

# GATE VALVE butt welding

## S43 121 3160, S43 123 3160

### ZS160 ; ZK160

#### CHARACTERISTIC:

- Diameter - 50 -500 mm;
- Pressure - 160 bar;
- Temperature - up to 670°C;
- Medium - water, steam and other non-toxic, non-aggressive media

#### VERSIONS:

type / body material / drive type / others

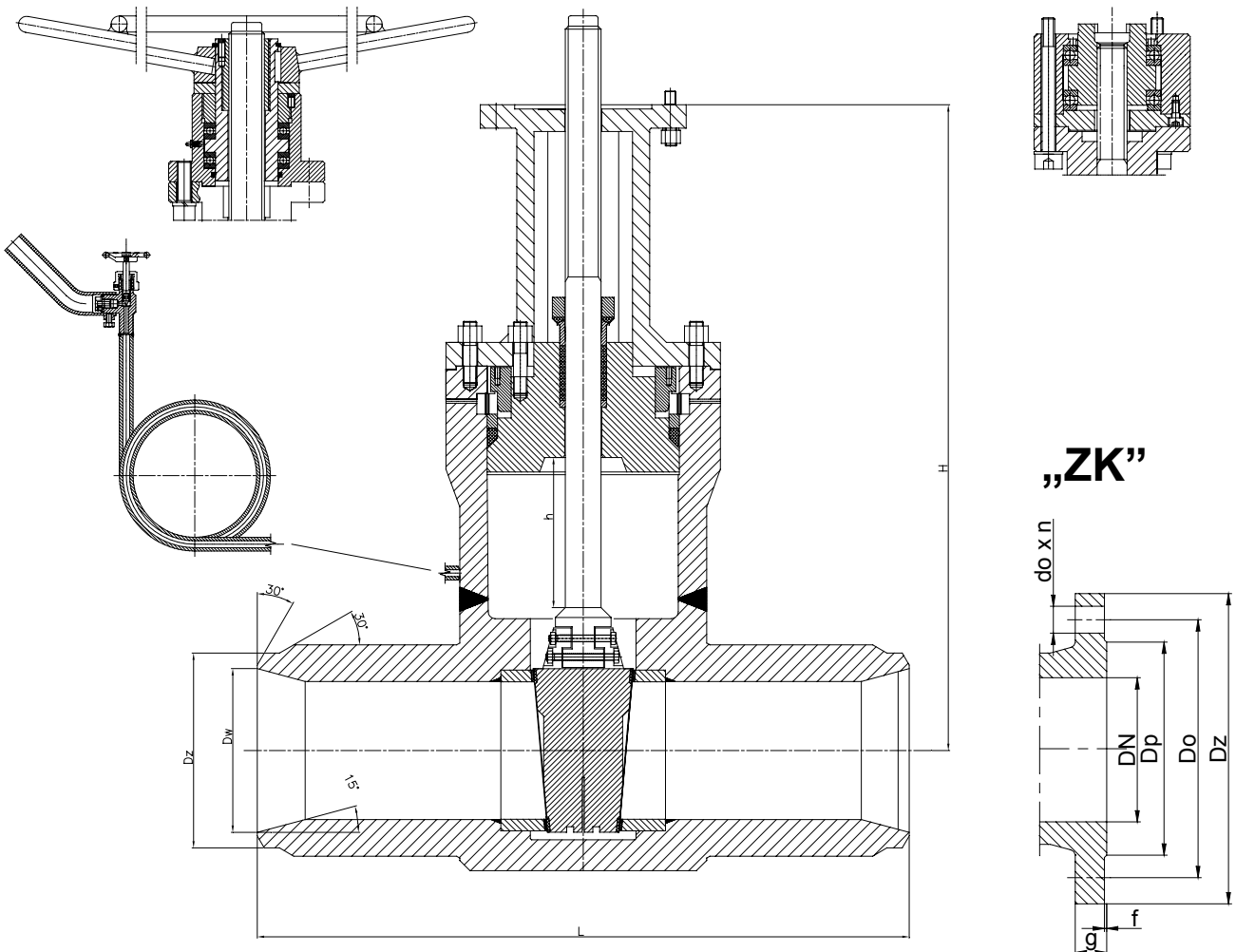
Example: ZS160 / -- / --- / ---

Example: ZS160 / U / NA / ---

| Body material   | Sign     | Drive type      | Sign      | Others | Sign |
|-----------------|----------|-----------------|-----------|--------|------|
| (P250GH) C 22.8 | ---      | Hand wheel      | ---       | -----  | ---  |
| 16Mo3           | <b>U</b> | AUMA drive      | <b>NA</b> |        |      |
| 13CrMo4-5       | <b>A</b> | NWA drive       | <b>NW</b> |        |      |
| 11CrMo9-10      | <b>B</b> | MODACT drive    | <b>NM</b> |        |      |
| 14MoV6-3        | <b>C</b> |                 |           |        |      |
| X10CrMoVNb9-1   | <b>E</b> | Pneumatic drive | <b>NP</b> |        |      |

#### APPLICATION:

Gate valve is designed to open and stop the flow. The gate valve can be mounted to a pipeline in any position. It should operate in a close or open position.



## MATERIALS:

| Versions            | Standard                   | U                      | A                      | B                      | C                      | E                         |
|---------------------|----------------------------|------------------------|------------------------|------------------------|------------------------|---------------------------|
| Parts               | T <sub>MAX</sub> 450°C     | T <sub>MAX</sub> 530°C | T <sub>MAX</sub> 560°C | T <sub>MAX</sub> 600°C | T <sub>MAX</sub> 570°C | T <sub>MAX</sub> 670°C    |
| Body, bonnet, wedge | (P250GH) C22.8<br>(1.0460) | 16Mo3<br>(1.5415)      | 13CrMo4-5<br>(1.7335)  | 11CrMo9-10<br>(1.7383) | 14MoV6-3<br>(1.7715)   | X10CrMoVNb9-1<br>(1.4903) |
| Stem                | X39CrMo17-1 (1.4122)       |                        |                        |                        |                        |                           |
| Seat ring           | Stellit                    |                        |                        |                        |                        |                           |
| Wedge ring          | Stellit                    |                        |                        |                        |                        |                           |
| Packing rings       | Graft                      |                        |                        |                        |                        |                           |
| Wheel               | Steel                      |                        |                        |                        |                        |                           |

Special materials on request; modifications reserved.

