
ADD:Floor 10-5, No. 3, Keji Road, Dali District,
Taichung City 412025 Taiwan R.O.C



VALVE SELECTION SAMPLES

SINTERN
VALVE & CASTING
MFG.CO.,LTD.

Leader In Sustainability
Investment Casting.

LEADER IN SUSTAINABILITY

INVESTMENT CASTING

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API607 Fire Resistant Design Ball Valve

API607 Fire Resistant Design Ball Valve

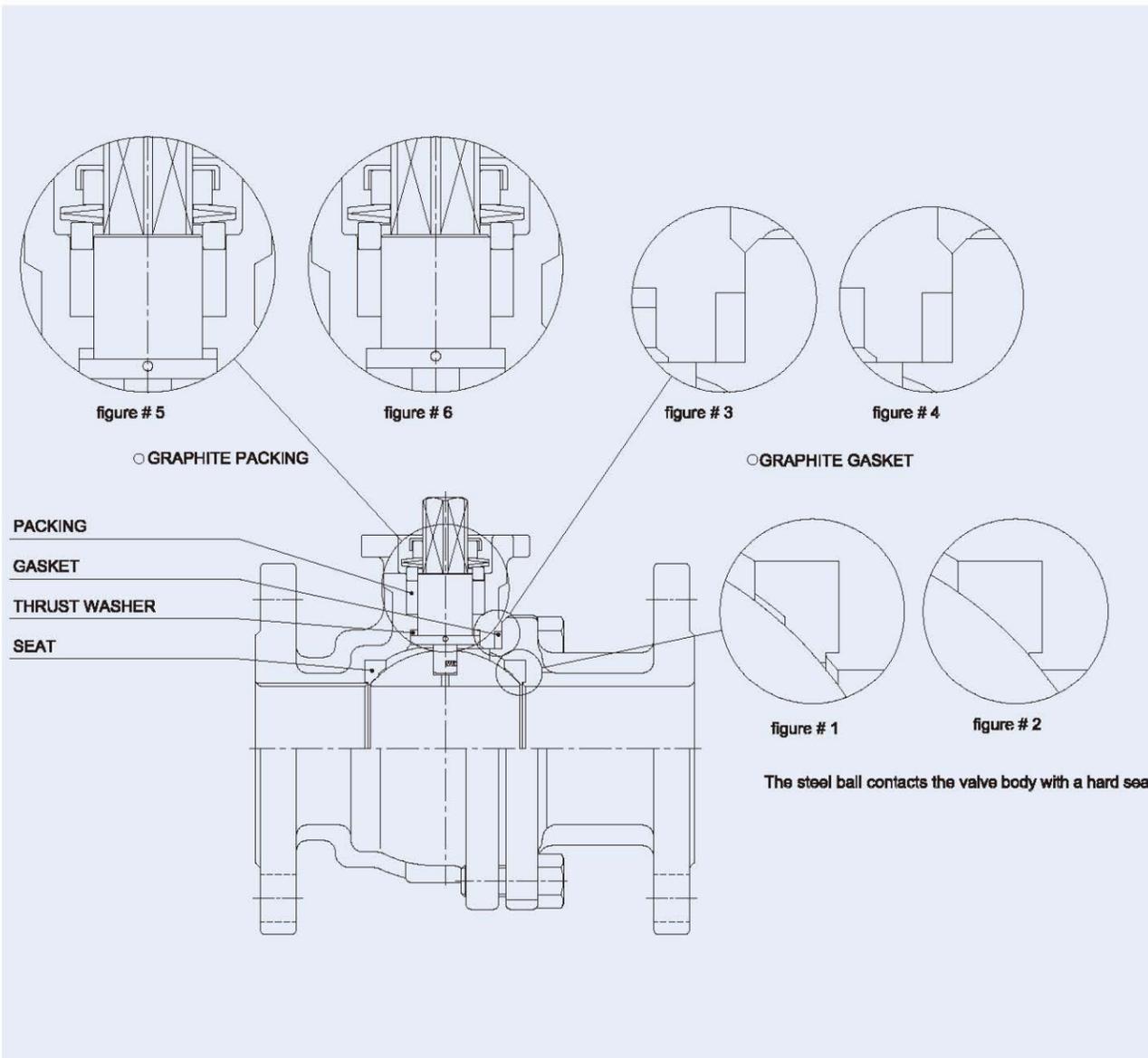
The soft-seal seated ball valve (Q41F series) is designed to meet the fire test specifications of API607-7.2 and ISO 10497 and has been certified. The product can safely shut off the valve in the event of a fire accident, in order to prevent in the pipeline flammable or other fluid leakage caused by environmental pollution or combustion.

Design Features

1. In the event of a fire, the soft sealing seat (e.g. Polytetrafluoroethylene PTFE, reinforced polytetrafluoroethylene TFM 1600...etc.) will be vaporized by combustion and will lose its support and sealing properties, the ball moves upstream to downstream due to pressure, making it in direct contact with a second metal seat downstream (body or cover), ultimately preventing leakage (figures #1 and #2)

2. The GASKET is made of GRAPHITE which can withstand high temperature up to 1200°C, not affected by fire and can prevent external fluid leakage, in addition, the valve body and end cap retain the metal touch metal design and are bolted to the two direct contact (figure #3 and #4)

3. Stem expandable GRAPHITE PACKING resists high temperatures up to 1200°C and is fire resistant and prevents leakage of external fluids such as figures #5 and #6.



Torque Diagram

1PC(1 DB-Q41F,1GB-Q41F) Ball valveseries

2PC (2DB-Q41 F,2GA-Q41 F,2GB-Q41 F,2GH-Q41 F,AR104-Q41F,AR108-Q41 F,V-2A,V-2B,V-2BSS,V-2C,V-2D,V-2G) Ball valve series

3PC (3DB-Q41 F,3GB-Q41 F,V-3A,V-3D,V-3G,D-3A,D-3D,D-3G,T-3A,T-3D,T-3G,F-3A,F-3D,F-3G) Ball valve series

Torque from close to open at standard seating (TFM1600 & PTFE) with different pressure differentials

Stress Torque Size	NPS	DN	0PSI		75PSI		150PSI		300PSI		600PSI		1000PSI		1500PSI		2000PSI	
			0MPa	0.5MPa	1MPa	2MPa	4MPa	6.4MPa	10MPa	14MPa								
			N.m	In-lb	N.m	In-lb	N.m	In-lb	N.m	In-lb	N.m	In-lb	N.m	In-lb	N.m	In-lb	N.m	In-lb
1/4",3/8"	8,10		5	44	5	44	5	44	5	44	5	44	5	44	6	53	6	53
1/2"	15		6	53	6	53	6	53	6	53	6	53	6	53	7	62	7	62
3/4"	20		10	89	10	89	10	89	10	89	11	98	11	98	12	106	12	106
1"	25		12	106	12	106	13	115	13	115	14	124	14	124	15	133	15	133
1 1/4"	32		16	142	16	142	18	159	20	177	22	195	23	205	24	212	26	230
1 1/2"	40		20	177	22	195	24	212	28	248	30	266	32	283	34	301	37	327
2"	50		32	283	34	301	36	319	38	336	42	372	46	407	50	443	54	478
2 1/2"	65		54	478	57	504	59	522	65	575	71	628	78	690	86	761	94	832
3"	80		80	708	83	735	86	761	97	858	108	956	121	1071	134	1186	142	1257
4"	100		110	974	120	1062	132	1168	146	1292	162	1434	178	1575	194	1717	210	1859
5"	125		220	1947	235	2080	252	2230	262	2319	285	2522	\	\	\	\	\	\
6"	150		330	2920	345	3062	367	3248	408	3611	530	4690	\	\	\	\	\	\
8"	200		430	3806	450	3983	516	4567	584	5168	760	6726	\	\	\	\	\	\

Attention:

1. Torque is increased by 30% if the seat is fiberglass RTFE or PEEK.

2. If the filler is flexible GRAPHITE, the torque is increased by 30%.

3. This torque chart shows the maximum value of the valve to be tested after 24 hours.

4. A minimum of 30% Factor of safety is recommended for drive sizes.

1 PC (V-1A,V-1AB,G-1A,D-1A) Reduced Port Ball valve series

Torque from close to open at standard seating (TFM1600 & PTFE) with different pressure differentials

Stress Torque Size	NPS	DN	0PSI		75PSI		150PSI		300PSI		600PSI		1000PSI	
			0MPa	0.5MPa	1MPa	2MPa	4MPa	6.4MPa						
			N.M	IN-LB	N.M	IN-LB	N.M	IN-LB	N.M	IN-LB	N.M	IN-LB	N.M	IN-LB
1/4"	8		1.0	8.8	1.0	8.8	1.0	8.8	1.0	8.8	1.2	10.6	1.2	10.6
3/8"	10		1.5	13.3	1.5	13.3	1.5	13.3	1.5	13.3	2.0	17.7	2.0	17.7
1/2"	15		2.5	22.1	2.5	22.1	2.5	22.1	2.5	22.1	3.0	26.6	3.0	26.6
3/4"	20		3.5	31.0	3.5	31.0	4.0	35.4	4.0	35.4	4.5	39.8	4.5	39.8
1"	25		5.0	44.3	5.0	44.3	5.6	49.6	6.0	53.1	6.2	54.9	6.4	56.6
1 1/4"	32		6.0	53.1	6.2	54.9	6.5	57.5	6.7	59.3	6.9	61.1	7.2	63.7
1 1/2"	40		9.0	79.6	9.3	82.3	9.6	85.0	10.0	88.5	10.5	92.9	11.0	97.4
2"	50		12.0	106.2	12.4	109.7	12.9	114.2	13.5	119.5	14.0	123.9	14.6	129.2

