

Gate Valve

## COBRA-SGP/SGO/SGF

PN 16/25  
DN 25-600  
Elastomer-coated Wedge  
Bolted Bonnet  
Flanged or Threaded Ends

### Type Series Booklet



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Type Series Booklet COBRA-SGP/SGO/SGF

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## Gate Valves

### Gate Valves with Bolted Bonnet

## COBRA-SGP/SGO/SGF



### Main applications

- Irrigation systems
- Pressure boosting
- Domestic water supply
- Sewage treatment plants
- Air-conditioning systems
- Cooling circuits
- Water treatment
- Water supply systems
- Food and beverages industry

### Fluids handled

- Cooling water
- Drinking water
- Fluids containing mineral oils
- Oil
- River, lake and groundwater
- Service water
- Waste water

### Operating data

Operating properties

| Characteristic               | Value     |
|------------------------------|-----------|
| Nominal pressure             | PN 16/25  |
| Nominal size                 | DN 25-600 |
| Max. permissible pressure    | 25 bar    |
| Max. permissible temperature | 70 °C     |

Selection as per pressure/temperature ratings (⇒ Page 4)

### Body materials

Overview of available materials

| Material      | Material number | Temperature limit |
|---------------|-----------------|-------------------|
| EN-GJS-400-15 | EN-JS1030       | +70 °C            |

### Design details

#### Design

- Gate valve to UNI EN 1171
- COBRA-SGP with flat body
- COBRA-SGO with oval body
- COBRA-SGF with threaded ends to ISO 7/1
- COBRA-SGP BS drilled and dimensioned to BS 4504
- Bolted bonnet
- Internal stem thread
- Rotating stem
- Elastomer-coated wedge (NBR)
- Non-toxic elastomer
- Drain plug
- Valve certified for drinking water applications to D.M. 174/2004, WRAS (elastomer and coating) and ACS
- Corrosion protection: electrostatic epoxy resin coating inside and outside; thickness of epoxy coating: 250 µm.

### Variants

- Gearboxes
- Electric actuators
- Cap
- Accessories for underground installation
- COBRA-SGF HT (high-temperature applications up to 120 °C)
- EPDM-coated wedge on request.
- Thickness of epoxy coating: 300 µm

### Product benefits

- Valve easy to inspect and drain via standard drain plug.
- Approved for drinking water applications due to electrostatic epoxy resin coating
- Pressure drop reduced by hydraulically favourable flow passage of compact valve body without dead volumes.

### Related documents

- Operating manual V939011/1.10

### On all enquiries / orders please specify

1. Type
2. Nominal pressure
3. Nominal size
4. Variants
5. Number of type series booklet

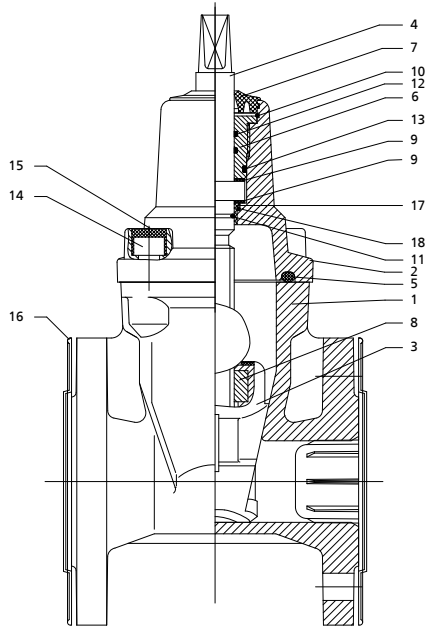
**Pressure/temperature ratings**

Permissible operating pressures in bar at temperatures in °C

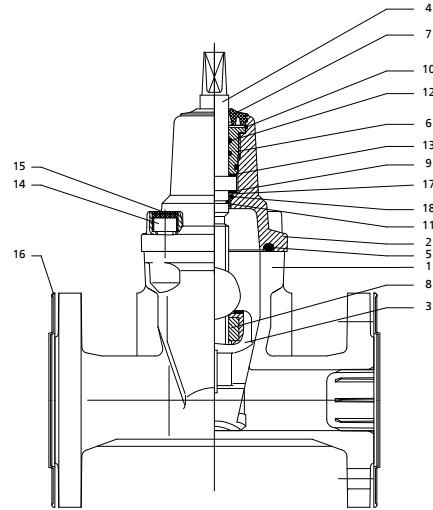
| Nominal pressure | Nominal size | Permissible operating pressures <sup>1)</sup> |
|------------------|--------------|---|
| PN               | DN           | Up to +70 °C                                  |
| 16               | 25-600       | 16,0  |
| 25               | 25-300       | 25,0  |

