

DIN Bellow Globe Valve

Category DIN Bellow Globe Valve-EN 13709-Specification



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

Application & Function:

DIN Bellows Globe Valves feature a formed multi-ply bel-lows 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 / 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 / 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 thorough the Valve stuffing box. Hence the bellow seal Valve is the only solution to prevent air from passing through the stuffing box.

Highly hazardous fluids: for media such as chlorine, hydrogen, ammonia and phosgene, the bellow seal Valve is an ideal design as leakage through the gland is totally eliminated.

Nuclear plant, heavy water plant: in instances where radiation

leakage is to be prevented at all times, the bellow seal Valve is the ultimate choice.

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 1092-1
- Butt welding ends EN 12627
- Inspection and test EN 12266-1

Size Range:

- DN15-DN400

Pressure Rating:

- PN16, PN25, PN40

Temperature Range:

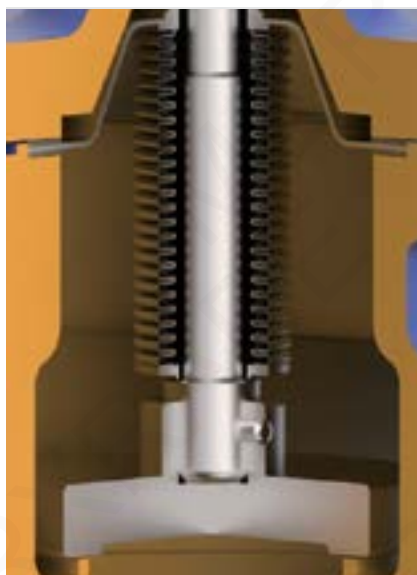
- -10°C-400°C

Design:

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

Features:

- 1, Double seal design (bellows + fill) if the bellows failure, stem packing will prevent leaks, and seal-ing 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
- 6, temperature $\leq 400^{\circ}\text{C}$ using cone seal seat. To achieve zero leakage sealing performance.



Multiple wall, protected stainless steel bellows, secured against torsion, designed for 10.000 cycles; fully welded.



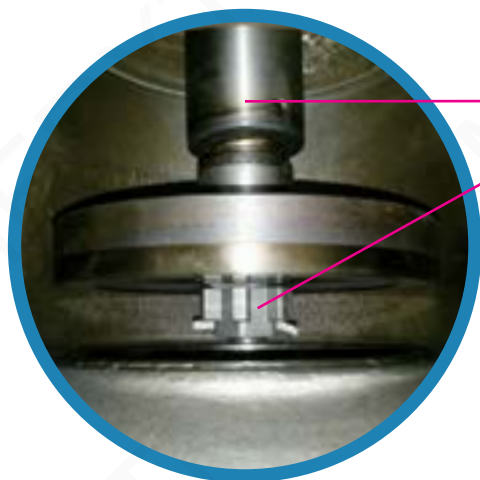
- Graphite Packings are intended to offer high temperature capability, good chemical resistance and markedly reduced spindle wear. By se-lecting or combining the many versions of Graphite Packings available.
- Polished valve stem and reduces diametrical tolerances ensure low fugitive emissions.



Bellow Part Ready to Install.



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We use a bellow protector to keep it long life working in the Balanced disc type.

It is necessary to use the balanced disc when the working pressure is over the following valves.

DN	65	80	100	125	150	200	250	300	350	400
Pressure (Bar)	100	73	45	30	21	14	9	66	5	4

Using a valve with Balanced disc is it essential to install it in reverse way, that is with the pressure on the disc.

Technical Data

Size	Stem Size Thread Pitch (mm)	Torque(N/m)	Turns	ISO 5210
DN15	Tr 12X3X165	11	2.5	F7
DN20	Tr 12X3X165	15	2.5	F7
DN25	Tr 12X3X170	18	3.3	F10
DN32	Tr 12X3X170	20	2.5	F10
DN40	Tr 16X4X190	24	3.5	F10
DN50	Tr 16X4X190	30	3.5	F10
DN65	Tr 16X4X205	51	4.5	F12
DN80	Tr 18X4X225	84	5.25	F12
DN100	Tr 22X5X276	145	5.5	F12
DN125	Tr 24X5X325	322	6.5	F14
DN150	Tr 28X5X355	350	7.5	F16
DN200	Tr 32X6X450	630	9	F16
DN250	Tr 36X6X670	1140	11.5	F25
DN300	Tr 36X6X720	1825	13	F25
DN350	Tr 38X6X825	2400	16.5	F25
DN400	Tr 42X6X945	3390	19	F25