Attention:

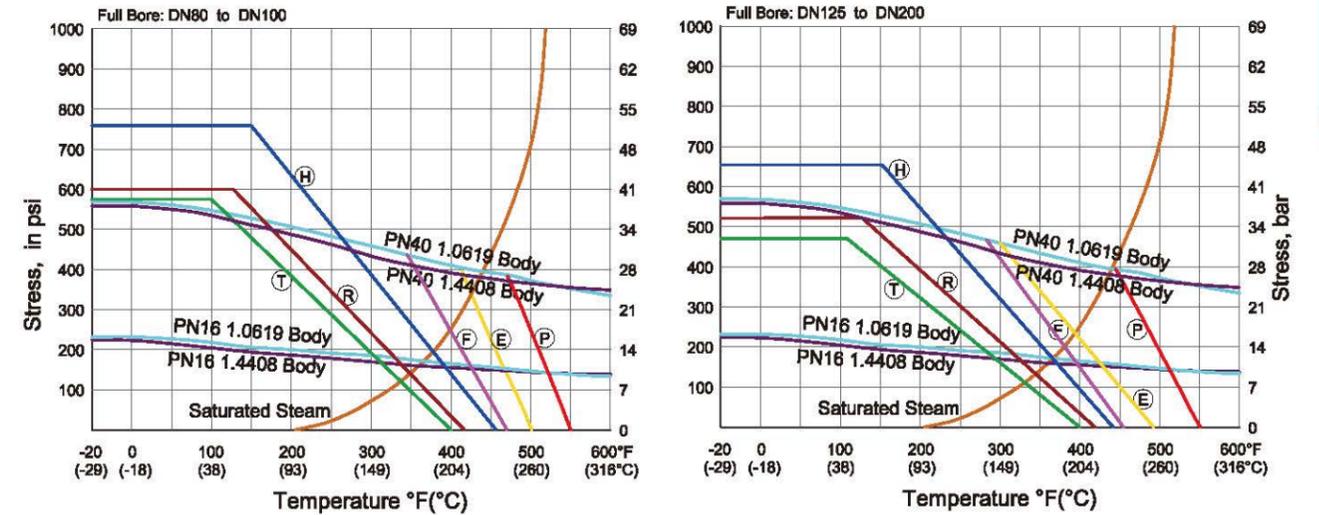
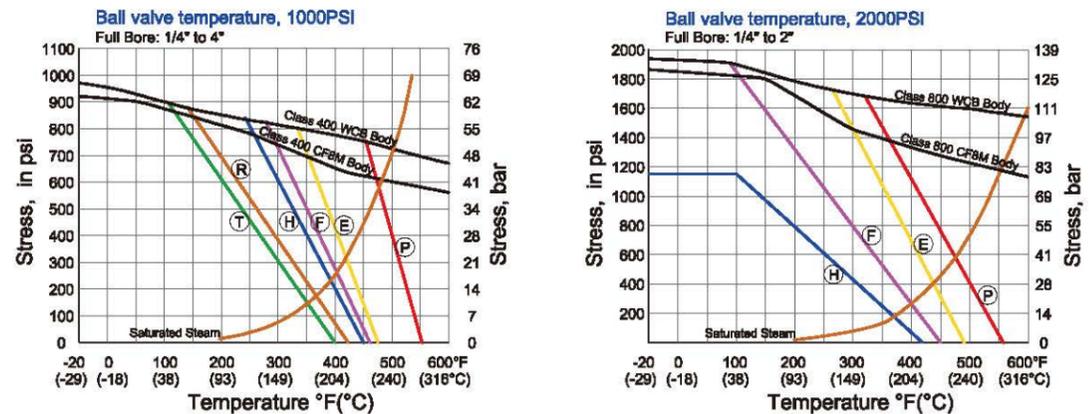
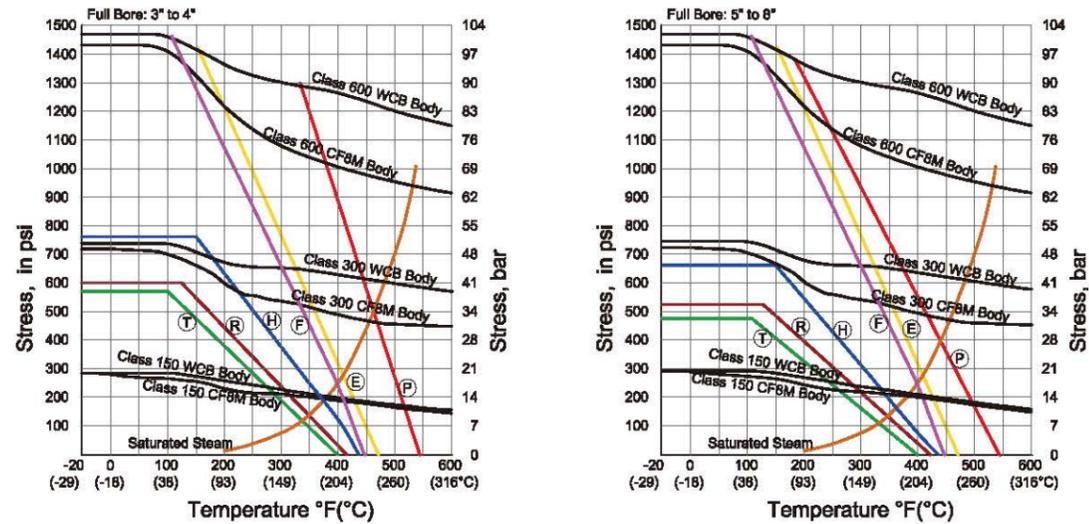
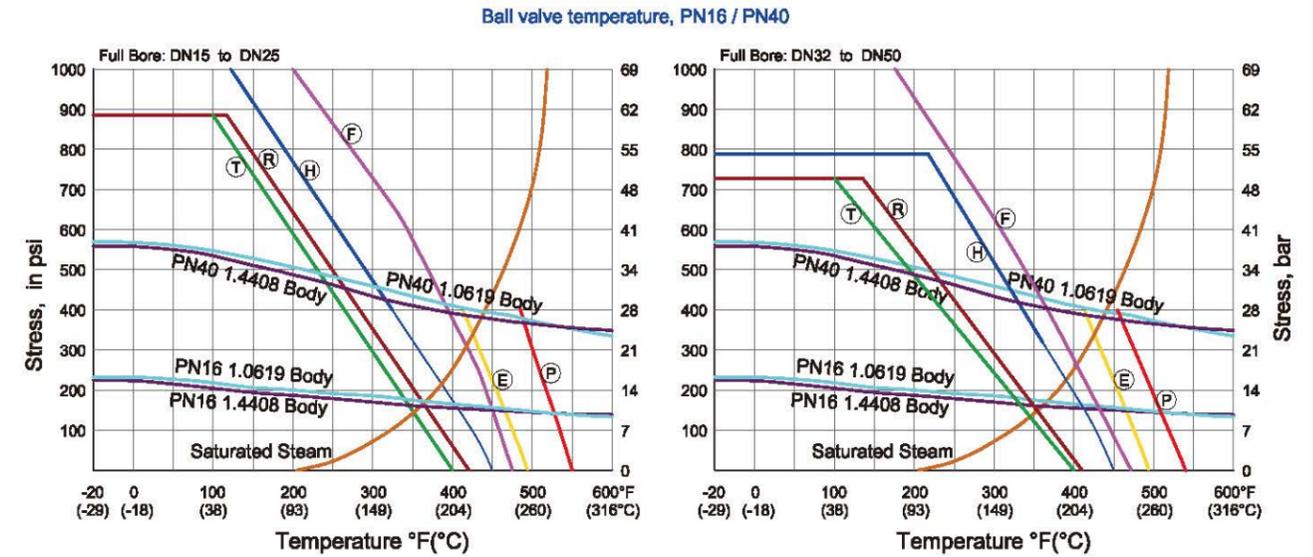
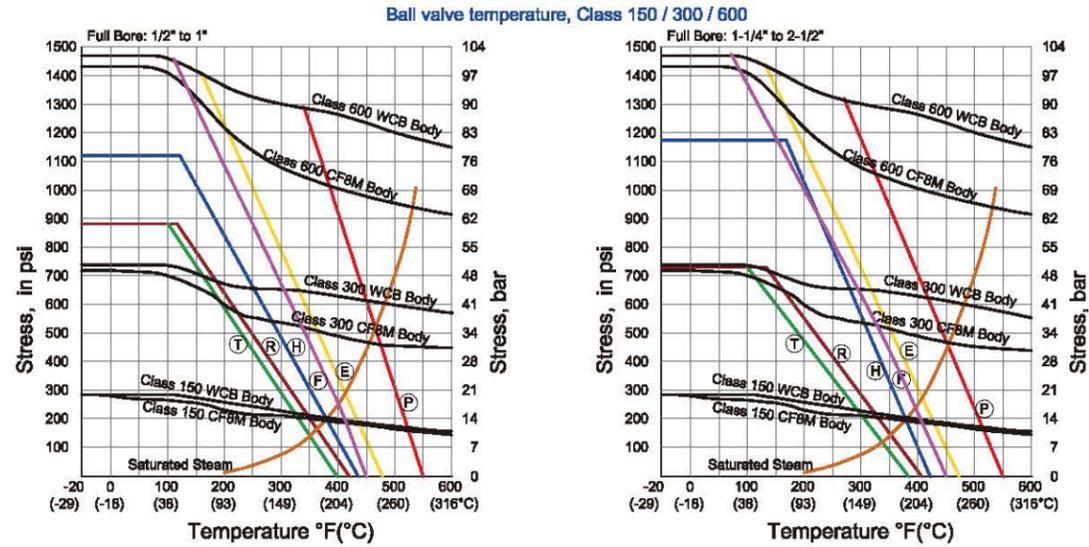
1. Torque is increased by 30% if the seat is fiberglass RTFE or PEEK.