**Materials**

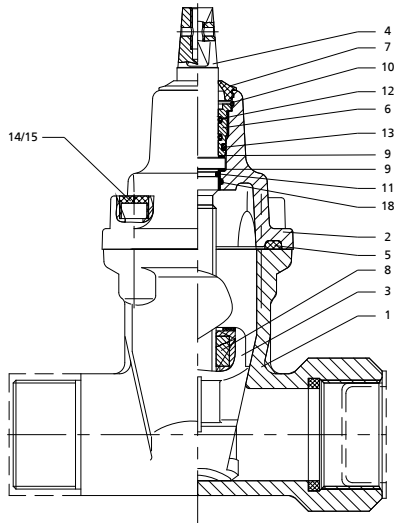
**COBRA-SGP**



**COBRA-SGO**



**COBRA-SGF**



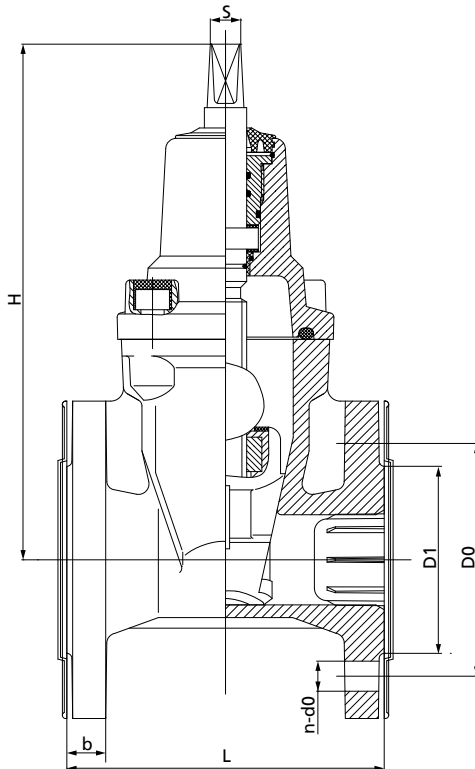
1) Static load

Overview of available materials

| Part No. | Description   | Material         | Material number | Note                        |
|----------|---------------|------------------|-----------------|-----------------------------|
| 1        | Body          | EN-GJS-400-15    | EN-JS1030       | Epoxy-coated                |
| 2        | Bonnet        | EN-GJS-400-15    | EN-JS1030       | Epoxy-coated                |
| 3        | Wedge         | EN-GJS-400-15    | EN-JS1030       | Elastomer-coated (NBR/EPDM) |
| 4        | Stem          | X20Cr13          | 1.4021          |                             |
| 5        | Bonnet gasket | EPDM             |                 |                             |
| 6        | Threaded bush | MO59             |                 |                             |
| 7        | Plug          | EPDM             |                 |                             |
| 8        | Stem nut      | X5CrNiMo17-12-2  | 1.4401          |                             |
| 9        | Stem washer   | Tarnamid         | T-27            |                             |
| 10       | Circlip       | 65G              |                 |                             |
| 11       | O-ring        | EPDM             |                 |                             |
| 12       |               | EPDM             |                 |                             |
| 13       |               | EPDM             |                 |                             |
| 14       | Screw         | Galvanised steel | Fe/Zn5          |                             |
| 15       | Screw cover   | Paraffin         |                 |                             |
| 16       | Cap           | Polypropylene    |                 |                             |
| 17       | Stem sleeve   | Tarnamid         | T-27            |                             |
| 18       | O-ring        | EPDM             |                 |                             |

