# CAST IRON DUAL PLATE CHECK VALVE NBR - DN40 to DN600

CE | CERTIFICAT 3.1 sur demande | TÜVRheinland PED/2014/68/UE | Lloyd's Register TYPE APPROVAL



| References | Working pressure | ∅ DN | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
| 33SF1E4 | 16 bar | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | |
| 33SF0E4 | 10 bar | | | | | | | | | | | ● | ● | ● | ● | ● |

## 1. Standards

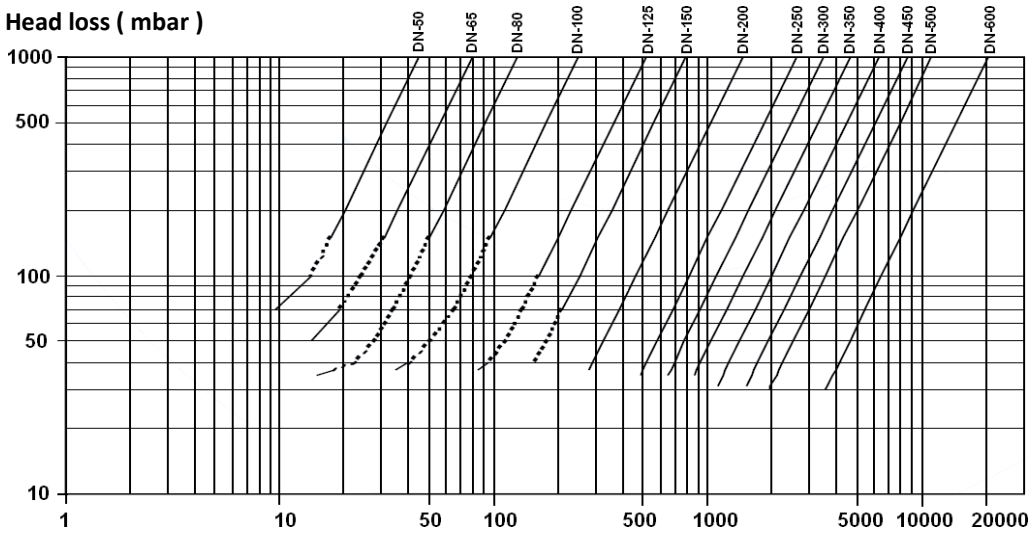
- ✓ Manufacturer certified ISO 9001 : 2015
- ✓ DIRECTIVE 2014/68/EU : CE N° 0035
  Risk Category III Module H
- ✓ Certificate 3.1 on request
- ✓ Designing according to API 594
- ✓ Pressure tests according to API 598, table 6
- ✓ Length according to EN 558 Series 50
- ✓ Between flanges according to EN 1092-1 PN10/16
- ✓ Check valves according to LR Rules and Regulation for the classification of Ships, July 2019 (Type Approval Certificate)
  **Marine LLOYD'S REGISTER.** LR Type Approval System Test Specification Number2, Chapter 8, Appendix 7-Valves :
  - BS EN 12266-1 : 2003
  - ISO 52008:2008
  - BS EN 1561
  - BS EN 1563
  - ASTM A431

## 2. Features

| | |
|---|---|
| Use : | Heating, water distribution |
| Size : | DN 40 au DN600 |
| Raccordement : | Between flanges PN10/16, Class 150 (PN20) (only for body with holes from DN50 to DN80) |
| Min Temperature : | -10°C |
| Max Temperature : | +80°C |
| Max Pressure : | 16 Bars up to DN300 |
| Specifications : | NBR vulcanized seat<br>Horizontal or vertical position with ascendant fluid<br>Wafer type<br>Hoisting eye from DN200 to 600<br>Weak headloss |
| Materials : | Cast iron EN GJL-250 body |


