

# STOP VALVE WITH BELLOWS TYPE 412M

**CARACTERISTIC:**

|             |                                                                                                                                                                                          |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Diameter    | - 15 -200 mm;                                                                                                                                                                            |
| Pressure    | - 63 bar                                                                                                                                                                                 |
| Temperature | - up to 560°C (with rubber sealing up to $\leq 120^{\circ}\text{C}$ , with PTFE sealing up to $\leq 200^{\circ}\text{C}$ );                                                              |
| Medium      | - water, steam and especially to toxic or poisonous media which may be harmful for human beings or environment and other non-toxic, non aggressive liquid and gas media and engine fuel. |

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

**Example:** 412M / --- / --- / --- / ---

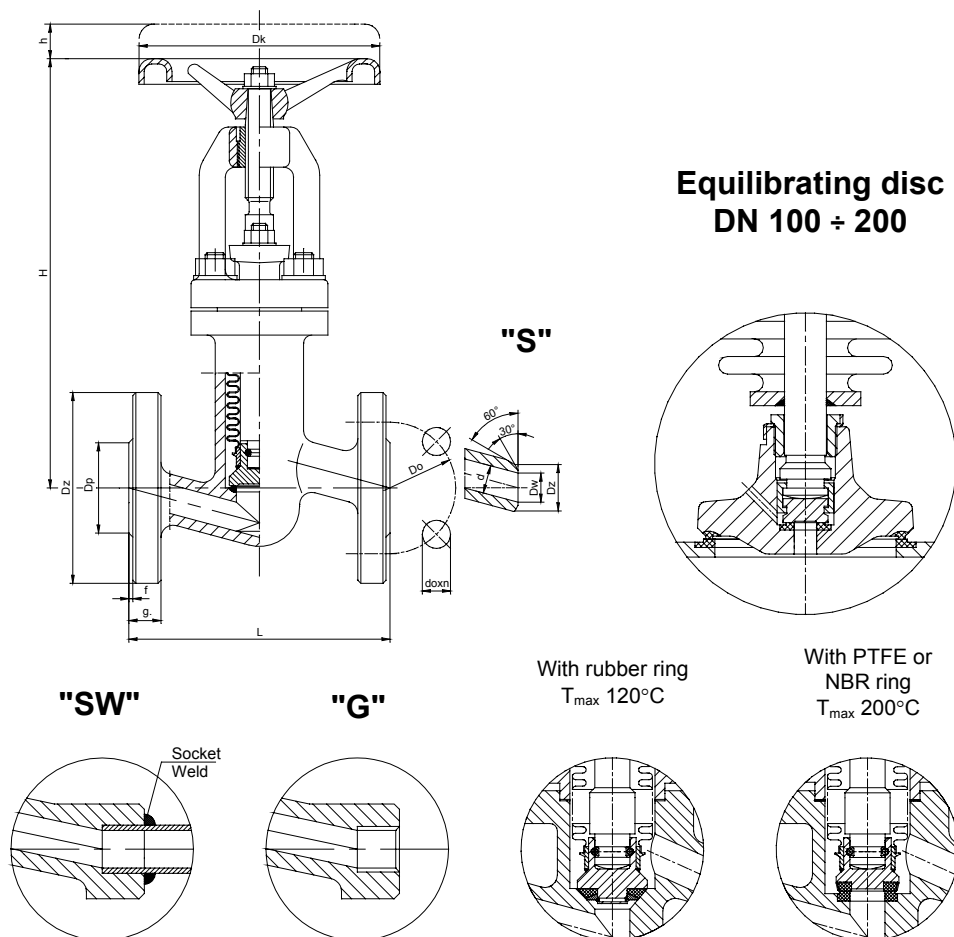
**Example:** 412M / S / U / P / ---

| Ends               | Sign      | Body material   | Sign     | Disc and disc ring | Sign     | Others   | Sign     |
|--------------------|-----------|-----------------|----------|--------------------|----------|----------|----------|
| Standard - flanged | ---       | (P250GH) C 22.8 | ---      | Standard           | ---      | -----    | ---      |
| Butt weld ends     | <b>S</b>  | or GP240GH      | ---      | PTFE ring          | <b>P</b> | Stem BT9 | <b>T</b> |
| Socket weld        | <b>SW</b> | 16Mo3 or G20Mo5 | <b>U</b> | NBR ring           | <b>N</b> |          |          |
| Threaded           | <b>G</b>  | 13CrMo4-5       | <b>A</b> | Rubber ring        | <b>G</b> |          |          |
|                    |           | or G17CrMo5-5   |          | STELLIT ring       | <b>L</b> |          |          |

## APPLICATION:

Stop globe valve is designed to open and stop the flow where the fully tightness is required. The valve is not supposed to be used as a regulating device. For regulation the version „R” with throttling plug should be applied.

**DN 15 ÷ 80**



**WK**

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# FABRYKA ARMATURY PRZEMYSŁOWEJ