**Dimensions**

**Dimensions of COBRA-SGP**



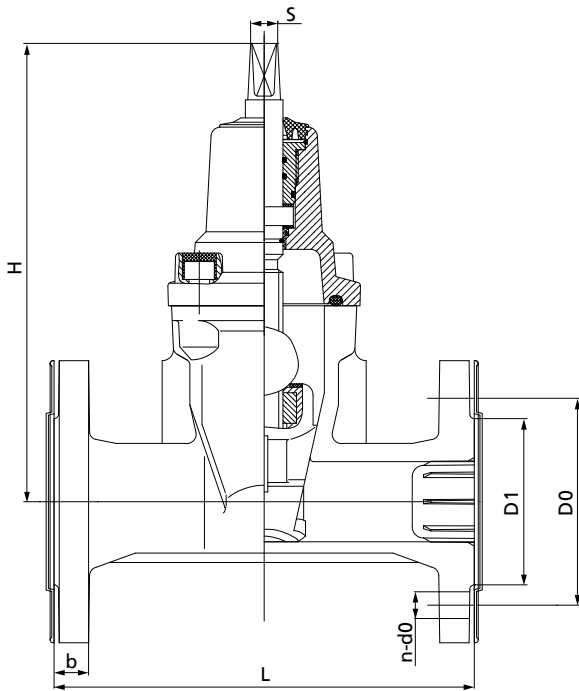
Dimensions in mm

| PN | DN  | L   | H   | S  | n-d0  | b    | D1  | D0  | [kg]  |
|----|-----|-----|-----|----|-------|------|-----|-----|-------|
| 16 | 40  | 140 | 231 | 14 | 4-18  | 19,0 | 88  | 110 | 9,3   |
|    | 50  | 150 | 241 | 14 | 4-18  | 19,0 | 102 | 125 | 11,2  |
|    | 65  | 170 | 283 | 17 | 4-18  | 19,0 | 122 | 145 | 15,8  |
|    | 80  | 180 | 307 | 17 | 8-18  | 19,0 | 138 | 160 | 19,5  |
|    | 100 | 190 | 346 | 19 | 8-18  | 19,0 | 158 | 180 | 25,8  |
|    | 125 | 200 | 385 | 19 | 8-18  | 19,0 | 188 | 210 | 32,2  |
|    | 150 | 210 | 457 | 19 | 8-22  | 19,0 | 212 | 240 | 46,3  |
|    | 200 | 230 | 534 | 24 | 12-22 | 20,0 | 268 | 295 | 65,3  |
|    | 250 | 250 | 633 | 27 | 12-26 | 22,0 | 320 | 355 | 94,0  |
|    | 300 | 270 | 708 | 27 | 12-26 | 24,5 | 378 | 410 | 130,0 |
|    | 350 | 290 | 790 | 27 | 12-28 | 32,0 | 429 | 470 | 200,0 |
| 25 | 40  | 140 | 231 | 14 | 4-18  | 19,0 | 88  | 110 | 9,3   |
|    | 50  | 150 | 241 | 14 | 4-18  | 19,0 | 102 | 125 | 11,2  |
|    | 65  | 170 | 283 | 17 | 8-18  | 19,0 | 122 | 145 | 15,8  |
|    | 80  | 180 | 307 | 17 | 8-18  | 19,0 | 138 | 160 | 19,5  |
|    | 100 | 190 | 346 | 19 | 8-22  | 19,0 | 158 | 190 | 25,8  |
|    | 125 | 200 | 385 | 19 | 8-26  | 19,0 | 188 | 220 | 32,2  |
|    | 150 | 210 | 457 | 19 | 8-26  | 20,0 | 212 | 250 | 46,3  |
|    | 200 | 230 | 534 | 24 | 12-26 | 22,0 | 274 | 310 | 65,3  |
|    | 250 | 250 | 633 | 27 | 12-30 | 24,5 | 330 | 370 | 94,0  |
|    | 300 | 270 | 708 | 27 | 16-30 | 27,5 | 389 | 430 | 130,0 |

