Bellows Sealed Globe Valve

Max. Nominal Pressure 4.0MPa

Description

Exclusively designed Armstrong bellows sealed globe valve has a sealing combination featured by using double walls stainless steel bellows as the stem seal elements and graphite packing as seal accessory to prevent leakage. The finely polished conical sealing between the valve and the seat ensures a long-term reliable operation whenever the stem is moving or not. Therefore, it can display remarkable sealing characteristics at any applications.

Armstrong bellows sealed globe valves can be widely applied in the water and steam systems in petrochemical, electricity, metallurgy, electronics, vacuum, instruments, and textile industries.



Connections

Flanged (ANSI、GB、HG or other standard）

Bellows Sealed Globe Valves			
Model	Body Material	Norm. Pressure(MPa)	Norm. Diameter(mm)
BD16	Ductile Iron	1.6	DN15、DN20、DN25、DN32、DN40、DN50、DN65、DN80、DN100、DN125、DN150、DN200、DN250、DN300
BD25	Ductile Iron	2.5	
BCS16	Cast Steel	1.6	DN15、DN20、DN25、DN32、DN40、DN50
BCS25	Cast Steel	2.5	
BCS40	Cast Steel	4.0	

Note: For big sized (DN65-DN250) BCS25/40 series carbon steel bellow sealed globe valves, please consult factory.

Design Features					
Model	BD16	BD25	BCS16	BCS25	BCS40
Max. Allowable Pressure	2.5MPa@ 20℃	4.0MPa@ 20℃	2.5MPa@ 20℃	4.0MPa@ 20℃	6.4MPa@ 20℃
Max. Operation Pressure	1.6MPa	2.5MPa	1.6MPa	2.5MPa	4.0MPa
Max. Allowable Temperature	350℃	350℃	350℃	425℃	425℃
Max. Operation Temperature	-10℃	-10℃	-30℃	-30℃	-30℃

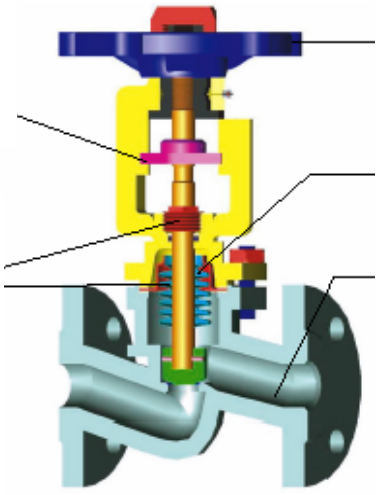
Pressure-Temperature Ratings						
Model	≤120℃	150℃	200℃	250℃	300℃	350℃
BD16	1.6MPa	1.52MPa	1.44MPa	1.28MPa	1.12MPa	0.88MPa
BD25	2.5MPa	2.43MPa	2.25MPa	2.18MPa	2.00MPa	1.75MPa
BCS16	1.6MPa	1.57MPa	1.52MPa	1.44MPa	1.28MPa	1.12MPa
BCS25	2.5MPa	2.45MPa	2.38MPa	2.25MPa	2.00MPa	1.75MPa
BCS40	4.0MPa	3.92MPa	3.80MPa	3.60MPa	3.20MPa	2.80MPa

• Long-term Operation

Its compact yet rugged construction and anti-twist device offers long, corrosion resistant service.

• Double bellows sealing

It combines double walls stainless steel bellows seal with graphite packing seal; the conical sealing between valve and seat increases the specific pressure and prevents the damage from solid particles and grounds.



• Easy to Operate

Non-rising handwheel travels less and makes responses quicker; free opening/closing in narrow space; on/off position indicator makes operation easier.

• Maintenance-free

Being the key component, double wall bellows seal keeps you free from valve leakage and maintenance.

• Wide Applications

It can be widely used under different pressure, temperature or vibrating conditions, which makes it ideal for many industrial fluid occasions.

