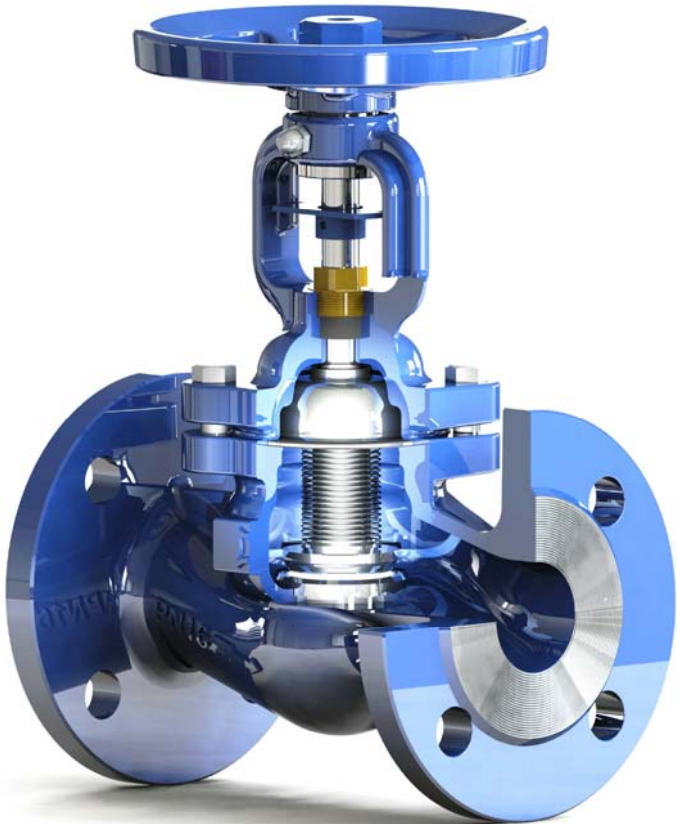




PN16 PN25 球狀石墨鑄鐵伸縮囊密封型球型閥
PN16 PN25 Nodular Cast Iron Bellows Sealed Globe Valve

FIG F38D/FD38D



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

Design Description:

- Globe valve in straight way type
- Bolted bonnet
- Outside screw and yoke
- Antirotation device and mechanical position indicator
- Rising stem and non-rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Stem sealed with bellows tested for 5,000 full open/closed operations at 20°C
- Face to face dimensions acc.to DIN EN558-1/1 (ISO 5752/1)
- Flanges acc.to DIN EN 1092-2 type 21
- Test pressure acc.to DIN 3230 (ISO 5208)
- Maintenance free
- Free from asbestos,PCB and CFC

Materials:

Body:
Nodular cast iron EN-GJS-400-18-LT,JS 1025

Working pressures:

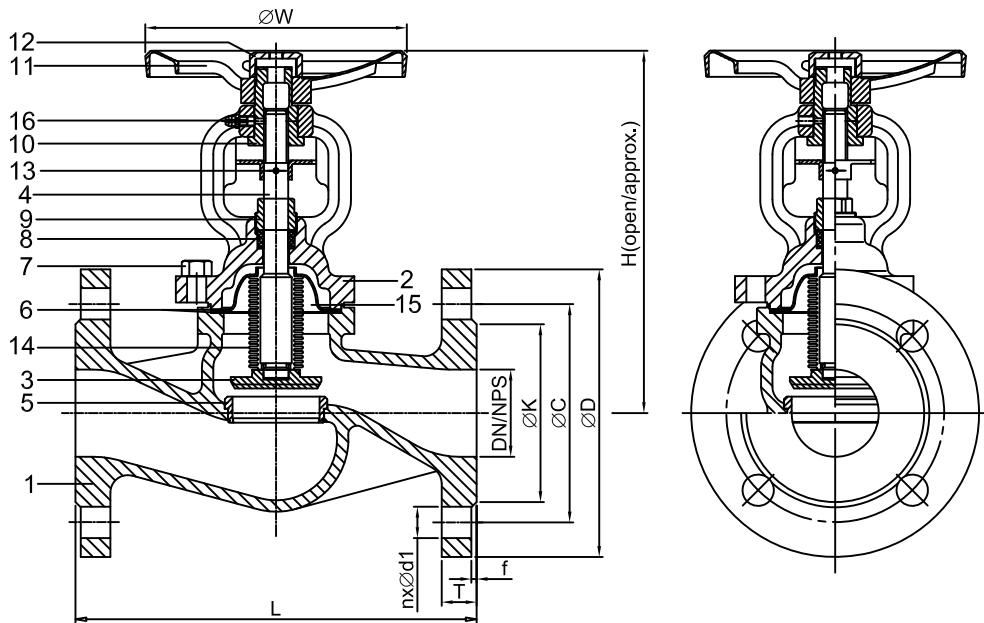
Nominal pressure	Material	Body pressure test in bar with water Body *	Seat leakage test in bar with water Seat **	Pressure Temperature table				
				-10up to+120°C	200	250	300	350
PN								
16	Nodular cast iron EN-GJS-400-18-LT	24	16	16	14,7	13,9	12,8	11,2
25	Nodular cast iron EN-GJS-400-18-LT	37,5	25	25	23	21,8	20	17,5

* DIN 3230 - BQ (ISO 5208)
** DIN 3230 BN/leak rate 1 (ISO 5208/rate A)



PN16 PN25 球狀石墨鑄鐵伸縮囊密封型球型閥 PN16 PN25 Nodular Cast Iron Bellows Sealed Globe Valve

FIG F38D/FD38D



Valve Parts List:

Item	Part name	Material	Remarks
1	Body	EN-GJS-400-18-LT JS1025	
2	Bonnet	EN-GJS-400-18-LT JS1025	
3	Disc*	X 10 Cr13	HF on request
4	Stem	X 10 Cr13	
5	Body Seat	X 10 Cr13	HF on request
6	Gasket	Graphite	
7	Bonnet Bolts	Steel	
8	Gland Packing	Pure graphite	
9	Gland	Brass	
10	Stem nut	Brass	
11	Handwheel	EN-GJS-400-18-LT JS1025	
12	Handwheel nut	EN-GJS-400-18-LT JS1025	
13	Position indicator	Steel	
14	Bellows	X 5 CrNi 18 10	
15	Bellows Flange	X 5 CrNi 18 10	
16	Lubricating Nipple	X 5 CrNi 18 10	

* Soft disc inserts available for gas or vacuum service

Please note:

In accordance with the material designations in force, the designations GG-25 and GGG-40,3 are superseded.
For GG-25 the new material number is JL 1014, the name of the material is EN-GJL-250.
For GGG-40,3 the new material number is JS 1025, the name of the material is EN-GJS-400-18-LT.

Dimensions Table:

Unit : mm

SIZE		H	ØW	L	PN16						PN25						Kvs vaule
DN	NPS				ØD	ØC	ØK	nxØd1	T	f	ØD	ØC	ØK	nxØd1	T	f	
15	1/2"	158	125	130	95	65	45	4x14	14	2	95	65	45	4x14	14	2	4
20	3/4"	158	125	150	105	75	58	4x14	16	2	105	75	58	4x14	16	2	7
25	1"	158	125	160	115	85	68	4x14	16	2	115	85	68	4x14	16	2	12
32	1-1/4"	210	150	200	140	100	78	4x18	18	2	140	100	78	4x18	18	2	12
40	1-1/2"	210	150	200	150	110	88	4x18	19	3	150	110	88	4x18	19	3	30
50	2"	210	150	230	165	125	102	4x18	19	3	165	125	102	4x18	19	3	47
65	2-1/2"	266	175	290	185	145	122	4x18	19	3	185	145	122	8x18	19	3	77
80	3"	266	175	310	200	160	138	8x18	19	3	200	160	138	8x18	19	3	120
100	4"	350	300	350	220	180	158	8x18	19	3	235	190	158	8x22	19	3	180
125	5"	358	300	400	250	210	188	8x18	19	3	270	220	188	8x26	19	3	260
150	6"	395	300	480	285	240	212	8x22	19	3	300	250	212	8x26	20	3	380
200	8"	530	400	600	340	295	268	12x22	20	3	-	-	-	-	-	-	725



JIS-10K 球狀石墨鑄鐵伸縮囊密封型球型閥

JIS-10K Ductile Iron Bellows Sealed Globe Valve

FIG FJ38D



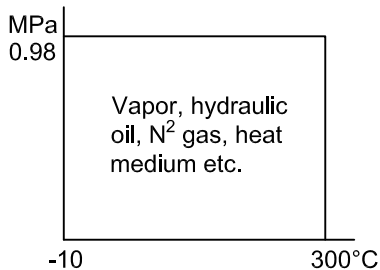
Selection of possible applications:

- Industry
 - Powerstations
 - Flue gas purification plant
 - Processing technology
 - Gas supply
 - Vapour facilities
 - Thermal oil applications
 - Recycling facilities
 - Vacuum facilities
 - Ammonia
 - Hot water
 - Heating technology
 - District heating
 - Cooling and freezing systems
 - General plant manufacturing
 - Steam systems
- other applications on request -

Design Description:

- Globe valve in straight way type
- Bolted bonnet
- Outside screw and yoke
- Antirotation device and mechanical position indicator
- Rising stem and non-rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat, safety stuffing box packing
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Design and manufacture acc. to JV4-4 JV4-5
- Stem sealed with bellows tested for 5,000 full open/closed operations at 20°C
- Shell wall thickness acc. JIS 2031
- Face to face dimensions acc. to JIS B2002
- Flanges acc. to JIS B 2210 10K
- The Valve are marked to JIS B 2004
- Test pressure Dimensional Inspection acc. to JIS B2003
- Maintenance free
- Free From asbestos, PCB and CFC

Pressure/Temperature Ratings:

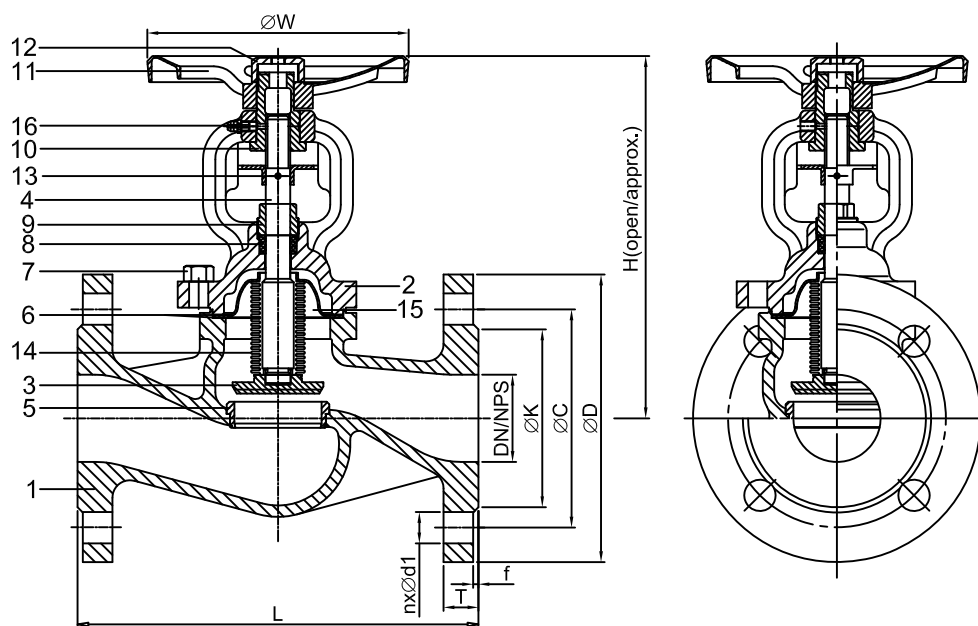


Inspection pressure	
Body	Water pressure 1.47 MPa
Body seat	Water pressure 1.08 MPa



JIS-10K 球狀石墨鑄鐵伸縮囊密封型球型閥 JIS-10K Ductile Iron Bellows Sealed Globe Valve

FIG FJ38D



Valve Parts List:

Item	Part name	Material	Remarks
1	Body	FCD 450-10	FCD-S on request
2	Bonnet	FCD 450-10	
3	Disc*	SUS 410	HF on request
4	Stem	SUS 410	
5	Body Seat	SUS 410	HF on request
6	Gasket	Graphite	
7	Bonnet Bolts	SS 400	
8	Gland Packing	Graphite	
9	Gland	C3604	
10	Stem nut	C3604	
11	Handwheel	FCD 450-10	
12	Handwheel nut	FCD 450-10	
13	Position indicator	SS 400	
14	Bellows	SUS 304	
15	Bellows Flange	SUS 304	
16	Lubricating Nipple	SUS 304	

* Soft disc inserts available for gas or vacuum service

Dimensions Table:

Unit : mm

SIZE		H	ØW	L	JIS 10K						a
DN	NPS				ØD	ØC	ØK	nxØd1	T	f	
15	1/2"	159	125	108	95	70	51	4x15	12	1	3.5
20	3/4"	159	125	117	100	75	56	4x15	14	1	3.5
25	1"	159	125	127	125	90	67	4x19	14	1	4
32	1-1/4"	216	150	140	135	100	76	4x19	16	2	4.5
40	1-1/2"	211	150	165	140	105	81	4x19	16	2	5
50	2"	211	150	203	155	120	96	4x19	16	2	5.5
65	2-1/2"	266	175	216	175	140	116	4x19	18	2	6.5
80	3"	266	175	241	185	150	126	8x19	18	2	7
100	4"	350	300	292	210	175	151	8x19	18	2	8
125	5"	358	300	356	250	210	182	8x23	20	2	9
150	6"	395	300	406	280	240	212	8x23	22	2	9
200	8"	530	400	495	330	290	262	12x23	22	2	10



JIS-20K 球狀石墨鑄鐵伸縮囊密封型球型閥

JIS-20K Ductile Iron Bellows Sealed Globe Valve

FIG FK38D



Selection of possible applications:

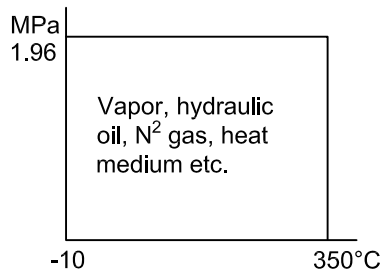
- Industry
 - Powerstations
 - Flue gas purification plant
 - Processing technology
 - Gas supply
 - Vapour facilities
 - Thermal oil applications
 - Recycling facilities
 - Vacuum facilities
 - Ammonia
 - Hot water
 - Heating technology
 - District heating
 - Cooling and freezing systems
 - General plant manufacturing
 - Steam systems
- other applications on request -

Design Description:

- Globe valve in straight way type
- Bolted bonnet
- Outside screw and yoke
- Antirotation device and mechanical position indicator
- Rising stem and non-rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat, safety stuffing box packing
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing

- Design and manufacture acc. to JV4-4 JV4-5
- Stem sealed with bellows tested for 5,000 full open/closed operations at 20°C
- Shell wall thickness acc. JIS B 2031
- Face to face dimensions acc. to JIS B 2002
- Flanges acc. to JIS B 2210 20K
- The Valve are marked to JIS B 2004
- Test pressure Dimensional inspection acc. to JIS B 2003
- Maintenance free
- Free From asbestos, PCB and CFC

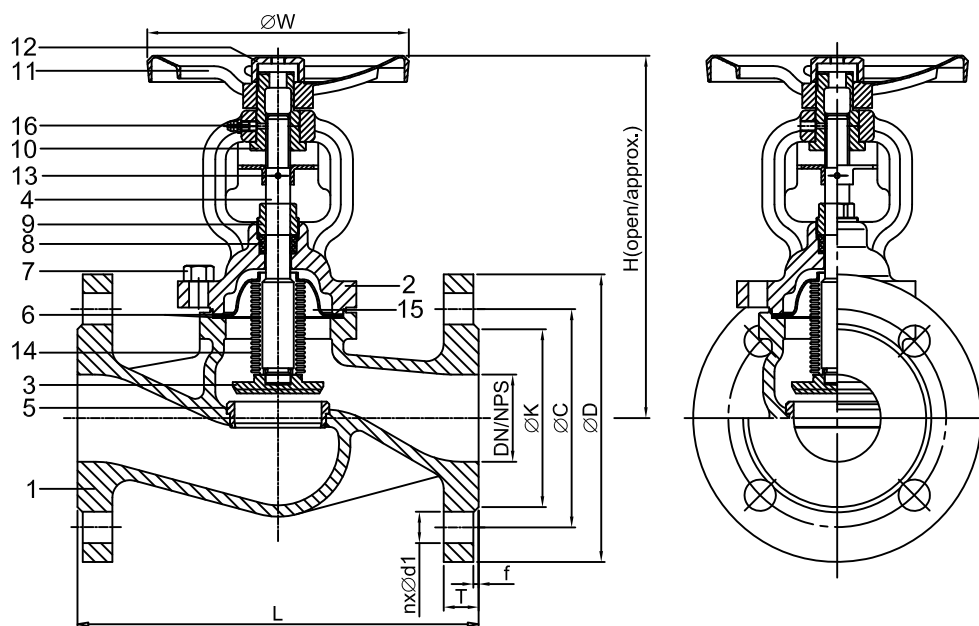
Pressure/Temperature Ratings:



Inspection pressure	
Body	Water pressure 2.94 MPa
Body seat	Water pressure 2.16 MPa



FIG FK38D



Valve Parts List:

Item	Part name	Material	Remarks
1	Body	FCD 450-10	FCD-S on request
2	Bonnet	FCD 450-10	
3	Disc*	SUS 410	HF on request
4	Stem	SUS 410	
5	Boby Seat	SUS 410	HF on request
6	Gasket	Graphite	
7	Bonnet Bolts	SS 400	
8	Gland Packing	Graphite	
9	Gland	C3604	
10	Stem nut	C3604	
11	Handwheel	FCD 450-10	
12	Handwheel nut	FCD 450-10	
13	Position indicator	SS 400	
14	Bellows	SUS 304	
15	Bellows Flange	SUS 304	
16	Lubricating Nipple	SUS 304	

* Soft disc inserts available for gas or vacuum service

Dimensions Table:

