

BG16/BG40 - Bellow Globe Valve



Valflow DIN Bellow Globe Valves are manufactured to the latest edition of EN 13709 and tested to EN12266-1.

Application & Function:

Valflow DIN Bellows Globe Valves feature a formed multi-ply bellows welded to the stem and to the bottom of the bonnet, creating a hermetic seal or impermeable barrier. Bellows are available in many materials for virtually all corrosive chemical applications.

Heat Transfer media: hot oil is commonly used in industries such as synthetic fibres I POY (Partially Oriented Yarn). However, there is always a risk of fire due to hot oil spillage on highly inflammable chemicals. Here, bellow seal valves can stop the leakage.

Vacuum I Ultra high vacuum: some applications require a vacuum pump to continually extract air from a pipeline. Any conventional valves installed on the pipeline can allow external air to enter the pipeline through the valve stuffing box. Hence the bellow seal valve is the only solution to prevent air from passing through the stuffing box.

Costly fluids: in some applications leaks need to be avoided simply because of the high cost of the fluid. Here, an economic assessment often favours the use of bellow seal valves.

Environmental standards: around the world, standards regarding emissions and the environment are getting more stringent day by day. It can therefore be difficult for companies to expand within existing premises. With the use of bellow seal Valves, expansion without additional environmental damage is possible.

Accessories:

Gear operators, actuators, locking devices, chain wheels and many others are available to meet the customer's requirements. Applicable Standards:

- **Design EN 13709**
- **Bellows MSS-SP 117**
- **Face to face EN 558-1**
- **End Flanges EN 1092-2**
- **Inspection and test EN 12266-1**

Size Range:

- DN15-DN250

Pressure Rating:

- PN16/PN40

Temperature Range:

- -10° + 300 °C
- -10° + 425°C

Design:

- Bellow sealed
- Straight pattern
- Bolted bonnet
- Rising, non-rotating stem
- Increased stem nut positioning,
- Blowout safety bonnet sealing
- Flange ends



Graphite Packings are intended to offer high temperature capability, good chemical resistance and markedly reduced spindle wear. By selecting or combining the many versions of Graphite Packings available.

Polished valve stem and reduces diametrical tolerances ensure low fugitive emissions.