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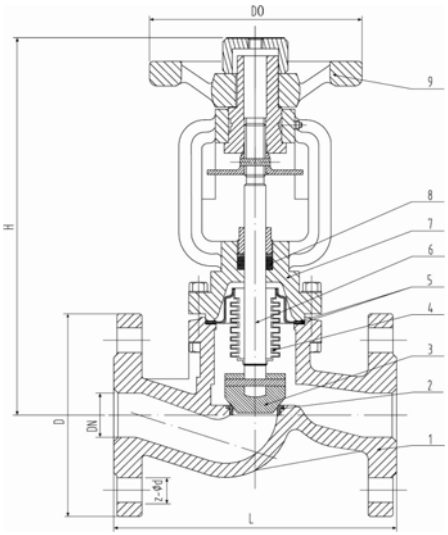

Physical Data (mm)						
Model	DN	D0	D	H	L	z-φd
Ductile Iron BD16/BD25	15	φ100	φ95	200	130	4-φ14
	20	φ100	φ105	200	150	4-φ14
	25	φ120	φ115	215	160	4-φ14
	32	φ120	φ140	230	180	4-φ18
	40	φ150	φ150	230	200	4-φ18
	50	φ150	φ165	230	230	4-φ18
	65	φ250	φ185	336	290	4-φ18
	80	φ250	φ200	336	310	8-φ18
	100	φ300	φ220	376	350	8-φ18
	125	φ300	φ250	445	400	8-φ18
	150	φ350	φ280	480	480	8-φ23
	200	φ400	φ340	538	600	12-φ23
	250	φ450	φ405	764	650	12-φ27
	300	φ500	φ460	814	750	12-φ27
Cast Steel BCS16	15	φ120	φ95	194	130	4-φ14
	20	φ120	φ105	194	150	4-φ14
	25	φ120	φ115	203	160	4-φ14
	32	φ160	φ140	234	180	4-φ18
	40	φ168	φ150	237	210	4-φ18
	50	φ180	φ165	269	230	4-φ18
Cast Steel BCS25/BCS40	15	φ100	φ95	200	130	4-φ14
	20	φ100	φ105	200	150	4-φ14
	25	φ120	φ115	215	160	4-φ14
	32	φ120	φ140	230	180	4-φ18
	40	φ150	φ150	230	200	4-φ18
	50	φ150	φ165	230	230	4-φ18

List of Materials				
Part No.	Part Name	BD16/BD25	BCS16	BCS25/BCS40
1	Body	ASTM A395 60-40-18 Ductile Iron	ASTM A216 WCB Cast Steel	ASTM A216 WCB Cast Steel
2	Seat	A105+A102 Stainless Steel	304 Stainless Steel	A102 Stainless Steel
3	Valve	420 Stainless Steel	420 Stainless Steel	420 Stainless Steel
4	Bellows	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
5	Gasket	Stainless Steel+Expanded Graphite	Stainless Steel+Expanded Graphite	Stainless Steel+Expanded Graphite
6	Stem	420 Stainless Steel	420 Stainless Steel	420 Stainless Steel
7	Cap	ASTM A395 60-40-18 Ductile Iron	ASTM A216 WCB Cast Steel	ASTM A216 WCB Cast Steel
8	Gland Packing	Expanded Graphite	Expanded Graphite	Expanded Graphite
9	Handwheel	ASTM A216 WCB Cast Steel	ASTM A216 WCB Cast Steel	ASTM A216 WCB Cast Steel

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Performance Parameters															
Name of Parameter	Size / Model	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300
Flow Coefficient (kv)	BD16/BD25	5	11	14	20	33	52	74	118	200	285	400	720	1130	1590
	BCS16	8	10	15	25	35	51	-	-	-	-	-	-	-	-
	BCS25/BCS40	5	11	14	20	33	52	-	-	-	-	-	-	-	-
Valve Stem Stroke (mm)	BD16/BD25	8	10	12	14	15	18	25	28	35	45	58	65	80	94
	BCS16	6	8	10	10	14	17	-	-	-	-	-	-	-	-
	BCS25/BCS40	8	10	12	14	15	18	-	-	-	-	-	-	-	-
Weight (kg)	BD16	4.5	5	6	9	10	14	23	29	33	71	113	170	275	383
	BD25	4.5	5	6	9	10	15	26	32	38	75	118	176	290	400
	BCS16	5	6	7	15	17	22	-	-	-	-	-	-	-	-
	BCS25/BCS40	4.5	5	6	9	10	14	-	-	-	-	-	-	-	-

Note: All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

Please indicate when ordering

- Model
- Max. Operation Pressure
- Max. Temperature
- Nom. Pressure
- Connection：Flanged