



**Range DN: 50 ~ 400**



PED 97/23/EC  
PED 2014/68/EU



TR TS 10/11,  
32/11



**Range PN: 160 ~ 400**



**HIGH-PRESSURE  
EXECUTION**

**Operating temperature: -196 °C ~ 550 °C**

**Connection into piping: Flanged, welded ends, combined execution**



## DESCRIPTION

S43 gate valves (high-pressure execution) are controlled shut-off valves. They are designed to stop or allow the flow of the medium by external operation, either manually or via the installed drive. The medium can flow in both directions. These gate valves are designed and manufactured to ensure maximum service life and reliability.

## MATERIAL SPECIFICATION

S43 gate valves are made from carbon, alloy and stainless steels. The material type can be adjusted according to the customer's request to optimally suit the operating conditions.

## APPLICATION

S43 gate valves are suitable for various liquids, gases and steam. They are specially designed for use in the power engineering and chemical industry.

## BASIC STANDARDS FOR DESIGN

### Basic design

EN 1984, EN 12516 - 1

### Pressure-temperature rating

EN 12 516 - 1

### Testing

EN 12 266 - 1, 2

### Face-to-face dimensions

EN 558, EN 12 982

### Dimensions of the welded ends

EN 12 627

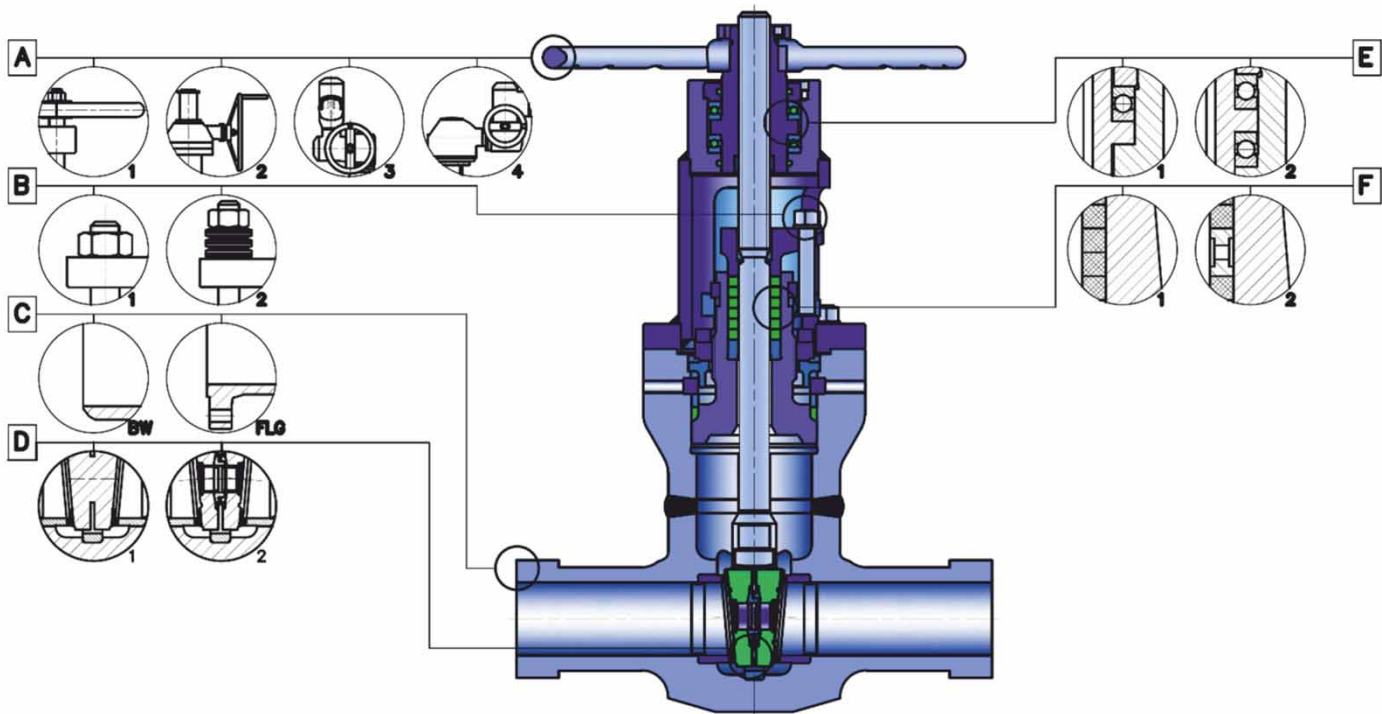
### Top Flange dimensions

EN ISO 5210

### Flange dimensions

EN 1092-1

## STRUCTURAL DESIGN



### A - Control

- hand wheel
- hand wheel+gearbox
- electric actuator
- electric actuator with gearbox

### B – Gland compression

- in case of valve operation with cyclic changes in pressure or at high pressures and temperatures, the gland compression by means of Belleville springs, which secure a constant pre-stress in packing, is preferred