2. This torque chart shows the maximum value of the valve to be tested after 24 hours.

3. A minimum of 30% Factor of safety is recommended for drive sizes.

Ball valve temperature and pressure data determination, not only depends on the body material, but also depends on the seat packing, seat gasket material.

Ball valve temperature and pressure data determination, not only depends on the body material, but also depends on the seat packing, seat gasket material.

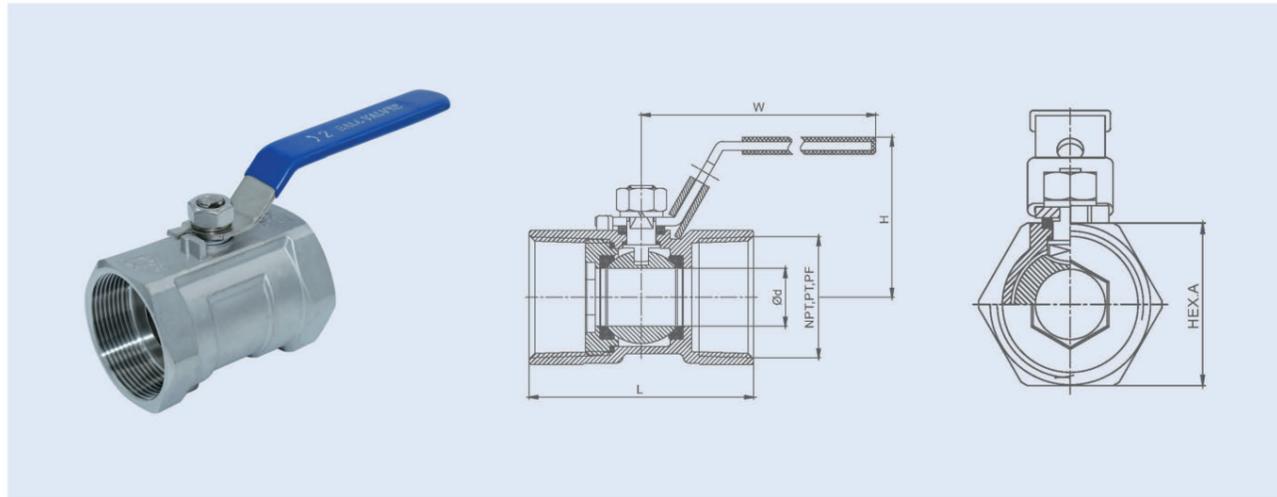


Seat material: T=PTFE, R=RPFE, H=TFM1600, E=EK+PTFE, P=PEEK, F=TFM4215
 Body diagram: shown above are 1.0619 and 1.4408, the other body materials shown are the latest EN12516-1 version

Seat material: T=PTFE, R=RPFE, H=TFM1600, E=EK+PTFE, P=PEEK, F=TFM4215
 Valve body class: shell material working pressure at various temperatures according to the ASME B16.34 standard
 For screw end ball valve the body always stamp at 1000 wog with ptfе sear max. Op.Temp. Is 100 deg °C. This is accepted world wide

V-1A,1-PC Reduced Port
Ball Valve 1000PSI

V-1A-1000WOG



□ Design Features

1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for sour gas service.
3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection certificate according to ENZ 10204 3.1 form
5. Other alloy are available
6. Reduced flow path
7. Blow-out proof stem
8. Pressure balance hole in ball slot
9. Various thread standards available
10. Locking device is available upon request

□ Applicable Standards

- 1: Design: MSS SP-110
- 2: Wall Thickness: EN 12516-3
- 3: Standard for pipe threads. ASME B1.20.1, JIS B0203, BS 21, DIN 2999/259, ISO 711, ISO 228/1
- 4: Inspection & Testing: MSS SP-110

□ Parts And Materials

NO.	PART NAME	MATERIALS	
1	BODY	A351-CF8M	A216-WCB
2	CAP	A351-CF8M	A216-WCB
3	BALL	A182-F316	
4	SEAT	PTFE	
5	GASKET	PTFE	
6	STEM	A276-316	
7	THRUST WASHER	PTFE	
8	PACKING	PTFE	
9	HANDLE SHIM	A240-304	
10	HANDLE	A240-304	
11	SPRING WASHER	A240-304	
12	NUT	A2-70	
13	LOCKING PAD	A240-304	
14	PLASTIC COVER	VINYL PLASTIC	

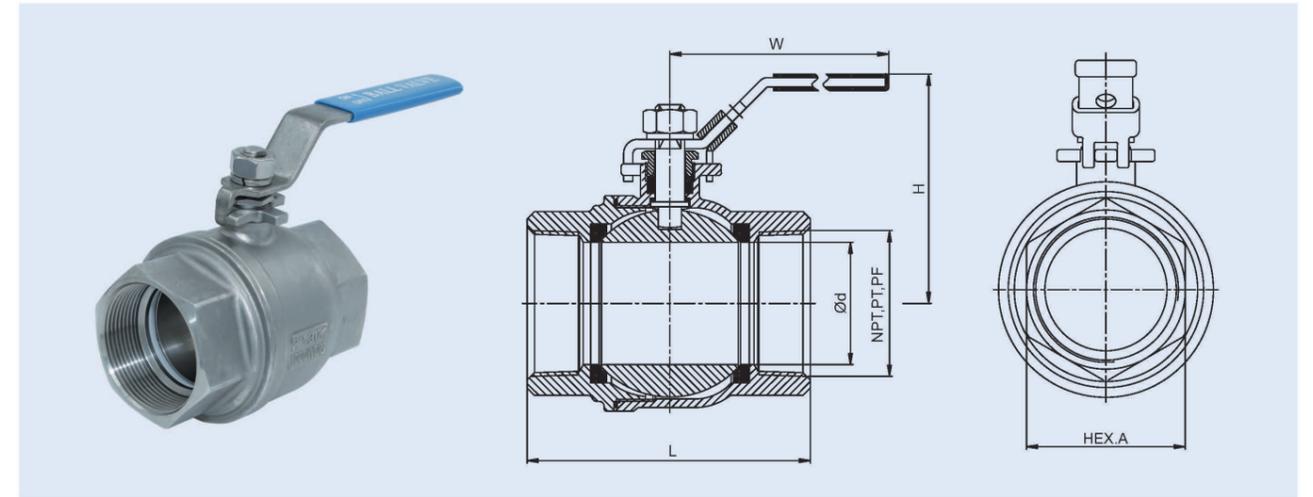
□ Dimension Parameter

Unit:mm

Size	d mm	L mm	H mm	W mm	HEX. A mm	CV FACTOR	TORQUE N.m	WT (kg)
1/4"	5	39	32	60	16	4.0	1.0	0.07
3/8"	7	44	36	75	20	4.0	1.5	0.11
1/2"	9.2	59	42	95	24	4.5	2.5	0.20
3/4"	12.5	62	45	95	30.5	9.0	3.5	0.30
1"	15	72	51	115	37.5	16.0	5.0	0.42
1¼"	20	78	54	115	46.5	24.0	6.0	0.60
1½"	25	85	61	150	53	37.0	9.0	0.83
2"	32	100	66	150	65	68.0	12.0	1.24

V-2A, 2-PC Full Port Reduced Port
Ball Valve 1000PSI

V-2A-1000WOG



□ Design Features

1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for sour gas service.
3. Casting approved by TUV AD 2000 - merkblatt W0
4. Inspection certificate according to EN10204 3.1 Form
5. Other alloy are available
6. Full flow path
7. Blow-out proof stem
8. Pressure balance hole in ball slot
9. Various thread standards available
10. Locking device is available upon request applicable

□ Applicable Standards

1. Design : MSS SP-110
2. Wall Thickness : EN 12516-3
3. Standard for pipe threads : ASME B1.20.1, JIS B0203, BS 21, DIN 2999/259, ISO 7/1, ISO 228/1
4. Inspection & Testing : MSS SP-110

□ Parts And Materials

NO.	PART NAME	MATERIALS	
1	BODY	A351-CF8M	A216-WCB
2	CAP	A351-CF8M	A216-WCB
3	BALL	A182-F316	
4	SEAT	PTFE	
5	GASKET	PTFE	
6	STEM	A276-316	
7	THRUST WASHER	PTFE	
8	PACKING	PTFE	
9	GLAND NUT	A2-70	
10	HANDLE	A240-304	
11	SPRING WASHER	A240-304	
12	NUT	A2-70	
13	LOCKING PAD	A240-304	
14	PLASTIC COVER	VINYL PLASTIC	

