

## UNIMAC DISK CHECK VALVES (DCV)



### **Installation:**

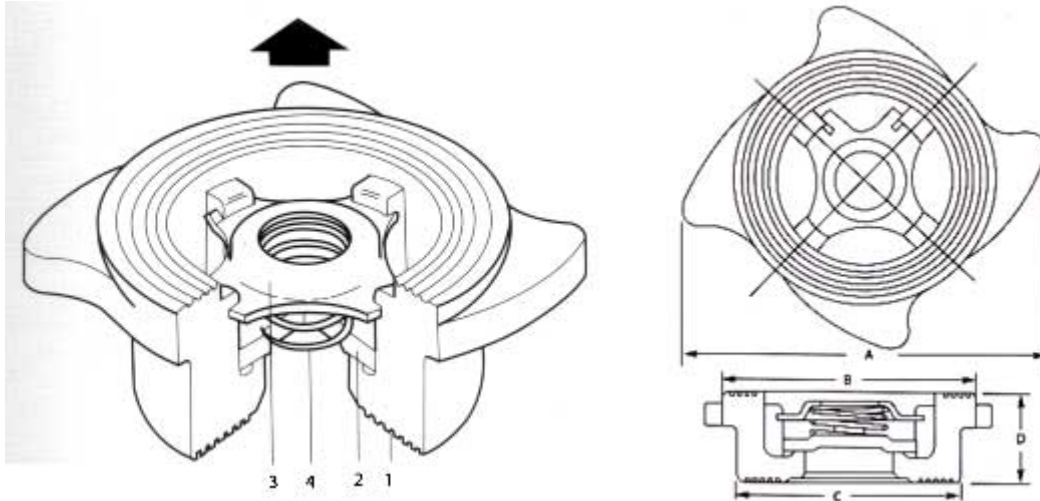
Disc Check Valves must be fitted in accordance with the direction of flow arrow indicating correct fluid flow direction. When fitted with a spring they can be installed in any place. When supplied without a spring these must be fitted in a vertical flow line with the flow from bottom to top. The 'Cam' design of the body allows the various flanges types to be accommodated. The body is rotated to touch the flange joint bolts ensuring that a good joint is obtained.

\* Also available screwed BSP/NPT or Socket weld Ends. Face to Face dimensions on request.

### **Applications:**

UNIMAC general purpose Disc Check Valves are best used in:

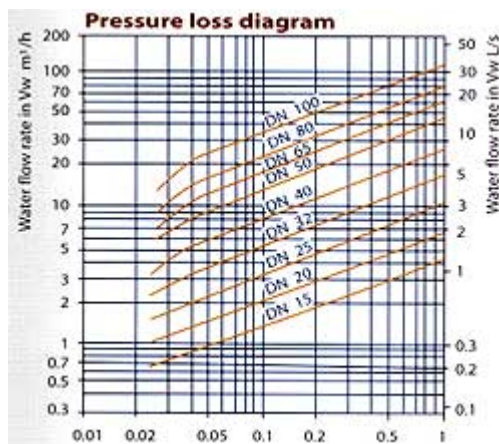
- Delivery line of pumps.
- Steam and condensate systems.
- Vessels as foot valves.
- Filtration and ion-exchange process.
- Refrigeration plants and air conditioning systems.
- Airline, water & effluent plants, corrosive liquids and gasses.



**Material**

No	Part	Material	Grade
1	Body	Stainless Steel	ASTM A 351 Gr.CF8/ CF8M / 304 / 316
2	Disc	Stainless Steel	304/316
3	Spring Retainer	Stainless Steel	304/316
4	Standard Spring	Stainless Steel	304/316
5	Heavy Duty Spring	Stainless Steel	304/316

DN	A	B	C	D	Wt / kg
15	60	43	38	16	0.11
20	69.5	53	45	19	0.17
25	80.5	63	55	22	0.28
32	90.5	75	68	28	0.47
40	101	85	79	31.5	0.64
50	115	95	93	40	1.11
65	142	115	113	46	1.64
80	154	133	128	50	2.21
100	184	154	148	60	3.31



**Sizes and pipe connections:**

DN 15, 20, 25, 32, 40, 50, 65, 80 100

Disc Check Valves can be fitted between BS:10 Table 'E' and 'H', BS:4504/DIN PN 6, 10, 16, 25, 40, JIS 5, 10, 16, 20, ASA 150, 300 flanges with the following exception.

DN 40, 50, 80 and 100 - will not fit between JIS 5 flanges.

DN 65 and 80 - will not fit between BS:10 Table 'E' flanges.

## Opening Pressures in mbar

Differential pressures with zero flow

► Flow direction

DN	15	20	25	32	40	50	65	80	100
▲	25	25	25	27	28	29	30	31	33
►	22.5	22.5	22.5	23.5	24.5	24.5	25	25.5	26.5
▼	20	20	20	20	20	20	20	20	20

Where lowest opening pressures are required valves without springs can be installed in vertical pipes with bottom to top flow.

Without spring

▲	2.5	2.5	2.5	3.5	4	4.5	5	5.5	6.5
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### Standard of shut off:

Standard Valves conform to DIN 3230 Part .BN 2. Soft seated versions give zero leakage provided a differential pressure exists.

**Note** - Disc Check Valves are not suitable for use where heavily pulsating flow exists, such as close to a compressor.

### Standards:

Designed and manufactured in accordance with BS 7438

### SPECIAL DESIGN FEATURES

ROBUST • LIGHT WEIGHT • COMPACT • ECONOMICAL

- Quick open and close action.
- Can be mounted both vertical and horizontal position.
- Low pressure drop.
- High Cv value.
- Soft seated options available:
- VITON (for oil and gasses) - Temp.limits - 15°C to 250°C
- EPDM (for water) - Temp.limits - 50°C to 150°C

### Limits:

Maximum body design PN 40

PMO - Maximum operating pressure 40 bar g

TMO - Maximum operating temperature

300°C with standard/heavy duty spring

400°C without spring

Maximum cold hydraulic test 60 bar g

Minimum operating temperature - 500°C