

- Standard: EN 16767
- Forged or casted body and cover
- Bolted cover (BC)
- Self acting operation
- Guided disc pressed with spring on the body seat (Lift type)
- Seats are integral or welded on

#### APPLICATIONS

- Power plant
- Chemical,
- Petrochemical
- Refining

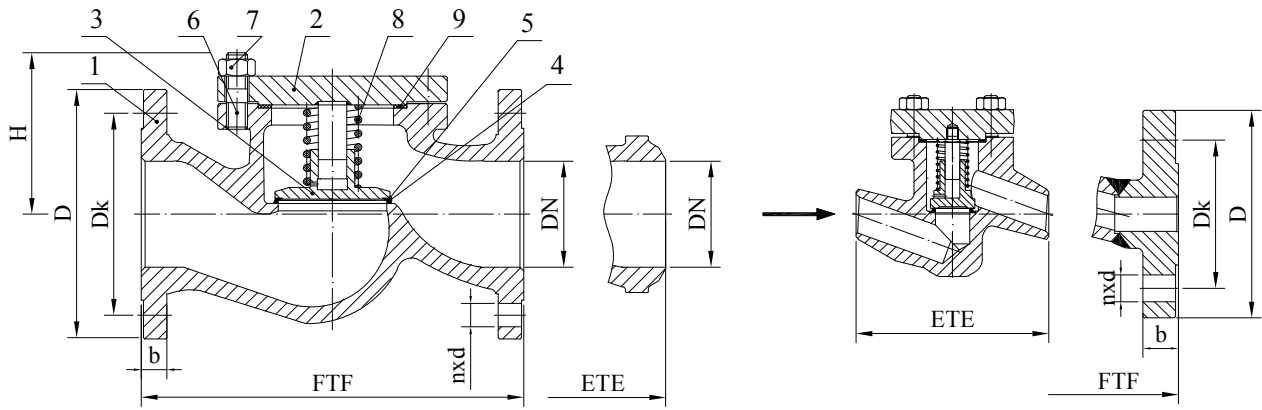


#### ADVANTAGES

- Possibility of installation in any position
- Long service life
- Respect to emission standards
- Easy handling and maintenance

#### TECHNICAL DATA

|                           |  |
|---------------------------|--|
| Media:                    | Depending on the valve materials: water, steam, gas, oil and oil derivatives and other non aggressive media  |
| Pressure and temperature: | Pressure up to 160 bar<br>Temperature up to 600 °C   |
| Materials:                | Carbon, heat resistant alloy and stainless steels  |
| Options:                  | Seats and sealing made of elastic materials<br>Y-Type (CLENY)<br>Angle-Type (CLEN A)<br>Flanges and welding ends according to: ASME, DIN, GOST, etc.<br>Other paint finishes are available upon customer's request<br>Valve complete with counter flanges, bolting and gaskets |
| Testing:                  | Every produced valve was tested according to EN 12266  |



**LIST OF MATERIALS**

| Item | Part                | Material Group acc. to EN 12516-1       |                                  |                   |                 |                            |                   |
|------|---------------------|---|----------------------------------|-------------------|-----------------|----------------------------|-------------------|
|      |                     | 3E0                                     | 4E0                              | 5E0               | 6E0             | 11E0                       | 15E0 / 14E0       |
|      |                     | Application                             |                                  |                   |                 |                            |                   |
|      |                     | up to 400 °C                            | up to 550 °C                     | up to 550 °C      | up to 600 °C    | -196 °C ÷ 600 °C           | -196 °C ÷ 600 °C  |
| 1    | Body <sup>1)</sup>  | 1.0460 / 1.0619                         | 1.5415 / 1.5419                  | 1.7335 / 1.7357   | 1.7383 / 1.7379 | 1.4301 / 1.4308            | 1.4571 / 1.4408   |
| 2    | Cover <sup>1)</sup> | 1.0460 / 1.0619                         | 1.5415 / 1.5419                  | 1.7335 / 1.7357   | 1.7383 / 1.7379 | 1.4301 / 1.4308            | 1.4571 / 1.4408   |
| 3    | Disc <sup>1)</sup>  | 1.4021 / 1.0619                         | 1.5415 / 1.5419                  | 1.7335 / 1.7357   | 1.7383 / 1.7379 | 1.4301 / 1.4308            | 1.4571 / 1.4408   |
| 4    | Body welded on with | 13 Cr                                   | 13 Cr (up to 450 °C) or Stellite |                   |                 | Basic material or Stellite |                   |
| 5    | Disc welded on with | 13 Cr                                   | 13 Cr (up to 450 °C) or Stellite |                   |                 | Basic material or Stellite |                   |
| 6    | Stud Bolts          | A193 B7 / 1.7225                        |                                  | A193 B16 / 1.7709 |                 | A193 B8 / 1.4301           | A193 B8M / 1.4401 |
| 7    | Nuts                | A194 2H / 1.1191                        |                                  | A194 4 / 1.7709   |                 | A194 8 / 1.4301            | A194 8M / 1.4401  |
| 8    | Spring              | 45CrMoV6-7                              |                                  |                   |                 | AISI 316                   |                   |
| 9    | Cover Gasket        | spiral-wound / reinforced pure graphite |                                  |                   |                 |                            |                   |