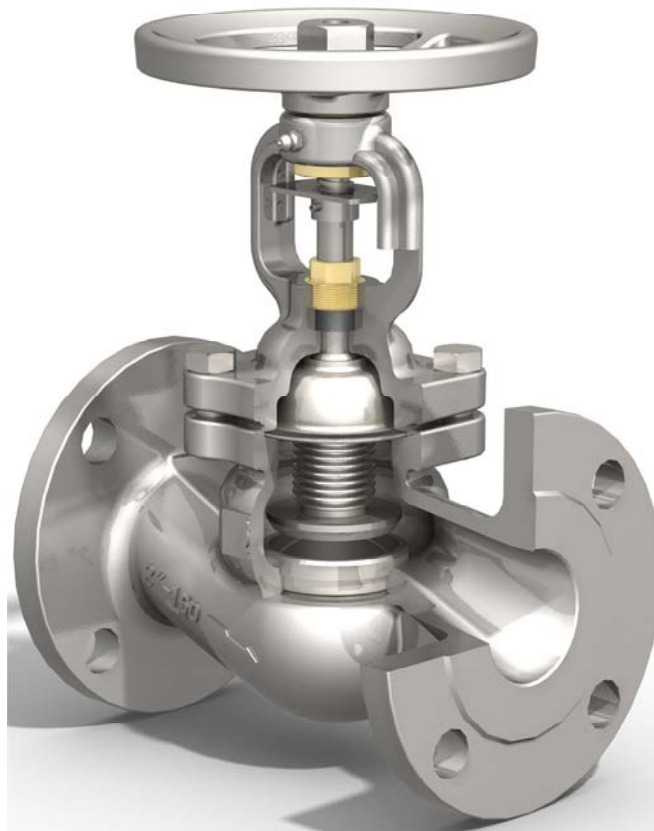
Unit : mm

SIZE		H	ØW	L	JIS 20K						a
DN	NPS				ØD	ØC	ØK	nxØd1	T	f	
15	1/2"	159	125	110	95	70	51	4x15	14	1	4
20	3/4"	159	125	120	100	75	56	4x15	16	1	4
25	1"	159	125	130	125	90	67	4x19	16	1	4.5
32	1-1/4"	211	150	160	135	100	76	4x19	18	2	5
40	1-1/2"	211	150	180	140	105	81	4x19	18	2	5.5
50	2"	211	150	230	155	120	96	8x19	18	2	6.5
65	2-1/2"	266	175	292	175	140	116	8x19	20	2	7.5
80	3"	266	175	318	200	160	132	8x23	22	2	8
100	4"	350	300	356	225	185	160	8x23	24	2	9
125	5"	358	300	400	270	225	195	8x25	26	2	10
150	6"	395	300	444	305	260	230	12x25	28	2	11
200	8"	530	400	559	350	305	275	12x25	30	2	13



Class 150 鑄鋼/鑄不銹鋼伸縮囊密封型球型閥
Class 150 Cast Steel/Cast Stainless Steel
Bellows Sealed Globe Valve

FIG FN37 Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

Design Description:

- Globe valve in straight way type
- Bolted bonnet
- Outside screw and yoke
- Antirotation device and mechanical position indicator
- Rising stem and non-rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Stem sealed with bellows tested for 5,000 full open/closed operations at 20° C
- Shell wall thickness acc. ASME B16.34
- Face to face dimensions acc. to ASME B16.10
- Flanges acc. to ASME B16.5
- Test pressure acc. to API 598
- Maintenance free
- Free from abestos,PCB and CFC

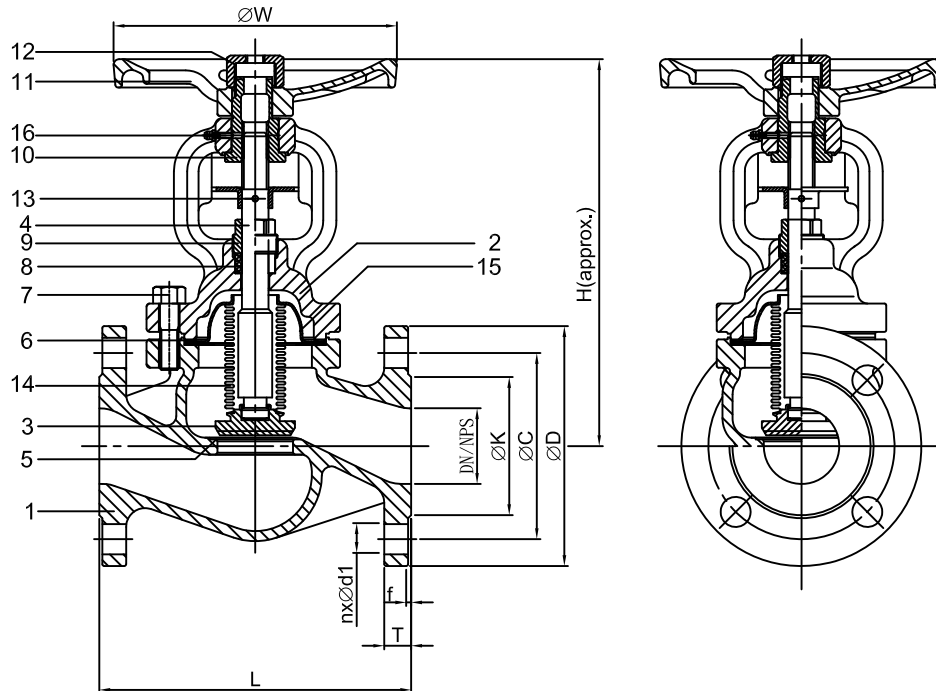
Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
Class 150	A 351 Gr.CF8/CF8M	100°F 38°C	275 psig 19 bar	425 psig 29 bar	305 psig 21 bar	80 psig 5.5 bar
		1000°F 538°C	20 psig 1.4 bar			
	A 216 Gr.WCB	100°F 38°C	285 psig 19.6 bar	450 psig 31 bar	315 psig 22 bar	80 psig 5.5 bar
		800°F 425°C	80 psig 5.5 bar			



Class 150 鑄鋼/鑄不銹鋼伸縮囊密封型球型閥
Class 150 Cast Steel/Cast Stainless Steel
Bellows Sealed Globe Valve

FIG FN37 Series



½"~2"

Valve Parts List:

Item	Part name	Material		Remarks
		A216Gr. WCB	A351Gr. CF8/CF8M	
1	Body	A216 WCB	A351Gr. CF8/CF8M	
2	Bonnet	A216 WCB	A351Gr. CF8/CF8M	
3	Disc*	13%Cr	S.S.304/S.S.316	HF on request
4	Stem	13%Cr	S.S.304/S.S.316	
5	Boby Seat	13%Cr	AS BODY	HF on request
6	Gasket	Graphite	Graphite	
7	Bonnet Bolts	Steel	Stainless Steel	
8	Gland Packing	Graphite	Graphite	
9	Gland	Brass	Brass	
10	Stem Nut	Al Bronze	Al Bronze	
11	Handwheel	Ductile Iron	Ductile Iron	
12	Handwheel Nut	Ductile Iron	Ductile Iron	
13	Position Indicator	Steel	Steel	
14	Bellows	S.S. 304	S.S. 304/S.S.316	
15	Bellows Flange	S.S. 304	S.S. 304/S.S.316	
16	Lubricating Nipple	S.S. 304	S.S. 304	

* Soft disc inserts available for gas or vacuum service

Dimensions Table:

Unit : mm

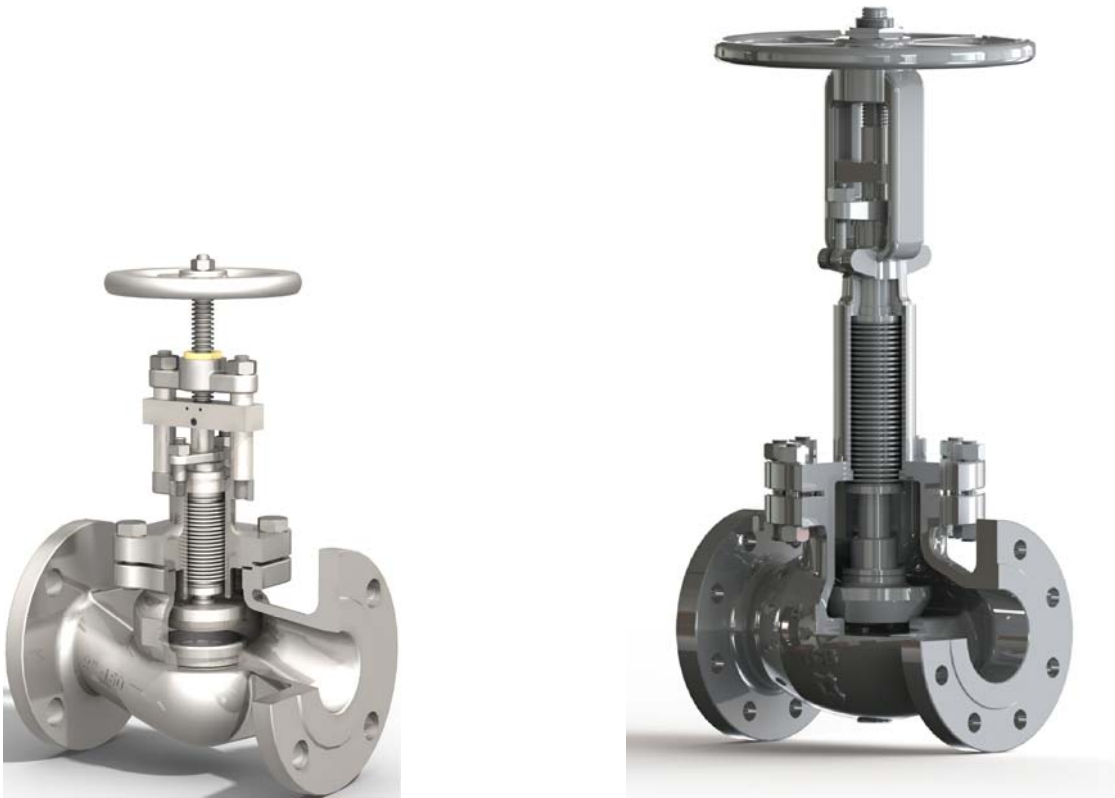
SIZE		H	ØW	L	CLASS 150						Kvs vaule
DN	NPS				ØD	ØC	ØK	nxØd1	T	f	
15	1/2"	154	125	108	88.9	60.5	35.5	4x16	11.1	1.6	4
20	3/4"	154	125	117.3	98.55	70	42.93	4x16	11.1	1.6	7
25	1"	159	125	127	107.95	79.5	50.8	4x16	11.1	1.6	12
40	1-1/2"	210	150	165.1	127	98.5	73.15	4x16	14.3	1.6	30
50	2"	210	150	203.2	152.4	120.5	91.95	4x19	15.9	1.6	47

Larger sizes available on request



Class 150 鑄鋼/鑄不銹鋼長頸伸縮囊密封型球型閥
Class 150 Cast Steel/Cast Stainless Steel
Long Bellows Sealed Globe Valve

FIG FN37C-L Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

Design Description:

- Globe valve in straight way type
- Bolted bonnet
- Outside screw and yoke
- Antirotation device and mechanical position indicator
- Rising stem and rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat
- Protected bellows with valve fully opened
- Bellows welded on stem
- Cover gasket, inside and outside confined
- Secondary Sealing : gland packing
- Stem sealed with bellows tested for 20,000 full open/closed operations at 20° C
- Shell wall thickness acc. ASME B16.34
- Face to face dimensions acc. to ASME B16.10
- Flanges acc. to ASME B16.5
- Test pressure acc. to API 598
- Maintenance free
- Free from asbestos, PCB and CFC

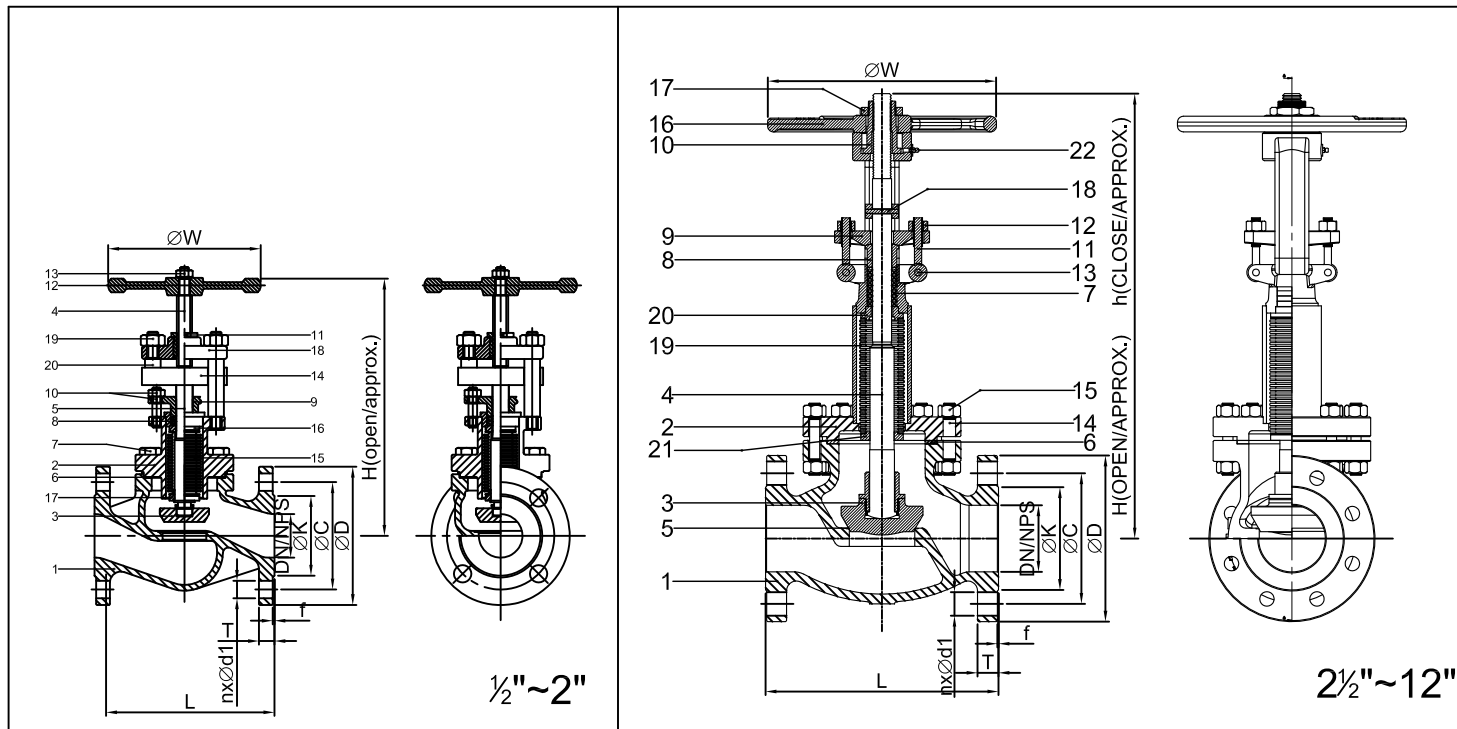
Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
CLASS 150	A 351 Gr.CF8/ Gr.CF8M	100°F 38°C	275 psig 19 bar	425 psig 29 bar	305 psig 21 bar	80 psig 5.5 bar
		1000°F 538°C	20 psig 1.4 bar			
	A 216 Gr.WCB	100°F 38°C	285 psig 19.6 bar	450 psig 31 bar	315 psig 22 bar	80 psig 5.5 bar
		800°F 425°C	80 psig 5.5 bar			



Class 150 鑄鋼/鑄不銹鋼長頸伸縮囊密封型球型閥
Class 150 Cast Steel/Cast Stainless Steel
Long Bellows Sealed Globe Valve

FIG FN37C-L Series



1/2"~2" Valve Parts List:

Item	Part name	Material		Remarks
		A216 WCB	A351Gr.CF8/CF8M	
1	Body	A216 WCB	A351Gr.CF8/CF8M	
2	Bonnet	A216 WCB	A351Gr.CF8/CF8M	
3	Disc*	13%Cr	S.S.304/S.S.316	HF on request
4	Upper Stem	13%Cr	S.S.304/S.S.316	
5	Lower Stem	13%Cr	S.S.304/S.S.316	
6	Boby Seat	ASBODY	AS BODY	HF on request
7	Gasket	S.S.304 SPW	S.S.304/S.S.316 SPW	
8	Bonnet Bolts	Steel	Stainless Steel	
9	Gland Packing	Graphite	Graphite	
10	Gland	A216 WCB	A351Gr.CF8	
11	Gland Bolts & Nuts	Steel	Stainless Steel	
12	Stem Nut	Al Bronze	Al Bronze	
13	Handwheel	Ductile Iron	Ductile Iron	
14	Handwheel Nut	Steel	Steel	
15	Position Indicator	13%Cr	Stainless Steel	
16	Bellows	S.S. 304	S.S. 304/S.S.316	
17	Upper Bellows Joint	13%Cr	S.S.304/S.S.316	
18	Lower Bellows Joint	13%Cr	S.S.304/S.S.316	
19	Yoke Flange	A216 WCB	A351Gr.CF8	
20	Yoke Nuts	Steel	Stainless Steel	
21	Yoke Pillars	13%Cr	Stainless Steel	

* Soft disc inserts available for gas or vacuum service

2 1/2"~12" Valve Parts List:

Item	Part name	Material		Remarks
		A216Gr.WCB	A351Gr.CF8/CF8M	
1	Body	A216 WCB	A351Gr.CF8/CF8M	
2	Bonnet	A216 WCB	A351Gr.CF8/CF8M	
3	Disc*	A216 WCB+F6	S.S.304/S.S.316	HF on request
4	Stem	13%Cr	S.S.304/S.S.316	
5	Seat	13%Cr	AS BODY	HF on request
6	Gasket	Graphite	Graphite	
7	Gland Packing	Graphite	Graphite	
8	Gland	13%Cr	A351Gr.CF8	
9	Gland Flange	A216 WCB	A216 WCB	
10	Stem Nut	A439-D2	A439-D2	
11	Eye Bolt	A307B	A193-B8/A193-B8M	
12	Eye Bolt Nut	A194-2H	A193-B8/A194-8M	
13	Eye Bolt Pin	A36	A276-304/A276-304	
14	Bonnet Bolt	A193-B7	A193-B8/A194-8M	
15	Bonnet Nut	A307B	A194-8/A194-8M	
16	Handwheel	Ductile Iron	Ductile Iron	
17	Handwheel Nut	Ductile Iron	Ductile Iron	
18	Position Indicator	13%Cr	Stainless Steel	
19	Bellows	S.S. 304	S.S.304/S.S.316	
20	Upper Bellow Joint	13%Cr	S.S.304/S.S.316	
21	Lower Bellow Joint	13%Cr	S.S.304/S.S.316	
22	Lubricating Nipple	S.S.304	S.S.304/S.S.304	

* Soft disc inserts available for gas or vacuum service

Dimensions Table:

Unit : mm

SIZE		H	h	ØW	L	CLASS 150						Kvs vaule
DN	NPS					ØD	ØC	ØK	nxØd1	T	f	
15	1/2"	222	214	125	108	88.9	60.5	35.5	4x16	11.1	1.6	4
20	3/4"	222	214	125	117.3	98.55	70	42.93	4x16	11.1	1.6	7
25	1"	226	214	125	127	107.95	79.5	50.8	4x16	11.1	1.6	12
40	1-1/2"	245	231	140	165.1	127	98.5	73.15	4x16	14.3	1.6	30
50	2"	249	231	140	203.2	152.4	120.5	91.95	4x19	15.9	1.6	47
65	2-1/2"	570	540	175	215.9	177.8	139.5	104.65	4x19	17.5	1.6	77
80	3"	568	538	175	241.3	190.5	152.5	127	4x19	19.1	1.6	120
100	4"	691	647	300	292.1	228.6	190.5	157.22	8x19	23.9	1.6	180
125	5"	903	826	300	355.6	254	216	185.67	8x22	23.9	1.6	260
150	6"	893	843	300	406.4	279.4	241.5	215.9	8x22	25.4	1.6	380
200	8"	1206	1139	350	495.3	343	298.5	270	8x22	28.6	1.6	703
250	10"	1334	1256	350	622.3	406	362	324	12x25	30.2	1.6	1127
300	12"	1622	1513	350	698.5	483	432	381	12x25	31.8	1.6	1587