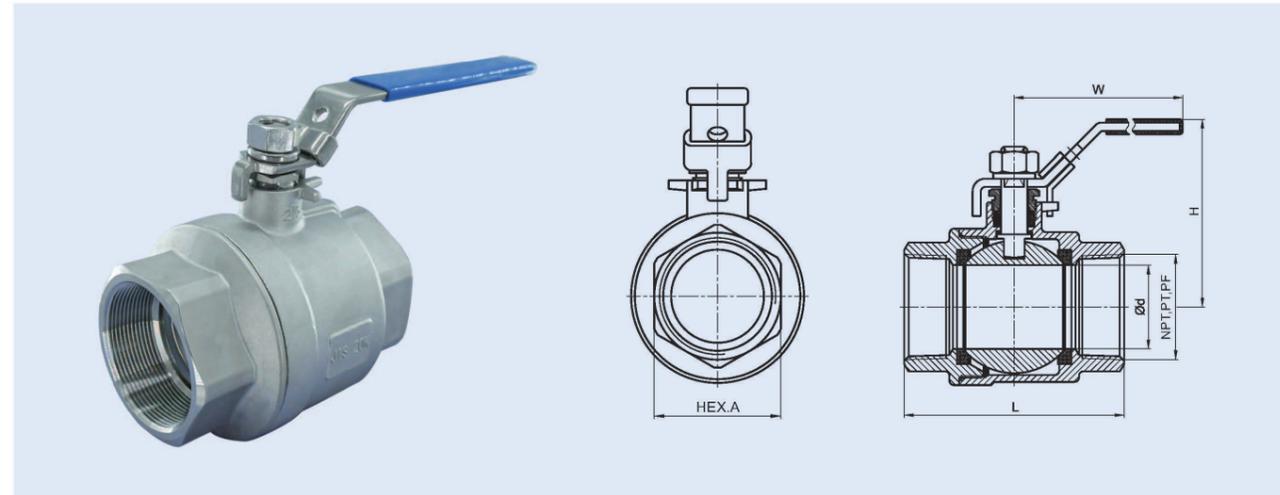
□ Dimension Parameter

Unit:mm

SIZE	d mm	L mm	H mm	W mm	HEX. A mm	CV FACTOR	TORQUE N.m	WT (kg)
1/4"	10	49	38	85	17	6	5	0.14
3/8"	12.5	52	40	85	21	7	5	0.17
1/2"	15	64	53	102	24	10	6	0.28
3/4"	20	72	56	102	30	25	10	0.40
1"	25	77	69	120	37	35	12	0.60
1¼"	32	94	75	120	46	46	16	0.89
1½"	38	101	86	162	53	80	20	1.45
2"	50	116	92	162	65	110	32	1.82
2½"	64	148	120	220	83.5	310	54	2.75
3"	78	170	130	220	95	360	80	4.56
4"	98	186	145	220	122	820	110	7.38

V-2B 2-PC Full Port
Ball Valve 1000PSI

V-2B-1000WOG/20K



□ Design Features

1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for sour gas service.
3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection certificate according to EN 10204 3.1 form
5. Other alloy are available
6. Full flow path
7. Blow-out proof stem
8. Pressure balance hole in ball slot
9. Various thread standards available
10. Locking device is available upon request
11. Handle can be 180° switch, installed against the wall without filter direction

□ Applicable Standards

1. Design: MSS SP-110
2. Wall Thickness: EN 12516-3
3. Standard for pipe threads: ASME B1.20.1, JIS B0203, BS 21, DIN 2999/259, ISO 7/1, ISO 228/1
4. Inspection & Testing: MSS SP-110

□ Parts And Materials

NO.	PART NAME	MATERIALS	
1	BODY	A351-CF8M	A216-WCB
2	CAP	A351-CF8M	A216-WCB
3	BALL	A182-F316	
4	SEAT	PTFE	
5	GASKET	PTFE	
6	STEM	A276-316	
7	THRUST WASHER	PTFE	
8	PACKING	PTFE	
9	GLAND NUT	A2-70	
10	HANDLE	A240-304	
11	SPRING WASHER	A240-304	
12	NUT	A2-70	
13	LOCKING PAD	A240-304	
14	PLASTIC COVER	VINYL PLASTIC	

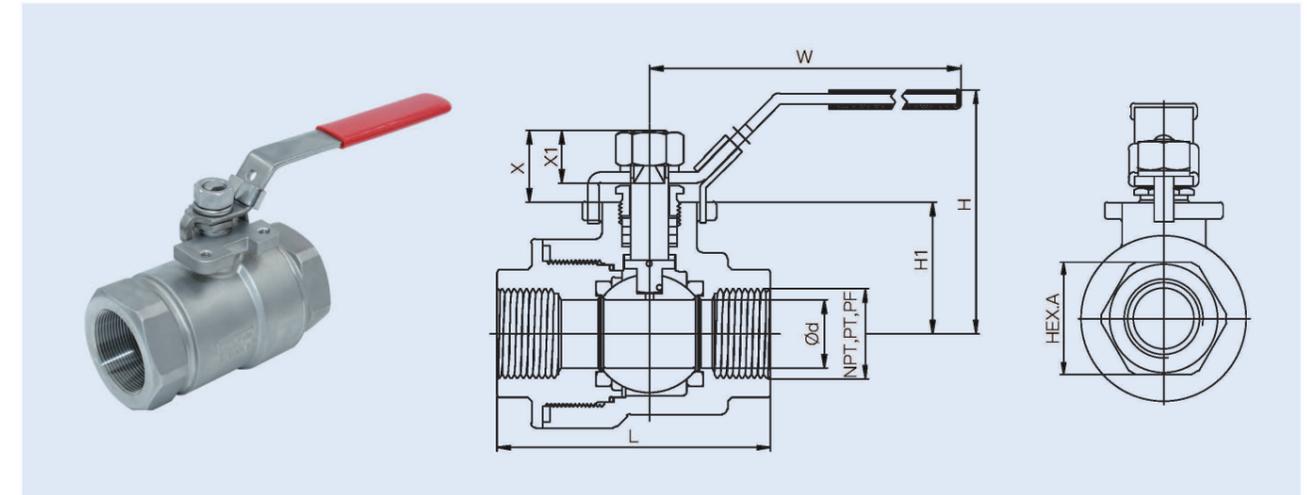
□ Dimension Parameter

Unit:mm

SIZE	d mm	L mm	H mm	W mm	HEX.A mm	CV FACTOR	TORQUE N.m	WT (kg)
1/4"	10	49	38	85	17	6	5	0.14
3/8"	12.5	52	40	85	21	7	5	0.18
1/2"	15	56	53	102	26	10	6	0.28
3/4"	20	67	56	102	31	25	10	0.38
1"	25	78	69	120	38	35	12	0.59
1 1/4"	32	91	75	120	47	46	16	0.86
1 1/2"	38	100	86	162	53	80	20	1.44
2"	50	122	92	162	66	110	32	2.41
2 1/2"	64	151	120	220	84	310	54	3.82
3"	78	170	130	220	96	360	80	4.56
4"	98	186	145	220	122	820	110	7.38

2-PC Full Port Low Mounting Pad
Ball Valve

V-2T-C11500-6000WOG



□ Design Features

1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for sour gas service
3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection certificate according to EN 10204 3.1 form
5. Other alloy are available
6. With fire-resistant structural design and certification
7. Full flow path
8. Blow-out proof stem
9. Pressure balance hole in ball slot
10. Anti-static devices for ball-stem-body
11. Various thread standards available
12. Locking device is available upon request

□ Applicable Standards

1. Design ASME B16.34, MSS SP-110
2. Wall Thickness: ASME B16.34, EN 12516-3
3. Standard for pipe threads: ASME B1.20.1, JIS B0203, BS 21, DIN 2999/259, ISO 7/1, ISO 228/1
4. Inspection & Testing: API 598

□ Parts And Materials

NO.	PART NAME	MATERIALS	
1	BODY	A351-CF8M	A216-WCB
2	CAP	A351-CF8M	A216-WCB
3	BALL	A182-F316	
4	SEAT	PEEK/TFM1600/PTFE/RTFE	
5	GASKET	TFM1600/PTFE/316+GRAPHITE	
6	O RING	FKM	
7	STEM	17-4/A276-316	
8	ANTI STATIC	17-4/A276-316	
9	THRUST WASHER	PTFE+CARBON FIBER	
10	PACKING WASHER	PTFE+CARBON FIBER	
11	PACKING	PTFE/GRAPHITE	
12	GLAND NUT	A2-70	
13	HANDLE	A240-304	
14	SPRING WASHER	A240-304	
15	NUT	A2-70	
16	LOCKING PAD	A240-304	
17	PLASTIC COVER	VINYL PLASTIC	

□ Dimension Parameter (ASME CL1500, 3000WOG)

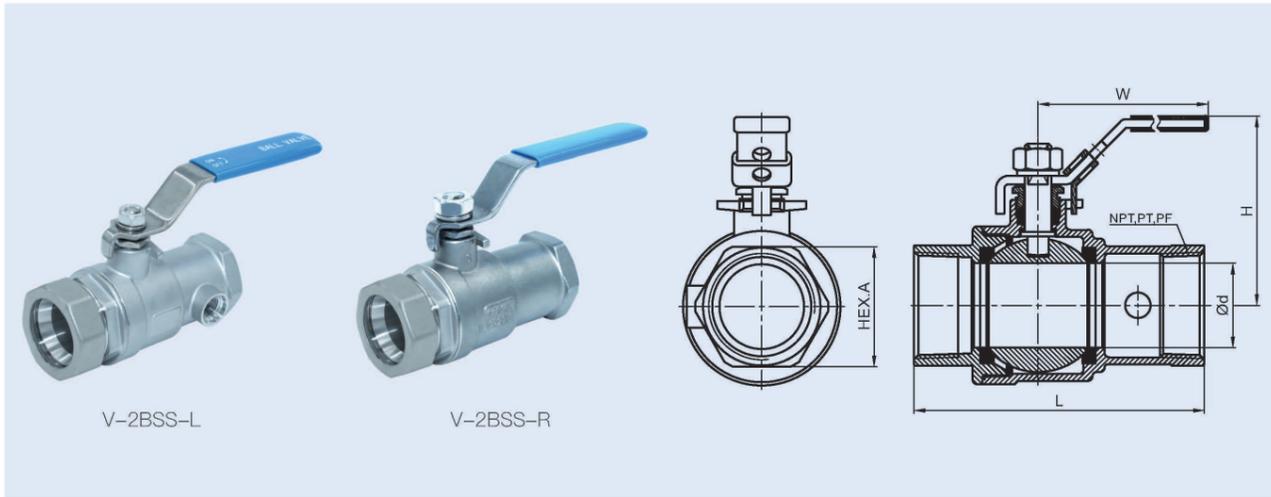
NPS	DN	d	L	H	H1	W	HEX.A	P	U	X	X1	E	M	ISO5211	CV FACTOR	TORQ UEN.M	WT (kg)
3/8"	10	12.7	76	60	29	138	32	6	M10	19.5	14	42	M5	F04	10	10	0.85
1/2"	15	12.7	76	60	29	138	32	6	M10	19.5	14	42	M5	F04	10	10	0.81
3/4"	20	19.0	88	67	36	153	39	8	M12	23.5	17	42	M5	F04	22	12	1.30
1"	25	25.4	102	90	49	204	48	8	M14	26.5	20	50	M6	F05	35	16	2.14
1 1/4"	32	32.0	115	95	54	204	59	8	M14	26.5	20	50	M6	F05	46	20	3.06
1 1/2"	40	38.1	124	112	68	237	66	12	M18	35	26	70	M8	F07	80	32	4.68
2"	50	47.0	149	118	74	237	82	12	M18	35	26	70	M8	F07	105	54	6.95