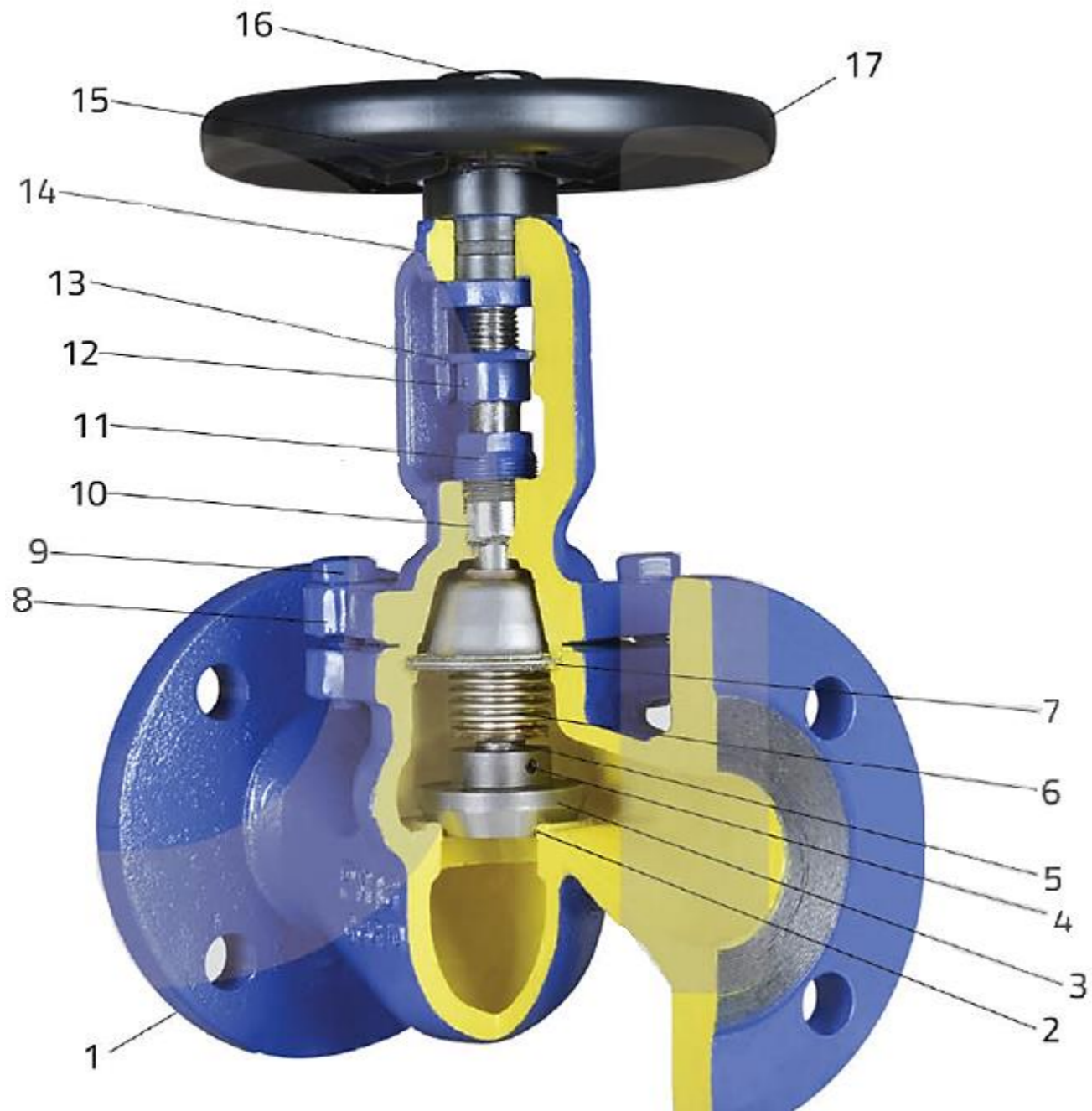


Features:

- 1, Double seal design (bellows + fill) if the bellows failure, stem packing will prevent leaks, and sealing line with international standards
- 2, There is no fluid loss, reduce energy losses and improve the safety of plant equipment
- 3, Long service life, reduced maintenance times, reducing operating costs
- 4, Rugged bellows seal design to ensure zero leakage valve stem to provide the conditions for maintenance
- 5, The gas medium seat of PTFE soft sealing material to improve the tightness of the valve.