Larger sizes available on request

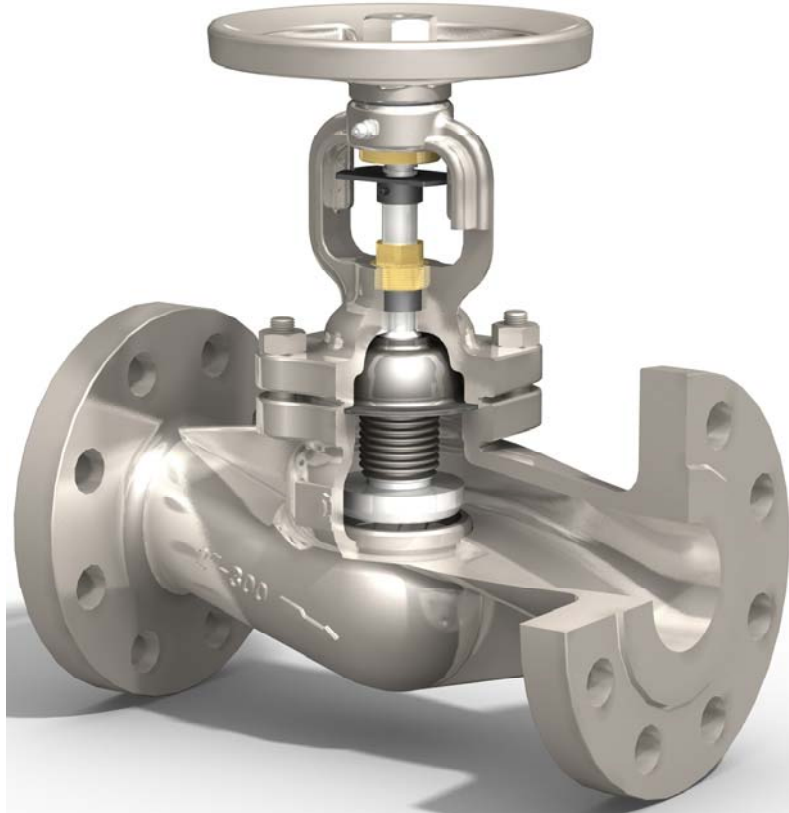


Class 300 鑄鋼/鑄不銹鋼伸縮囊密封型球型閥

Class 300 Cast Steel/Cast Stainless Steel

Bellows Sealed Globe Valve

FIG FL37 Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems

- other applications on request -

Design Description:

- Globe valve in straight way type
- Bolted bonnet
- Outside screw and yoke
- Antirotation device and mechanical position indicator
- Rising stem and non-rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Stem sealed with bellows tested for 5,000 full open/closed operations at 20°C
- Shell wall thickness acc. ASME B16.34
- Face to face dimensions acc. to ASME B16.10
- Flanges acc. to ASME B16.5
- Test pressure acc. to API 598
- Maintenance free
- Free from asbestos, PCB and CFC

Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
CLASS 300	A351 Gr.CF8	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	355 psig 24.4 bar			
	A351 Gr.CF8M	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	365 psig 25.2 bar			
	A 216 Gr.WCB	100°F 38°C	740 psig 51.1 bar	1125 psig 78 bar	815 psig 56 bar	80 psig 5.5 bar
		800°F 425°C	410 psig 28.8 bar			

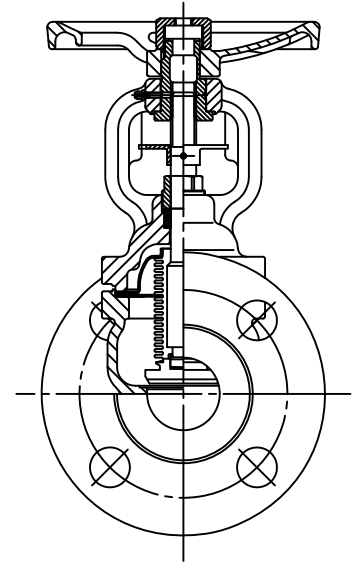
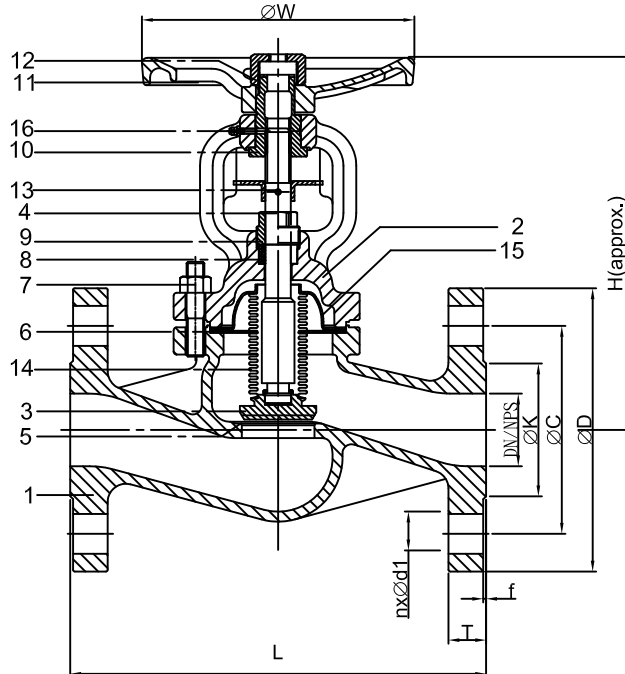


Class 300 鑄鋼/鑄不銹鋼伸縮囊密封型球型閥

Class 300 Cast Steel/Cast Stainless Steel

Bellows Sealed Globe Valve

FIG FL37 Series



1/2"~2"

Valve Parts List:

Item	Part name	Material		Remarks
		A216Gr. WCB	A351Gr. CF8/CF8M	
1	Body	A216 WCB	A351 CF8/CF8M	
2	Bonnet	A216 WCB	A351 CF8/CF8M	
3	Disc*	13%Cr	S.S. 304/S.S.316	HF on request
4	Stem	13%Cr	S.S. 304/S.S.316	
5	Boby Seat	13%Cr	AS BODY	HF on request
6	Gasket	Graphite	Graphite	
7	Bonnet Bolts & Nuts	Steel	Stainless Steel	
8	Gland Packing	Graphite	PTFE	
9	Gland	Brass	Brass	
10	Stem Nut	Al Bronze	Al Bronze	
11	Handwheel	Ductile Iron	Ductile Iron	
12	Handwheel Nut	Ductile Iron	Ductile Iron	
13	Position Indicator	Steel	Steel	
14	Bellows	S.S. 304	S.S. 304/S.S.316	
15	Bellows Flange	S.S. 304	S.S. 304/S.S.316	
16	Lubricating Nipple	S.S. 304	S.S. 304	

* Soft disc inserts available for gas or vacuum service

Dimensions Table:

Unit : mm

SIZE		H	ØW	L	CLASS 300						Kvs vaule
DN	NPS				ØD	ØC	ØK	nxØd1	T	f	
15	1/2"	159	125	152	95.25	66.5	35.05	4x16	14.3	1.6	4
20	3/4"	159	125	177.8	117.35	82.5	42.93	4x19	15.9	1.6	7
25	1"	159	125	203.2	123.95	89	50.8	4x19	17.5	1.6	12
40	1-1/2"	210	150	228.6	155.45	114.5	73.15	4x22.22	20.7	1.6	30
50	2"	210	150	266.7	165.1	127	91.95	8x19	22.3	1.6	47

Larger sizes available on request

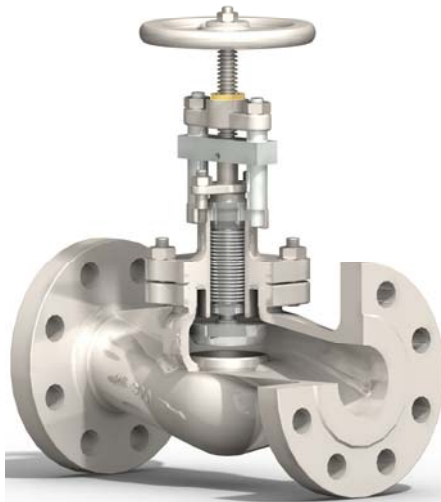


Class 300 鑄鋼/鑄不銹鋼長頸伸縮囊密封型球型閥

Class 300 Cast Steel/Cast Stainless Steel

Long Bellows Sealed Globe Valve

FIG FL37-L Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

Design Description:

- Globe valve in straight way type
- Bolted bonnet
- Outside screw and yoke
- Antirotation device and mechanical position indicator
- Rising stem and rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat
- Protected bellows with valve fully opened
- Bellows welded on stem
- Cover gasket, inside and outside confined
- Secondary Sealing : gland packing
- Stem sealed with bellows tested for 20,000 full open/closed operations at 20° C
- Shell wall thickness acc. ASME B16.34
- Face to face dimensions acc. to ASME B16.10
- Flanges acc. to ASME B16.5
- Test pressure acc. to API 598
- Maintenance free
- Free from asbestos,PCB and CFC

Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
Class 300	A 351 Gr.CF8	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	355 psig 24.4 bar			
	A 351 Gr.CF8M	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	365 psig 25.2 bar			
	A 216 Gr.WCB	100°F 38°C	740 psig 51.1 bar	1125 psig 78 bar	815 psig 56 bar	80 psig 5.5 bar
		800°F 425°C	410 psig 28.8 bar			

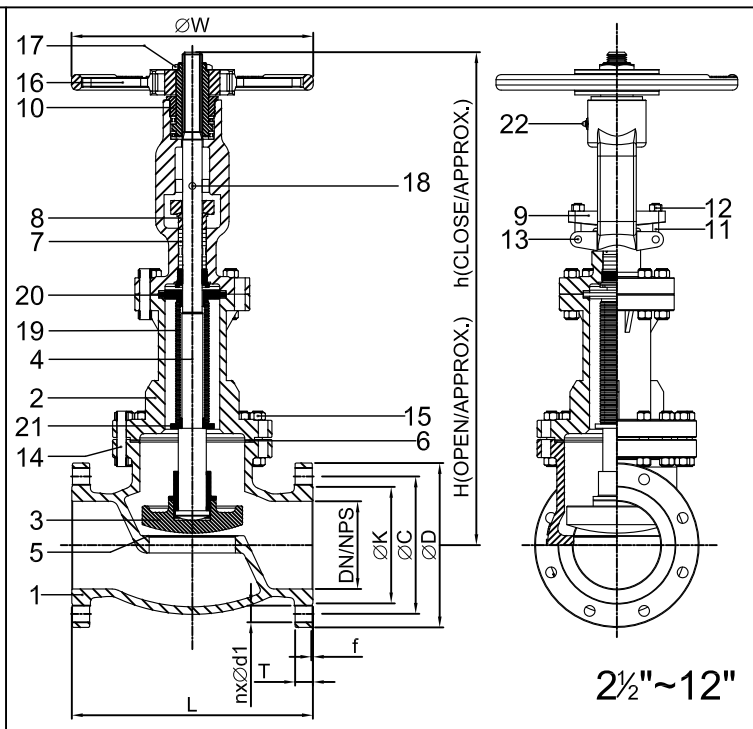
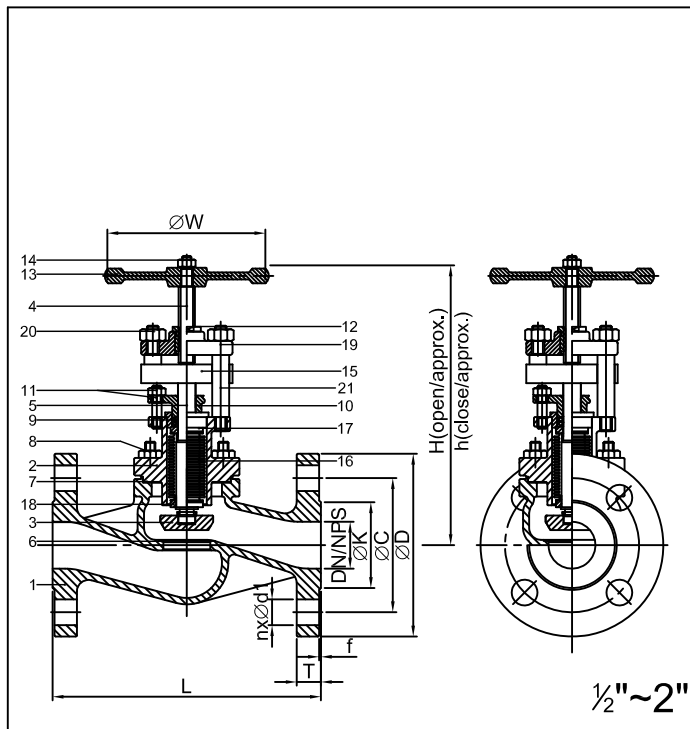


Class 300 鑄鋼/鑄不銹鋼長頸伸縮囊密封型球型閥

Class 300 Cast Steel/Cast Stainless Steel

Long Bellows Sealed Globe Valve

FIG FL37-L Series



1/2"~2" Valve Parts List:

Item	Part name	Material		Remarks
		A216Gr.WCB	A351Gr.CF8/CF8M	
1	Body	A216 WCB	A351 CF8/CF8M	
2	Bonnet	A216 WCB	A351 CF8/CF8M	
3	Disc*	13%Cr	S.S.304/S.S.316	HF on request
4	Upper Stem	13%Cr	S.S.304/S.S.316	
5	Lower Stem	13%Cr	S.S.304/S.S.316	
6	Bobby Seat	13%Cr	AS BODY	HF on request
7	Gasket	S.S.304 SPW	S.S.304/S.S.316 SPW	
8	Bonnet Bolts & Nuts	Steel	Stainless Steel	
9	Gland Packing	Graphite	Graphite	
10	Gland	A216 WCB	A351 CF8	
11	Gland Bolts & Nuts	Steel	Stainless Steel	
12	Stem Nut	Al Bronze	Al Bronze	
13	Handwheel	Ductile Iron	Ductile Iron	
14	Handwheel Nut	Steel	S.S.304	
15	Position Indicator	13%Cr	Stainless Steel	
16	Bellows	S.S. 304	S.S. 304/S.S.316	
17	Upper Bellows Joint	13%Cr	S.S. 304/S.S.316	
18	Lower Bellows Joint	13%Cr	S.S. 304/S.S.316	
19	Yoke Flange	A216 WCB	A351 CF8	
20	Yoke Nuts	Steel	Stainless Steel	
21	Yoke Pillars	13%Cr	Stainless Steel	

* Soft disc inserts available for gas or vacuum service

Item	Part name	Material		Remarks
		A216Gr.WCB	A351Gr.CF8/CF8M	
1	Body	A216 WCB	A351Gr.CF8/CF8M	
2	Bonnet	A216 WCB	A351Gr.CF8/CF8M	
3	Disc*	A216 WCB+F6	S.S.304/S.S.316	HF on request
4	Stem	13%Cr	S.S.304/S.S.316	
5	Seat	F6	AS BODY	HF on request
6	Gasket	Graphite	Graphite	
7	Gland Packing	Graphite	Graphite	
8	Gland	13%Cr	A351Gr.CF8	
9	Gland Flange	A216 WCB	A216 WCB	
10	Stem Nut	A439-D2	A439-D2	
11	Eye Bolt	A307B	A193-B8/A193-B8M	
12	Eye Bolt Nut	A194-2H	A193-B8/A194-8M	
13	Eye Bolt Pin	A36	A276-304/A276-304	
14	Bonnet Bolt	A193-B7	A193-B8/A194-8M	
15	Bonnet Nut	A307B	A194-8/A194-8M	
16	Handwheel	Ductile Iron	Ductile Iron	
17	Handwheel Nut	Ductile Iron	Ductile Iron	
18	Position Indicator	13%Cr	Stainless Steel	
19	Bellows	S.S. 304	S.S.304/S.S.316	
20	Upper Bellow Joint	13%Cr	S.S.304/S.S.316	
21	Lower Bellow Joint	13%Cr	S.S.304/S.S.316	
22	Lubricating Nipple	S.S.304	S.S.304/S.S.304	

* Soft disc inserts available for gas or vacuum service

Dimensions Table:

SIZE		H	h	ØW	L	CLASS 300						Kvs vaule
DN	NPS					ØD	ØC	ØK	nxØd1	T	f	
15	1/2"	222	214	125	152.4	95.25	66.5	35.05	4x16	14.3	1.6	4
20	3/4"	222	214	125	177.8	117.35	82.5	42.93	4x19	15.9	1.6	7
25	1"	226	214	125	203.2	123.95	89	50.8	4x19	17.5	1.6	12
40	1-1/2"	245	231	140	228.6	155.45	114.5	73.15	4x22.22	20.7	1.6	30
50	2"	249	231	140	266.7	165.1	127	91.95	8x19	22.3	1.6	47
65	2-1/2"	570	540	250	292.1	190.5	149	104.65	8x22.22	25.4	1.6	77
80	3"	568	538	250	317.5	209.55	168	127	8x22.22	28.6	1.6	120
100	4"	691	647	350	355.6	254	200	157.22	8x22.22	31.8	1.6	180
125	5"	903	826	450	400.1	279.4	235	185.67	8x22.22	35	1.6	260
150	6"	893	843	450	444.5	317.5	270	215.9	12x22.22	36.6	1.6	380
200	8"	1206	1139	560	558.8	381	330	270	12x25	41.3	1.6	703
250	10"	1334	1256	864	622.3	444	387.5	324	16x29	47.7	1.6	1127
300	12"	1622	1513	864	711.2	521	451	381	16x32	50.8	1.6	1587

Larger sizes available on request

Unit : mm



Class 600 鑄鋼/鑄不銹鋼長頸伸縮囊密封型球型閥

Class 600 Cast Steel/Cast Stainless Steel

Long Bellows Sealed Globe Valve

FIG FI37-L Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

Design Description:

- Globe valve in straight way type
- Bolted bonnet
- Outside screw and yoke
- Antirotation device and mechanical position indicator
- Rising stem and rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat
- Protected bellows with valve fully opened
- Bellows welded on stem
- Cover gasket, inside and outside confined
- Secondary Sealing : gland packing
- Stem sealed with bellows tested for 20,000 full open/closed operations at 20° C
- Shell wall thickness acc. ASME B16.34
- Face to face dimensions acc. to ASME B16.10
- Flanges acc. to ASME B16.5
- Test pressure acc. to API 598
- Maintenance free
- Free from asbestos,PCB and CFC

Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
Class 600	A 351 Gr.CF8	100°F 38°C	1440 psig 99.3 bar	2175 psig 150 bar	1585 psig 109 bar	80 psig 5.5 bar
		1000°F 538°C	710 psig 48.9 bar			
	A 351 Gr.CF8M	100°F 38°C	1440 psig 99.3 bar	2175 psig 150 bar	1585 psig 109 bar	80 psig 5.5 bar
		1000°F 538°C	725 psig 50 bar			
	A 216 Gr.WCB	100°F 38°C	1480 psig 102.1 bar	2225 psig 153 bar	1630 psig 112 bar	80 psig 5.5 bar
		800°F 425°C	825 psig 57.5 bar			