□ Dimension Parameter (ASME CL2500, 6000WOG)

NPS	DN	d	L	H	H1	W	HEX.A	P	U	X	X1	E	M	ISO5211	CV FACTOR	TORQ UEN.M	WT (kg)
3/8"	10	12.7	102	60	29	138	32	6	M10	19.5	14	42	M5	F04	10	10	1.19
1/2"	15	12.7	102	60	29	138	32	6	M10	19.5	14	42	M5	F04	10	10	1.15
3/4"	20	19.0	108	67	36	153	39	8	M12	23.5	17	42	M5	F04	22	12	1.95
1"	25	25.4	114	90	49	204	48	8	M14	26.5	20	50	M6	F05	35	16	2.82
1 1/4"	32	32.0	124	95	54	204	59	8	M14	26.5	20	50	M6	F05	46	20	3.86
1 1/2"	40	38.1	133	112	68	237	66	12	M18	35	26	70	M8	F07	80	32	5.20
2"	50	47.0	159	118	74	237	82	12	M18	35	26	70	M8	F07	105	54	7.25

2-PC Full Port Ball Valve,W/Pressure Gauge Connected End

V-2BSS-L/R1000WOG



Design Features

1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for sour gas service.
3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection certificate according to EN 10204 3.1 form
5. Other alloy are available
6. Full flow path
7. Blow-out proof stem
8. Pressure balance hole in ball slot
9. Various thread standards available
10. Locking device is available upon request
11. Handle can be 180° switch, installed against the wall without filter direction

Parts And Materials

NO.	PART NAME	MATERIALS	
		ASTM/JIS G5121/EN 10213	ASTM/JIS G5151/EN 10213
1	BODY	A351-CF8M	A216-WCB
2	CAP	A351-CF8M	A216-WCB
3	BALL	A182-F316	
4	SEAT	PTFE	
5	GASKET	PTFE	
6	STEM	A276-316	
7	THRUST WASHER	PTFE	
8	PACKING	PTFE	
9	GLAND NUT	A2-70	
10	HANDLE	A240-304	
11	SPRING WASHER	A240-304	
12	NUT	A2-70	
13	LOCKING PAD	A240-304	
14	PLASTIC COVER	VINYL PLASTIC	
15	OCTAGONAL LID	A351-CF8M	A216-WCB

Applicable Standards

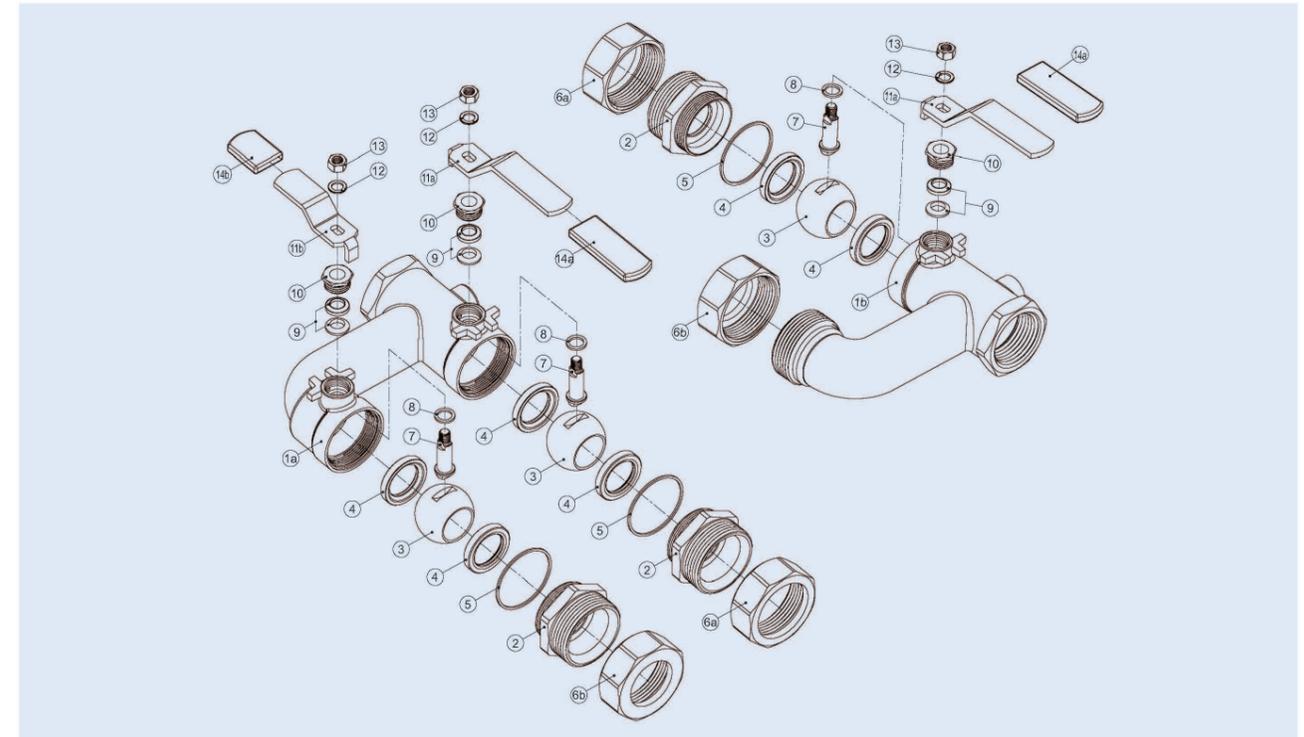
1. Design : MSS SP-110
2. Wall Thickness: EN 12516-3
3. Standard for pipe threads:
ASME B1.20.1, JIS B0203, BS 21, DIN 2999/259, ISO 7/1, ISO 228/1
4. Inspection & Testing: MSS SP-110

Dimension Parameter

SIZE	d mm	L mm	H mm	W mm	HEX. A mm	CV FACTOR	TORQUE N.m	WT (kg)
3/4"	20	91	56	102	34	25	10	0.49
1"	25	101	69	120	41	35	12	0.73
1½"	38	131	86	162	54	80	20	1.77
2"	50	146	92	162	67	110	32	2.45

2-PC Double Channel, Reduced Port Ball Valve

V-2BH-L/R1000WOG



Available Options

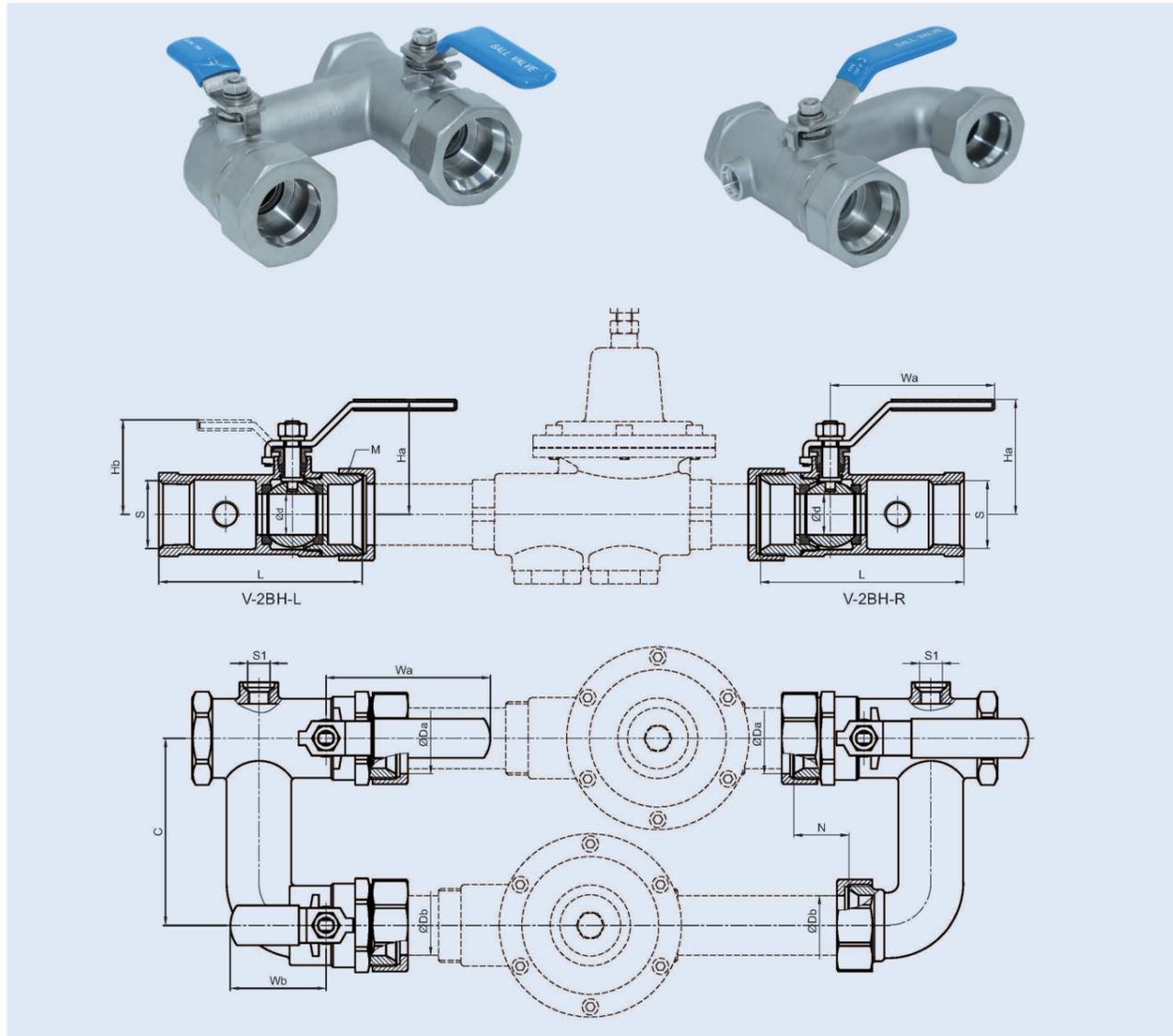
1. Other Alloy are Available
2. Casting per NACE/MR-01-75 for sour gas service
3. Casting approved by TUV AD 2000-Merkblatt W0
4. Inspection certificate according to EN 10204 3.1 form
5. Quality assurance system: ISO 9001 ,PED 2014/68/EU CE 0036
6. Pressure levels: MSS SP-110,1000 WOG