Category DIN Bellow Globe Valve-EN 13709-30 Draw And Materials

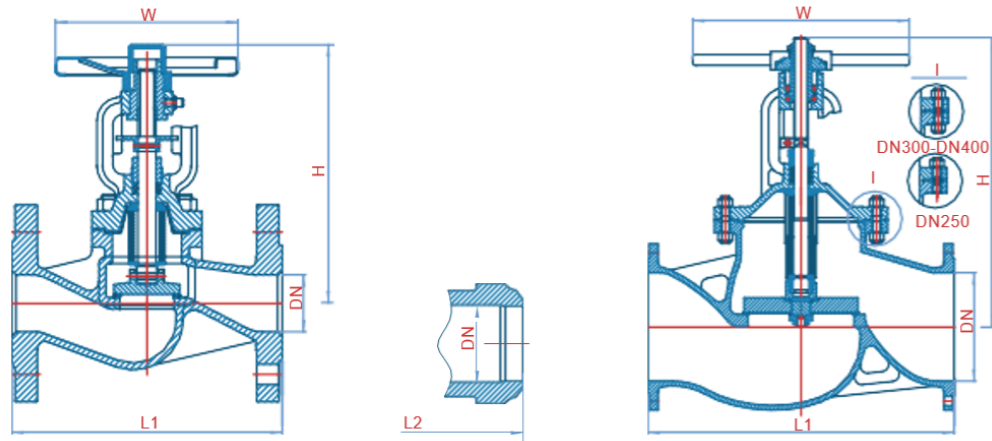


Part Number	Part Name	VF BG 16	VF BG 40
		Nodular Cast Iron to DIN	Carbon Steel to DIN
1	Body	GGG40	1.0619+13Cr
2	Seat Ring	SS304/SS420	NA
3	Disc	WCB+13Cr/SS304/SS420*	A105+13Cr
4	Steel ball/Pin	DIN 17230 100Cr6	SS304
5	Stem	SS420	SS420
6	Bellow	SS304	SS304
7	Gasket	Graphite	SS304+Graphite
8	Bonnet	GGG40	1.0619
9	Bolt	DIN 17100 RST37-2	ASTM A193 B7
10	Packing	Graphite	Graphite
11	Gland	EN 10083-2 C45	Carbon Steel
12	Locking Pin	SS304	Carbon Steel
13	Locator	EN 10083-2 C45	Carbon Steel
14	Grease Nipple	Steel	NA
15	Stem Nut	EN 10083-2 C45	GGG40.3
16	Handwheel	Carbon Steel	Carbon Steel
17	Locking Nut	EN 10083-2 C45	Carbon Steel

* Disc material depends on valve diameter



Category DIN Bellow Globe Valve-EN 13709-Table Of Available Dimensions



PN16

Valve Size	DN15	DN25	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250
Face to face – L1:RF	130	150	160	180	200	230	290	310	350	400	480	600	730
Valve Height (H)	188	191	207	215	231	235	254	281	343	391	425	478	585
Handwheel Diameter (W)	100	100	120	120	140	140	200	200	240	280	315	360	500
Weight (Kg)	3.2	4	5.2	7.5	9	11.5	15	21	27	47	58	96	143

