

Gate Valve

# COBRA-SGP/SGO

## Type Series Booklet



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Type Series Booklet COBRA-SGP/SGO

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## Gate Valves

### Gate Valves to DIN/EN with Bolted Bonnet

## COBRA-SGP/SGO



#### Main applications

- General irrigation systems
- Pressure boosting
- Domestic water supply
- Waste water treatment plants
- Air-conditioning systems
- Cooling circuits
- Water treatment
- Water supply systems
- Food industry / beverage industry

#### Fluids handled

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

#### Operating data

Operating properties

Characteristic	Value	
Nominal pressure	PN 10/16	
Nominal size	DN 40 - 600	
Max. permissible pressure [bar]	16	
Min. permissible temperature [°C]	≥ -10	
Max. permissible temperature [°C]	NBR	≤ +80
	EPDM	≤ +110

Selection as per pressure/temperature ratings (⇒ Page 5)

#### Valve body materials

Overview of available materials

Material	Material number	Temperature limit
EN-GJS-400-15	5.3106	≤ 80 °C (NBR) ≤ 110 °C (EPDM)

#### Design details

##### Design

- Gate valve to UNI EN 1171
- COBRA-SGP with flat body
- COBRA-SGO with oval body
- Bolted bonnet
- Inside screw
- Rotating stem
- Elastomer-coated wedge (EPDM or NBR)
- Non-toxic elastomer
- Valve certified for drinking water applications to D.M. 174/2004 (EPDM variant).
- Valve certified for drinking water applications to WRAS (elastomer and coating)
- Electrostatic epoxy resin coating inside and outside, thickness 300 µm, as corrosion protection

##### Variants

- Gearbox
- Electric actuators
- Cap
- Accessories for underground installation
- Larger nominal sizes

##### Product benefits

- Easy to inspect
- 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.

##### Product information

#### Product information as per Regulation No. 1907/2006 (REACH)

For information as per chemicals Regulation (EC) No. 1907/2006 (REACH), see <http://www.ksb.com/reach>.

##### Related documents

Information/documents

Document	Reference number
Operating manual	V939011/1.10

**Purchase order specifications**

Please specify the following information in all enquiries or purchase orders:

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Type</li> <li>2. Nominal pressure</li> <li>3. Nominal size</li> <li>4. Operating pressure</li> <li>5. Differential pressure</li> </ol> | <ol style="list-style-type: none"> <li>6. Operating temperature</li> <li>7. Material</li> <li>8. Fluid handled</li> <li>9. Flow rate</li> <li>10. Pipe connection</li> <li>11. Variants</li> <li>12. Reference number</li> </ol> |
|--|--|

Always indicate the original serial number and the year of construction when ordering spare parts.

**Pressure/temperature ratings**

Permissible operating pressures [bar]

PN	DN	Permissible operating pressures <sup>1)</sup>
		Up to +80 °C (NBR) / +110 °C (EPDM)
16	40 - 600	16,0
10	40 - 600	10,0