Parts And Materials

NO.	PART NAME	MATERIALS		
		ASTM/JIS G5121/EN 10213	ASTM/JIS G5121/EN 10213	ASTM/JIS G5151/EN 10213
1A,1B	BODY	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
2	CAP	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
3	BALL	A182-F316		
4	SEAT	PEEK/TFM1600/PTFE/RTFE		
5	GASKET	PTFE		
6A,6B	OCTAGONAL NUT	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
7	STEM	A276-316	A276-304	
8	THRUST WASHER	PTFE		
9	PACKING	PTFE		
10	GLAND	A2-70		
11A,11B	HANDLE	A240-304		
12	SPRING WASHER	A240-304		
13	NUT	A2-70		
14A,14B	PLASTIC COVER	VINYL PLASTIC		

2-PC Double Channel,
Reduced Port Ball Valve

V-2BH-L/R1000WOG



Design Features

1. Dewaxed precision cast body
2. Reduced flow path
3. Blow-out proof stem
4. Various thread standards available
5. Locking device is available upon request
6. Handle can be 180° switch, installed against the wall without filter direction

Applicable Standards

1. Design :MSS SP-110
2. Wall Thickness:EN 12516-3
3. Standard for pipe threads: ASME B1.20.1, JIS B0203, BS 21, DIN 2999/259, ISO 7/1, ISO 228/1
4. Inspection & Testing:MSS SP-110

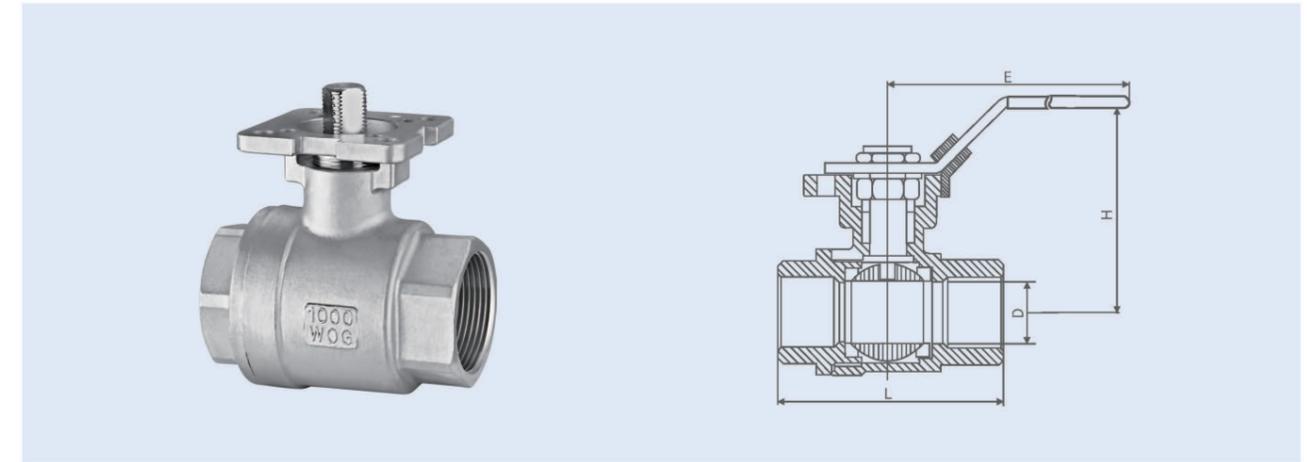
Dimension Parameter

Unit:mm

SIZE	L	HA	HB	WA	WB	DA	DB	C	D	S	S1	M	TORQUE N.M
3/4"	77	53	43	81	47	27.5	23	75	15	3/4"PT	1/4"PT	M32*P2.0	6
1"	101	57	47	81	47	35	29	92	20	1"PT	1/4"PT	M40*P2.0	10

2-PC Full Port Direct Mounting Type
Ball Valve

Q11F-10/16P



Design Features

Product specification: DN 15~50
 Nominal pressure: PN 1.0/1.6MPa
 Applicable media: water, air, oil, acid
 Applicable temperature: -20~120°C
 Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
 Design and manufacture: GB/T 12224/ANSI B16.34
 Inspection and test: GB/T 13927/API 598

Parts And Materials

PART NAME	MATERIAL		
	CF8M	CF8	WCB
BODY	CF8M	CF8	WCB
BONNET	CF8M	CF8	WCB
BALL	SS316	SS304	SS304
STEM	SS316	SS304	SS304
SEAT	PTFE		
LINE BAR	PTFE		
STEM SEAL	PTFE		
MIDDLE HEAD PAD	PTFE		
PACKING SLEEVE	SS202		

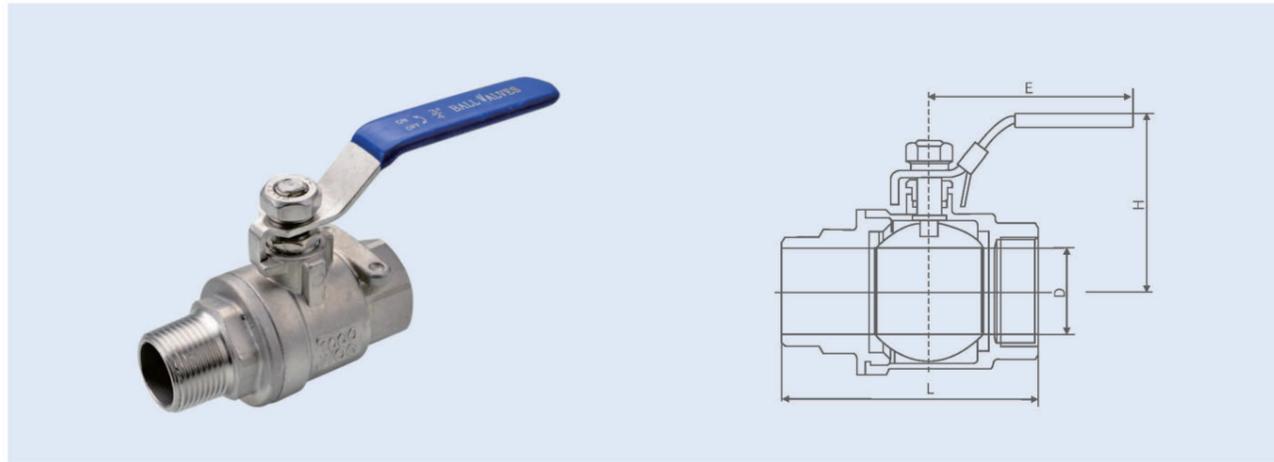
Dimension Parameter

Unit:mm

NPS	D	L	E	H
1/2"	15	62	120	70
3/4"	20	74	137	78
1"	25	86	137	82
1 1/4"	32	96	187	88
1 1/2"	38	108	187	93
2"	50	120	187	103
2 1/2"	65	160	315	165
3"	85	185	315	180
4"	100	225	265	200

2-PC Full Port Ball Valve W/Male Thread End

Q11F-10/16P



Design Features

Product specification: NPS 1/2"~2"
 Nominal pressure: PN 1.0/1.6MPa
 Applicable media: water, air, oil
 Applicable temperature: -20~120°C
 Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
 Design and manufacture: GB/T 12224/ANSI B16.34
 Inspection and test: GB/T 13927/API 598