<sup>1)</sup> other materials available according to EN standard

**STANDARTS**

|   |                         |
|---|-------------------------|
| Globe Lift Check Valves according to EN 16767 | PN 63 / PN 100 / PN 160 |
| Face-to face dimensions according to          | EN 558, Serie 1         |
| Flanged ends according to                     | EN 1092-1               |
| End-to-end dimensions according to            | EN 558, Serie 65        |
| Welding ends according to                     | EN 12627                |

**CLEN PN 63 DIMENSIONS**

| DN   |     | 15   | 20   | 25   | 32   | 40   | 50   | 65   | 80   | 100  | 125  | 150  | 200   | 250   |
|------|-----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| [mm] | FTF | 210  | 230  | 230  | 260  | 260  | 300  | 340  | 380  | 430  | 500  | 550  | 650   | 775   |
|      | ETE | 150  | 150  | 160  | 180  | 210  | 250  | 340  | 380  | 430  | 500  | 550  | 650   | 775   |
|      | D   | 105  | 130  | 140  | 155  | 170  | 180  | 205  | 215  | 250  | 295  | 345  | 415   | 470   |
|      | Dk  | 75   | 90   | 100  | 110  | 125  | 135  | 160  | 170  | 200  | 240  | 280  | 345   | 400   |
|      | nxd | 4×14 | 4×18 | 4×18 | 4×22 | 4×22 | 4×22 | 8×22 | 8×22 | 8×26 | 8×30 | 8×33 | 12×36 | 12×36 |
|      | b   | 20   | 22   | 24   | 26   | 28   | 26   | 26   | 28   | 30   | 34   | 36   | 42    | 46    |
|      | H   | 80   | 80   | 80   | 110  | 110  | 143  | 173  | 192  | 235  | 260  | 315  | 380   | 434   |
| kg   | FTF | 5,1  | 6,5  | 8,5  | 15   | 16   | 27   | 35   | 58   | 71   | 143  | 150  | 375   | 643   |
|      | ETE | 2,5  | 2,7  | 3    | 8    | 9    | 15   | 26   | 47   | 63   | 123  | 128  | 326   | 593   |

CLEN PN 100 DIMENSIONS

| DN   |     | 15   | 20   | 25   | 32   | 40   | 50   | 65   | 80   | 100  | 125  | 150   | 200   | 250   |
|------|-----|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| [mm] | FTF | 210  | 230  | 230  | 260  | 260  | 300  | 340  | 380  | 430  | 500  | 550   | 650   | 779   |
|      | ETE | 150  | 150  | 160  | 180  | 210  | 250  | 340  | 380  | 430  | 500  | 550   | 650   | 779   |
|      | D   | 105  | 130  | 140  | 155  | 170  | 195  | 220  | 230  | 265  | 315  | 355   | 430   | 505   |
|      | Dk  | 75   | 90   | 100  | 110  | 125  | 145  | 170  | 180  | 210  | 250  | 290   | 360   | 430   |
|      | nxd | 4×14 | 4×18 | 4×18 | 4×22 | 4×22 | 4×26 | 8×26 | 8×26 | 8×30 | 8×33 | 12×33 | 12×36 | 12×39 |
|      | b   | 20   | 22   | 24   | 26   | 28   | 30   | 34   | 36   | 40   | 40   | 44    | 52    | 60    |
|      | H   | 80   | 80   | 80   | 110  | 110  | 143  | 173  | 192  | 235  | 260  | 315   | 380   | 454   |
| kg   | FTF | 5,1  | 6,5  | 8,5  | 15   | 16   | 28   | 36   | 64   | 96   | 156  | 240   | 445   | 705   |
|      | ETE | 2,5  | 2,7  | 3    | 8    | 9    | 15   | 26   | 47   | 73   | 130  | 201   | 367   | 593   |

