

INSTALLATION OPERATING MANUAL DUAL PLATE CHECK VALVE

Dual plate check valve for heating and water distribution.

Wafer type with short length and with a hoisting eye from DN200 to 600 for easy installation.



- Size :** DN40 to DN600
- Connection :** Between flanges PN10/16, PN25 or Class 150 (PN20)
- Min Temperature :** -10°C
- Max Temperature :** +180°C (for FKM type)
- Max Pressure :** 16 Bars up to DN300
- Specifications :** Vulcanized seat
Horizontal or vertical position with ascendant fluid
Wafer type
Hoisting eye from DN200 to 600
Weak headloss

Materials : Cast iron EN GJL-250 or stainless steel body

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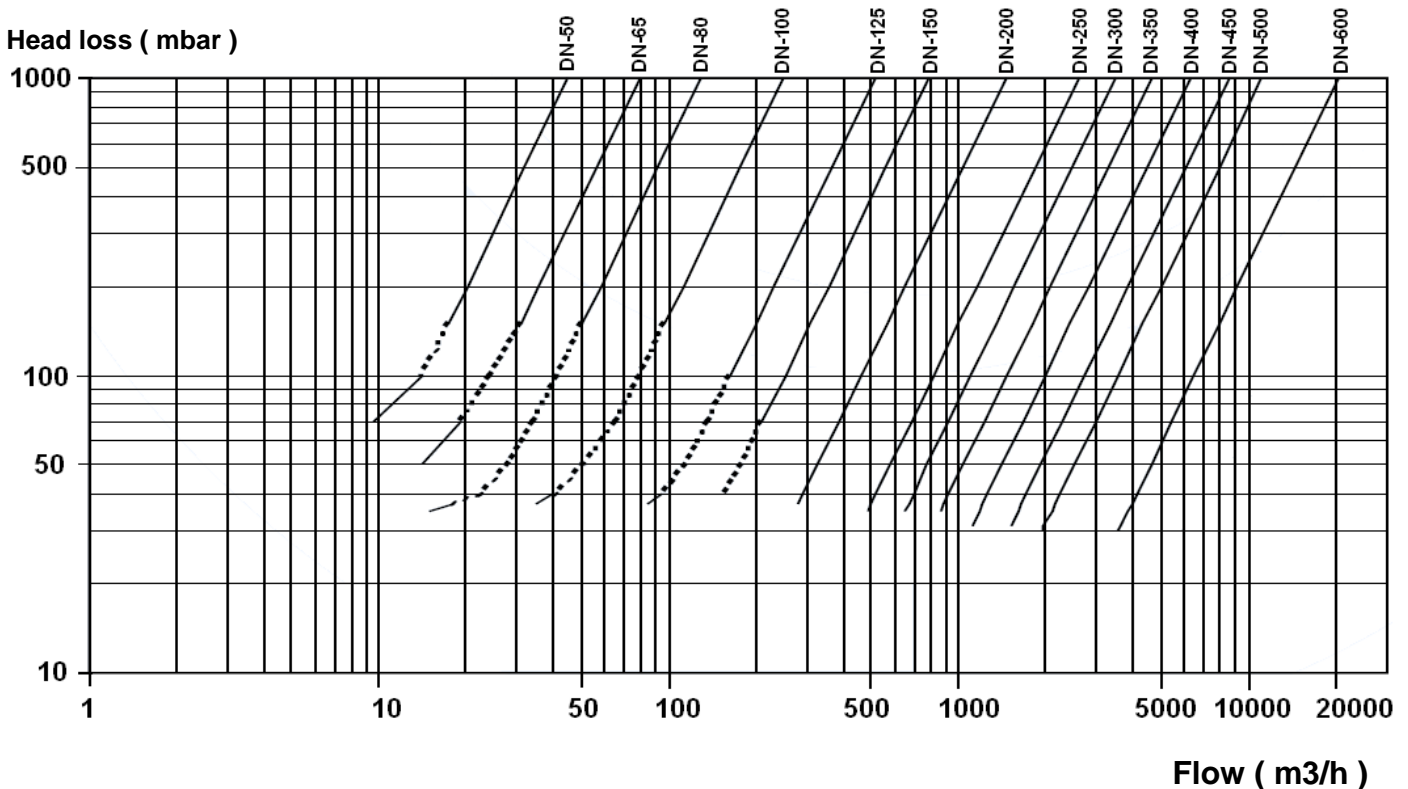
SPECIFICATIONS :

- Vulcanized gasket
- Hoisting eye from DN200 to 600
- Short length
- Anti-corrosion stainless steel spring
- PTFE bushing
- Weak head loss
- Vertical position with ascendant fluid or horizontal position (respect the flow direction indicated by the arrow)
- Between flanges PN10/16, and Class 150 PN20 for DN40 and from DN100 to 600
- **Modification in progress from DN50 to DN80 : 4 holes on the body to be compatible Class 150 (PN20)**
- Between flanges PN10/16, PN25 or Class 150 PN20 according to DN for Ref.372
- Minimum backpressure for tightness : 2 bars

