

DISC TYPE NON SLAM CHECK VALVE

LEHRY offers disc check valve (wafer type) especially for chemical, Food processing, Pharmaceuticals, Pulp and Paper, Textiles, Power generation, Refrigeration & Air Conditioning etc. The valves are used in Oil lines, Processing line, Hot and cold water systems, steam and condensates, Gas lines etc.

SALIENT FEATURES:

- ❖ Disc Check Valve is an advanced design which gives full flow and occupy very less space than other type of Non Return Valve. This also available with IBR Certificate in Form III C.
- ❖ DCVs are simple to fit between two pipe flanges.
- ❖ Spring loaded disc to prevent reverse flow in pipe lines.
- ❖ Stronger, lighter and smaller than conventional swing check valves, hence less expensive to install and maintain.
- ❖ Compact Design of valves flexibly accommodates various types of flange selection.
- ❖ The valves can be fitted in any plane/direction in pipelines.
- ❖ Available in 15mm to 100mm sizes.
- ❖ Extremely low operating pressure. Self-Centering type design.
- ❖ Zero leakage for soft seated valves.
- ❖ Testing : As per API 598.



Size Range: 1/2" to 4" S/E

Size Range Upto : 1/2" to Wafer Type

Technical Specifications

Body Construction	ASTM A 351 Gr. CF8 / CF8M ASTM A 216 Gr. WCB.
Disc	AISI 304 or AISI 316 (Bar Stock).
Spring	Standard
Spring Retainer	AISI 304 or AISI 316.
Disc Seat	Metal to Metal EPDM/Nitrile - Soft Seated for water and PTFE / viton - soft seated for oil & gases.
Pressure Rating	PN 40.
Flange Standard	BS 10 Table D,E & H (65NB & 80NB will not be fitted between 'E' flanges)
	DIN: Pn6, 10, 16, 25, 40.
	JIS 5, 10, 16, 20 (40NB, 50NB, 80NB & 100NB will not be fitted between JIS 5 flanges)

Construction : -

- 1) **Body :**
The Single Piece Investment cast body is precision machined and designed to withstand specified pressures. The lugs in the body act as a guide for the smooth movement of the disc in operation. The cam shape on the outer diameter of the body facilitates self centering of the valve during installation.
- 2) **Disc :**
Precision machined and lapped (in case of metal seating) discs are designed to withstand the operating pressures & resist wear & tear in operation.
- 3) **Springs :**
The specially designed springs are of Stainless Steel and ensure positive closing even at low back pressure in anyplane.

Operations:

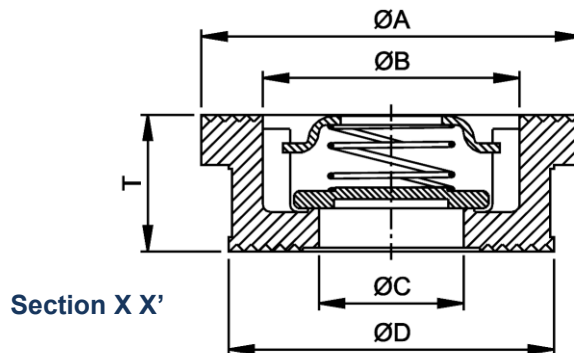
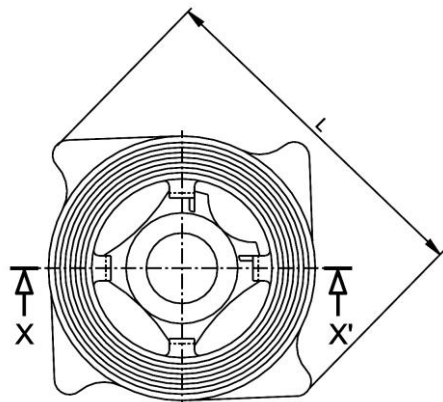
Disc Check Valves are opened by the pressure of the fluid and closed through compression spring as soon as flow stops thus preventing reverse flow.

To Install :

- 1) Clean the surfaces
- 2) Place the bolts on lower half of the flange
- 3) Check the flow direction
- 4) Place the Valve between the two flanges to rest on the bolts
- 5) Centering is achieved by means of the cam shape of the body diameter.
- 6) Place gaskets between the valve and flanges on the both sides.
- 7) Place the bolts on the upper half of the flange
- 8) Tighten the bolts to secure the valve in position.

Standards:

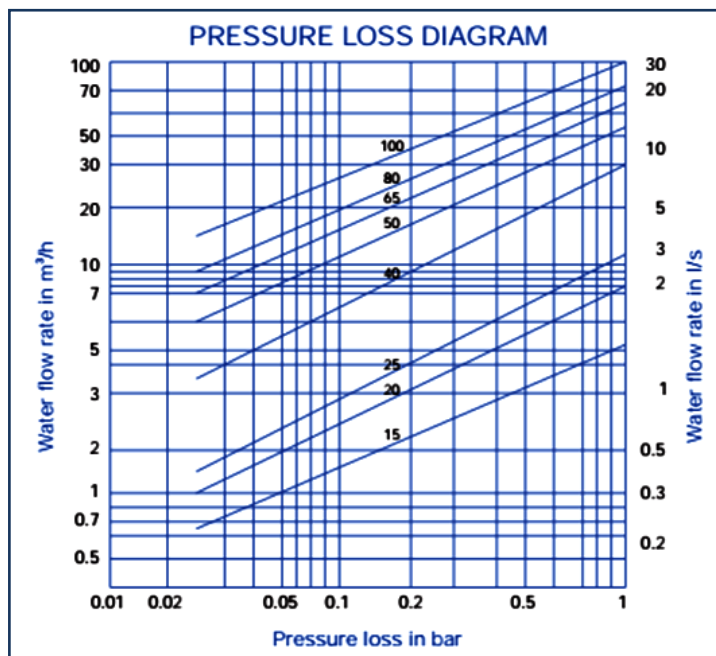
Designed and Manufactured in accordance with BS 7438