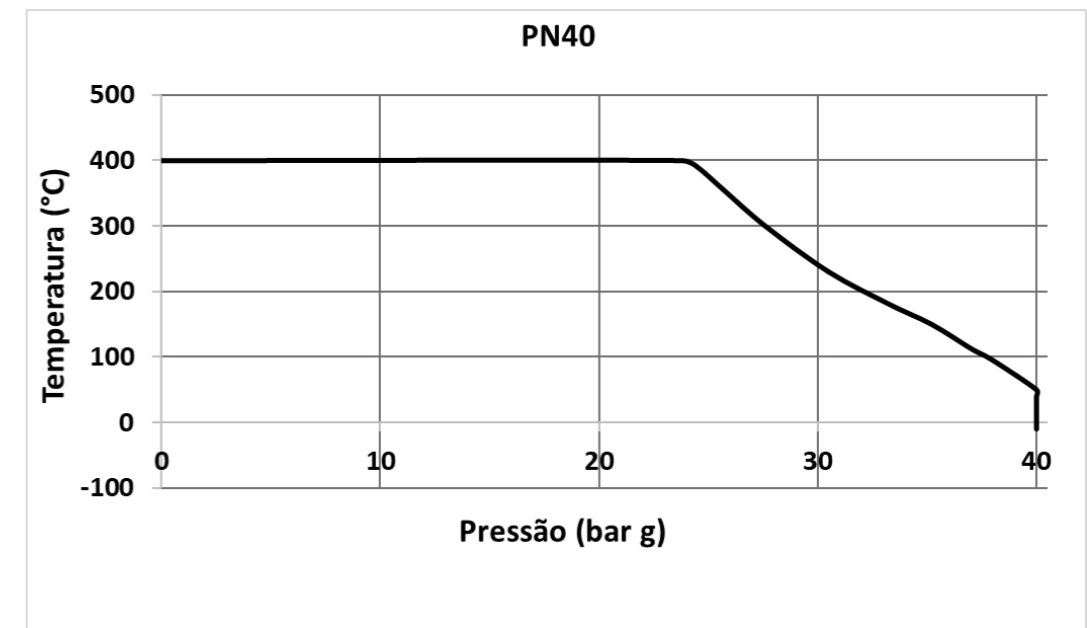
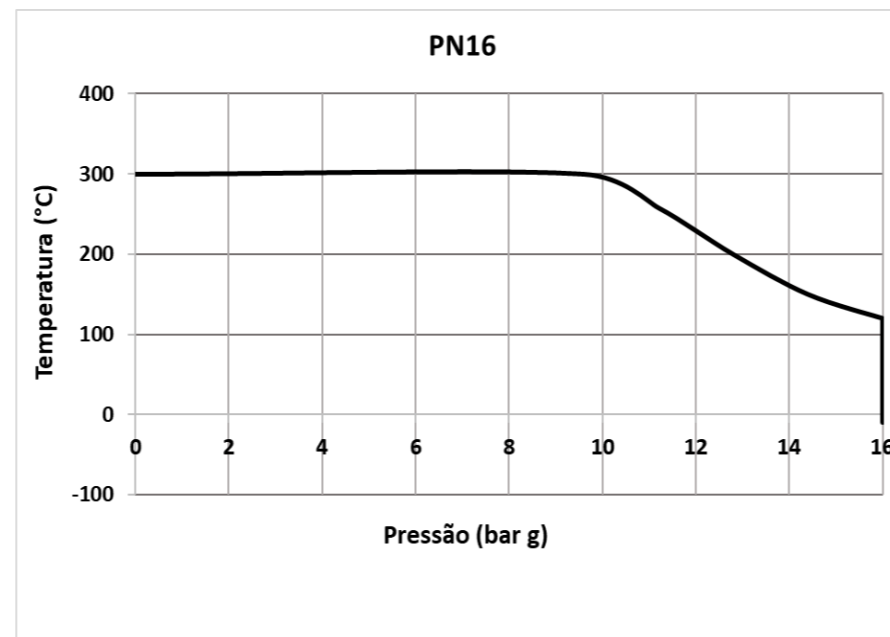
PN40