## DIMENSIONS:

| DN  | Dz                      | Dw    | L    | H     | h   | Dk   | Weight  | "ZK"                    |     |     |    |    |      |    |   |         |
|-----|-------------------------|-------|------|-------|-----|------|---------|-------------------------|-----|-----|----|----|------|----|---|---------|
|     |                         |       |      |       |     |      |         | Dz                      | Dp  | Do  | do | n  | L    | g. | f | Weight  |
| 50  | 62                      | 52,5  | 300  | 490   | 61  | 400  | 37,80   | 195                     | 102 | 145 | 30 | 4  | 300  | 30 | 3 | 51,80   |
| 65  | 77                      | 65    | 360  | 534   | 77  | 400  | 58,50   | 220                     | 122 | 170 | 26 | 8  | 360  | 34 | 3 | 78,50   |
| 80  | 91                      | 76,5  | 390  | 613   | 92  | 500  | 103,50  | 230                     | 138 | 180 | 26 | 8  | 390  | 36 | 3 | 127,50  |
| 100 | 117                     | 98,5  | 450  | 690   | 115 | 700  | 144,00  | 265                     | 162 | 210 | 30 | 8  | 450  | 40 | 3 | 179,00  |
| 125 | 144                     | 120,5 | 525  | 760   | 140 | 700  | 207,00  | 315                     | 188 | 250 | 33 | 8  | 525  | 44 | 3 | 261,10  |
| 150 | 172                     | 144,5 | 600  | 970   | 160 | 850  | 244,80  | 355                     | 218 | 290 | 33 | 12 | 600  | 50 | 3 | 355,80  |
| 175 | by customers acceptance |       |      |       |     |      |         | by customers acceptance |     |     |    |    |      |    |   |         |
| 200 | 223                     | 189   | 750  | 1240  | 225 | 1100 | 566,10  | 430                     | 285 | 360 | 36 | 12 | 750  | 60 | 3 | 703,10  |
| 250 | 278                     | 242,5 | 900  | 1450  | 270 | 1100 | 930,60  | 515                     | 345 | 430 | 42 | 12 | 900  | 68 | 3 | 1152,6  |
| 300 | 329                     | 285,5 | 1050 | 1300* | 335 | -    | 1522,80 | 585                     | 410 | 500 | 42 | 16 | 1050 | 78 | 4 | 1852,80 |
| 350 | by customers acceptance |       |      |       |     |      |         | by customers acceptance |     |     |    |    |      |    |   |         |
| 400 | by customers acceptance |       |      |       |     |      |         | by customers acceptance |     |     |    |    |      |    |   |         |
| 450 | by customers acceptance |       |      |       |     |      |         | by customers acceptance |     |     |    |    |      |    |   |         |
| 500 | by customers acceptance |       |      |       |     |      |         | by customers acceptance |     |     |    |    |      |    |   |         |

Dimensions in mm; modifications reserved.

## TECHNICAL DATA:

| Body material              | PN  | Maximal working pressure at working temperature |        |        |        |        |        |        |        |        |        |        |        |       |       |       |       |       |
|----------------------------|-----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|
|                            |     | 20°C  | 100°C  | 150°C  | 200°C  | 250°C  | 300°C  | 350°C  | 400°C  | 450°C  | 480°C  | 500°C  | 520°C  | 530°C | 540°C | 560°C | 570°C | 600°C |
| (P250GH)C 22.8<br>(1.0460) | 160 | 160,00  | 148,50 | 140,90 | 133,30 | 121,90 | 110,40 | 102,80 | 95,20  | 52,50  | -      | -      | -      | -     | -     | -     | -     | -     |
| 16Mo3<br>(1.5415)          | 160 | 160,00  | 160,00 | 160,00 | 160,00 | 156,10 | 137,10 | 129,50 | 121,90 | 118,00 | 89,70  | 70,80  | 44,90  | 35,80 | -     | -     | -     | -     |
| 13CrMo4-5<br>(1.7335)      | 160 | 160,00  | 160,00 | 160,00 | 160,00 | 160,00 | 159,20 | 152,30 | 144,70 | 137,10 | 117,40 | 104,30 | 71,60  | 59,40 | 46,40 | 30,40 | 25,10 | -     |
| 14MoV6-3<br>(1.7715)       | 160 | 160,00  | 160,00 | 160,00 | 160,00 | 160,00 | 160,00 | 160,00 | 159,20 | 154,70 | 153,50 | 147,00 | 113,50 | 99,80 | 86,10 | 65,50 | 55,60 | -     |
| 11CrMo9-10<br>(1.7383)     | 160 | 160,00  | 160,00 | 160,00 | 160,00 | 160,00 | 160,00 | 156,10 | 148,50 | 140,90 | 118,00 | 102,80 | 78,40  | 68,50 | 59,40 | 44,10 | 38,80 | 25,9  |

## MOUNTING AND OPERATING:

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

Before a gate 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 gate. Gate can be mounted to a pipe-line in any position. The direction of the flow should only comply with the arrow marked on the body. The valve should be operated strictly with its assign. In order to provide gate's reliability the following suggestions must be observed:

- medium flowing through the gate 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.