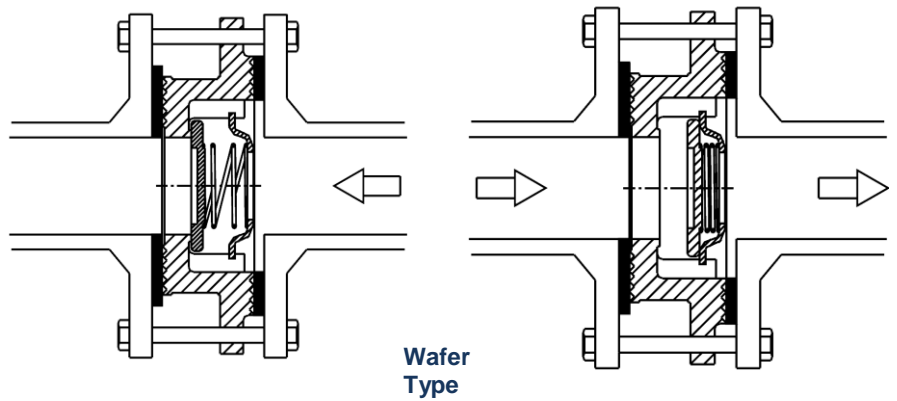
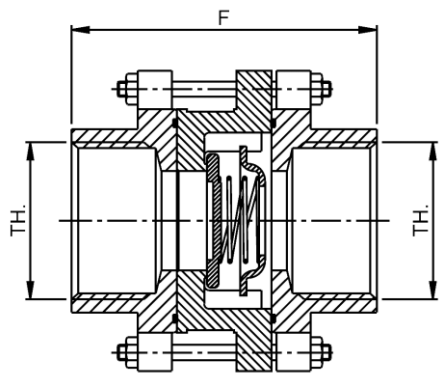


Dimensions :

Valve Model	Size		ØA	ØB	ØC	ØD	T	TH	L	F	Weight	
	MM	Inch									S/E	WaferType
DNRV-15	15	1/2"	43	29	15	37	16	1/2" BSP	60	68	0.400	0.115
DNRV-20	20	3/4"	53	35	20	44	19	3/4" BSP	70	69	0.640	0.183
DNRV-25	25	1"	63	44	25	55	22	1" BSP	80	77	0.954	0.284
DNRV-32	32	1.1/4"	74	53	32	67	28	1.1/4" BSP	90	84	1.425	0.489
DNRV-40	40	1.1/2"	85	66	39	78	32	1.12" BSP	101	98	1.972	0.651
DNRV-50	50	2"	95	77	49	92	40	2" BSP	115	109	2.666	1.088
DNRV-65	65	2.1/2"	115	98	65	107	44	2.1/2" BSP	142	139	4.130	1.200
DNRV-80	80	3"	133	110	79	127	50	3" BSP	153	157	5.802	1.700
DNRV-100	100	4"	155	129	100	142	60	4" BSP	184	198	8.425	2.550
DNRV-125	125	5"	190	161	125	184	90	-	245	-	-	7.600
DNRV-150	150	6"	223	191	150	223	105	-	-	-	-	9.400
DNRV-200	200	8"	279.00	249	193	279	143	-	-	-	-	15.900
DNRV-250	250	10"	340.00	306	248	338	140	-	-	-	-	29.100

Flow Charts





Screwed End

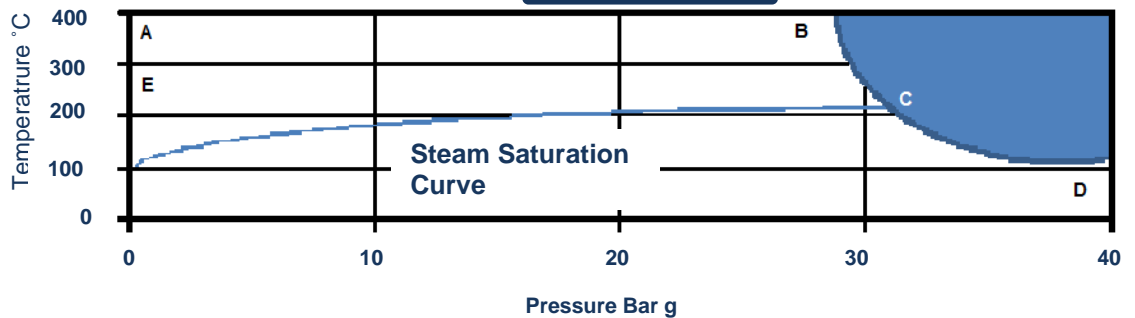
Closed Position

Open Position

Operating Range

A - B - C - D = DCV without spring or with high temperature spring.

E - C - D = DCV with Standard Spring.



Operating Pressure : in m bar
Differential Pressure with Zero Flow

DN	15MM	20MM	25MM	40MM	50MM	65MM	80MM	100MM
→	25	25	25	28	29	30	31	33
↑	22.5	22.5	22.5	24.5	24.5	25.0	25.5	26.5
←	20	20	20	20	20	20	20	20

(→)
Indicates Flow Direction

The Valves can be installed, without spring in vertical pipe. Line with bottom to top flow, Where lowest opening pressures are required.

Without Spring:

DN	15MM	20MM	25MM	40MM	50MM	65MM	80MM	100MM
↑	2.5	2.5	2.5	3.5	4.0	4.5	5.5	6.5

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