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1) Static load

Materials

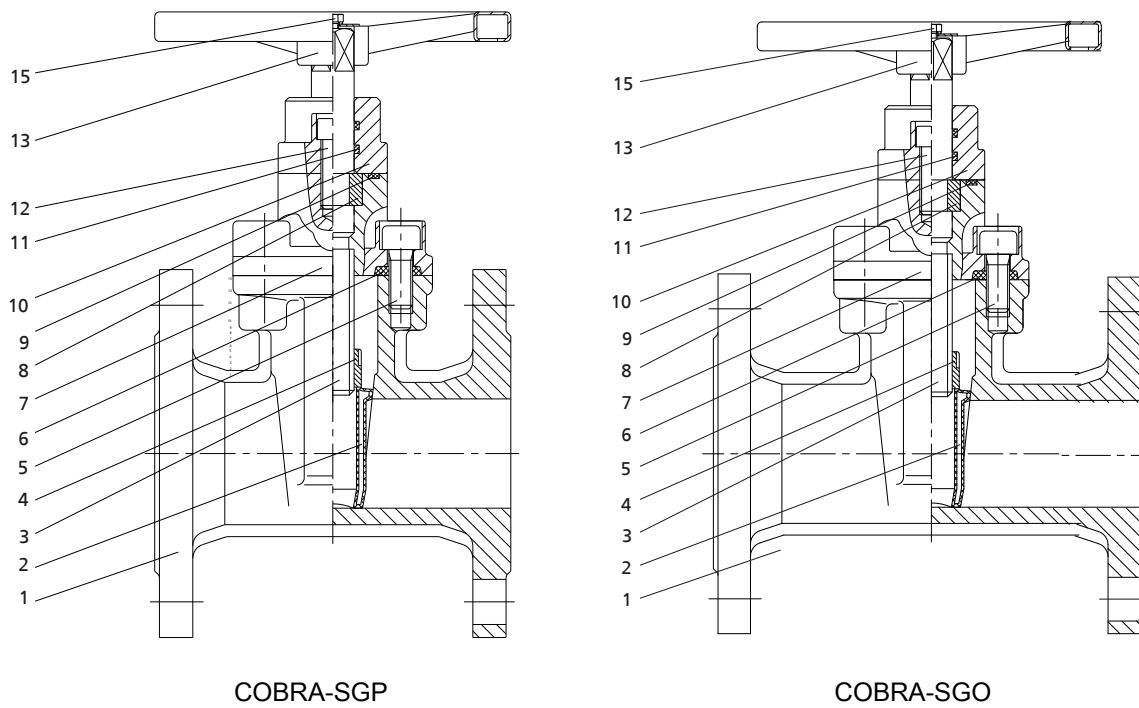


Fig. 1: Sectional drawings with part numbers

Parts list

Part No.	Description	Material	Comment
1	Body	EN-GJS-400-15	-
2	Wedge	EN-GJS-400-15	Elastomer-coated (EPDM / NBR)
3	Stem	2Cr13	-
4	Stem nut	ZCuA19-4	-
5	Bolt/screw	45# steel	-
6	Bonnet gasket	EPDM / NBR	-
7	Bonnet	EN-GJS-400-15	-
8	Wear ring	2Cr13	-
9	O-ring	EPDM / NBR	-
10	Retainer	EN-GJS-400-15	-
11	V-ring	EPDM / NBR	-
12	Bolt/screw	45# steel	-
13	Handwheel	EN-GJS-400-15	-
14	Washer	65Mn	-
15	Bolt/screw	45# steel	-

