# CHECK VALVE TYPE 481

## **CHARACTERISTIC:**

Diameter - 15 -125 mm; Pressure - 250 bar; Temperature - up to 670°C;

Medium - water, steam and other non-toxic, non aggressive liquid and gas media.

VERSIONS: type / ends / body material / disc and disc ring / others

Example: 481 / --- / --- / --- / --- 481 / K / U / --- / ---

| Ends                    | Sign |
|-------------------------|------|
| Standard-butt weld ends |      |
| Socket weld             | SW   |
| Flange by DIN or ANSI,  | K    |
|                         |      |
|                         |      |

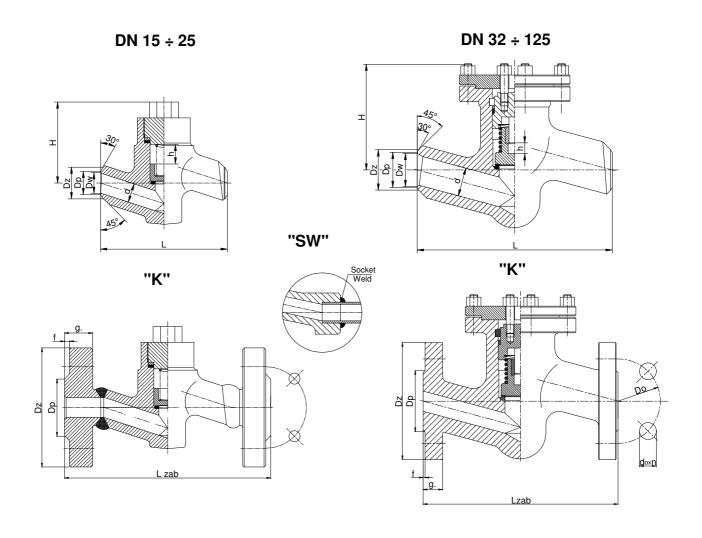
| Body material   | Sign |
|-----------------|------|
| (P250GH) C 22.8 |      |
| 16Mo3           | U    |
| 13CrMo4-5       | Α    |
| 11CrMo9-10      | В    |
| 14MoV6-3        | С    |
| X10CrMoVNb9-1   | Е    |

| Disc and disc ring | Sign |
|--------------------|------|
| Standard           |      |
| Stellit ring       | L    |
|                    |      |
|                    |      |
|                    |      |
|                    |      |

| Others | Sign |
|--------|------|
|        |      |
|        |      |
|        |      |
|        |      |
|        |      |
|        |      |

## **APPLICATION:**

The check valve is designed to keep pipeline safe from returning the medium.





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#### **MATERIALS:**

| Versions       | Standard   | U   | Α         | В                      | С                      | E                      |  |  |  |  |  |
|----------------|--|---|-----------|------------------------|------------------------|------------------------|--|--|--|--|--|
| Parts          | T <sub>MAX</sub> 450°C                           | T <sub>MAX</sub> 450°C T <sub>MAX</sub> 530°C T <sub>MAX</sub> 560°C T <sub>MAX</sub> 6 |           | T <sub>MAX</sub> 600°C | T <sub>MAX</sub> 570°C | T <sub>MAX</sub> 670°C |  |  |  |  |  |
| Body, bonnet   | (P250GH) C22.8                                   | P250GH) C22.8 16Mo3   |           | 11CrMo9-10             | 14MoV6-3               | X10CrMoVNb9-1          |  |  |  |  |  |
| body, borniet  | (1.0460)   | (1.5415)  | (1.7335)  | (1.7383)               | (1.7715)               | (1.4903)               |  |  |  |  |  |
| Seat ring      | BT9 or G 18 8 Mn (1.4370) or Stellit             |   |           |                        |                        |                        |  |  |  |  |  |
| Disc           | X20Cr13 (1.4021) , P245GH (1.0352) X10CrMoVNb9-1 |   |           |                        |                        |                        |  |  |  |  |  |
| Disc ring      |  |   | G 18 8 Mn | (1.4370) or St         | ellit                  |                        |  |  |  |  |  |
| Spring         |  |   | 51C       | rV4 (1.2241)           |                        |                        |  |  |  |  |  |
| Gasket         |  | Grafit + austenite  |           |                        |                        |                        |  |  |  |  |  |
| Bonnet DN > 32 |  | ·   | P26       | 5GH (1.0425)           |                        |                        |  |  |  |  |  |

Special materials on request; modifications reserved.