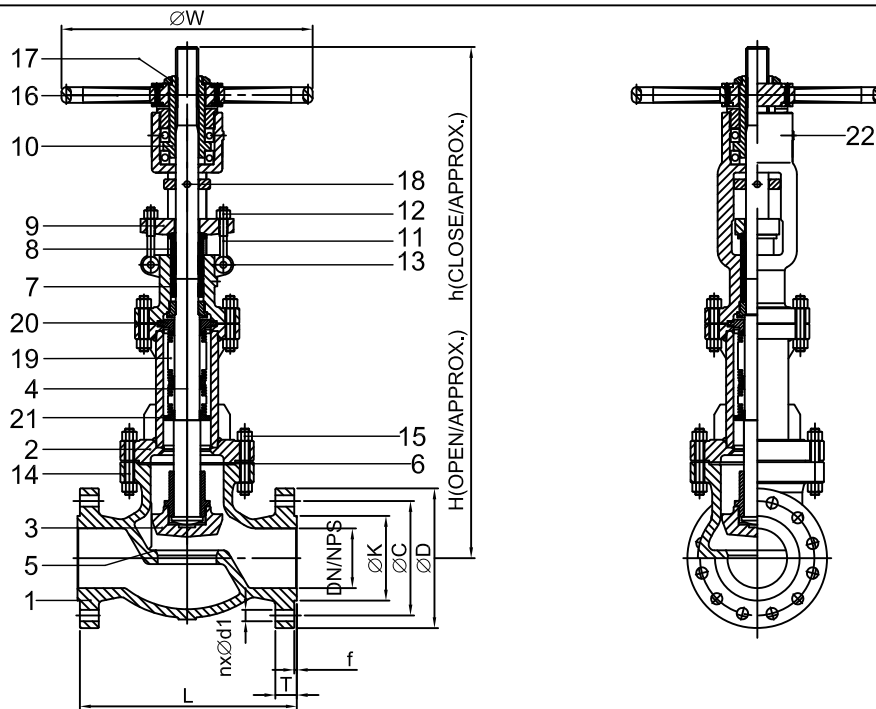


Class 600 鑄鋼/鑄不銹鋼長頸伸縮囊密封型球型閥

Class 600 Cast Steel/Cast Stainless Steel

Long Bellows Sealed Globe Valve

FIG FI37-L Series



2½"~12"

Item	Part name	Material		Remarks
		A216Gr.WCB	A351Gr.CF8/CF8M	
1	Body	A216 WCB	A351Gr.CF8/CF8M	
2	Bonnet	A216 WCB	A351Gr.CF8/CF8M	
3	Disc	A216 WCB+F6	S.S.304/S.S.316	HF on request
4	Stem	13%Cr	S.S.304/S.S.316	
5	Seat	F6	AS BODY	HF on request
6	Gasket	Graphite	Graphite	
7	Gland Packing	Graphite	Graphite	
8	Gland	13%Cr	A351Gr.CF8	
9	Gland Flange	A216 WCB	A216 WCB	
10	Stem Nut	A439-D2	A439-D2	
11	Eye Bolt	A307B	A193-B8/A193-B8M	
12	Eye Bolt Nut	A194-2H	A193-B8/A194-8M	
13	Eye Bolt Pin	A36	A276-304/A276-304	
14	Bonnet Bolt	A193-B7	A193-B8/A194-8M	
15	Bonnet Nut	A307B	A194-8/A194-8M	
16	Handwheel	Ductile Iron	Ductile Iron	
17	Handwheel Nut	Ductile Iron	Ductile Iron	
18	Position Indicator	13%Cr	Stainless Steel	
19	Bellows	S.S. 304	S.S.304/S.S.316	
20	Upper Bellow Joint	13%Cr	S.S.304/S.S.316	
21	Lower Bellow Joint	13%Cr	S.S.304/S.S.316	
22	Lubricating Nipple	S.S.304	S.S.304/S.S.304	

* Soft disc inserts available for gas or vacuum service

Dimensions Table:

Unit : mm

SIZE		H	h	ØW	L	CLASS 600				T	f	Kvs vaule
DN	NPS					ØD	ØC	ØK	nxØd1			
50	2"	249	231	250	292	165.1	127	92.1	8x22.22	25.4	6.4	
65	2-1/2"	570	540	250	330.2	190.5	149	104.8	8x22.22	28.6	6.4	77
80	3"	568	538	250	355.6	209.55	168	127	8x22.22	31.8	6.4	120
100	4"	691	647	350	431.8	273.05	215.9	157.2	8x25	38.1	6.4	180
125	5"	903	826	450	508.0	330.2	266.7	185.7	8x29	44.5	6.4	260
150	6"	893	843	450	558.8	355.6	292.1	215.9	12x29	47.7	6.4	380
200	8"	1206	1139	560	660.4	419.1	349.2	270	12x32	55.6	6.4	703
250	10"	1334	1256	864	787.4	508	431.8	324	16x35	63.5	6.4	1127
300	12"	1622	1513	864	838.2	558.8	489	381	20x35	66.7	6.4	1587

Larger sizes available on request



Class 800 長頸鍛造伸縮囊密封型球型閥 Class 800 Forged Long Bellows Sealed Globe valve

FIG 37A-L Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

Design Description:

- Bolted bonnet
- Outside screw and yoke
- Antirotation device
- Rising stem and non-rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Different types of connection available.
(Screwed, Socket Weld, and Flange Ends)
- Stem sealed with bellows tested for 10,000 full open/closed operations at 20°C
- Design and Manufacturing acc. to API 602
- Shell wall thickness acc. ASME B16.34
- Screwed Ends acc. to ASME B1.20.1
- Socket Weld Ends acc. to ASME B16.11
- Test pressure acc. to API 598
- Maintenance free
- Free from asbestos, PCB and CFC

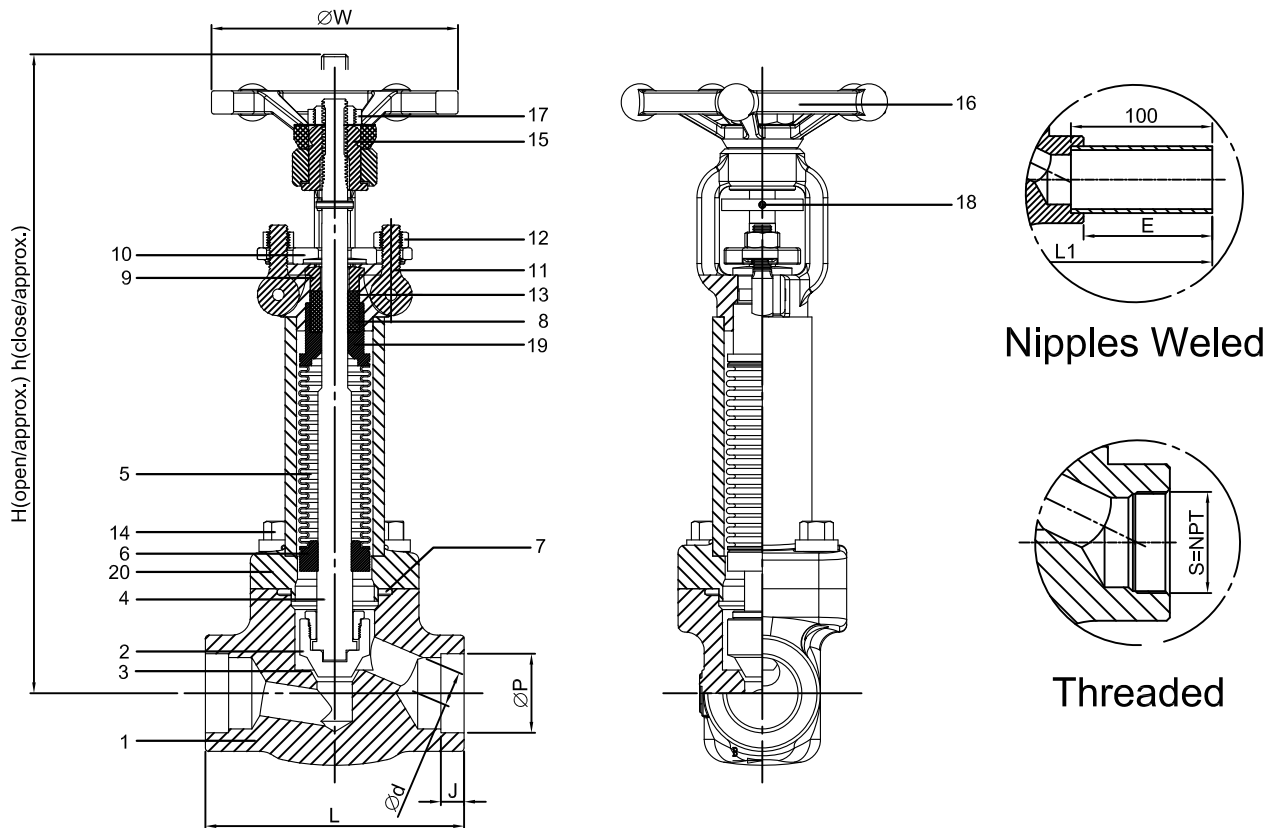
Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
Class 800	A 182 Gr.F304	100°F 38°C	1920 psig 132.4 bar	2900 psig 200 bar	2120 psig 146 bar	80 psig 5.5 bar
		1000°F 538°C	947 psig 65.2 bar			
	A 182 Gr.F316	100°F 38°C	1920 psig 132.4 bar	2900 psig 200 bar	2120 psig 146 bar	80 psig 5.5 bar
		800°F 425°C	968 psig 66.8 bar			
	A 105	100°F 38°C	1973 psig 136.1 bar	2975 psig 205 bar	2180 psig 150 bar	80 psig 5.5 bar
		100°F 538°C	1098 psig 76.7 bar			



Class 800 長頸鍛造伸縮囊密封型球型閥 Class 800 Forged Long Bellows Sealed Globe valve

FIG 37A-L Series



Valve Parts List:

Item	Part name	Material			Remark
		A105	A182-F304	A182-F316	
1	Body	A105	A182-F304	A182-F316	
2	Disc	A276-410	A182-F304	A182-F316	HF on request
3	Seat Facing	13%Cr	A182-F304	A182-F316	HF on request
4	Stem	13%Cr	S.S.304	S.S.316	
5	Bellows	S.S.304	S.S.304	S.S.316	
6	Bonnet	A105	A182-F304	A182-F304	
7	Bonnet Gasket	S.S.304 Spiral Wound	S.S.304 Spiral Wound	S.S.316 Spiral Wound	
8	Gland Packing	Graphite	Graphite	Graphite	
9	Gland	13%Cr	S.S.304	S.S.316	
10	Gland Flange	A105	A182-F304	A182-F304	
11	Eye Bolt	A192-B8	A193-B8	A193-B8	
12	Eye Bolt Nut	A194-2H	A194-8	A194-8	
13	Eye Bolt Pin	A276-410	A276-410	A276-410	
14	Bonnet Bolt	A193-B7	A193-B8	A193-B8	
15	Stem Nut	A276-410	A276-410	A276-410	
16	Handwheel	Ductile Iron	Ductile Iron	Ductile Iron	
17	Handwheel Nut	13%Cr	13%Cr	13%Cr	
18	Position Indicator	13%Cr	13%Cr	13%Cr	
19	Upper Bellows Joint	13%Cr	S.S.304	S.S.316	
20	Lower Bellows Joint	13%Cr	S.S.304	S.S.316	

** Other materials are available upon request.

Dimensions Table:

Dimensions Table: Class 800

Unit : mm

Class	Port	SIZE		Ød	H	h	ØW	L	Nipple Weld		Socket Weld		Screwed	
		DN	NPS						E	L1	ØP	J	S	NPT
800	Reduced	15	1/2"	13	240	223	100	79	90	259	22	10	12.7	1/2" NPT
		20	3/4"	13	240	223	100	92	87	266	27	13	14.1	3/4" NPT
		25	1"	18	290	267	125	111	87	285	34	13	16.2	1" NPT
		40	1-1/2"	29	337	342	180	152	87	326	49	13	18.5	1-1/2" NPT
		50	2"	37	433	390	240	172	84	340	61	16	22.8	2" NPT



Class 150/300/600 長頸鍛造伸縮囊密封型球型閥

Class 150/300/600 Forged Long Bellows Sealed Globe valve



Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
Class 150	A 182 Gr.F304/ Gr.F316	100°F 38°C	275 psig 19 bar	425 psig 29 bar	305 psig 21 bar	80 psig 5.5 bar
		1000°F 538°C	20 psig 1.4 bar			
	A 105	100°F 38°C	285 psig 19.6 bar	450 psig 31 bar	315 psig 22 bar	80 psig 5.5 bar
		800°F 425°C	80 psig 5.5 bar			
Class 300	A 182 Gr.F304	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	355 psig 24.4 bar			
	A 182 Gr.F316	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	365 psig 25.2 bar			
	A 105	100°F 38°C	740 psig 51.1 bar	1125 psig 78 bar	815 psig 56 bar	80 psig 5.5 bar
		800°F 425°C	410 psig 28.8 bar			
Class 600	A 182 Gr.F304	100°F 38°C	1440 psig 99.3 bar	2175 psig 150 bar	1585 psig 109 bar	80 psig 5.5 bar
		1000°F 538°C	710 psig 48.9 bar			
	A 182 Gr.F316	100°F 38°C	1440 psig 99.3 bar	2175 psig 150 bar	1585 psig 109 bar	80 psig 5.5 bar
		1000°F 538°C	725 psig 50 bar			
	A 105	100°F 38°C	1480 psig 102.1 bar	2225 psig 153 bar	1630 psig 112 bar	80 psig 5.5 bar
		800°F 425°C	825 psig 57.5 bar			

Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

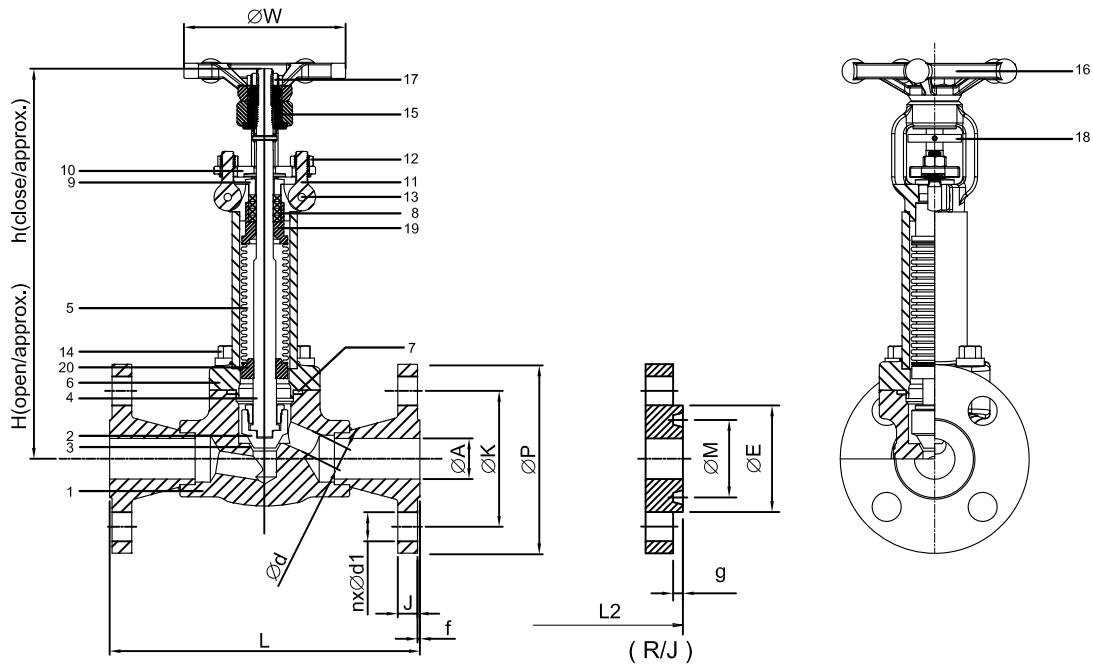
Design Description:

- Bolted bonnet
- Outside screw and yoke
- Antirotation device
- Rising stem and non-rising handwheel
- Disc with conical metallic sealing surface
- Metal back seat
- Secondary Sealing : gland packing
- Different types of connection available. (Screwed, Socket Weld, and Flange Ends)
- Stem sealed with bellows tested for 10,000 full open/closed operations at 20°C
- Design and Manufacturing acc. to API 602
- Shell wall thickness acc. ASME B16.34
- Flanges Ends acc. to ASME B16.5
- Flanges face to face dimensions acc. to ASME B16.10
- Test pressure acc. to API 598
- Maintenance free
- Free from abestos,PCB and CFC



Class 150/300/600 長頸鍛造伸縮囊密封型球型閥 Class 150/300/600 Forged Long Bellows Sealed Globe valve

FIG F37A-L Series



Valve Parts List:

Item	Part name	Material			Remark
		A105	A182-F304	A182-F316	
1	Body	A105	A182-F304	A182-F316	
2	Disc	A276-410	A182-F304	A182-F316	HF on request
3	Seat Facing	13%Cr	A182-F304	A182-F316	HF on request
4	Stem	13%Cr	S.S.304	S.S.316	
5	Bellows	S.S.304	S.S.304	S.S.316	
6	Bonnet	A105	A182-F304	A182-F304	
7	Bonnet Gasket	S.S.304 Spiral Wound	S.S.304 Spiral Wound	S.S.316 Spiral Wound	
8	Gland Packing	Graphite	Graphite	Graphite	
9	Gland	13%Cr	S.S.304	S.S.316	
10	Gland Flange	A105	A182-F304	A182-F304	
11	Eye Bolt	A192-B7	A193-B8	A193-B8	
12	Eye Bolt Nut	A194-2H	A194-8	A194-8	
13	Eye Bolt Pin	13%Cr	13%Cr	13%Cr	
14	Bonnet Bolt	A193-B7	A193-B8	A193-B8	
15	Stem Nut	A276-410	A276-410	A276-410	
16	Handwheel	Ductile Iron	Ductile Iron	Ductile Iron	
17	Handwheel Nut	13%Cr	13%Cr	13%Cr	
18	Position Indicator	13%Cr	13%Cr	13Cr	
19	Upper Bellows Joint	13%Cr	S.S.304	S.S.316	
20	Lower Bellows Joint	13%Cr	S.S.304	S.S.316	

** Other materials are available upon request.

Dimensions Table: Class 150 : Fig. FN37A-L

SIZE		ANSI B16.5 Class 150 LB RF										Ring Joint Face			
DN	NPS	L	H	h	ØW	ØD	ØK	ØA	nxØd1	T	f	ØM	ØE	g	L2
15	1/2"	108	240	223	102	89	60.5	35	4x16	11.2	1.6				
20	3/4"	117	240	223	102	99	69.9	43	4x16	12.7	1.6				
25	1"	127	290	267	125	108	79.3	51	4x16	14.3	1.6	47.62	63.5	6.4	140
40	1-1/2"	165	337	342	146	127	98.6	73	4x16	17.6	1.6	65.07	82.5	6.4	178
50	2"	203	433	390	178	165	120.7	92	4x20	19.1	1.6	82.55	101.5	6.4	216