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Manufacturing Variations



General Disc



Regulating Disc



Balanced Disc



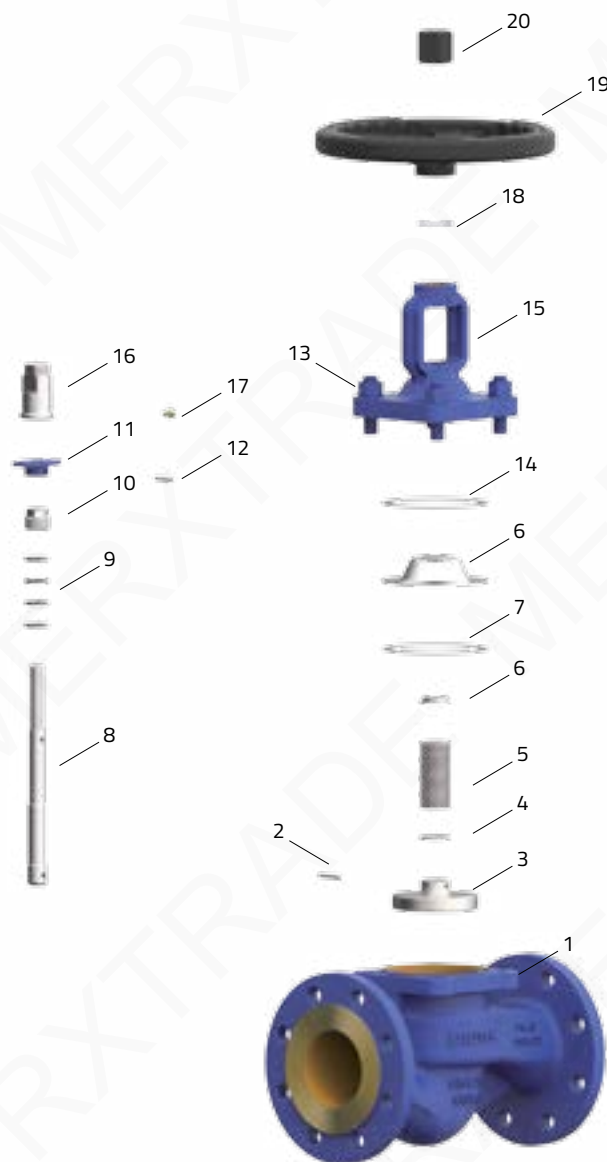
Guide Disc



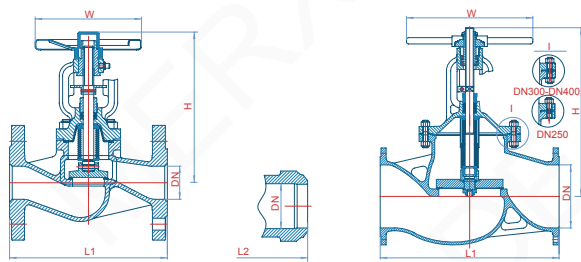
Guide Balanced Disc



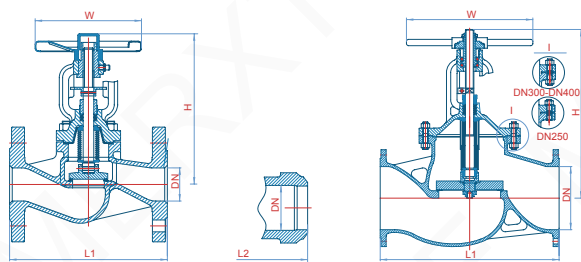
Category DIN Bellow Globe Valve-EN 13709-3D Draw And Materials



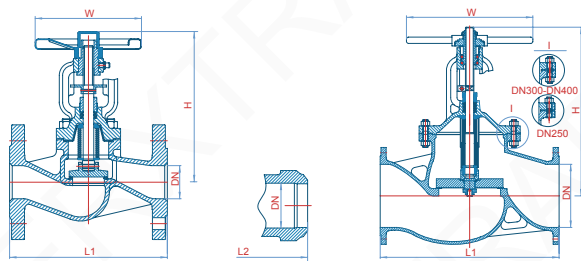
Parts name	Part Name	Carbon Steel to DIN	Stainless Steel to DIN		Parts name
1	Body	GS-C25/1.0619/GP240GH +13Cr	1.4308	1.4408	1
2	Pin	Carbon Steel	Stainless Steel		2
3	Disc	C22.8+13Cr	F304	F316	3
4	Gasket	AISI 1025	F304	F316	4
5	Bellow	F304	F304	F316	5
6	Gasket	SS304+Graphite/PTFE			6
7	Split ring	AISI 1025	SS304		7
8	Stem	X20Cr13	F304	F316	8
9	Packing	Graphite			9
10	Gland	GS-C25/1.0619/GP240GH	1.4308	1.4408	10
11	Guide piece	Carbon Steel	Stainless Steel		11
12	Pin	Carbon Steel	Stainless Steel		12
13	Cover	GS-C25/1.0619/GP240GH	1.4308	1.4408	13
14	Bolt	A193 B7	A193 B8	A193 B8M	14
15	Nut	A194 2H	A194 8	A194 8M	15
16	Stem Nut	Copper Alloy/A439 D2/GGG40.3			16
17	Zurt Fitting	Copper Alloy/A439 D2/GGG40.3			17
18	Snap ring	Carbon Steel	Stainless Steel		18
19	Handwheel	Ductile iron/Carbon Steel			19
20	Handwheel Nut	Ductile iron/Carbon Steel			20

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

PN16

Valve Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400
Face to Face L1:RF	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
L2:BW	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
Valve Height(H)	205	205	205	210	226	228	245	265	340	380	430	572	740	800	950	1030
Handwheel Diameter(W)	140	140	160	160	180	180	200	250	300	350	400	500	500	500	600	600
Weight(Kg)	4.2	4.7	5.6	7.5	9.5	11.9	17.4	23.3	36	56.2	78.8	154	238	339	610	940


PN25

Valve Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400
Face to Face L1:RF	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
L2:BW	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
Valve Height(H)	205	205	205	210	226	228	245	265	340	380	430	572	740	800	950	1030
Handwheel Diameter(W)	140	140	160	160	180	180	200	250	300	350	400	500	500	500	600	600
Weight(Kg)	4.2	4.7	5.6	7.5	9.5	11.9	18.4	25.3	38.2	62	86	169	260	370	663	982


PN40

Valve Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400
Face to Face L1:RF	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
L2:BW	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
Valve Height(H)	205	205	205	210	226	228	245	265	340	380	430	572	740	800	950	1030
Handwheel Diameter(W)	140	140	160	160	180	180	200	250	300	350	400	500	500	500	600	600
Weight(Kg)	4.2	4.7	5.6	7.5	9.5	11.9	18.4	26	38.7	64	87	178	283	398	690	1039