Information provided as an indication and subject to possible modification

## 3. Head loss graph



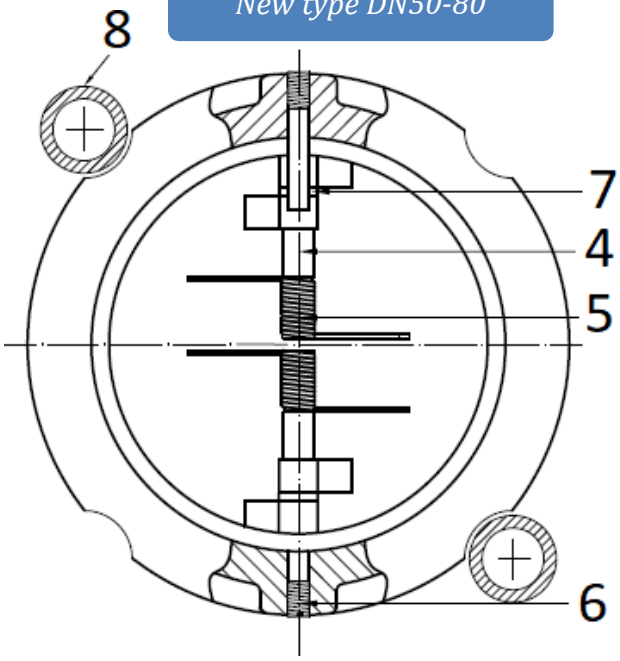

## 4. Opening pressuRE ( in mbar ) :

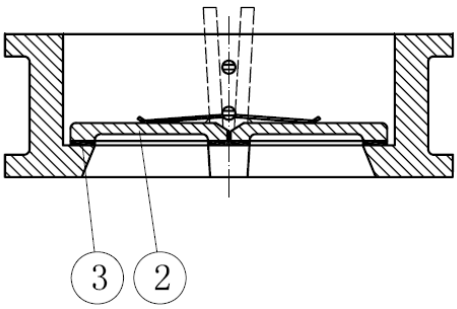
| DN | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|---|---|
| Horizontalposition | 150 | 230 | 94 | 190 | 280 | 160 | 79 | 41 | 38 | 31 |
| Vertical position ascend. fluid | 190 | 260 | 114 | 230 | 320 | 180 | 95 | 57 | 58 | 56 |

## 5. Materials

DN40 to DN80 :

*New type DN50-80*



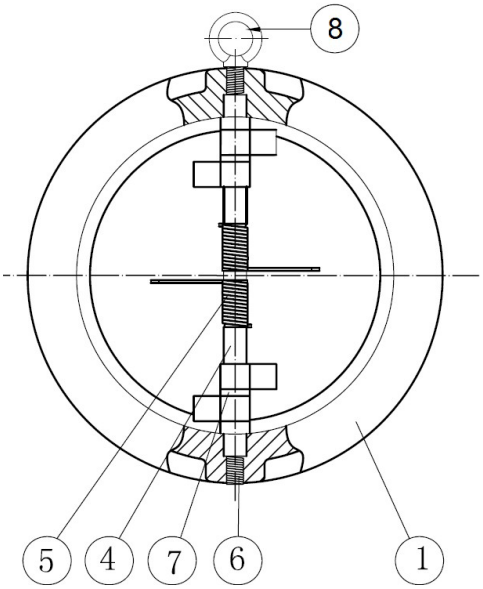

| Item | Designation | Materials |
|---|---|---|
| 1 | Body | Cast iron EN-GJL 250 |
| 2 | Disc | Nickeled ductile iron EN-GJS 400-15 |
| 3 | Seat | NBR |
| 4 | Shaft | AISI 304 |
| 5 | Spring | |
| 6 | Screw | Galvanized carbon steel |
| 7 | Spacer | PTFE |
| 8* | Ring | PPR |

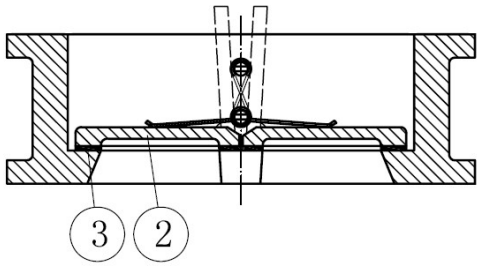
*Only for DN50 new type



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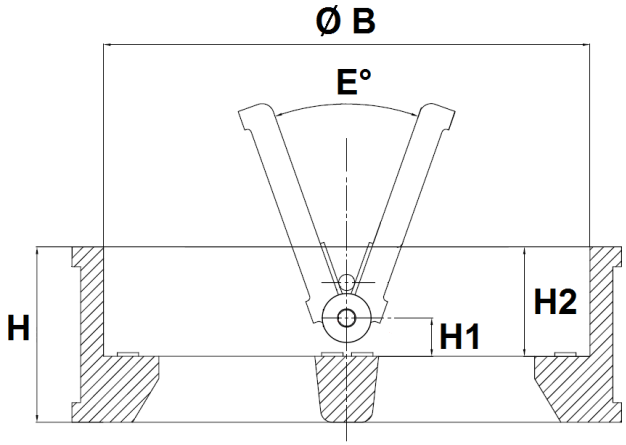
DN100 to DN600 :