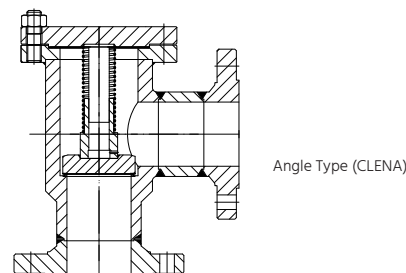
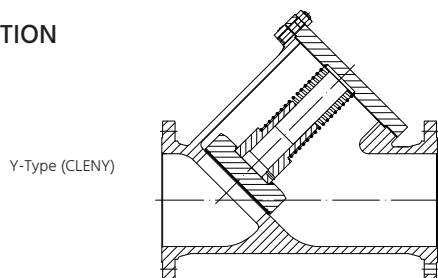
CLEN PN 160 DIMENSIONS

| DN   |     | 15   | 20   | 25   | 32   | 40   | 50   | 65   | 80   | 100  | 125  | 150   | 200   |    |
|------|-----|------|------|------|------|------|------|------|------|------|------|-------|-------|----|
| [mm] | FTF | 210  | 230  | 230  | 260  | 260  | 300  | 340  | 380  | 430  | 500  | 550   | 650   |    |
|      | ETE | 150  | 150  | 160  | 180  | 210  | 250  | 340  | 380  | 430  | 500  | 550   | 650   |    |
|      | D   | 105  | 130  | 140  | 155  | 170  | 195  | 220  | 230  | 265  | 315  | 355   | 430   |    |
|      | Dk  | 75   | 90   | 100  | 110  | 125  | 145  | 170  | 180  | 210  | 250  | 290   | 360   |    |
|      | nxd | 4×14 | 4×18 | 4×18 | 4×22 | 4×22 | 4×26 | 8×26 | 8×26 | 8×30 | 8×33 | 12×33 | 12×36 |    |
|      | b   | 20   | 22   | 24   | 24   | 28   | 30   | 34   | 36   | 40   | 40   | 44    | 50    | 60 |
|      | H   | 80   | 80   | 80   | 110  | 110  | 143  | 173  | 192  | 235  | 260  | 315   | 380   |    |
| kg   | FTF | 5,1  | 6,5  | 8,5  | 16   | 17   | 28   | 37   | 68   | 98   | 160  | 246   | 455   |    |
|      | ETE | 2,5  | 2,7  | 3    | 8    | 9    | 15   | 26   | 47   | 73   | 130  | 201   | 367   |    |