Dimensions Table: Class 300 : Fig. FL37A-L

SIZE		ANSI B16.5 Class 300 LB RF										Ring Joint Face			
DN	NPS	L	H	h	ØW	ØD	ØK	ØA	nxØd1	T	f	ØM	ØE	g	L2
15	1/2"	152	240	223	102	95	66.5	35	4x16	14.3	1.6	34.14	50.8	5.6	163
20	3/4"	178	240	223	102	117	82.6	43	4x20	15.8	1.6	42.88	63.5	6.4	191
25	1"	230	290	267	125	124	88.9	51	4x20	17.6	1.6	50.80	69.3	6.4	243
40	1-1/2"	229	337	342	146	155	114.3	73	4x22	20.6	1.6	68.28	90.4	6.4	242
50	2"	267	433	390	178	165	127.0	92	8x20	22.4	1.6	82.55	108.0	7.9	283

Dimensions Table: Class 600 : Fig. FI37A-L

SIZE		ANSI B16.5 Class 600 LB RF										Ring Joint Face			
DN	NPS	L	H	h	ØW	ØD	ØK	ØA	nxØd1	T	f	ØM	ØE	g	L2
15	1/2"	165	240	223	102	95	66.5	35	4x16	14.3	6.4	34.14	95	5.6	163
20	3/4"	191	240	223	102	117	82.6	43	4x20	15.8	6.4	42.88	117	6.4	191
25	1"	216	290	267	125	124	88.9	51	4x20	17.6	6.4	50.80	124	6.4	216
40	1-1/2"	241	337	342	146	155	114.3	73	4x22	22.4	6.4	68.28	155	6.4	241
50	2"	292	433	390	178	165	127.0	92	8x20	25.4	6.4	82.55	165	7.9	295



Class 150 鑄鋼/鑄不銹鋼伸縮囊密封型閘門閥

Class 150 Cast Steel/Cast Stainless Steel

Bellows Sealed Gate valve

FIG FN49 Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

Design Description:

- Bolted bonnet
- Outside screw and yoke
- Flexible wedge, Fully Guided
- Renewable seat ring
- Rising stem and non-rising handwheel
- Metal back seat
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Renewable bellows sealed bonnet assembly
- Different types of connection available.
(Butt Weld, and Flange Ends)
- Stem sealed with bellows tested for 3,000 full open/closed operations at 20°C
- Design and Manufacturing acc. to API 600
- Shell wall thickness acc. ASME B16.34
- Butt Weld Ends acc. to ASME B16.25
- Flanges Ends acc. to ASME B16.5
- Flanges face to face dimensions acc. to ASME B16.10
- Test pressure acc. to API 598
- Maintenance free
- Free from asbestos, PCB and CFC

Valve Parts List:

Item	Part name	Material		
		A216-WCB	A351-CF8	A351-CF8M
1	Body	A216-WCB	A351-CF8	A351-CF8M
2	Seat ring	410SS	304SS	316SS
3	Wedge	A216-WCB	A351-CF8	A351-CF8M
4	Stem	13%Cr	S.S.304	S.S.316
5	Gasket	Grafoil+304Sheet	Grafoil+304Sheet	Grafoil+316Sheet
6	Bonnet	A216-WCB	A351-CF8	A351-CF8M
7	Bellows	S.S.304	S.S.304	S.S.316
8	Packing	Graphite	Graphite	Graphite
9	Gland	13%Cr	A351Gr.CF8	A351Gr.CF8
10	Gland Flange	A216-WCB	A351-CF8	A351-CF8
11	Eye Bolts	A307-B	A193-B8	A193-B8M
12	Eye Bolt Nut	A194-2H	A193-B8	A194-8M
13	Eye Bolt Pin	A36	A276-304	A276-304
14	Bonnet bolt	A193-B7	A193-B8	A194-8M
15	Bonnet nut	A194-2H	A194-8	A194-8M
16	Stem nut	A439-D2	A439-D2	A439-D2
17	Handwheel	Ductile Iron	Ductile Iron	Ductile Iron
18	Handwheel nut	Ductile Iron	Ductile Iron	Ductile Iron
19	Upper Bellows Joint	13%Cr	S.S.304	S.S.316
20	Lower Bellows Joint	13%Cr	S.S.304	S.S.316
21	Lubricating Nipple	S.S.304	S.S.304	S.S.304

**Seating face with stellite is on request.

Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
Class 150	A351 Gr.CF8/ Gr.CF8M	100°F 38°C	275 psig 19 bar	425 psig 29 bar	305 psig 21 bar	80 psig 5.5 bar
		1000°F 538°C	20 psig 1.4 bar			
	A 216 Gr.WCB	100°F 38°C	285 psig 19.6 bar	450 psig 31 bar	315 psig 22 bar	80 psig 5.5 bar
		800°F 425°C	80 psig 5.5 bar			



Class 150 鑄鋼/鑄不銹鋼伸縮囊密封型閘門閥
Class 150 Cast Steel/Cast Stainless Steel
Bellows Sealed Gate valve

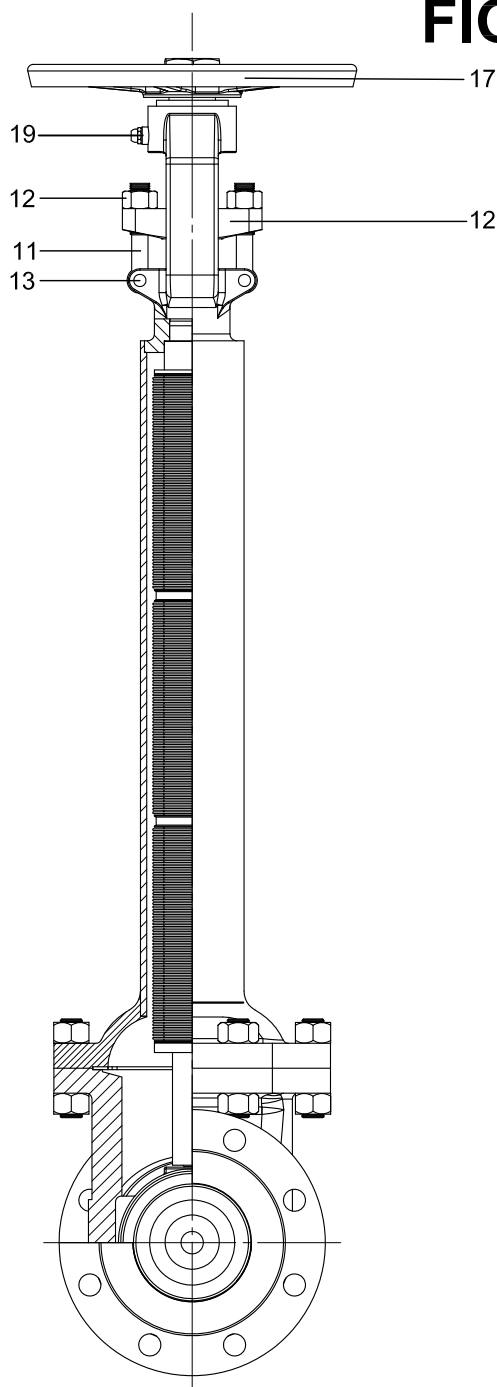
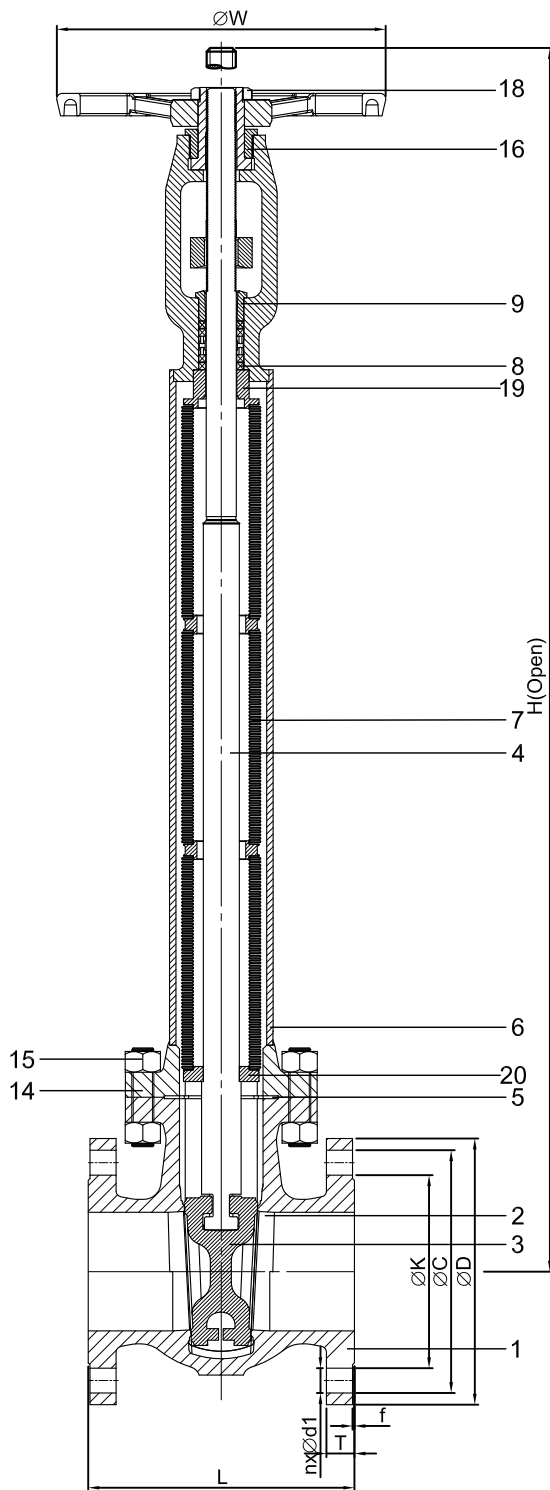
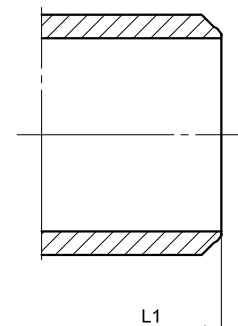
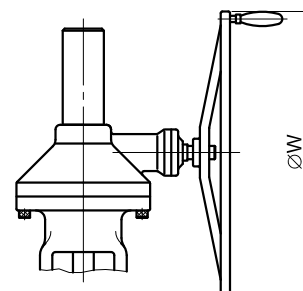


FIG FN49 Series



Butt-Weld



Gear Operator
Class 150-10" and larger

Dimensions Table:

Unit : mm

SIZE		L	L1	ØW	H	h	CLASS 150					
DN	NPS						ØD	ØC	ØK	nxØd1	T	f
50	2"	178	216	180	671	610	152	120.5	92	4xØ19	15.9	1.6
65	2-1/2"	191	241	180	870	777	178	139.5	105	4xØ19	17.5	1.6
80	3"	203	282	250	870	777	190	152.5	127	4xØ19	19.1	1.6
100	4"	229	305	250	1511	1350	229	190.5	157	8xØ19	23.9	1.6
150	6"	267	403	400	1595	1421	279	241.5	216	8xØ22	25.4	1.6
200	8"	292	419	400	1671	1435	343	298.5	270	8xØ22	28.6	1.6
250	10"	330	457	600	2080	1800	406	362	324	12xØ25	30.2	1.6
300	12"	356	502	600	2410	2100	483	432	381	12xØ25	31.8	1.6
350	14"	381	572	600	2700	2350	533	476.5	413	12xØ29	35	1.6
400	16"	406	610	600	3030	2620	597	539.5	470	16xØ29	36.6	1.6

Larger sizes available on request



Class 300 鑄鋼/鑄不銹鋼伸縮囊密封型閘門閥

Class 300 Cast Steel/Cast Stainless Steel

Bellows Sealed Gate valve

FIG FL49 Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems

- other applications on request -

Design Description:

- Bolted bonnet
- Outside screw and yoke
- Flexible wedge, Fully Guided
- Renewable seat ring
- Rising stem and non-rising handwheel
- Metal back seat
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Renewable bellows sealed bonnet assembly
- Different types of connection available.
(Butt Weld, and Flange Ends)
- Stem sealed with bellows tested for 3,000 full open/closed operations at 20°C
- Design and Manufacturing acc. to API 600
- Shell wall thickness acc. ASME B16.34
- Butt Weld Ends acc. to ASME B16.25
- Flanges Ends acc. to ASME B16.5
- Flanges face to face dimensions acc. to ASME B16.10
- Test pressure acc. to API 598
- Maintenance free
- Free from asbestos, PCB and CFC

Pressure/Temperature Ratings:

Class 300	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
	A351 Gr.CF8	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	350 psig 24.4 bar			
	A351 Gr.CF8M	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	365 psig 25.2 bar			
	A 216 Gr.WCB	100°F 38°C	740 psig 51.1 bar	1125 psig 78 bar	815 psig 56 bar	80 psig 5.5 bar
		800°F 425°C	410 psig 28.8 bar			

Valve Parts List:

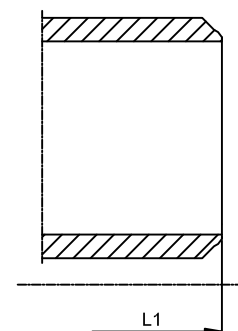
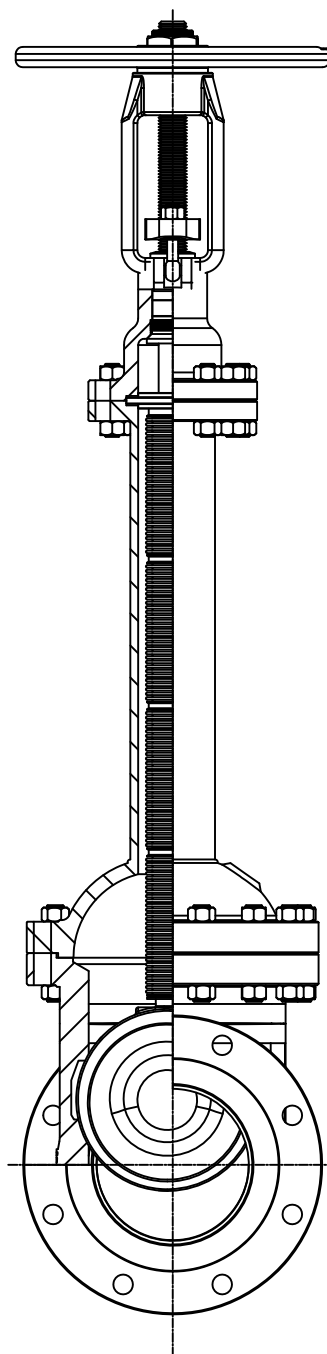
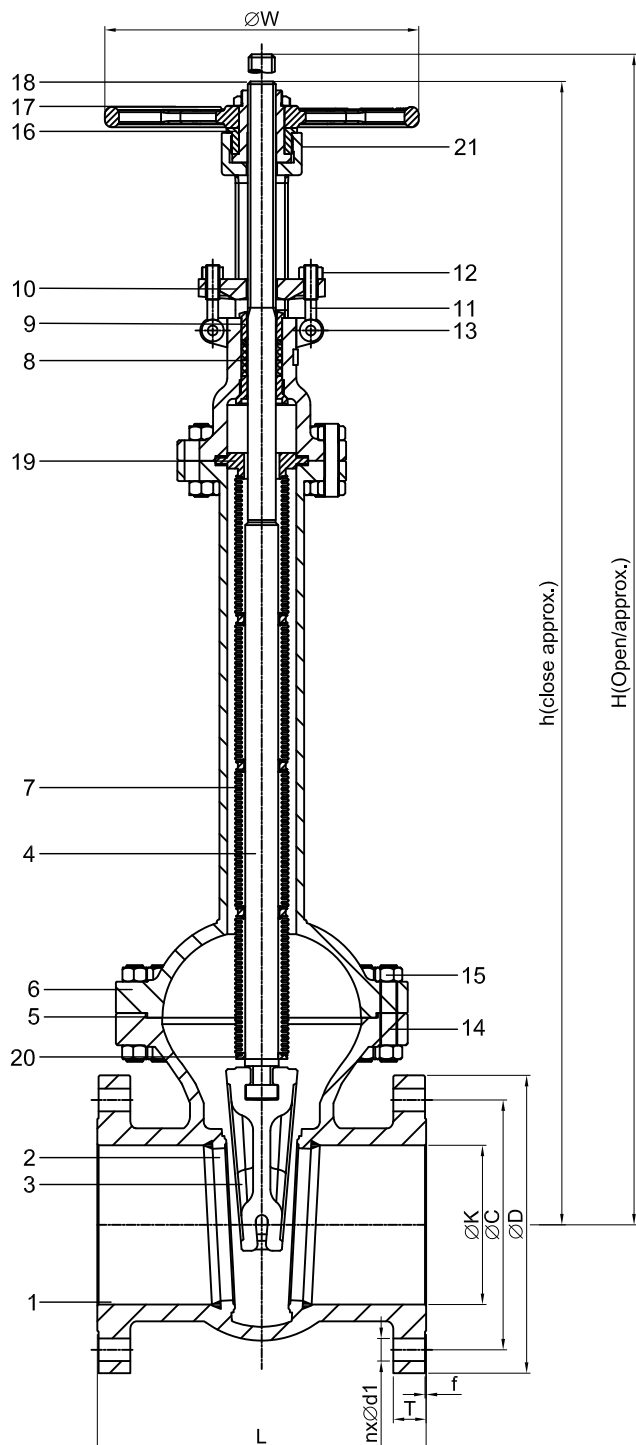
Item	Part name	Material		
		A216-WCB	A351-CF8	A351-CF8M
1	Body	A216-WCB	A351-CF8	A351-CF8M
2	Seat ring	13%Cr	304SS	316SS
3	Wedge	A216-WCB	A351-CF8	A351-CF8M
4	Stem	13%Cr	S.S.304	S.S.316
5	Gasket	Grafoll+304Sheet	Grafoll+304Sheet	Grafoll+316Sheet
6	Bonnet	A216-WCB	A351-CF8	A351-CF8M
7	Bellows	S.S.304	S.S.304	S.S.316
8	Packing	Graphite	Graphite	Graphite
9	Gland	13%Cr	A351Gr.CF8	A351Gr.CF8
10	Bonnet Flange	A216-WCB	A351-CF8	A351-CF8
11	Eye Bolts	A307-B	A193-B8	A193-B8M
12	Eye Bolt Nut	A194-2H	A193-B8	A194-8M
13	Eye Bolt Pin	A36	A276-304	A276-304
14	Bonnet bolt	A193-B7	A193-B8	A194-8M
15	Bonnet nut	A194-2H	A194-8	A194-8M
16	Stem nut	A439-D2	A439-D2	A439-D2
17	Handwheel	Ductile Iron	Ductile Iron	Ductile Iron
18	Handwheel nut	Ductile Iron	Ductile Iron	Ductile Iron
19	Upper Bellows Joint	13%Cr	S.S.304	S.S.316
20	Lower Bellows Joint	13%Cr	S.S.304	S.S.316
19	Lubricating Nipple	S.S.304	S.S.304	S.S.304