Parts And Materials

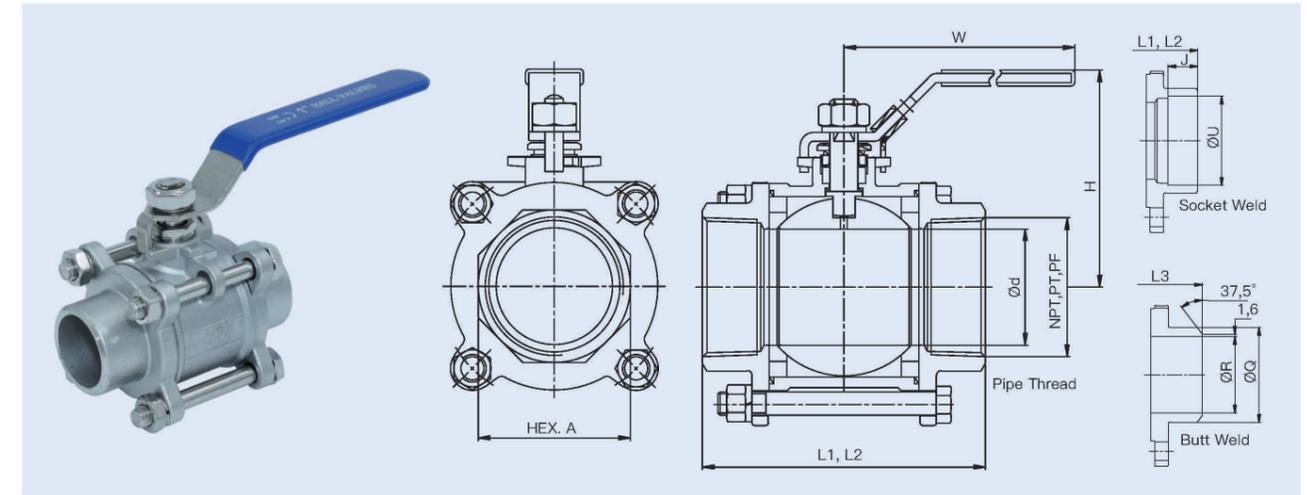
PART NAME	MATERIAL		
BODY	CF8M	CF8	WCB
BONNET	CF8M	CF8	WCB
BALL	SS316	SS304	SS304
STEM	SS316	SS304	SS304
SEAT	PTFE		
STEM SEAL	PTFE		
MIDDLE HEAD PAD	PTFE		
PACKING SLEEVE	SS202		
HANDLE	SS202		
ELASTIC WASHER	SS202		
NUT	SS202		

Dimension Parameter

Unit:mm

NPS	L	D	E	H
1/2"	75	15	98	58
3/4"	86	20	118	65
1"	98	25	126	64
1 1/4"	110	32	136	80
1 1/2"	121	40	145	86
2"	133	50	173	95.5

3-PC Full Port Ball Valve Socket Weld,Butt Weld End



Design Features

1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for Sour Gas Service.
3. Casting Approved by TUV AD 2000- Merkblatt W0
4. Inspection Certificate according to EN10204 3.1 Form
5. Other Alloy are Available
6. Full flow path
7. Blow-out Proof Stem
8. Pressure Balance Hole in Ball Slot
9. Various Thread Standards Available
10. Locking Device is Available Upon Request

Applicable Standards

1. Design Standard: MSS SP-110
 2. Wall Thickness: EN 12516-3, MSS SP-110
 3. Pipe Thread :ASME B1.20.1, JIS B0203, BS 21, DIN 2999/259, ISO 7/1, ISO 228-1
 4. Socket Weld :ASME B16.11
 5. Butt Weld :ASME B16A.25
 6. Face To Face: L2: DIN 3202 M3, L3: DIN 3202 S13
- Inspection & Testing: MSS SP-110

Parts And Materials

NO.	PART NAME	MATERIALS	
1	BODY	A351-CF8M	A216-WCB
2	CAP	A351-CF8M	A216-WCB
3	BALL	A182-F316	
4	SEAT	PTFE	
5	GASKET	PTFE	
6	STEM	A276-316	
7	THRUST WASHER	PTFE	
8	PACKING	PTFE	
9	GLAND NUT	A2-70	
10	HANDLE	A240-304	
11	SPRING WASHER	A240-304	
12	NUT	A2-70	
13	LOCKING PAD	A240-304	
14	PLASTIC COVER	VINYL PLASTIC	
15	BOLT	A2-70	
16	SPRING WASHER	A240-301	
17	NUT	A2-70	

Dimension Parameter

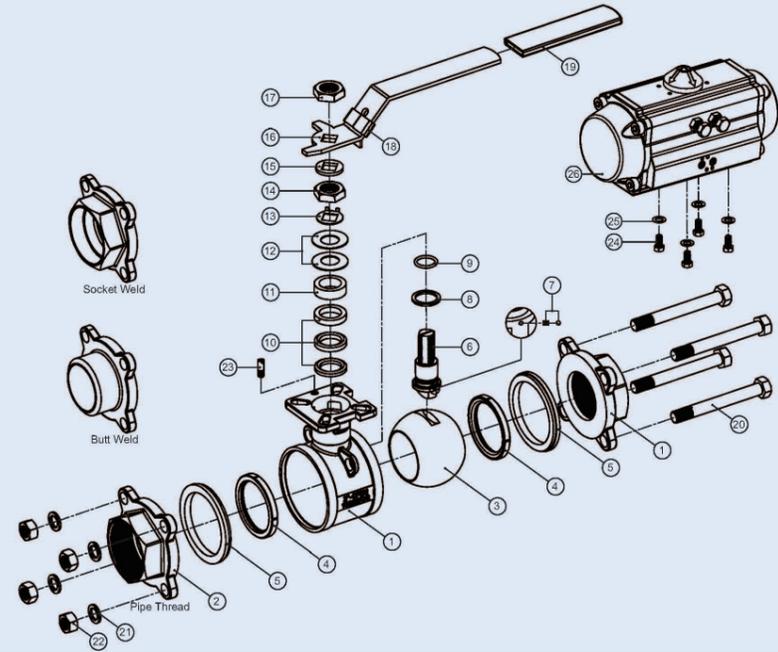
Unit:mm

SIZE	d mm	L1 mm	L2 mm	L3 mm	H mm	W mm	U mm	J mm	Q mm	R mm	A mm	CV FACTOR	TORQUE N.m
1/4"	10	55	55	70	38	85	14.2	9.5	18	10	17	6	5
3/8"	12.5	60	60	70	40	85	17.8	9.5	18	12.5	21	7	5
1/2"	15	75	75	75	53	102	21.8	9.5	23	13.84	25	10	6
3/4"	20	80	80	90	56	102	27.3	12.5	28	18.88	31	25	10
1"	25	90	90	100	69	120	34.0	12.5	35	26.64	39	35	12
1 1/4"	32	100	110	110	75	120	42.8	12.5	44	35.08	46	46	16
1 1/2"	38	115	120	125	86	162	49.0	12.5	50	40.94	54	80	20
2"	50	130	140	150	92	162	61.4	16.0	62	52.48	65	110	32
2 1/2"	64	175	185	190	120	220	74.0	16.0	75	62.5	84	310	54
3"	78	190	205	220	130	220	90.0	16.0	91	78.0	95	360	80
4"	98	220	240	270	145	220	115.5	19.0	117	102	124	820	110

V/T/D-3A-1000WOG

3-PC Full Port Direct Mounting Pad Ball Valve

V/T/D-3D-1000WOG



Design Features

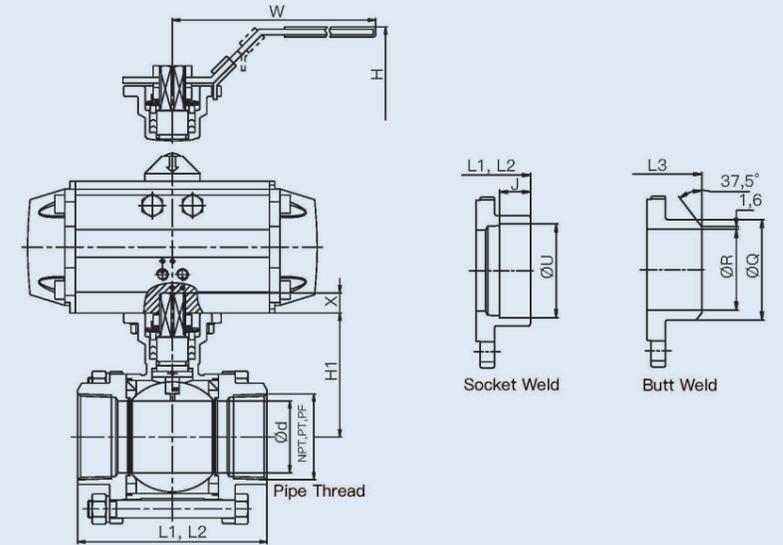
1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for sour gas service.