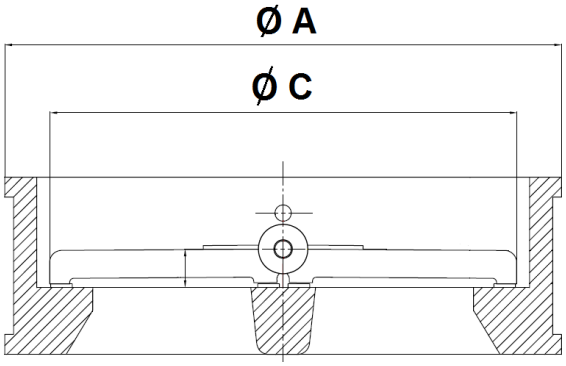



| Item | Designation | Materials |
|---|---|---|
| 1 | Body | Cast iron EN-GJL 250 |
| 2 | Disc | Nickeled ductile iron EN-GJS 400-15 |
| 3 | Seat | NBR |
| 4 | Shaft | AISI 304 stainless steel |
| 5 | Spring | |
| 6 | Screw | Acier galvanisé |
| 7 | Spacer | PTFE |
| 8 | Hoisting eye *(From DN200)* | AISI 304 stainless steel |

## 6. Size (in mm)



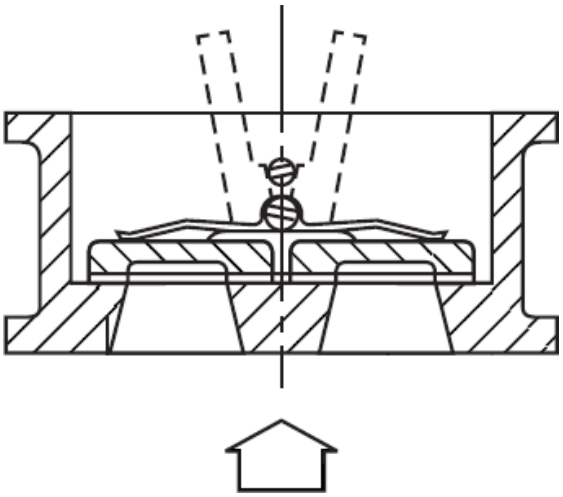




| DN | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H | 43 | 54 | 54 | 57 | 64 | 70 | 76 | 95 | 108 | 144 | 184 | 191 | 203 | 213 | 222 |
| H1 | 12 | 14.4 | 16.9 | 19.9 | 21 | 22.3 | 22.5 | 28 | 34 | 37 | 35 | 37.5 | 42.2 | 39.5 | 48.5 |
| H2 | 33 | 43 | 43 | 45 | 47 | 51 | 54 | 69 | 71 | 100 | 120 | 123 | 122.6 | 132 | 138.5 |
| Ø A | 82 | 109 | 129 | 144 | 164 | 194 | 220 | 275 | 330 | 380 | 440 | 491 | 541 | 596 | 697 |
| Ø B | 56.5 | 70.5 | 83.5 | 91.5 | 115.5 | 142.5 | 169.5 | 220.5 | 275.5 | 325.5 | 356 | 406 | 467 | 514 | 616 |
| Ø C | 52 | 60.5 | 75.8 | 80.5 | 104.5 | 130.3 | 155.9 | 201.2 | 257.2 | 303.3 | 345.9 | 388.6 | 431.2 | 486.8 | 607.6 |
| E° | 0° | 0° | 0° | 0° | 0° | 0° | 0° | 0° | 0° | 0° | 20° | 20° | 20° | 25° | 25° |
| Weight (Kg) | 1.6 | 1.62 | 2.3 | 3.14 | 4.5 | 6.7 | 9.05 | 16 | 26.9 | 38.9 | 80 | 106 | 128 | 158 | 225 |

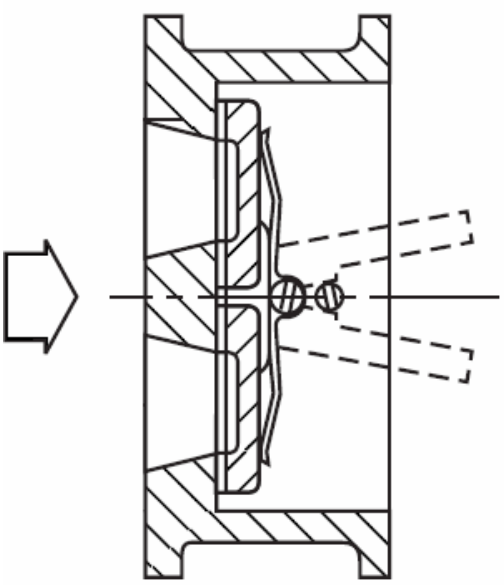

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## 7. Installation positions

Vertical position (ascendant fluid)



Horizontal position





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