphere:

- Ball-type non return valves according to the Explosion Directive must be designed with a ball made of electricity conductive material.
- An electricity conductive contact of the valve casing must be provided for the earthed pump casing.
  If the material of the flange gasket is non conductive, you have to use the alternative ground connection on the casing.

COMPONENTS	MATERIAL DESIGN - EX	
	792	793
Valve casing	0.6025	1.4571 bzw. 1.4408
Valve ball	PTFE / PTFE, electrically conductive	
Flange gasket	Graphite with SS-Insert	

Order notes

series + size		order number at material design				
		767	783	784	792	793
XCk	32	20 072 744	20 072 769	20 085 240	20 092 786	20 092 803
	40	20 072 746	20 072 745	20 029 494	20 092 787	20 092 804
	50	20 072 792	20 072 791	20 029 498	20 092 788	20 092 805
	65	20 072 794	20 072 793	20 029 500	20 092 799	20 092 806
	80	20 072 796	20 072 795	20 006 976	20 092 800	20 092 807
	100	20 072 798	20 072 797	20 006 983	20 092 801	20 092 808
	150	20 072 800	20 072 799	20 006 987	20 092 802	20 092 809

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