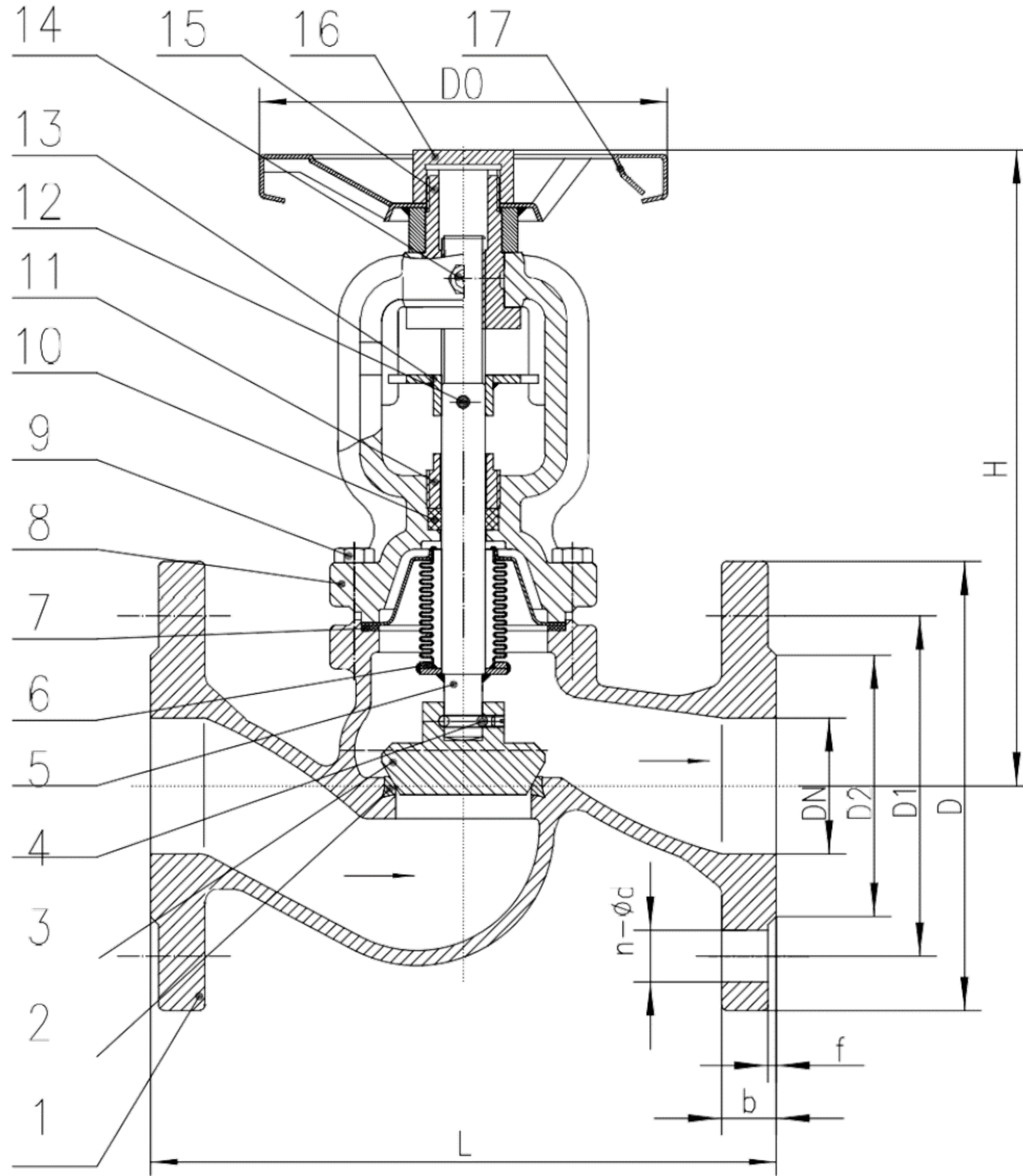
Valve Size	DN15	DN25	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250
Face to face – L1:RF	130	150	160	180	200	230	290	310	350	400	480	600	730
Valve Height (H)	188	191	207	215	231	235	254	281	343	391	425	478	585
Handwheel Diameter (W)	100	100	120	120	140	140	200	200	240	280	315	360	500
Weight (Kg)	3.2	4	5.2	7.5	9	11.5	15	21	27	47	58	96	143

Category DIN Bellow Globe Valve -EN 13709-Table Of Kv Valve

Valve Size	Kv Valve (m ³ /h)
DN15	4.8
DN20	7
DN25	11
DN32	16.5
DN40	28
DN50	42
DN65	75
DN80	110
DN100	170
DN125	270
DN150	405
DN200	680
DN250	1090

Pressure Temperature Ratings






DN	L	D	D1	D2	b	f	n-φd	D0
15	130	95	65	46	16	2	4-φ14	100
20	150	105	75	56	16	2	4-φ14	100
25	160	115	85	65	16	3	4-φ14	120
32	180	140	100	76	18	3	4-φ19	120
40	200	150	110	84	19	3	4-φ19	140
50	230	165	125	99	20	3	4-φ19	140
65	290	185	145	118	20	3	4-φ19	200
80	310	200	160	132	20	3	8-φ19	200
100	350	220	180	156	21	3	8-φ19	240
125	400	250	210	184	21	3	8-φ19	280
150	480	285	240	211	22	3	8-φ23	315
200	600	340	295	266	23	3	12-φ23	360