USE :

- Heating, water distribution
- Min and max Temperature Ts : - 10°C to + 80°C (100°C temporarily) for types 370 NBR
- Min and max Temperature Ts : - 10°C to + 90°C (110°C temporarily) for types 371 EPDM
- Min and max Temperature Ts : - 10°C to + 180°C for types 372 FKM
- Min and max Temperature Ts : - 10°C to + 110°C for types 375 EPDM ACS
- Min and max Temperature Ts : - 10°C to + 80°C for types 379 NBR
- Max Pressure Ps : 16 bars up to DN300 included and 10 bars over
- **Do not use with pulsatory speed**
- **Speed rate between 2.5 m/s and 4 m/s**

HEAD LOSS GRAPH :



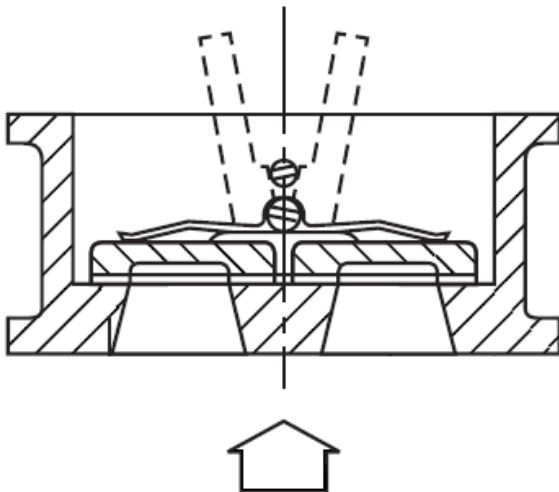
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OPENING PRESSURE (in mbar):

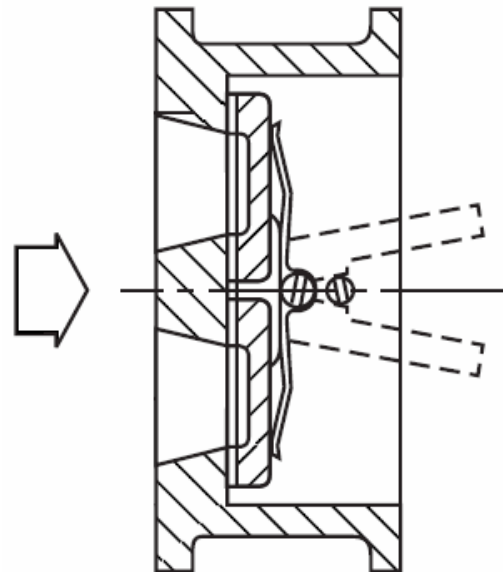
DN	40	50	65	80	100	125	150	200	250	300
Horizontal position	150	230	94	190	280	160	79	41	38	31
Vertical position ascend. fluid	190	260	114	230	320	180	95	57	58	56

INSTALLATION POSITIONS :

Vertical position (ascending fluid)



Horizontal position



Shaft of the check valve must be in vertical position so that the pressure on each plates is the same



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GENERAL GUIDELINES :

- Ensure that the check valves to be used are appropriate for the conditions of the installation (type of fluid, pressure and temperature).
- Be sure to have enough valves to be able to isolate the sections of piping as well as the appropriate equipment for maintenance and repair.
- Ensure that the valves to be installed are of correct strength to be able to support the capacity of their usage.

INSTALLATION INSTRUCTIONS :

- **Before installing the check valves, clean and remove any objects from the pipes** (in particular bits of sealing and metal) which could obstruct and block the valves.
- **Ensure that both connecting pipes either side of the check valve (upstream and downstream) are aligned (if they're not, the valves may not work correctly).**
- **Make sure that the two sections of the pipe (upstream and downstream) match, the check valve unit will not absorb any gaps. Any distortions in the pipes may affect the tightness of the connection, the working of the check valve and can even cause a rupture. To be sure, place the kit in position to ensure the assembling will work.**
- Make sure there is enough space so that the disc can be opened totally in the pipe.
- Respect the flow direction indicated by the arrow
- Tighten the bolts in cross

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INSTALLATION :

- After a pump please refer to **FD CEN/TR 13932** to install the check valve :
 - If it is essential to keep priming the pump, a non-return check valve can be fitted to the suction pipe at a distance **L1 (straight length suction) > 10xD1 (diameter suction)**
 - The check valve is designed to meet the maximum flow rate in service
 - In other cases, the non-return check valve is mounted on the discharge pipe at a distance of **L2 (straight length at discharge) > 3xD2 (diameter at discharge)**
- If there is a direction changing or if there's another material, it's better to take away the check valve so that it is outside the turbulence area (**between 2 and 3 times the ND before and after according to drawing below**).