**Seating face with stellite is on request.

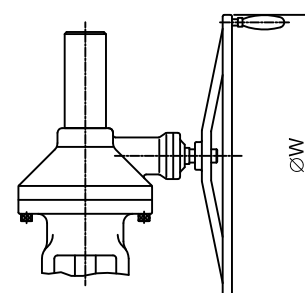


Class 300 鑄鋼/鑄不銹鋼伸縮囊密封型閘門閥
Class 300 Cast Steel/Cast Stainless Steel
Bellows Sealed Gate valve

FIG FL49 Series



Butt-Weld



Gear Operator

Class 150-10" and larger
Class 300- 8" and larger

Dimensions Table:

Unit : mm

SIZE		L & L1	ØW	h	H	CLASS 300					
DN	NPS					ØD	ØC	ØK	nxØd1	T	f
50	2"	216	180	610	671	165	127	92	8xØ19	22.3	1.6
65	2-1/2"	241	250	777	872	190	149	105	8xØ22	25.4	1.6
80	3"	282	300	777	870	210	168	127	8xØ22	28.6	1.6
100	4"	305	300	1350	1511	254	200	157	8xØ22	31.8	1.6
150	6"	403	400	1421	1595	318	270	216	12xØ22	36.6	1.6
200	8"	419	600	1435	1671	381	330	270	12xØ25	41.3	1.6
250	10"	457	600	1800	2080	444	387.5	324	16xØ29	47.7	1.6
300	12"	502	600	2100	2410	521	451	381	16xØ32	50.8	1.6
350	14"	762	600	2350	2700	584	514.5	413	20xØ32	54	1.6
400	16"	838	600	2620	3030	648	571.5	470	20xØ35	57.2	1.6



Class 600 鑄鋼/鑄不銹鋼伸縮囊密封型閘門閥

Class 600 Cast Steel/Cast Stainless Steel

Bellows Sealed Gate valve

FIG FI49 Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems

- other applications on request -

Design Description:

- Bolted bonnet
- Outside screw and yoke
- Flexible wedge, Fully Guided
- Renewable seat ring
- Rising stem and non-rising handwheel
- Metal back seat
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Renewable bellows sealed bonnet assembly
- Different types of connection available.
(Butt Weld, and Flange Ends)
- Stem sealed with bellows tested for 3,000 full open/closed operations at 20°C
- Design and Manufacturing acc. to API 600
- Shell wall thickness acc. ASME B16.34
- Butt Weld Ends acc. to ASME B16.25
- Flanges Ends acc. to ASME B16.5
- Flanges face to face dimensions acc. to ASME B16.10
- Test pressure acc. to API 598
- Maintenance free
- Free from asbestos, PCB and CFC

Pressure/Temperature Ratings:

Class 600	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
	A351 Gr.CF8	100°F 38°C	1440 psig 99.3 bar	2175 psig	1585 psig	80 psig
		1000°F 538°C	710 psig 48.9 bar	150 bar	109 bar	5.5 bar
	A351 Gr.CF8M	100°F 38°C	1440 psig 99.3 bar	2175 psig	1585 psig	80 psig
		1000°F 538°C	725 psig 50 bar	150 bar	109 bar	5.5 bar
	A 216 Gr.WCB	100°F 38°C	1480 psig 102.1 bar	2225 psig	1630 psig	80 psig
		800°F 425°C	825 psig 57.5 bar	153 bar	112 bar	5.5 bar

Valve Parts List:

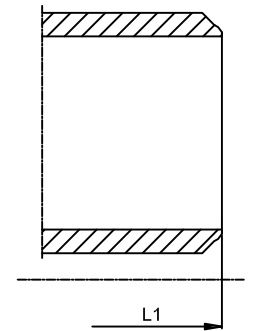
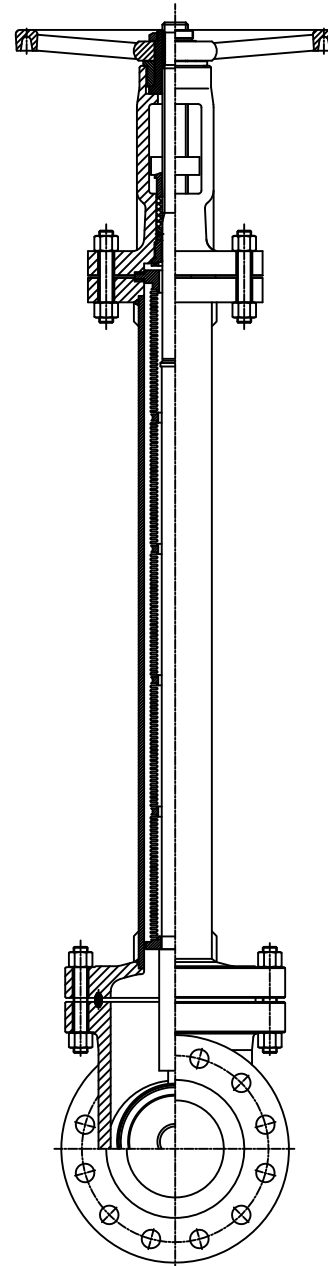
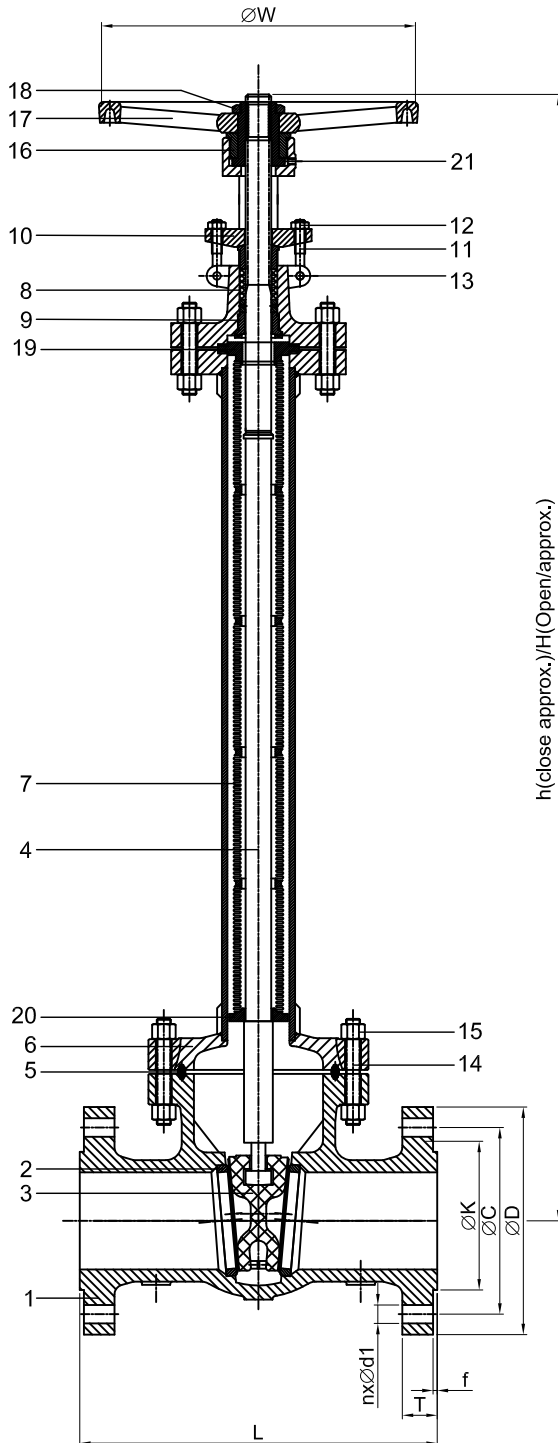
Item	Part name	Material		
		A216-WCB	A351-CF8	A351-CF8M
1	Body	A216-WCB	A351-CF8	A351-CF8M
2	Seat ring	13%Cr	S.S.304	S.S.316
3	Wedge	A216-WCB	A351-CF8	A351-CF8M
4	Stem	13%Cr	S.S.304	S.S.316
5	Gasket	Grafoil+304Sheet	Grafoil+304Sheet	Grafoil+316Sheet
6	Bonnet	A216-WCB	A351-CF8	A351-CF8M
7	Bellows	S.S.304	S.S.304	S.S.316
8	Packing	Graphite	Graphite	Graphite
9	Gland	13%Cr	A351Gr.CF8	A351Gr.CF8
10	Gland Flange	A216-WCB	A351-CF8	A351-CF8
11	Eye Bolts	A307-B	A193-B8	A193-B8M
12	Eye Bolt Nut	A194-2H	A193-B8	A194-8M
13	Eye Bolt Pin	A36	A276-304	A276-304
14	Bonnet bolt	A193-B7	A193-B8	A194-8M
15	Bonnet nut	A194-2H	A194-8	A194-8M
16	Stem nut	A439-D2	A439-D2	A439-D2
17	Handwheel	Ductile Iron	Ductile Iron	Ductile Iron
18	Handwheel nut	Ductile Iron	Ductile Iron	Ductile Iron
19	Upper Bellows Joint	13%Cr	S.S.304	S.S.316
20	Lower Bellows Joint	13%Cr	S.S.304	S.S.316
21	Lubricating Nipple	S.S.304	S.S.304	S.S.304

**Seating face with stellite is on request.

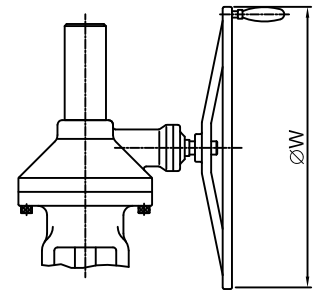


Class 600 鑄鋼/鑄不銹鋼伸縮囊密封型閘門閥
Class 600 Cast Steel/Cast Stainless Steel
Bellows Sealed Gate valve

FIG FI49 Series



Butt-Weld



Gear Operator

Class 150-10" and larger
Class 300- 8" and larger

Dimensions Table:

Unit : mm

SIZE		L & L1	ØW	h	H	CLASS 600					
DN	NPS					ØD	ØC	ØK	nxØd1	T	f
50	2"	292	180	610	671	165.1	127	92.1	8x22.22	25.4	6.4
65	2-1/2"	330	250	777	872	190.5	149	104.65	8x22.22	28.6	6.4
80	3"	356	300	777	870	209.6	168	127	8x22.22	31.8	6.4
100	4"	432	300	1350	1511	273.1	215.9	157.22	8x25	38.1	6.4
150	6"	559	400	1421	1595	355.6	292.1	215.9	12x29	47.7	6.4
200	8"	660	600	1435	1671	419.1	349.2	270	12x32	55.6	6.4
250	10"	787	600	1800	2080	508	431.8	324	16x35	63.5	6.4
300	12"	838	600	2100	2410	558.8	489	381	20x35	66.7	6.4
350	14"	889	600	2350	2700	603.3	527.1	412.8	20x38	69.9	6.4
400	16"	991	600	2620	3030	685.8	603.3	469.9	20x41	76.2	6.4



Class 800 鍛造伸縮囊密封型閘門閥 Class 800 Forged Bellows Sealed Gate valve

FIG 49A Series



Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

Design Description:

- Bolted bonnet
- Outside screw and yoke
- Rising stem and non-rising handwheel
- Renewable seat ring
- Wedge disc
- Metal back seat
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Different types of connection available.
(Screwed, Socket Weld, and Flange Ends)

- Stem sealed with bellows tested for 3,000 full open/closed operations at 20°C
- Design and Manufacturing acc. to API 602
- Shell wall thickness acc. ASME B16.34
- Screwed Ends acc. to ASME B1.20.1
- Socket Weld Ends acc. to ASME B16.11
- Test pressure acc. to API 598
- Maintenance free
- Free from asbestos, PCB and CFC

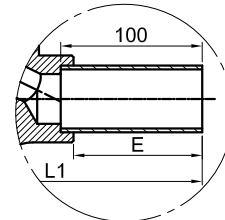
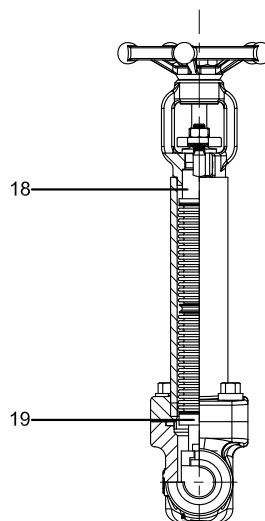
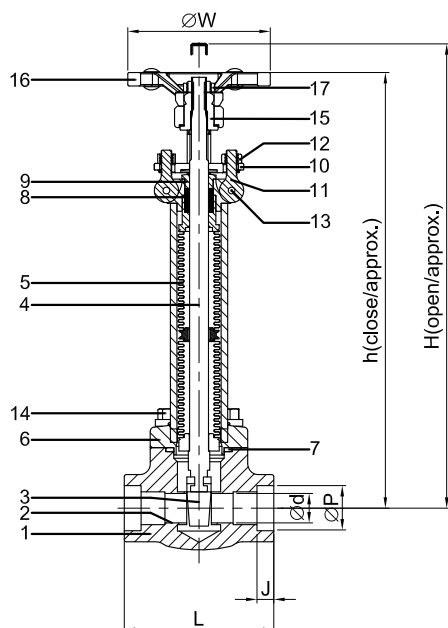
Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
Class 800	A 182 Gr.F304	100°F 38°C	1920 psig 132.4 bar	2900 psig 200 bar	2120 psig 146 bar	80 psig 5.5 bar
		1000°F 538°C	947 psig 65.2 bar			
	A 182 Gr.F316	100°F 38°C	1920 psig 132.4 bar	2900 psig 200 bar	2120 psig 146 bar	80 psig 5.5 bar
		800°F 425°C	968 psig 66.8 bar			
	A 105	100°F 38°C	1973 psig 136.1 bar	2975 psig 205 bar	2180 psig 150 bar	80 psig 5.5 bar
		100°F 538°C	1.98 psig 76.7 bar			

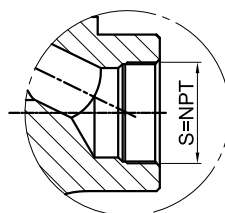


Class 800 鍛造伸縮囊密封型閘門閥 Class 800 Forged Bellows Sealed Gate valve

FIG 49A Series



Nipples Weled



Threaded

Valve Parts List:

Item	Part name	Material			Remark
		A105	A182-F304	A182-F316	
1	Body	A105	A182-F304	A182-F316	
2	Seat Ring	13%Cr	S.S.304	S.S.316	HF on request
3	Wedge	13%Cr	A182-F304	A182-F316	HF on request
4	Stem	13%Cr	S.S.304	S.S.316	
5	Bellows	S.S.304	S.S.304	S.S.316	
6	Bonnet	A105	A182-F304	A182-F304	
7	Gasket	S.S.304 Sprial wound	S.S.304 Sprial wound	S.S.316 Sprial wound	
8	Gland Packing	Graphite	Graphite	Graphite	
9	Gland	13%Cr	S.S.304	S.S.316	
10	Gland Flange	A105	A182-F304	A182-F316	
11	Eye Bolt	A193-B7	A193-B8	A193-B8	
12	Eye Bolt Nut	A194-2H	A194-8	A194-8	
13	Eye Bolt Pin	13%Cr	13%Cr	13%Cr	
14	Bonnet Bolt	A193-B7	A193-B8	A193-B8	
15	Stem Nut	A276-410	A276-410	A276-410	
16	Handwheel	Ductile Iron	Ductile Iron	Ductile Iron	
17	Handwheel Nut	13%Cr	13%Cr	13%Cr	
18	Upper Bellows Joint	13%Cr	S.S.304	S.S.316	
19	Lower Bellows Joint	13%Cr	S.S.304	S.S.316	

** Other materials are available upon request.

Dimensions Table:

Dimensions Table: Class 800														
Class	Port	SIZE		Ød	H	h	ØW	L	Nipple Weled		Socket Weld		Screwed	
		DN	NPS						E	L1	ØP	J	S	NPT
800	Reduced	15	1/2"	13	268	251	100	79	90	259	22	10	12.7	1/2" NPT
		20	3/4"	13	268	251	100	92	87	266	27	13	14.1	3/4" NPT
		25	1"	18	337	314	125	111	87	285	34	13	16.2	1" NPT
		40	1-1/2"	29	489	459	180	120	87	294	49	13	18.5	1-1/2" NPT
		50	2"	37	574	504	240	140	84	308	61	16	22.8	2" NPT



Class 150/300/600 鍛造伸縮囊密封型閘門閥

Class 150/300/600 Forged Bellows Sealed Gate valve

FIG F49A Series



Pressure/Temperature Ratings:

	BODY Material	Temp.	Working Pressure	SHELL TEST (water)	SEAT TEST (water)	SEAT TEST (air)
Class 150	A 182 Gr.F304/ Gr.F316	100°F 38°C	275 psig 19 bar	425 psig 29 bar	305 psig 21 bar	80 psig 5.5 bar
		1000°F 538°C	20 psig 1.4 bar			
	A 105	100°F 38°C	285 psig 19.6 bar	450 psig 31 bar	315 psig 22 bar	80 psig 5.5 bar
		800°F 425°C	80 psig 5.5 bar			
Class 300	A 182 Gr.F304	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	355 psig 24.4 bar			
	A 182 Gr.F316	100°F 38°C	720 psig 49.6 bar	1100 psig 77 bar	795 psig 55 bar	80 psig 5.5 bar
		1000°F 538°C	365 psig 25.2 bar			
	A 105	100°F 38°C	740 psig 51.1 bar	1125 psig 78 bar	815 psig 56 bar	80 psig 5.5 bar
		800°F 425°C	410 psig 28.8 bar			
Class 600	A 182 Gr.F304	100°F 38°C	1440 psig 99.3 bar	2175 psig 150 bar	1585 psig 109 bar	80 psig 5.5 bar
		1000°F 538°C	710 psig 48.9 bar			
	A 182 Gr.F316	100°F 38°C	1440 psig 99.3 bar	2175 psig 150 bar	1585 psig 109 bar	80 psig 5.5 bar
		1000°F 538°C	725 psig 50 bar			
	A 105	100°F 38°C	1480 psig 102.1 bar	2225 psig 153 bar	1630 psig 112 bar	80 psig 5.5 bar
		800°F 425°C	825 psig 57.5 bar			

Selection of possible applications:

- Industry
- Powerstations
- Flue gas purification plant
- Processing technology
- Gas supply
- Vapour facilities
- Thermal oil applications
- Recycling facilities
- Vacuum facilities
- Ammonia
- Hot water
- Heating technology
- District heating
- Cooling and freezing systems
- General plant manufacturing
- Steam systems
- other applications on request -

Design Description:

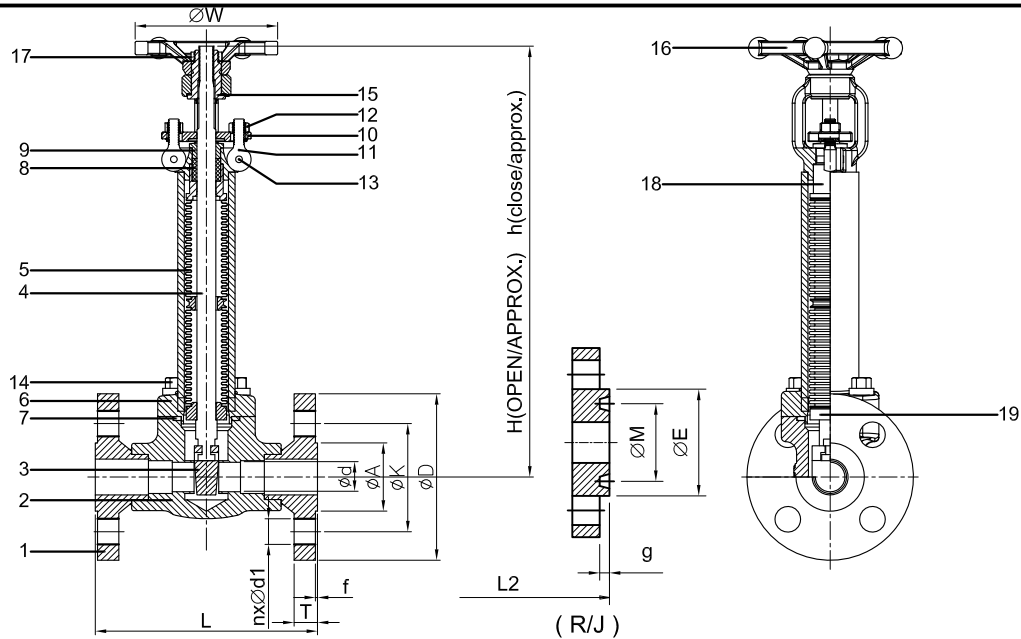
- Bolted bonnet
- Outside screw and yoke
- Rising stem and non-rising handwheel
- Renewable seat ring
- Wedge disc
- Metal back seat
- Lubricating Nipple as Standard
- Secondary Sealing : gland packing
- Different types of connection available. (Screwed, Socket Weld, and Flange Ends)
- Stem sealed with bellows tested for 3,000 full open/closed operations at 20°C
- Design and Manufacturing acc. to API 602
- Shell wall thickness acc. ASME B16.34
- Flanges Ends acc. to ASME B16.5
- Flanges face to face dimensions acc. to ASME B16.10
- Test pressure acc. to API 598
- Maintenance free
- Free from abestos,PCB and CFC



Class 150/300/600 鍛造伸縮囊密封型閘門閥

Class 150/300/600 Forged Bellows Sealed Gate valve

FIG F49A Series



Valve Parts List:

Item	Part name	Material			Remark
		A105	A182-F304	A182-F316	
1	Body	A105	A182-F304	A182-F316	
2	Seat Ring	13%Cr	S.S.304	S.S.316	HF on request
3	Wedge	13%Cr	A182-F304	A182-F316	HF on request
4	Stem	13%Cr	S.S.304	S.S.316	
5	Bellows	S.S.304	S.S.304	S.S.316	
6	Bonnet	A105	A182-F304	A182-F304	
7	Gasket	S.S304 Sprial wound	S.S.304 Sprial wound	S.S.316 Sprial wound	
8	Gland Packing	Graphite	Graphite	Graphite	
9	Gland	13%Cr	S.S.304	S.S.316	
10	Gland Flange	A105	A182-F304	A182-F316	
11	Eye Bolt	A193-B7	A193-B8	A193-B8	
12	Eye Bolt Nut	A194-2H	A194-8	A194-8	
13	Eye Bolt Pin	13%Cr	13%Cr	13%Cr	
14	Bonnet Bolt	A193-B7	A193-B8	A193-B8	
15	Stem Nut	A276-410	A276-410	A276-410	
16	Handwheel	Ductile Iron	Ductile Iron	Ductile Iron	
17	Handwheel Nut	13%Cr	13%Cr	13%Cr	
18	Upper Bellows Joint	13%Cr	S.S.304	S.S.316	
19	Lower Bellows Joint	13%Cr	S.S.304	S.S.316	

** Other materials are available upon request.

Dimensions Table: Class 150 : FN49A

Unit : mm

SIZE		ANSI B16.5 Class 150 LB RF										RNG JOINT FACE			
DN	NPS	L	H	h	ØW	ØD	ØK	ØA	nxØd1	T	f	ØM	ØE	g	L2
15	1/2"	108	268	251	100	89	60.5	35	4x16	11.2	1.6				
20	3/4"	117	268	251	100	99	69.9	43	4x16	12.7	1.6				
25	1"	127	337	314	125	108	79.3	51	4x16	14.3	1.6	47.62	63.5	6.4	140
40	1-1/2"	165	489	459	180	127	98.6	73	4x16	17.6	1.6	65.07	82.5	6.4	178
50	2"	178	574	501	240	165	120.7	92	4x20	19.1	1.6	82.55	101.5	6.4	191

Dimensions Table: Class 300 : FL49A

Unit : mm

SIZE		ANSI B16.5 Class 300 LB RF										RNG JOINT FACE			
DN	NPS	L	H	h	ØW	ØD	ØK	ØA	nxØd1	T	f	ØM	ØE	g	L2
15	1/2"	140	268	251	100	95	66.5	35	4x16	14.3	1.6	35	4x16	14.3	169
20	3/4"	152	268	251	100	117	82.6	43	4x20	15.8	1.6	43	4x20	15.8	184
25	1"	165	337	314	125	124	88.9	51	4x20	17.6	1.6	51	4x20	17.6	200
40	1-1/2"	191	489	459	180	155	114.3	73	4x22	20.6	1.6	73	4x22	20.6	232
50	2"	216	574	501	240	165	127.0	92	8x20	22.4	1.6	92	8x20	22.4	261

Dimensions Table: Class 600 : FL49A

Unit : mm

SIZE		ANSI B16.5 Class 600 LB RF										RNG JOINT FACE			
DN	NPS	L	H	h	ØW	ØD	ØK	ØA	nxØd1	T	f	ØM	ØE	g	L2
15	1/2"	165	268	251	100	95	66.5	35	4x16	14.3	6.4	35	4x16	14.3	194
20	3/4"	191	268	251	100	117	82.6	43	4x20	15.8	6.4	43	4x20	15.8	223
25	1"	216	337	314	125	124	88.9	51	4x20	17.6	6.4	51	4x20	17.6	251
40	1-1/2"	241	489	459	180	155	114.3	73	4x22	22.4	6.4	73	4x22	22.4	286
50	2"	292	574	501	240	165	127.0	92	8x20	25.4	6.4	92	8x20	25.4	343



不銹鋼超潔淨伸縮囊密封型球型閥 Stainless Steel Ultra-High Purity Bellows Sealed Globe Valve

FIG 39S SERIES

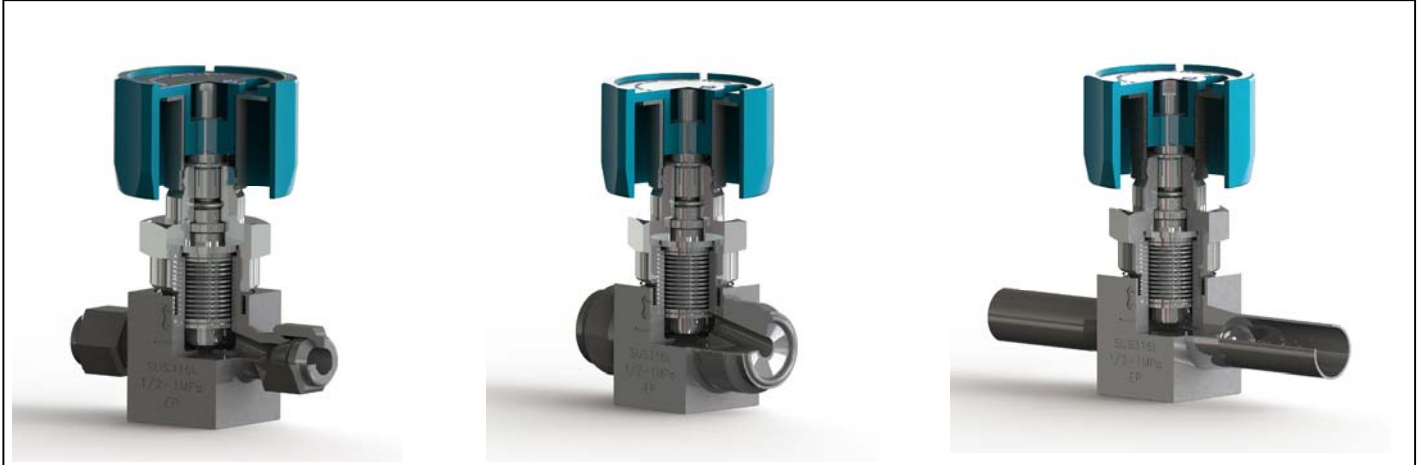


FIG 39S-U

FIG 39S-W

FIG 39S-VT

Applications

- High Purity Gas distribution system control valves
- Superior containment and cleanliness for your most critical valve applications

Suitable for inert and most toxic gases

Specification

MAX fluid pressure		0.98MPa (10kgf/cm ² G)
Temperature range		-10~100(°C)
Shell test (GAS:N ₂)		1.47MPa (15kgf/cm ² G)
Air tight & Seat closure test (GAS:N ₂)		1.08MPa (11kgf/cm ² G)
Helium leakage test	External leakage	$\leq 1.01 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{sec}$ ($1 \times 10^{-9} \text{ Atm} \cdot \text{cc}/\text{sec}$)
	Leakage across seat	$\leq 1.01 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{sec}$ ($1 \times 10^{-9} \text{ Atm} \cdot \text{cc}/\text{sec}$)

Technical Data

Model	Connection Size	Orifice Size (mm)	MAX Cv value	Temperature °C	Working Pressure MPa(kgf/cm G)	Orifice Diameter (mm)	Cv Flow Cefficient
39S	1/4"	4.5		-10	Vacuum	4.5	0.36
	3/8"	7.0		~	1 MPa (10kgf/cm G)	7.0	1.1
	1/2"						
	3/4"	12		100		12	1.6

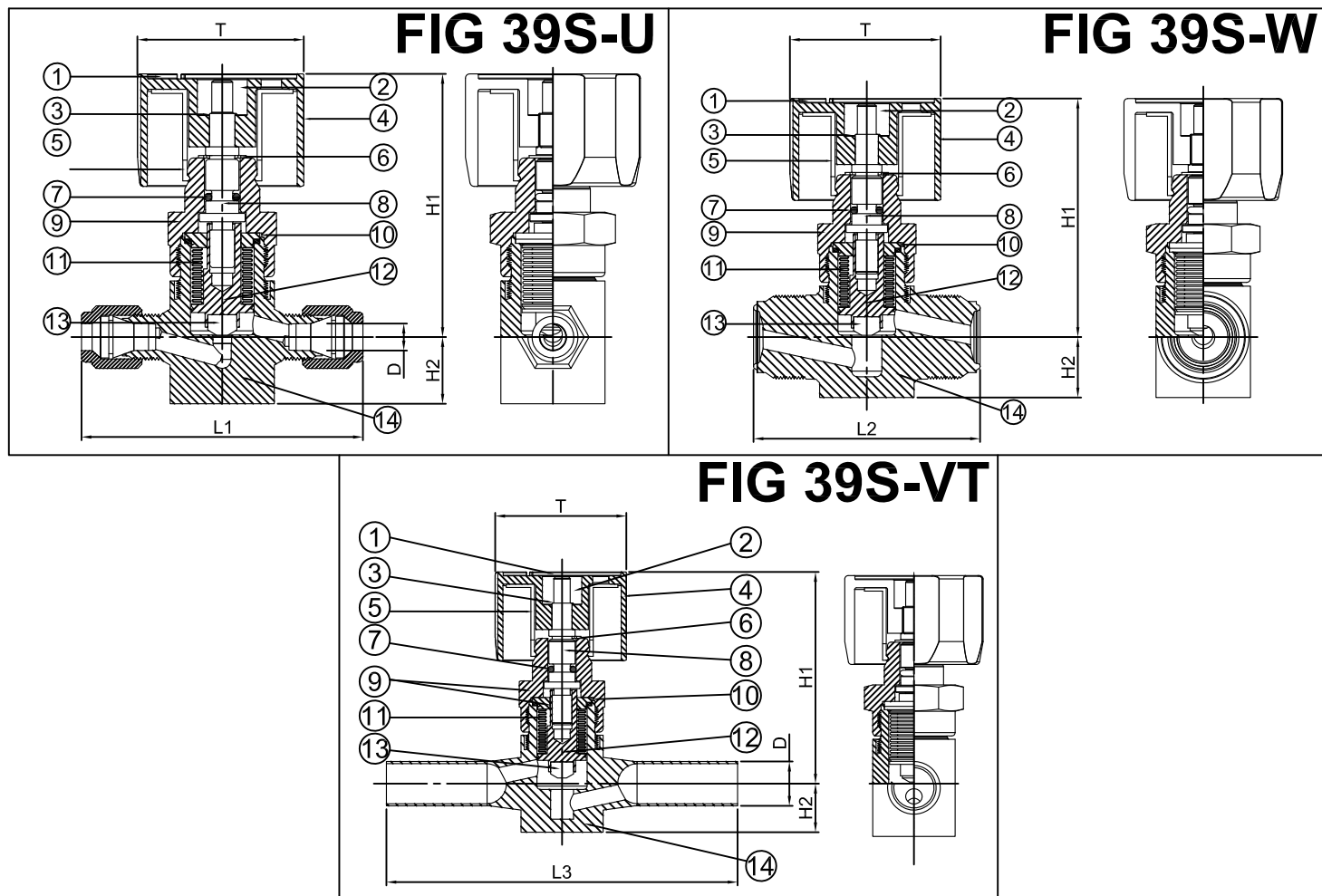
Feature

- High Quality SUS316L bellows Design for Ultra- High Purity and Long Cycle Life.
- The standard seat material is PCTFE.
- The straight way type body design provide higher Cv value.
- We offer different grades of inner surface finishes , BA and EP.
BA to 20 Ra,Max (0.50 μm)
EP to 10 Ra (0.25 μm)
- Cleaned For High-purity Gas service.
- Assembled and tested in Clean room.
- Leak Test with 100% Helium.
- Different types of connection available. (Face-Seal,compression, Standard Union and Welded Type)
- Optional Purge Connections or Fittings Available.



不銹鋼超潔淨伸縮囊密封型球型閥

Stainless Steel Ultra-High Purity Bellows Sealed Globe Valve



Valve Parts List:

Item	Part name	Material	Remarks
1	Handle Cover	Nylon	
2	Stem Nut	St. St. 304	
3	Locking Washer	St. St. 304	
4	Handle	Nylon (Aluminium k series)	
5	Position Indicator	Nylon	
6	Stem Locking Ring	St. St. 304	
7	O-ring	Viton* (fluorocarbon kfm)	
8	Actuator	Sr. St. 316L	
9	Bonnet	St. St. 304	
10	Bonnet Gasket	PCTFE / St. St. 316L	
11	Bellows	St. St. 316L	
12	Stem	St. St. 316L	
13	Stem Tip	PCTFE / (PTFE k series)	
14	Body	St. St. 316L (cast 316 k series)	

Dimensions Table:

Unit : mm

Description	SIZE	D	H	H2	T	W	39S-U L1	39S-W L2	39S-VT L3
39S-U-4	1/4"	6.35	64	14	40	25	65.0	58.0	150
39S-U-6	3/8"	9.53	71	14	40	25	82.0		150
39S-U-8	1/2"	12.7	71	14	40	25	87.0	60.0	150
39S-U-12	3/4"	19.05	102	22	60	33	101.0	125.0	150



不銹鋼超潔淨伸縮囊密封型球型閥 Stainless Steel Ultra-High Purity Bellows Sealed Globe Valve

FIG 38AS



Applications

- High Purity Gas distribution system control valves
 - Superior containment and cleanliness for your most critical valve applications
- Suitable for inert and most toxic gases

Feature

- High Quality SUS316L bellows Design for Ultra- High Purity and Long Cycle Life.
- The standard seat material is PTFE, as option, another materials such as PCTFE can be used.
- The straight way type body design provide higher Cv value.
- We offer different grades of inner surface finishes , BA and EP.
BA to 20 Ra,Max (0.50 μ m)
EP to 10 Ra (0.25 μ m)
- Cleaned For High-purity Gas service.
- Assembled and tested in Clean room.
- Leak Test with 100% Helium.
- Different types of connection available. (Pipe, Tube, Flange and Standard Union)
- Optional Purge Connections or Fittings Available.