**Mating dimensions - Standards**

Face-to-face lengths: EN 558-1/14  
Flanges: DIN EN 1092-2

**Dimensions of COBRA-SGO**



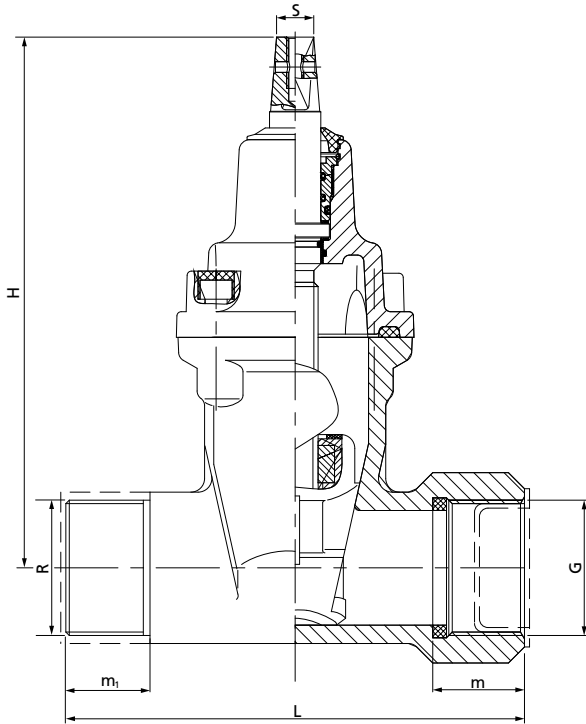
Dimensions in mm

| PN | DN  | L   | H    | S  | n-d0  | b    | D1  | D0  | [kg]  |
|----|-----|-----|------|----|-------|------|-----|-----|-------|
| 16 | 40  | 240 | 231  | 14 | 4-18  | 19,0 | 88  | 110 | 10,7  |
|    | 50  | 250 | 241  | 14 | 4-18  | 19,0 | 102 | 125 | 12,6  |
|    | 65  | 270 | 283  | 17 | 4-18  | 19,0 | 122 | 145 | 21,2  |
|    | 80  | 280 | 307  | 17 | 8-18  | 19,0 | 138 | 160 | 24,9  |
|    | 100 | 300 | 346  | 19 | 8-18  | 19,0 | 158 | 180 | 29,9  |
|    | 125 | 325 | 385  | 19 | 8-18  | 19,0 | 188 | 210 | 36,7  |
|    | 150 | 350 | 457  | 19 | 8-22  | 19,0 | 212 | 240 | 51,2  |
|    | 200 | 400 | 534  | 24 | 12-22 | 20,0 | 268 | 295 | 81,4  |
|    | 250 | 450 | 633  | 27 | 12-26 | 22,0 | 320 | 355 | 100,0 |
|    | 300 | 500 | 708  | 27 | 12-26 | 24,5 | 378 | 410 | 150,0 |
|    | 350 | 550 | 790  | 27 | 12-28 | 32,0 | 429 | 470 | 232,0 |
|    | 400 | 600 | 1020 | 32 | 12-30 | 32,0 | 480 | 525 | 330,0 |
| 25 | 40  | 240 | 231  | 14 | 4-18  | 19,0 | 88  | 110 | 10,7  |
|    | 50  | 250 | 241  | 14 | 4-18  | 19,0 | 102 | 125 | 12,6  |
|    | 65  | 270 | 283  | 17 | 8-18  | 19,0 | 122 | 145 | 21,2  |
|    | 80  | 280 | 307  | 17 | 8-18  | 19,0 | 138 | 160 | 24,9  |
|    | 100 | 300 | 346  | 19 | 8-22  | 19,0 | 158 | 190 | 29,9  |
|    | 125 | 325 | 385  | 19 | 8-26  | 19,0 | 188 | 220 | 36,7  |
|    | 150 | 350 | 457  | 19 | 8-26  | 20,0 | 212 | 250 | 51,2  |
|    | 200 | 400 | 534  | 24 | 12-26 | 22,0 | 274 | 310 | 81,4  |
|    | 250 | 450 | 633  | 27 | 12-30 | 24,5 | 330 | 370 | 100,0 |
|    | 300 | 500 | 708  | 27 | 16-30 | 27,5 | 389 | 430 | 150,0 |

**Mating dimensions - Standards**

Face-to-face lengths: EN 558-1/15  
 Flanges: DIN EN 1092-2

**Dimensions of COBRA-SGF**



Dimensions in mm

| PN | DN | G/R       | L   | m  | m <sub>1</sub> | H   | S  | [kg] |
|----|----|-----------|-----|----|----------------|-----|----|------|
| 16 | 25 | 1"/1"     | 105 | 25 | 25             | 145 | 12 | 2,3  |
|    | 32 | 5/4"/6/4" | 120 | 25 | 25             | 145 | 12 | 2,8  |
|    |    | 5/4"/2"   | 130 | 25 | 25             | 145 | 12 | 2,8  |
|    | 40 | 6/4"/6/4" | 180 | 25 | 40             | 230 | 14 | 6,5  |
|    |    | 6/4"/2"   | 180 | 25 | 40             | 230 | 14 | 6,5  |
|    | 50 | 2"/2"     | 200 | 25 | 40             | 240 | 14 | 7,7  |

**Mating dimensions - Standards**

Face-to-face lengths: see table  
Threaded ends: ISO 7/1

**Notes on installation**

Horizontal installation recommended; vertical installation permitted. Horizontal installation with handwheel below is not recommended.







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