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## MATERIALS:

| Versions     | Standard                                                                       | U                      | A                      | Standard               | U                      | A                      |
|--------------|--------------------------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Parts        | T <sub>MAX</sub> 450°C                                                         | T <sub>MAX</sub> 530°C | T <sub>MAX</sub> 560°C | T <sub>MAX</sub> 450°C | T <sub>MAX</sub> 500°C | T <sub>MAX</sub> 550°C |
|              | DN 15 - 40                                                                     |                        |                        | DN 50 - 200            |                        |                        |
| Body, bonnet | (P250GH)<br>C22.8<br>(1.0460)                                                  | 16Mo3<br>(1.5415)      | 13CrMo4-5<br>(1.7335)  | GP240GH<br>(1.0619)    | G20Mo5<br>(1.5419)     | G17CrMo5-5<br>(1.7357) |
| Seat ring    | G 18 8 Mn (1.4370) or Stellite                                                 |                        |                        |                        |                        |                        |
| Disc         | X20Cr13 (1.4021) , X17CrNi16-2 (1.4057) , P245GH (1.0352) , 13CrMo4-5 (1.7335) |                        |                        |                        |                        |                        |
| Disc ring    | G 18 8 Mn (1.4370) or Stellite , or PTFE , NBR , rubber                        |                        |                        |                        |                        |                        |
| Stem         | X20Cr13 (1.4021) , X17CrNi16-2 (1.4057) , BT9 ,                                |                        |                        |                        |                        |                        |
| Bellows      | X6CrNiTi18-10 (1.4541)                                                         |                        |                        |                        |                        |                        |
| Gasket       | Grafite + austenite                                                            |                        |                        |                        |                        |                        |
| Wheel        | Cast iron                                                                      |                        |                        |                        |                        |                        |

Special materials on request; modifications reserved.

## DIMENSIONS:

| DN  | d   | Dz  | Dp  | Do  | do | n  | L   | g. | f | H    | h  | Dk  | Weight | “S” |       |     |        |
|-----|-----|-----|-----|-----|----|----|-----|----|---|------|----|-----|--------|-----|-------|-----|--------|
|     |     |     |     |     |    |    |     |    |   |      |    |     |        | Dz  | Dw    | L   | Weight |
| 15  | 14  | 105 | 45  | 75  | 14 | 4  | 210 | 20 | 2 | 235  | 13 | 120 | 5,70   | 22  | 17    | 160 | 3,30   |
| 20  | 19  | 130 | 58  | 90  | 18 | 4  | 230 | 22 | 2 | 285  | 13 | 160 | 10,10  | 28  | 22    | 160 | 3,30   |
| 25  | 23  | 140 | 68  | 100 | 18 | 4  | 230 | 24 | 2 | 285  | 13 | 160 | 11,10  | 35  | 28,5  | 160 | 3,30   |
| 32  | 30  | 155 | 78  | 110 | 22 | 4  | 260 | 24 | 2 | 315  | 16 | 200 | 15,40  | 44  | 36,5  | 230 | 9,70   |
| 40  | 38  | 170 | 88  | 125 | 22 | 4  | 260 | 28 | 3 | 315  | 18 | 200 | 16,10  | 50  | 43    | 230 | 9,90   |
| 50  | 45  | 180 | 102 | 135 | 22 | 4  | 300 | 26 | 3 | 340  | 22 | 250 | 31,30  | 62  | 54    | 300 | 20,50  |
| 65  | 62  | 205 | 122 | 160 | 22 | 8  | 340 | 26 | 3 | 415  | 30 | 250 | 46,60  | 77  | 69    | 340 | 31,50  |
| 80  | 73  | 215 | 138 | 170 | 22 | 8  | 380 | 28 | 3 | 505  | 40 | 320 | 62,90  | 91  | 81    | 380 | 49,60  |
| 100 | 94  | 250 | 162 | 200 | 22 | 8  | 430 | 30 | 3 | 645  | 55 | 360 | 122,50 | 117 | 104   | 430 | 96,10  |
| 125 | 120 | 295 | 188 | 240 | 26 | 8  | 500 | 34 | 3 | 720  | 65 | 400 | 169,50 | 144 | 130,5 | 500 | 139,40 |
| 150 | 144 | 345 | 218 | 280 | 33 | 8  | 550 | 36 | 3 | 795  | 70 | 500 | 254,00 | 172 | 156,5 | 550 | 204,10 |
| 200 | 195 | 415 | 285 | 345 | 36 | 12 | 650 | 42 | 3 | 1155 | 90 | 600 | 295,00 | 223 | 204,5 | 650 | 220,00 |

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 | 510°C | 520°C | 530°C | 540°C | 550°C | 560°C |
|                            | bar |                                                 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (P250GH)C 22.8<br>(1.0460) | 63  | 63,0                                            | 58,5  | 55,5  | 52,5  | 48,0  | 43,5  | 40,5  | 37,5  | 20,7  | -     | -     | -     | -     | -     | -     | -     | -     |
| 16Mo3<br>(1.5415)          | 63  | 63,0                                            | 63,0  | 63,0  | 63,0  | 61,5  | 54,0  | 51,0  | 48,0  | 46,5  | 35,3  | 27,9  | 22,8  | 17,7  | 14,1  | -     | -     | -     |
| 13CrMo4-5<br>(1,7335)      | 63  | 63,0                                            | 63,0  | 63,0  | 63,0  | 63,0  | 62,7  | 60,0  | 57,0  | 54,0  | 46,2  | 41,1  | 34,6  | 28,2  | 23,4  | 18,3  | 14,7  | 12,0  |
| GP240GH<br>(1.0619)        | 63  | 63,0                                            | 49,7  | 45,6  | 41,4  | 37,9  | 34,3  | 32,0  | 30,8  | 19,7  | -     | -     | -     | -     | -     | -     | -     | -     |
| G20Mo5<br>(1.5419)         | 63  | 63,0                                            | 52,2  | 48,6  | 45,0  | 42,0  | 39,1  | 36,7  | 35,5  | 34,3  | 25,8  | 20,1  | -     | -     | -     | -     | -     | -     |
| G17CrMo5-5<br>(1.7357)     | 63  | 63,0                                            | 63,0  | 63,0  | 63,0  | 63,0  | 63,0  | 63,0  | 60,0  | 43,5  | 31,9  | 24,3  | 21,5  | 18,8  | 16,0  | 13,3  | 10,5  | -     |

## 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.