Technical Data

Model	Connection Size	Orifice Size (mm)	MAX Cv value	Temperature °C	Pressure MPa(kgf/cm ² G)
38AS	15A	12	2.86	-10~100	VAC
	20A	15	4.1		0.98MPa
	25A	20	6.88		(10kgf/cm ² G)

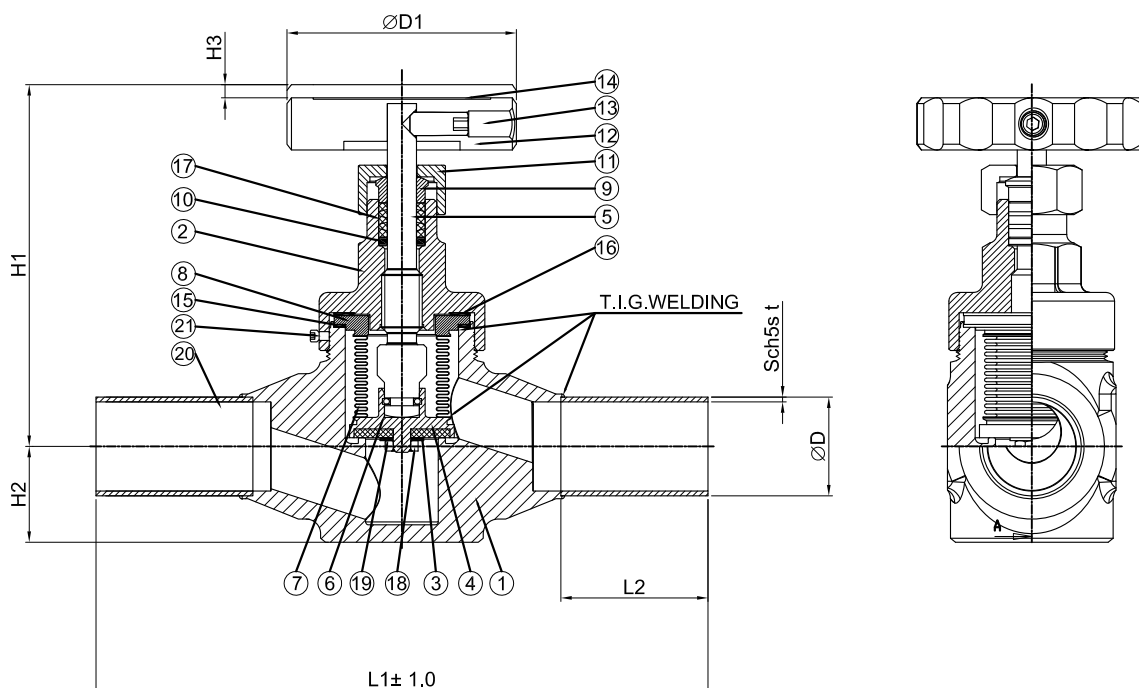
Specification

MAX fluid pressure		0.98MPa (10kgf/cm ² G)
Temperature range		-10~100(°C)
Shell test (GAS:N ₂)		1.47MPa (15kgf/cm ² G)
Air tight & Seat closure test (GAS:N ₂)		1.08MPa (11kgf/cm ² G)
Helium leakage test	External leakage	$\leq 1.01 \times 10^{-6}$ Pa·m ³ /sec (1×10^{-5} Atm·cc/sec)
	Leakage across seat	$\leq 1.01 \times 10^{-6}$ Pa·m ³ /sec (1×10^{-5} Atm·cc/sec)



不銹鋼超潔淨伸縮囊密封型球型閥 Stainless Steel Ultra-High Purity Bellows Sealed Globe Valve

FIG 38AS



NO.	PART NAME	MATERIAL	MATERIAL
1	BODY	SUS316L	
2	BONNET	SUS304	
3	DISK	PTFE	
4	DISK HOLDER	SUS316L	
5	STEM	SUS304	
6	DISK STEM RING	SUS304WPB	
7	BELLOWS	SUS316L	
8	BELLOWS FLANGE	SUS316L	
9	GLAND	SUS304	
10	GLAND RING	SUS304	
11	GLAND NUT	SUS304	
12	HAND WHEEL	ALUMINUM	
13	SET SCREW	SUS304	
14	HANDLE SEAL	POLYESTER	
15	BONNET GASKET	PTFE	
16	GASKET	PCTFE	
17	GLAND PACKING	PTFE	
18	DISK NUT	SUS316L	
19	DISK WASHER	SUS316L	
20	PIPE	SUS316L	
21	SET SCREW	SUS304	

BUTTWELD TYPE (Sch5s)

Dimensions Table:

Unit : mm

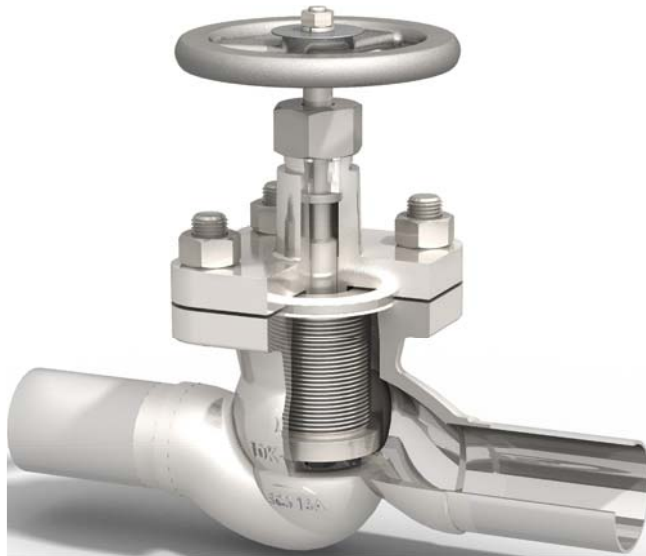
Description	Model	NPS	D	L	L1	L2	H1	H2	A	t	K	C
38AS-15A	38AS	15A	21.7	190	90	50	101	24	60	1.65	4	30
38AS-20A	(W)	20A	27.2	200	100	50	108	28	63	1.65	5	35
38AS-25A	TYPE	25A	34.0	210	110	50	120	33	80	1.65	6	40

*Tube sizes and wall thicknesses are available on request



不銹鋼超潔淨伸縮囊密封型球型閥 Stainless Steel Ultra-High Purity Bellows Sealed Globe Valve

FIG 38S-B



Applications

- High Purity Gas distribution system control valves
- Superior containment and cleanliness for your most critical valve applications

Suitable for inert and most toxic gases

Feature

- High Quality SUS316L bellows Design for Ultra- High Purity and Long Cycle Life.
- The standard seat material is PTFE, as option, another materials such as PCTFE can be used.
- The straight way type body design provide higher Cv value.
- We offer different grades of inner surface finishes , AP, BA and EP.
BA to 20 Ra,Max (0.50 μ m)
EP to 10 Ra (0.25 μ m)
- Cleaned For High-purity Gas service.
- Assembled and tested in Clean room.
- Leak Test with 100% Helium.
- Different types of connection available. (Pipe, Tube, and flange)
- Optional Purge Connections or Fittings Available.

Specification

MAX fluid pressure		0.98MPa (10kgf/cm ² G)
Temperature range		-10~100(°C)
Shell test (GAS:N ₂)		1.47MPa (15kgf/cm ² G)
Air tight & Seat closure test (GAS:N ₂)		1.08MPa (11kgf/cm ² G)
Helium leakage test	External leakage	$\leq 1.01 \times 10^{-6} \text{Pa} \cdot \text{m}^3/\text{sec}$ ($1 \times 10^{-5} \text{Atm} \cdot \text{cc}/\text{sec}$)
	Leakage across seat	$\leq 1.01 \times 10^{-6} \text{Pa} \cdot \text{m}^3/\text{sec}$ ($1 \times 10^{-5} \text{Atm} \cdot \text{cc}/\text{sec}$)

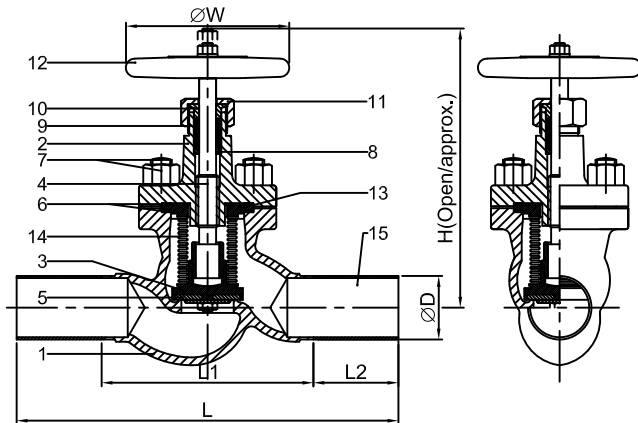
Technical Data

Model	Connection Size	Orifice Size (mm)	MAX Cv value	Temperature °C	Pressure MPa(kgf/cm ² G)
38S-B	32A	32	26	-10	VAC
	40A	40	29		
	50A	50	43		
	65A	65	71		
	80A	80	134	~	~
	100A	100	201		
	125A	125	310		
	150A	150	437		
	200A	200	700	100	0.98MPa (10kgf/cm ² G)

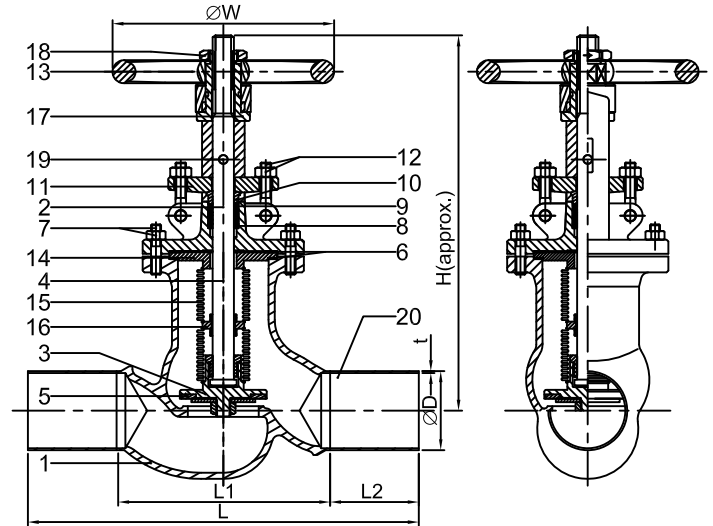


不銹鋼超潔淨伸縮囊密封型球型閥 Stainless Steel Ultra-High Purity Bellows Sealed Globe Valve

FIG 38S-B



32A~65A



80A~200A

Valve Parts List:

Item	Part name	Material	Remarks
1	Body	SCS13/SCS16	
2	Bonnet	SCS13	
3	Disc Holder	SUS304/SUS316L	
4	Stem	SUS304	
5	Disc	PTFE/PCTFE	
6	Gasket	PTFE	
7	Bonnet Bolts & Nuts	SUS304	
8	Packing Ring	SUS304	
9	Gland Packing	PTFE	
10	Gland	SUS304	
11	Gland Nuts	SUS304	
12	Handwheel	FCD450-10	
13	Bellows Flange	SUS304/SUS316L	
14	Bellows	SUS316L	
15	Pipe Stub	SUS304/SUS316L	

Valve Parts List:

Item	Part name	Material	Remarks
1	Body	SCS13/SCS16	
2	Bonnet	SCS13	
3	Disc Holder	SUS304/SUS316L	
4	Stem	SUS304	
5	Disc	PTFE/PCTFE	
6	Gasket	PTFE	
7	Bonnet Bolts & Nuts	SUS304	
8	Packing Ring	SUS304	
9	Gland Packing	PTFE	
10	Gland	SUS304	
11	Gland Flange	SCS13	
12	Gland Bolts & Nuts	SUS304	
13	Handwheel	FCD450-10	
14	Bellows Flange	SUS304/SUS316L	
15	Bellows	SUS316L	
16	Bellows Ring	SUS304/SUS316L	
17	Stem Nut	C3604	
18	Handwheel Nut	C3604	
19	Position Indicator	SUS304	
20	Pipe Stub	SUS304/SUS316L	

Dimensions Table:

Unit : mm

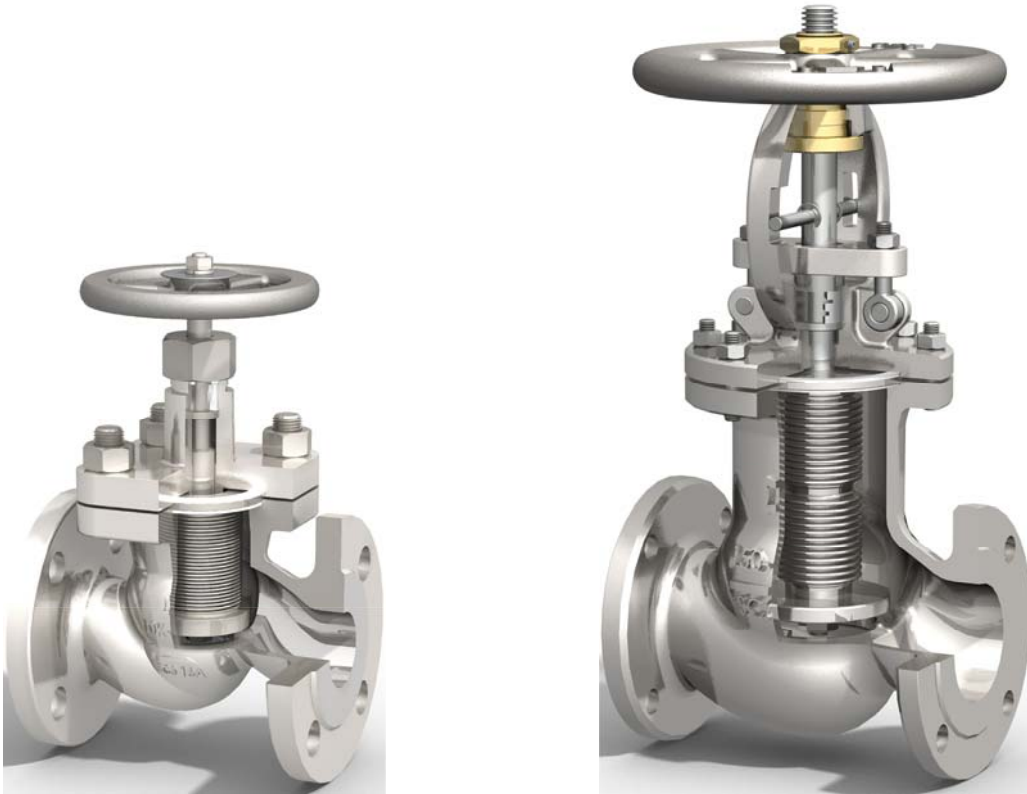
SIZE	H	ØW	L	L1	L2	ØD*	t*
DN							
32A	203	140	292	162	65	42.7	1.65
40A	203	140	292	162	65	48.6	1.65
50A	255	140	403	203	100	60.5	1.65
65A	300	160	416	216	100	76.3	2.1
80A	424	250	441	241	100	89.1	2.1
100A	474	280	492	292	100	114.3	2.1
125A	542	300	556	356	100	139.8	2.8
150A	540	355	606	406	100	165.2	2.8
200A	637	400	795	495	150	216.3	4

*Tube sizes and wall thicknesses are available on request



不銹鋼超潔淨伸縮囊密封型球型閥 Stainless Steel Ultra-High Purity Bellows Sealed Globe Valve

FIG F38S



Applications

- High Purity Gas distribution system control valves
- Superior containment and cleanliness for your most critical valve applications
- Suitable for insert and most toxic gases

Feature

- High Quality SUS316L bellows Design for Ultra- High Purity and Long Cycle Life.
- The standard seat material is PTFE, as option, another materials such as PCTFE can be used.
- The straight way type body design provide higher Cv value.
- We offer different grades of inner surface finishes , AP, BA and EP.
BA to 20 Ra,Max (0.50 μ m)
EP to 10 Ra (0.25 μ m)
- Cleaned For High-purity Gas service.
- Assembled and tested in Clean room.
- Leak Test with 100% Helium.
- Different types of connection available. (Pipe, Tube, and flange)
- Optional Purge Connections or Fittings Available.

Specification

MAX fluid pressure		0.98MPa (10kgf/cm ² G)
Temperature range		-10~100(°C)
Shell test (GAS:N ₂)		1.47MPa (15kgf/cm ² G)
Air tight & Seat closure test (GAS:N ₂)		1.08MPa (11kgf/cm ² G)
Helium leakage test	External leakage	$\leq 1.01 \times 10^{-6} \text{Pa} \cdot \text{m}^3/\text{sec}$ ($1 \times 10^{-5} \text{Atm} \cdot \text{cc}/\text{sec}$)
	Leakage across seat	$\leq 1.01 \times 10^{-6} \text{Pa} \cdot \text{m}^3/\text{sec}$ ($1 \times 10^{-5} \text{Atm} \cdot \text{cc}/\text{sec}$)

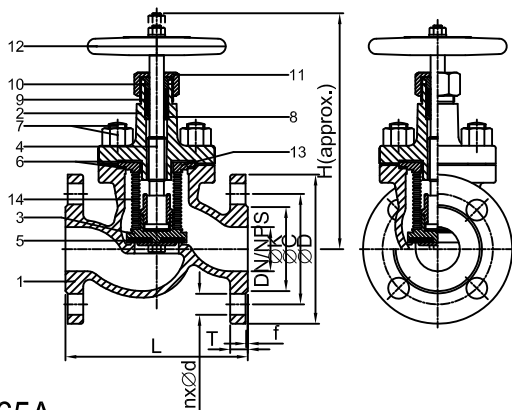
Technical Data

Model	Connection Size	Orifice Size (mm)	MAX Cv value	Temperature °C	Pressure MPa(kgf/cm ² G)
F38S	32A	32	26	-10	VAC
	40A	40	29		
	50A	50	43		
	65A	65	71		
	80A	80	134	~ 100	~ 0.98MPa (10kgf/cm G)
	100A	100	201		
	125A	125	310		
	150A	150	437		
	200A	200	700		

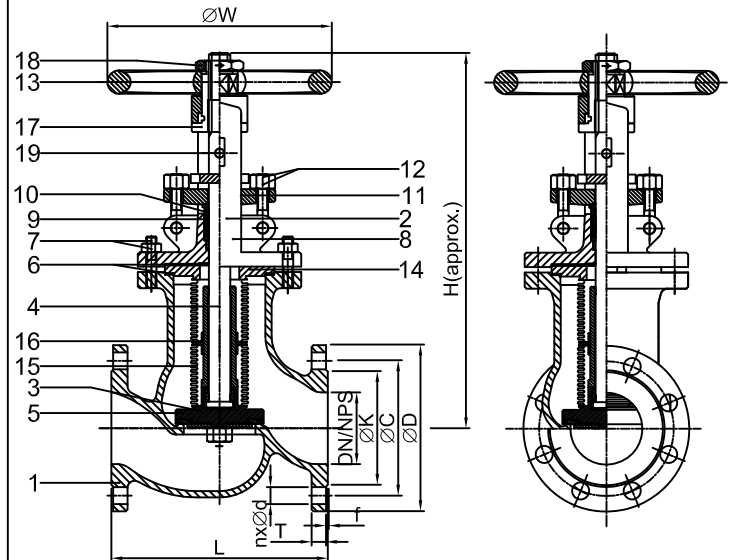


不銹鋼超潔淨伸縮囊密封型球型閥 Stainless Steel Ultra-High Purity Bellows Sealed Globe Valve

FIG F38S



32A~65A



80A~200A

Valve Parts List:

Item	Part name	Material	Remarks
1	Body	SCS13/SCS16	
2	Bonnet	SCS13	
3	Disc Holder	SUS304/SUS316L	
4	Stem	SUS304	
5	Disc	PTFE/PCTFE	
6	Gasket	PTFE	
7	Bonnet Bolts & Nuts	SUS304	
8	Packing Ring	SUS304	
9	Gland Packing	PTFE	
10	Gland	SUS304	
11	Gland Nuts	SUS304	
12	Handwheel	FCD450-10	
13	Bellows Flange	SUS304/SUS316L	
14	Bellows	SUS316L	

Valve Parts List:

Item	Part name	Material	Remarks
1	Body	SCS13/SCS16	
2	Bonnet	SCS13	
3	Disc Holder	SUS304/SUS316L	
4	Stem	SUS304	
5	Disc	PTFE/PCTFE	
6	Gasket	PTFE	
7	Bonnet Bolts & Nuts	SUS304	
8	Packing Ring	SUS304	
9	Gland Packing	PTFE	
10	Gland	SUS304	
11	Gland Flange	SCS13	
12	Gland Bolts & Nuts	SUS304	
13	Handwheel	FCD450-10	
14	Bellows Flange	SUS304/SUS316L	
15	Bellows	SUS316L	
16	Bellows Ring	SUS304/SUS316L	
17	Stem Nut	C3604	
18	Handwheel Nut	C3604	
19	Position Indicator	SUS304	

Dimensions Table:

SIZE	H	ØW	L	JIS-10K*					
				ØD	ØC	ØK	nxØd1	T	f
32A	203	140	165	135	100	76	4x19	16	2
40A	203	140	165	140	105	81	4x19	16	2
50A	255	140	203	155	120	96	4x19	16	2
65A	300	160	216	175	140	116	4x19	18	2
80A	424	250	241	185	150	126	8x19	18	2
100A	474	280	292	210	175	151	8x19	18	2
125A	542	300	356	250	210	182	8x23	23.9	2
150A	540	355	406	280	240	212	8x23	25.4	2
200A	637	400	495	330	290	262	12x23	28.6	2

Unit : mm

*Flange type JIS20K and ANSI 150/300 are available on request