No	Parts Name	Parts Material	Remarks
17	Locking Nut	EN 10083-2 C45	
16	Handwheel	Carbon Steel	
15	Stem Nut	EN 10083-2 C45	
14	Grease Nipple	Steel	
13	Locator	EN 10083-2 C45	
12	Locking pin	SS304	
11	Gland	EN 10083-2 C45	
10	Packing	Graphite	
9	Bolt	DIN 17100 RST37-2	
8	Bonnet	GGG40	
7	Gasket	Graphite	
6	Bellows	SS304	
5	Stem	SS420	
4	Steel Ball	DIN 17230 100Cr6	
3	Disc	SS420	DN15-50
3	Disc	WCB+13Cr	DN65-200
2	Seat ring	SS304	
1	Body	GGG40	

VALVE DESIGN DATA

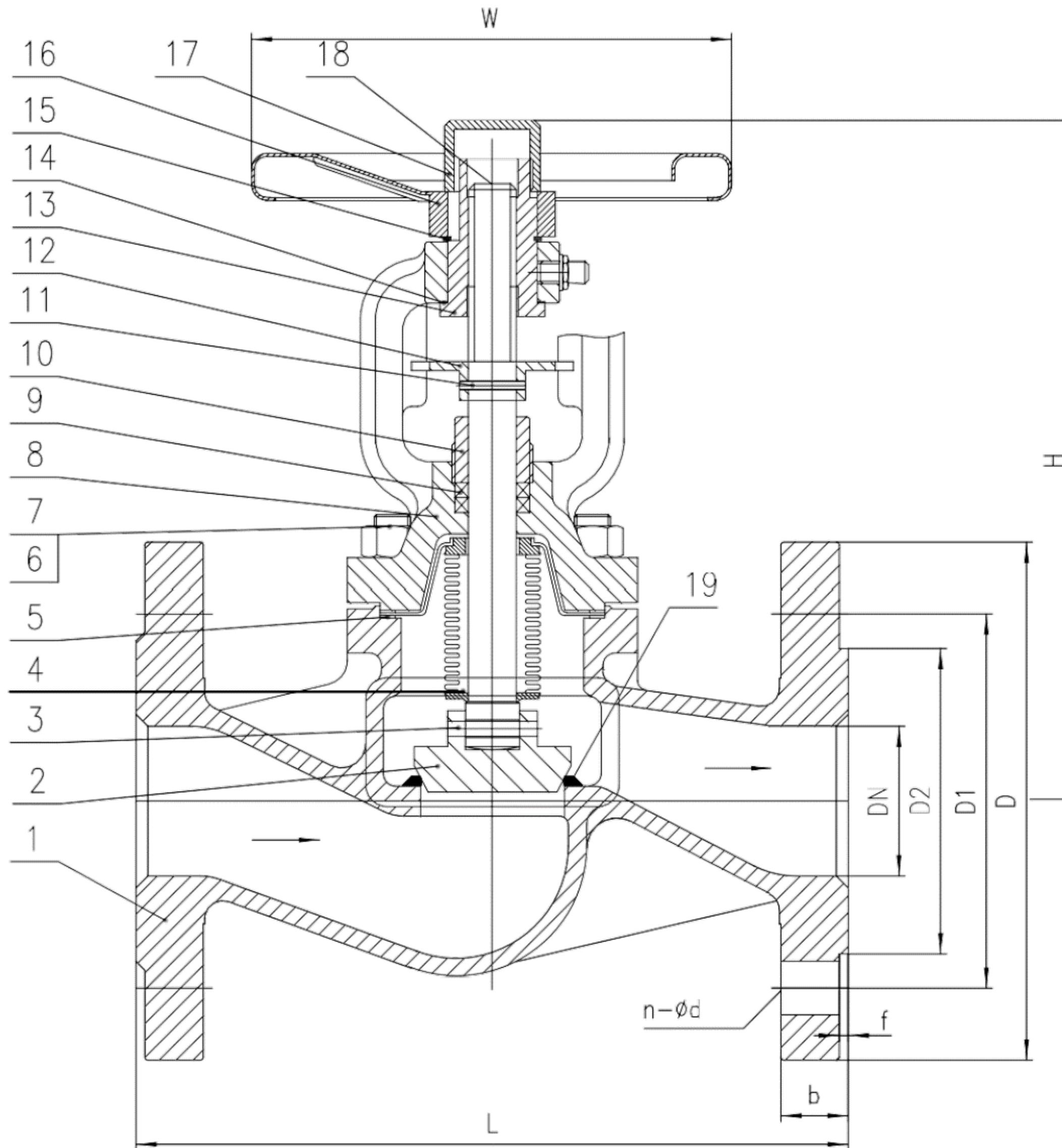
Specification Required	EN 13709	
Type Of Valve	Bellow Globe, Valve	
Valve Operation	Handwheel	
Valve Pressure Class	PN16	
End Connection Type	RF	
End To End Dimension	EN 558-1	
Flange Dimension	EN 1092-2	
Pressure Test Acc. To	EN 12266-1	
Pressure Test	Hydraulic	Shell: 2.4 MPa
	Air	Seal: 1.76 MPa
Design Temperature	0°C-300°C	
Suitable Medium	Water, Steam, Oil etc	

