



Check valve
ECOLINE-DPL

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1 General Instructions

The valves are standard counter-marked according to DIN/EN 19 (ISO 5209) more precisely:

nominal diameter (DN), nominal pressure (PN), body material, marking of the manufacturer and/or company; if necessary they may be furnished with an arrow indicating the flow direction. Furthermore, the max. permissible operating temperature (°C) and max. permissible operating pressure (bar) must be indicated.

The valves must not be used for values above the limits indicated on the valve's plate or in different conditions than those precisely described in the operating instructions, contractual documentation or type leaflet.

The use of valves in condition different from those specifically indicated may result in overloads which in turn may damage the valves.

The failure to observe the official instructions may lead to damage to persons or things:

Injuries caused by fluid (cold, hot, toxic, under pressure ...) that may leak

Detrimental to the functioning or damaging the valve

In case of corrosive or erosive action or something else that could thin the thickness of the valves wall, they must be substituted so to avoid the risk of leakage or structural failure

2 Check valve Operation

Check valves are operated automatically by flow. There is not any additional accessory for operation purpose. Check valves are operated by means of gravity. If installation advices are not taken into account, check valve may not work properly.

3 Storage & Handling

The valves must be stored in such away that even if stored for a long period of time the function capacity of the valve is not compromised. With this in mind it is necessary to:

Store valves in the closed position (to protect the seat/disc contact faces against damage)

Take necessary precautions against dirt, frost and corrosion (for example - using protective paper or covering)

3.1 Storage

For storage of soft seated valves and/or valves with stem seal in elastomer it is necessary to follow the instructions for elastomer storage (DIN 7716) for which some points are provided here below:

- The storage room must be dry, dust free, slightly ventilated and the temperature must not exceed ~ 25°C
- Existing stock must be finished to assure that the valves have not been stored for an excessive period of time
- Valves with seals in elastomer must not come in contact with solvents, lubricants, fuel, or other chemical products that may deteriorate the elastomer material
- The valves must be stored in such a way that sunlight nor UV rays coming from luminous sources invests the parts made with elastomer
- As previously indicated the valves must be stored in closed position. However, the valve discs on soft-seated valves must be closed using little force to prevent premature aging of the elastomer.

For full technical details and material specifications – please refer to our technical data sheets.

3.2 Handling

As standard procedures the valves should be shipped ready for use, closed and with adequate protection for the sides that are subject to connection. The purpose is to avoid the internal penetration of any foreign substance in the valve that may interfere with the correct functioning.

It is necessary to avoid moving the valve by picking it up by the handwheel or in the case of valves with servo command by the actuator.

We do not recommend the use of chains around the body, as these will tend to damage the protective powder coatings.

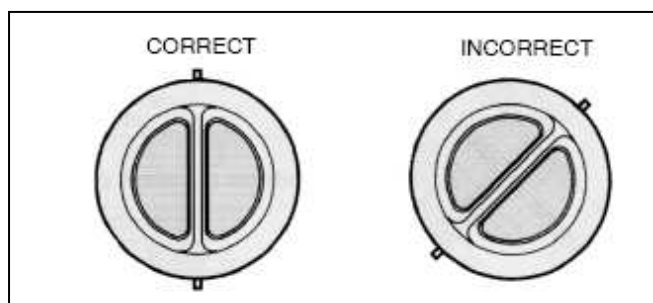
4 Installation

4.1 General

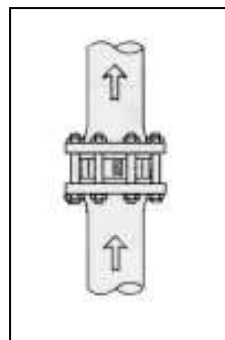
The pipeline must be installed in such a way that it avoids the transmission to the valve body because the force could provoke a lot of damage. In fact, it may cause:

Leakage, deformation or in extreme cases the breaking of the valve body. The closing covers of the connection parts must be removed only upon the act of installation. The flange faces must be clean and undamaged. The liner of the flanges must be accurately centred on the contact zone. During the painting process of the pipeline it is necessary to assure that the mobile parts as well as those made of synthetic material remain clean, if not it may seriously comprise the correct functioning. In the case that construction work is still underway, the valves must be protected from dust, sand or pieces of material pertaining to the construction activity.

See below installation positions:



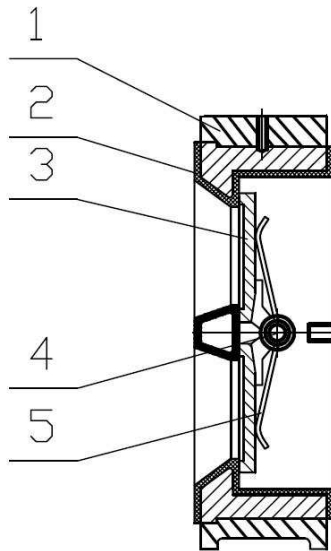
For vertical installation, the correct flow is from bottom to top, for flow direction from top to bottom please contact our technical dept.



4.2 Drawings

The sectional drawings below provide of the general design / configuration of the valves. For illustrations relating to specific valve series and further information please refer to the respective type series booklets.

Type	DN	PN	Material	drawing
ECOLINE-DPL	50-250	10/16	Ductile Iron EN-GJS-400-15	722021/1
	300-500	10/16		722021/2



Sectional drawings (ECOLINE-DPL)

4.3 List of components

Part No.	Description
1	Body
2	Liner
3	Disc
4	Shaft
5	Spring

5 Maintenance

Maintenance and repair work must be done only by specialised operators. In any case, it is necessary to use adequate spare parts and utensils, even in emergency cases, because if different parts are used the perfect functioning of the valve is no longer guaranteed.

Before removing the valve from the pipeline, repairing or doing maintenance work remember to:

- Loosen the closing cover
- Unscrew the drain plug
- It is absolutely necessary to depressurize the valve.

For security reasons and to reduce the repairing costs, all of the valves, particularly those that are rarely manoeuvred because of hard to reach places must be controlled on a regular basis. The manager of the plant has the responsibility to establish adequate controlling interval and maintenance checks.

The duration of the valve that is maintenance free may be prolonged by performing the following operations:

- Lubricating the moving parts: shaft, springs (this operation must not be done on valves that are installed on oxygen lines)
- Immediate substitution of body/cover gasket

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