### C — Connection into piping

- flanged
- with welding-ends
- according to customer's requirements

### D – Wedge execution

- flexible
- split wedge

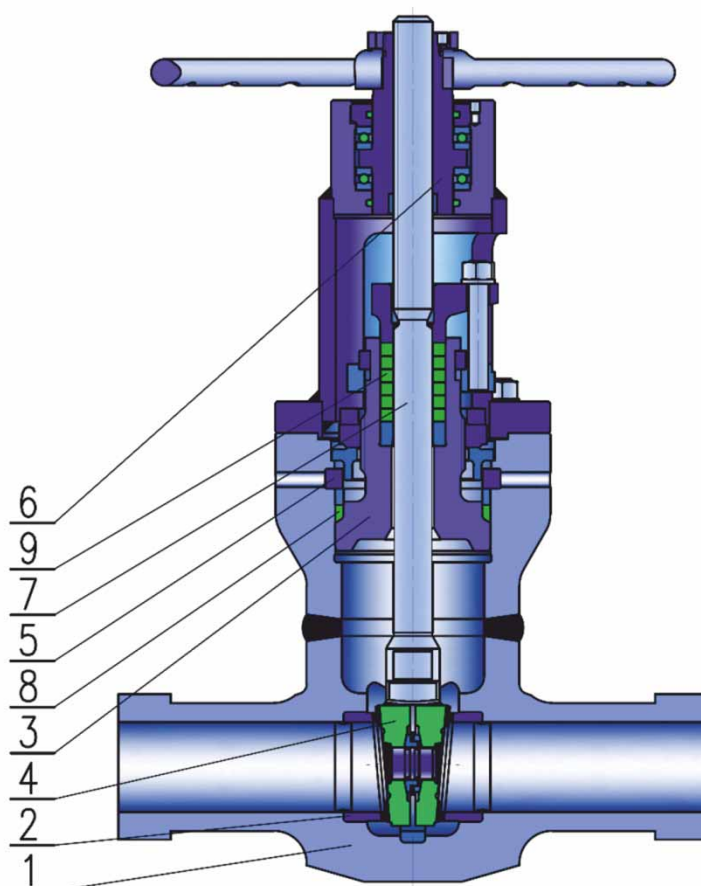
### E- Bedding of stem nut

- combination of sliding and rolling stem nut bedding
- bedding of stem nut between two axial rolling bearings

### F — Execution of gland packing

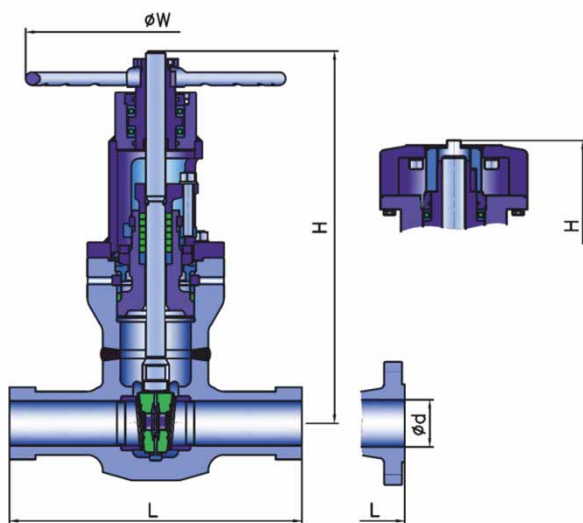
- standard
- double stem packing with lantern ring-shall be chosen in dependence on working conditions