**Modelo:
BG16**

Dwg.No.		Units: mm	Projection 
Designed		Projection	
Checked		Client	
Approved		Date	

Title: Bellow Globe, Valve, PN16, DN15-DN200, RF






DN	L	D	D1	D2	b	f	n-φd	H	W
15	130	95	65	45	16	2	4-φ14	180	140
20	150	105	75	58	18	2	4-φ14	190	140
25	160	115	85	68	18	2	4-φ14	220	160
32	180	140	100	78	18	2	4-φ18	222	160
40	200	150	110	88	18	3	4-φ18	252	180
50	230	165	125	102	20	3	4-φ18	263	180
65	290	185	145	122	22	3	8-φ18	295	200
80	310	200	160	138	24	3	8-φ18	330	250
100	350	235	190	162	24	3	8-φ22	350	300

No	Parts Name	Parts Material	Remarks
19	Seat	1.0619+13Cr	
18	Stem	X20Cr13	
17	Lock Nut	Carbon Steel	
16	Handwheel	Carbon Steel	
15	Circlip	65Mn	
14	Washer	SS304	
13	Stem Nut	GGG40.3	
12	Guide Piece	Carbon Steel	
11	Pin	Carbon Steel	
10	Gland	Carbon Steel	
9	Packing	Graphite	
8	Bonnet	1.0619	
7	Nut	ASTM A194 2H	
6	Bolt	ASTM A193 B7	
5	Gasket	SS304+Graphite	
4	Bellows	SS304	
3	Pin	SS304	
2	Disc(DN65-DN125)	A105+13Cr	
2	Disc(DN15-DN50)	13Cr	
1	Body	1.0619	

VALVE DESIGN DATA

Specification Required	EN 13709	
Type Of Valve	Bellow Globe, Valve	
Valve Operation	Handwheel	
Valve Pressure Class	PN40	
End Connection Type	RF	
End To End Dimension	EN 558-1	
Flange Dimension	EN 1092-1	
Pressure Test Acc. To	EN 12266-1	
Pressure Test	Hydraulic	Shell: 6.0 MPa Seal: 4.4 MPa
	Air	Seal: 0.6 MPa
Design Temperature	-29°C~425°C	
Suitable Medium	Water, Steam, Oil etc	

Modelo:
BG40

Dwg.No.		Units: mm	Projection 
Designed		Projection	
Checked		Client	
Approved		Date	

Title: Bellow Globe, Valve, PN40, DN15-DN125, RF	
	