Dimensions and weights

Dimensions and weights of COBRA-SGP

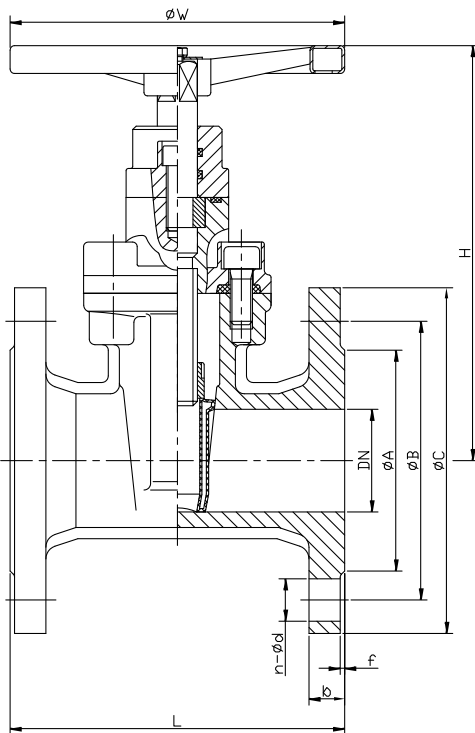


Fig. 2: Sectional drawing of COBRA-SGP

Dimensions and weights

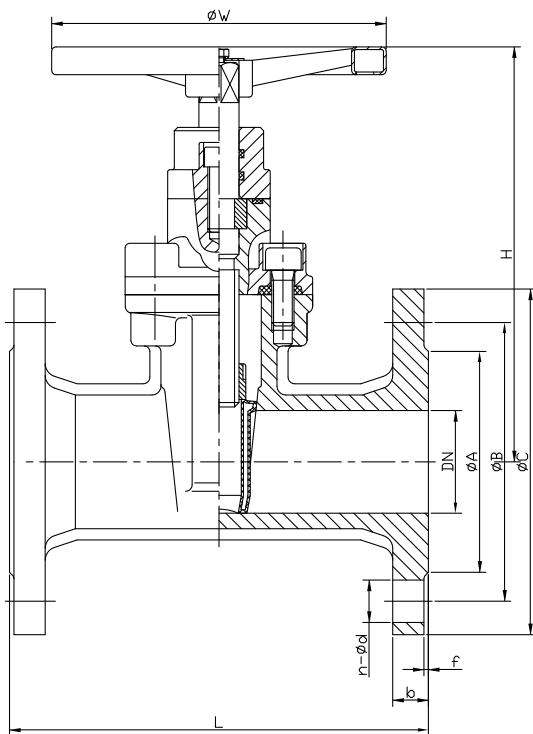
PN	DN	$\varnothing A$	$b$	$\varnothing B$	$\varnothing C$	$f$	H	L	n- $\varnothing d$	$\varnothing W$	[kg]
		[mm]	[mm]	[mm]	[mm]	[mm]					
10	80	132	19	160	200	3	315	180	8-19	205	15
	200	266	20	295	340	3	550	230	8-23	330	63
	250	319	22	350	400	3	667	250	12-23	400	100
	300	370	24,5	400	455	4	767	270	12-23	400	122
	350	429	24,5	460	505	4	797	290	16-23	400	180
	400	480	24,5	515	565	4	923	310	16-28	530	200
	450	530	25,5	565	615	4	990	330	20-28	650	200
	500	582	26,5	620	670	4	1050	350	20-28	650	350
	600	682	30	725	780	5	1105	390	20-31	650	600
16	40	84	19	110	150	3	272	140	4-19	160	8
	50	99	19	125	165	3	272	150	4-19	160	10
	65	118	19	145	185	3	282	170	4-19	160	13
	80	132	19	160	200	3	315	180	8-19	205	15
	100	156	19	180	220	3	366	190	8-19	205	21
	125	184	19	210	250	3	415	200	8-19	280	30
	150	211	19	240	285	3	453	210	8-23	280	39
	200	266	20	295	340	3	550	230	12-23	330	63
	250	319	22	355	405	3	667	250	12-28	400	100
	300	370	24,5	410	460	4	767	270	12-28	400	122
	350	429	26,5	470	520	4	797	290	16-28	400	180
	400	480	28	525	580	4	923	310	16-31	530	200
	450	548	30	585	640	4	990	330	20-31	650	300
	500	609	31,5	650	715	4	1050	350	20-34	650	350
	600	720	36	770	840	5	1105	390	20-37	650	500

8191.1/04-EN

**Mating dimensions as per standard**

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

**Dimensions and weights of COBRA-SGO**



**Fig. 3:** Sectional drawing of COBRA-SGO

**Dimensions and weights**

PN	DN	ØA [mm]	b [mm]	ØB [mm]	ØC [mm]	f [mm]	H [mm]	L [mm]	n-Ød [mm]	ØW [mm]	[kg]
10	80	132	19	160	200	3	315	280	8-19	205	18
	200	266	20	295	340	3	550	400	8-23	330	68
	250	319	22	350	400	3	667	450	12-23	400	108
	300	370	24,5	400	455	4	767	500	12-23	400	132
16	40	84	19	110	150	3	272	240	4-19	160	11
	50	99	19	125	165	3	272	250	4-19	160	12
	65	118	19	145	185	3	282	270	4-19	160	14,5
	80	132	19	160	200	3	315	280	8-19	205	18
	100	156	19	180	220	3	366	300	8-19	205	26
	125	184	19	210	250	3	415	325	8-19	280	33
	150	211	19	240	285	3	453	350	8-23	280	43
	200	266	20	295	340	3	550	400	12-23	330	62
	250	319	22	355	405	3	667	450	12-28	400	96
	300	370	24,5	410	460	4	767	500	12-28	400	132
	350	429	26,5	470	520	4	797	550	16-28	400	180
	400	480	28	525	580	4	923	600	16-31	530	236
	450	548	30	585	640	4	990	650	20-31	650	450
500	609	31,5	650	715	4	1050	700	20-34	650	525	
600	720	36	770	840	5	1105	800	20-37	650	750	

**Mating dimensions as per standard**

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

**Installation information**

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











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