### **DIMENSIONS:**

| Standard – butt weld ends |     |     |       |     |        |     |    |     |     |     |     | Flan | ged - ' | 'K"       |    |   |        |
|---------------------------|-----|-----|-------|-----|--------|-----|----|-----|-----|-----|-----|------|---------|-----------|----|---|--------|
| DN                        | d   | Dz  | Dw    | L   | Weight | н   | h  | DN  | Dz  | Dp  | Do  | do   | n       | $L_{zab}$ | g. | f | Weight |
| 15                        | 14  | 22  | 16    | 160 | 4,00   | 100 | 15 | 15  | 130 | 45  | 90  | 18   | 4       | 230       | 26 | 2 | 8,70   |
| 20                        | 20  | 28  | 19,5  | 160 | 4,00   | 100 | 15 | 20  | 150 | 58  | 105 | 22   | 4       | 260       | 28 | 2 | 11,30  |
| 25                        | 24  | 35  | 26,5  | 160 | 4,00   | 100 | 15 | 25  | 150 | 68  | 105 | 22   | 4       | 260       | 28 | 2 | 13,30  |
| 32                        | 30  | 44  | 32,5  | 300 | 15,00  | 146 | 27 | 32  | -   | -   | -   | -    | -       | -         | -  | - | -      |
| 40                        | 38  | 50  | 38,5  | 300 | 15,00  | 146 | 27 | 40  | 185 | 88  | 135 | 26   | 4       | 300       | 34 | 3 | 30,20  |
| 50                        | 44  | 62  | 45    | 300 | 15,00  | 146 | 27 | 50  | 200 | 102 | 150 | 26   | 8       | 350       | 38 | 3 | 32,00  |
| 65                        | 62  | 77  | 59,5  | 340 | 26,50  | 145 | 30 | 65  | 230 | 122 | 180 | 26   | 8       | 400       | 42 | 3 | 57,80  |
| 80                        | 76  | 117 | 93    | 380 | 55,50  | 203 | 40 | 80  | 255 | 138 | 200 | 30   | 8       | 450       | 46 | 3 | 93,00  |
| 100                       | 92  | 144 | 116,5 | 430 | 71,00  | 240 | 55 | 100 | 300 | 162 | 235 | 33   | 8       | 520       | 54 | 3 | 138,50 |
| 125                       | 112 | 172 | 138,5 | 500 | 91,00  | 305 | 65 | 125 | 340 | 188 | 275 | 33   | 12      | 600       | 60 | 3 | 186,90 |

Dimensions in mm; modifications reserved.

## **TECHNICAL DATA:**

|                            | DNI |       |       |       |       |       | Max    | kimal wo | rking pre | ssure at | working | tempera | ture  |       |       |       |       |       |
|----------------------------|-----|-------|-------|-------|-------|-------|--------|----------|-----------|----------|---------|---------|-------|-------|-------|-------|-------|-------|
| Body material              | PN  | 20°C  | 100°C | 150°C | 200°C | 250°C |        |          |           |          |         |         |       | 530°C | 540°C | 560°C | 570°C | 600°C |
| ·                          |     |       |       |       |       |       |        |          | ba        | ar       |         |         |       |       |       |       |       |       |
| (P250GH)C 22.8<br>(1.0460) | 250 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0  | 250,0    | 250,0     | 165,0    | -       | -       | -     | -     | -     | -     | -     | -     |
| <b>16Mo3</b> (1.5415)      | 250 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0  | 250,0    | 250,0     | 250,0    | 222,0   | 176,0   | 141,0 | 112,0 | -     | -     | -     | -     |
| 13CrMo4-5<br>(1,7335)      | 250 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0  | 250,0    | 250,0     | 250,0    | 250,0   | 250,0   | 224,0 | 186,0 | 146,0 | 95,0  | 79,0  | -     |
| 14MoV6-3<br>(1.7715)       | 250 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0  | 250,0    | 250,0     | 250,0    | 250,0   | 250,0   | 250,0 | 250,0 | 250,0 | 205,0 | 174,0 | -     |
| 11CrMo9-10<br>(1.7383)     | 250 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0  | 250,0    | 250,0     | 250,0    | 250,0   | 250,0   | 246,0 | 215,0 | 186,0 | 138,0 | 122,0 | 81,0  |
|                            | PN  |       |       |       |       |       | Max    | kimal wo | rking pre | ssure at | working | tempera | ture  |       |       |       |       |       |
| Body material              | FIN | 20°C  | 530°C | 540°C | 550°C | 560°0 | C 570° | °C 580   | °C 59     | )°C 60   | 0°C 61  | 0°C 6   | 20°C  | 630°C | 640°C | 650°C | 660°C | 670°C |
|                            | •   | •     |       |       | •     |       | •      |          | ba        | ar       | •       |         | •     |       |       |       | •     |       |
| X10CrMoVNb9-1<br>(1.4903)  | 250 | 250,0 | 250,0 | 250,0 | 250,0 | 250,0 | 250    | ,0 250   | ),0 25    | 0,0 22   | 24,0 19 | 98,0 1  | 74,0  | 155,0 | 134,0 | 117,0 | 100,0 | 86,0  |

#### **MOUNTING AND OPERATING:**

The valve can only be mounted and operated by skilled, properly trained and qualified personnel. Incorrect assembly or operation of the valve may have substantial impact on the entire system such as fluid leakage, reduction in system's function etc.

Before a valve is installed the pipeline must be clean from any mechanical impurities. The compatibility of critical parameters of the flow must be checked with the parameters of the valve. Stop globe valve can be mounted to a pipe-line in any position. The direction of flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide valve's reliability the following suggestions must be observed:

- medium flowing through the valve is supposed to be clean out of any mechanical impurities;
- the valve must be protected from any mechanical damages during its work;
- nominal parameters marked on the valve must be observed.