RANGE OF APPLICATIONS

| Materials        | PN  | Pressure (bar) / temperature (°C) ratings according to EN 12516-1 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |      |      |      |
|------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
|                  |     | -10   | 20    | 50    | 100   | 150   | 200   | 250   | 300   | 350   | 375   | 400   | 425   | 450   | 470   | 475   | 480   | 500   | 510   | 525  | 550  | 575  | 600  |
| 1.0460<br>1.0619 | 63  | 63,0  | 63,0  | 63,0  | 59,0  | 55,9  | 52,9  | 48,4  | 43,8  | 40,8  | 39,3  | 37,8  |       |       |       |       |       |       |       |      |      |      |      |
|                  | 100 | 100,0   | 100,0 | 100,0 | 93,6  | 88,8  | 84,0  | 76,8  | 69,6  | 64,8  | 62,4  | 60,0  |       |       |       |       |       |       |       |      |      |      |      |
|                  | 160 | 160,0   | 160,0 | 160,0 | 149,8 | 142,1 | 134,5 | 122,9 | 111,4 | 103,7 | 99,9  | 96,0  |       |       |       |       |       |       |       |      |      |      |      |
| 1.5415<br>1.5419 | 63  | 63,0  | 63,0  | 63,0  | 63,0  | 61,6  | 57,5  | 53,7  | 49,9  | 46,9  | 46,1  | 45,4  | 43,7  | 42,0  | 41,4  | 41,3  | 41,1  | 28,6  | 24,9  | 17,8 | 10,1 |      |      |
|                  | 100 | 100,0   | 100,0 | 100,0 | 100,0 | 97,8  | 91,2  | 85,2  | 79,2  | 74,4  | 73,2  | 72,0  | 69,4  | 66,7  | 65,8  | 65,5  | 65,3  | 45,3  | 39,5  | 28,3 | 16,0 |      |      |
|                  | 160 | 160,0   | 160,0 | 160,0 | 160,0 | 156,6 | 146,0 | 136,4 | 126,8 | 119,1 | 117,2 | 115,3 | 111,0 | 106,8 | 105,3 | 104,9 | 104,5 | 72,6  | 63,2  | 45,2 | 25,6 |      |      |
| 1.7335<br>1.7357 | 63  | 63,0  | 63,0  | 63,0  | 63,0  | 63,0  | 63,0  | 63,0  | 63,0  | 58,7  | 56,5  | 53,8  | 51,4  | 49,7  | 47,2  | 46,5  | 45,5  | 39,3  | 35,1  | 28,9 | 18,5 |      |      |
|                  | 100 | 100,0   | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 93,1  | 89,8  | 85,3  | 81,6  | 78,9  | 74,9  | 73,9  | 72,2  | 62,4  | 55,8  | 45,9 | 29,3 |      |      |
|                  | 160 | 160,0   | 160,0 | 160,0 | 160,0 | 160,0 | 160,0 | 160,0 | 160,0 | 149,1 | 143,7 | 136,6 | 130,7 | 126,2 | 119,8 | 118,2 | 115,6 | 99,9  | 89,3  | 73,4 | 47,0 |      |      |
| 1.7383<br>1.7379 | 63  | 63,0  | 63,0  | 63,0  | 63,0  | 63,0  | 63,0  | 63,0  | 59,1  | 57,0  | 53,8  | 51,4  | 49,7  | 47,2  | 46,5  | 45,5  | 41,5  | 40,0  | 33,9  | 22,2 | 21,7 | 9,4  |      |
|                  | 100 | 100,0   | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 93,8  | 90,5  | 85,3  | 81,6  | 78,9  | 74,9  | 73,9  | 72,2  | 65,8  | 63,5  | 53,9  | 35,2 | 34,4 | 14,9 |      |
|                  | 160 | 160,0   | 160,0 | 160,0 | 160,0 | 160,0 | 160,0 | 150,2 | 144,9 | 136,6 | 130,7 | 126,2 | 119,8 | 118,2 | 115,6 | 105,3 | 101,7 | 86,2  | 56,3  | 55,1 | 23,9 |      |      |
| 1.4301<br>1.4308 | 63  | 63,0  | 63,0  | 63,0  | 58,2  | 51,2  | 44,1  | 41,5  | 38,8  | 36,0  | 35,1  | 34,2  | 33,3  | 32,5  | 31,9  | 31,8  | 31,6  | 31,0  | 30,7  | 28,7 | 27,9 | 25,2 | 19,8 |
|                  | 100 | 100,0   | 100,0 | 100,0 | 92,4  | 81,2  | 70,0  | 65,8  | 61,6  | 57,1  | 55,7  | 54,3  | 52,9  | 51,5  | 50,6  | 50,4  | 50,2  | 49,3  | 48,7  | 45,6 | 44,3 | 40,0 | 31,5 |
|                  | 160 | 160,0   | 160,0 | 160,0 | 147,9 | 130,0 | 112,1 | 105,3 | 98,6  | 91,4  | 89,2  | 87,0  | 84,7  | 82,5  | 81,0  | 80,7  | 80,3  | 78,9  | 78,0  | 73,0 | 70,9 | 64,0 | 50,4 |
| 1.4408           | 63  | 63,0  | 63,0  | 63,0  | 60,0  | 53,8  | 47,6  | 44,1  | 40,6  | 38,8  | 37,9  | 37,0  | 36,2  | 35,6  | 35,4  | 35,3  | 35,2  | 34,9  | 34,8  | 32,9 | 32,6 | 27,6 | 22,8 |
|                  | 100 | 100,0   | 100,0 | 100,0 | 95,2  | 85,4  | 75,6  | 70,0  | 64,4  | 61,6  | 60,2  | 58,8  | 57,4  | 56,6  | 56,1  | 56,0  | 55,9  | 55,4  | 55,2  | 52,3 | 51,7 | 43,7 | 36,3 |
|                  | 160 | 160,0   | 160,0 | 160,0 | 152,4 | 136,7 | 121,0 | 112,1 | 103,1 | 98,6  | 96,4  | 94,1  | 91,9  | 90,5  | 89,8  | 89,6  | 89,5  | 88,7  | 88,4  | 83,7 | 82,8 | 70,0 | 58,1 |
| 1.4571           | 63  | 63,0  | 63,0  | 63,0  | 63,0  | 60,9  | 56,4  | 53,8  | 51,2  | 48,5  | 47,2  | 45,9  | 45,0  | 44,1  | 43,4  | 43,2  | 43,0  | 41,5  | 40,0  | 37,9 | 36,7 | 33,9 | 24,5 |
|                  | 100 | 100,0   | 100,0 | 100,0 | 100,0 | 96,6  | 89,6  | 85,4  | 82,2  | 77,0  | 74,9  | 72,8  | 71,4  | 70,0  | 68,9  | 68,6  | 68,3  | 65,8  | 63,5  | 60,2 | 58,2 | 53,9 | 38,9 |
|                  | 160 | 160,0   | 160,0 | 160,0 | 160,0 | 154,6 | 143,4 | 136,7 | 130,0 | 123,3 | 119,9 | 116,5 | 114,3 | 112,1 | 110,3 | 109,8 | 109,4 | 105,3 | 101,7 | 96,3 | 93,2 | 86,2 | 82,3 |

OPTIONAL EXECUTION



The data in this datasheet are informative only and the manufacturer reserves the right to changes of technical details.