## MATERIAL SPECIFICATION



Pos.	Designation	P250GH (1.0460)	P265GH (1.0460)	P285NH (1.0477)	16Mo3 (1.5415)	G20Mo5 (1.5419)	13CrMo4-5 (1.7335)	14MoV6-3 (1.7715)	10CrMo9-10 (1.7380)	X20CrMoV12-1 (1.4922)	X10CrMoVNb9- 1 (1.4903)	X6CrNiTi18-10 (1.4541)
1	Body	P250GH (1.0460)	P265GH(1.042 5)	P285NH (1.0477)	16Mo3 (1.5415)	G20Mo5 (1.5419)	13CrMo4-5 (1.7335)	14MoV6-3 (1.7715)	10CrMo9-10 (1.7380)	X20CrMoV12-1 (1.4922)	X10CrMoVNb9- 1 (1.4903)	X6CrNiTi18-10 (1.4541)
2	Bonnet	P250GH (1.0460) + overlay	P265GH (1.0425) + overlay	P285NH (1.0477) + overlay	16Mo3 (1.5415) + overlay	G20Mo5 (1.5419) + overlay	13CrMo4-5 (1.7335) + overlay	14MoV6-3 (1.7715) + overlay	10CrMo9-10 (1.7380) + overlay	X20CrMoV12-1 (1.4922) + overlay	X10CrMoVNb9- 1 (1.4903) + overlay	X6CrNiTi18-10 (1.4541) + overlay
3	Pressure Sealing	P250GH (1.046)	P265GH (1.0425)	P285NH (1.0477)	16Mo3 (1.5415)	G20Mo5 (1.5419)	13CrMo4-5 (1.7335)	14MoV6-3 (1.7715)	10CrMo9-10 (1.7380)	X20CrMoV12-1 (1.4922)	X10CrMoVNb9- 1 (1.4903)	X6CrNiTi18-10 (1.4541)
4	Wedge	P250GH (1.0460) + overlay	P265GH (1.0425) + overlay	P285NH (1.0477) + overlay	16Mo3 (1.5415) + overlay	G20Mo5 (1.5419) + overlay	13CrMo4-5 (1.7335) + overlay	14MoV6-3 (1.7715) + overlay	10CrMo9-10 (1.7380) + overlay	X20CrMoV12-1 (1.4922) + overlay	X10CrMoVNb9- 1 (1.4903) + overlay	X6CrNiTi18-10 (1.4541) + overlay
5	Split Ring	P250GH (1.0460)	P265GH (1.0425)	P285NH (1.0477)	16Mo3 (1.5415)	G20Mo5 (1.5419)	13CrMo4-5 (1.7335)	14MoV6-3 (1.7715)	10CrMo9-10 (1.7380)	X20CrMoV12-1 (1.4922)	X10CrMoVNb9- 1 (1.4903)	X6CrNiTi18-10 (1.4541)
6	Stem Nut	bronze										
7	Stem	X22CrMoV12-1 (1.4923)										
8	Gasket	graphite										
9	Gland Packing	graphite										

## DIMENSIONS



DN	PN 160						PN 250					
	L		d	H	W	(KG)	L		d	H	W	(KG)
	1	2					1	2				
50/40	270	270	40	460	320	51	310	310	40	460	320	55
50/50	300	300	50	481	320	55	350	350	50	481	320	58
65/50	360	360	50	481	320	63	425	425	50	481	320	71
80/75	390	390	75	619	400	108	470	470	75	619	400	120
100/75	450	450	75	619	400	110	550	550	75	619	400	142
125/110	525	525	110	803	500	262	650	650	110	803	500	298
150/110	600	600	110	803	500	283	750	750	110	803	500	301
200/150	750	750	150	951	630	519	950	950	150	951	630	644
250/200	900	900	200	1199	710	1017	1150	1150	200	1199	710	1218
300/250	1050	1050	250	1344	800	3443	-	-	-	-	-	-

DN	PN 320					PN 400				
	L	d	H	W	(KG)	L	d	H	W	(KG)
	2					2				
50/40	320	40	452	320	81	320	40	452	320	87
50/50	360	50	458	320	90	360	50	458	320	98
65/50	360	50	458	320	96	360	50	458	320	105
65/55	360	55	458	320	95	360	55	458	320	104
80/75	450	75	666	400	206	450	75	666	400	220
100/75	450	75	666	400	202	450	75	666	400	217
125/110	500	110	746	500	255	500	110	746	500	269
150/110	550	110	746	500	258	550	110	746	500	274
175/125	650	125	950	630	552	650	125	950	630	588
175/150	650	150	1083	630	841	650	150	1083	630	873
200/150	650	150	1083	710	850	650	150	1083	710	882
225/175	700	175	1332	710	1603	700	175	1332	710	1724
250/200	800	200	1450	710	2020	800	200	1450	710	2145
275/200	850	200	1450	710	2034	850	200	1450	710	2160
250/225	800	225	1600	710	2705	800	225	1600	710	2904
275/225	850	225	1600	800	2717	850	225	1600	800	2925
300/225	900	225	1600	800	2730	900	225	1600	800	2946
300/250	1000	250	1694	-	3152	1000	250	1694	-	3498
350/275	1000	275	1850	-	4426	1000	275	1850	-	4761
400/275	1000	275	1850	-	4460	1000	275	1850	-	4795

## TYPE DESIGNATION

**S43 C E M<sub>1</sub> PN DN/Ø d/S**

**C**

**CONNECTION INTO PIPE**

- 1 Flanged
- 2 Welded ends
- 8 Combined

**M<sub>1</sub>**

**BODY MATERIAL**

- 0 Stainless steel
  - 3 Forged alloy steel
  - 4 Forged carbon steel
- L**  
**T** Carbon steel for low temperatures

**D**

**FLANGE FACING**

EN 1092 - 1

- A Flat face
- B Raised face
- C Tongue face
- D Groove face
- E Spigot
- F Recess
- G O - ring recess
- H O - ring groove

**E**

**CONTROL**

- 1 Hand wheel
- 2 Gearbox + hand wheel
- 3 Electric actuators
- 4 Gearbox + electric actuators
- 5 Pneumatic actuators
- 9 Without control

**S**

**SPECIAL EXECUTION**

- As Antistatic execution