3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection certificate according to EN10204 3.1 form
5. Other alloy are available

Parts And Materials

NO.	PART NAME	MATERIALS		
		ASTM/JIS G5121/EN 10213	ASTM/JIS G5121/EN 10213	ASTM/JIS G5151/EN 10213
1	BODY	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
2	CAP	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
3	BALL	A182-F316		
4	SEAT	PEEK/TFM1600/PTFE/RTFE		
5	GASKET	TFM1600/PTFE/316 SPIRALWOUND+GRAPHITE		
6	STEM	A276-316	A276-304	
7	ANTI STATIC	A276-316	A276-304	
8	THRUST WASHER	PTFE/15CF+FF(PTFE+15%CARBON FIBER)		
9	O RING	FKM		
10	PACKING	PTFE/GRAPHITE		
11	GLAND	A276-304		
12	DISC WASHER	A240-301		
13	PREVENT LOOSENESS	A240-304		
14	STEM NUT	A2-70		
15	HANDLE SHIM	A240-304		
16	HANDLE	A240-304		
17	HANDLE NUT	A2-70		
18	LOCKING PAD	A240-304		
19	PLASTIC COVER	VINYL PLASTIC		
20	BOLT	A2-70		
21	SPRING WASHER	A240-301		
22	NUT	A2-70		
23	STOP PIN	A276-304		
24	BOLT	A2-70		
25	BOLT WASHER	A240-304		
26	ACTUATORS	PNEUMATIC KP / ELECTRIC KQ		

3-PC Full Port Direct Mounting, Socket Weld, Butt Weld Type Ball Valve



Design Features

1. Dewaxed precision cast body and cap
2. Built-in ISO 5211 direct mounting pad easy automation
3. Blow-out proof stem
4. Pressure balance hole in ball slot
5. Anti-static devices for ball-stem-body
6. Locking device is available upon request
7. Various thread standards available
8. Options: (1).Actuator, (2).Limit switch, (3).Positioner

Applicable Standards

1. Design Standard: MSS SP-110
2. Wall Thickness: EN 12516-3, MSS SP-110
3. Pipe Thread: ASME B1.20.1, JIS B0203, BS 21, DIN 2999/259, ISO 7/1, ISO 228-1
4. Socket Weld :ASME B16.11
5. Butt Weld :ASME B16.25
6. Face To Face: L2: DIN 3202 M3, L3: DIN 3202 S13
7. Inspection & Testing: MSS SP-110

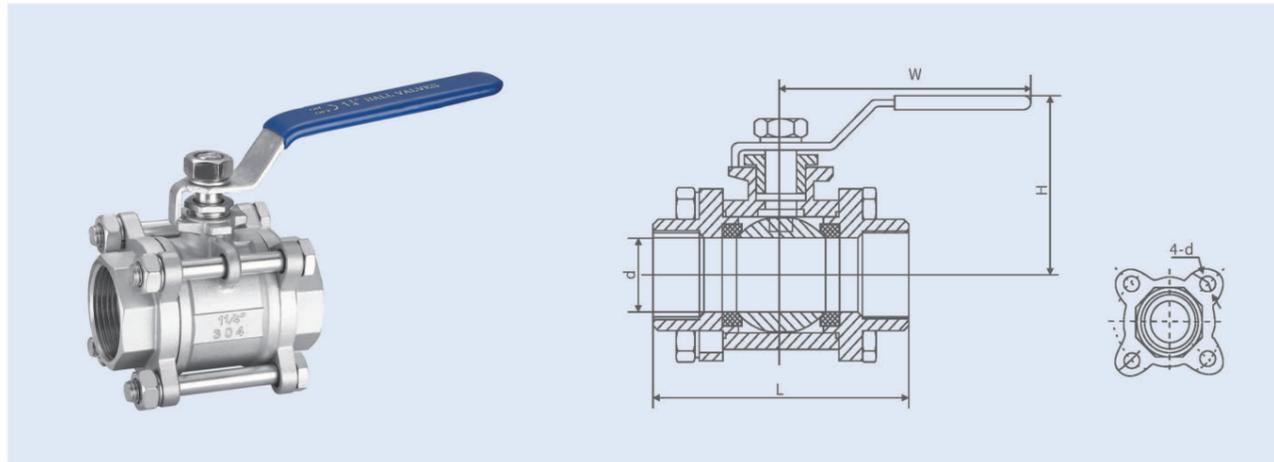
Dimension Parameter

																			Unit:mm
NPS	DN	d	L1	L2	L3	H	H1	W	U	J	Q	R	P	X	A	a	B	b	ISO 5211
1/4"	8	10	55	55	70	89	49	113	14.2	9.5	18	10	9	9	42	6	36	6	F03,F04
3/8"	10	12.5	60	60	70	89	49	113	17.8	9.5	18	12.5	9	9	42	6	36	6	F03,F04
1/2"	15	15	75	75	75	89	49	113	21.8	9.5	23	13.84	9	9	42	6	36	6	F03,F04
3/4"	20	20	80	80	90	91	52	113	27.3	12.5	28	18.88	9	9	42	6	36	6	F03,F04
1"	25	25	90	90	100	105	64	188	34.0	12.5	35	26.64	11	11	50	7	42	6	F04,F05
1 1/4"	32	32	100	110	110	113	71.5	188	42.8	12.5	44	35.08	11	11	50	7	42	6	F04,F05
1 1/2"	40	38	115	120	125	120	79	200	49.0	12.5	50	40.94	14	14	70	9	50	7	F05,F07
2"	50	50	130	140	150	128	87	200	61.4	16.0	62	52.48	14	14	70	9	50	7	F05,F07
2 1/2"	65	64	175	185	190	155	110	273	74.0	16.0	75	62.5	17	17	102	11	70	9	F07,F10
3"	80	78	190	205	220	165	121	273	90.0	16.0	91	78.0	17	17	102	11	70	9	F07,F10
4"	100	98	220	240	270	187	140	292	115.5	19.0	117	102	22	22	102	11	70	9	F07,F10

V/T/D-3D-1000WOG

3-PC Full Port Ball Valve

Q11F-10/16P



Design Features

Product specification: NPS 1/4"-3" (DN6~80)
 Nominal pressure: PN 1.0/1.6MPa
 Applicable media: water, air, oil, acid
 Applicable temperature: -50~232°C
 Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
 Connection size: GB/T 9113.1/ASME B16.5 CLASS150
 Structural length: GB/T 12221 / ASMW B16.1
 Design and manufacture: GB/T 12237/ANSI B16.34
 Inspection and test: GB/T 13927/API 598

Parts And Materials

PART NAME	MATERIAL	
BODY	CF8M	CF8
BONNET	CF8M	CF8
BALL	SS304	SS304
STEM	SS304	SS304
SEAT	RTFE	RTFE
STEM SEAL	PTFE	PTFE
MIDDLE HEAD PAD	PTFE	PTFE
PACKING SLEEVE	SS202	SS202
HANDLE	SS202	SS202
RUBBER SLEEVE	PLASTIC	PLASTIC
ELASTIC WASHER	SS202	SS202
NUT	SS202	SS202
BOLT	SS202	SS202

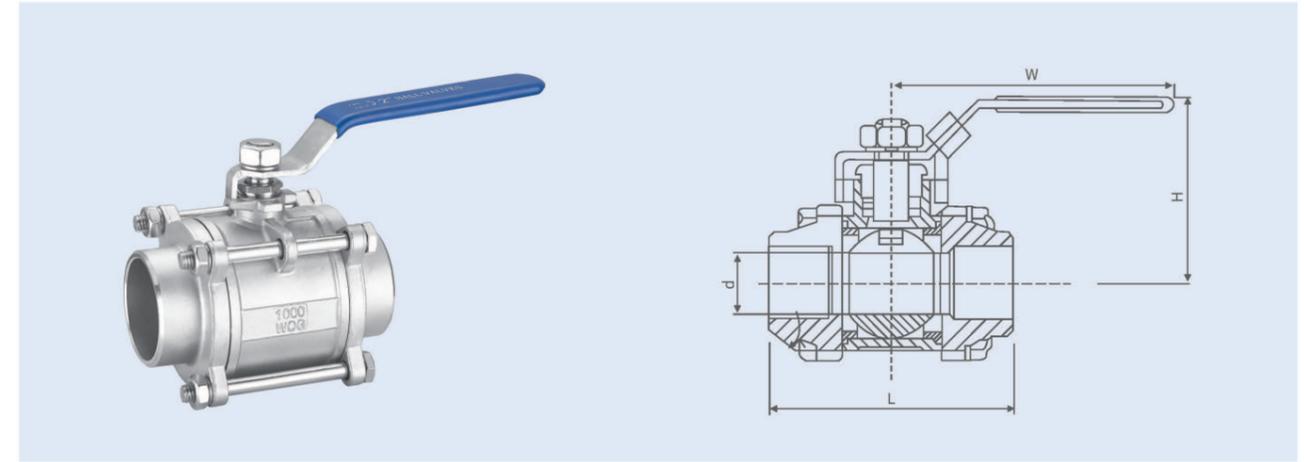
Dimension Parameter

Unit:mm

NPS	DN	d	L	H	W	4-d
1/4"	6	11.6	65	48	120	7
3/8"	10	12.7	65	48	120	7
1/2"	15	15	72	54	120	8
3/4"	20	20	83	57	130	8.5
1"	25	25	91	72	154	8.5
1 1/4"	32	32	103	79	154	10
1 1/2"	40	38	110	81	185	10
2"	50	50	131	97	185	11
2 1/2"	65	65	164.5	130	250	16
3"	80	80	182.5	148	250	18

3-PC Full Port Butt Weld End Ball Valve

Q61F-10/16P



Design Features

Product specification: NPS 1/4"-3" (DN 6~80)
 Nominal pressure: PN 1.0/1.6MPa
 Applicable media: water, air, oil, acid
 Applicable temperature: -50~232°C
 Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
 Connection size: GB/T 9113.1/ASME B16.5 CLASS150
 Structural length: GB/T 12221/ASMW B16.1
 Design and manufacture: GB/T 12237/ANSI B16.34
 Inspection and test: GB/T 13927/API 598

Parts And Materials

PART NAME	MATERIAL		
BODY	WCB	CF8M	CF8
BONNET	WCB	CF8M	CF8
BALL	SS304	SS316	SS304
STEM	SS304	SS316	SS304
SEAT	RTFE		
STEM SEAL	PTFE		
MIDDLE HEAD PAD	PTFE		
PACKING SLEEVE	SS202		
HANDLE	SS202		
RUBBER SLEEVE	PLASTIC		
ELASTIC WASHER	SS202		
NUT	SS202		
BOLT	SS202		

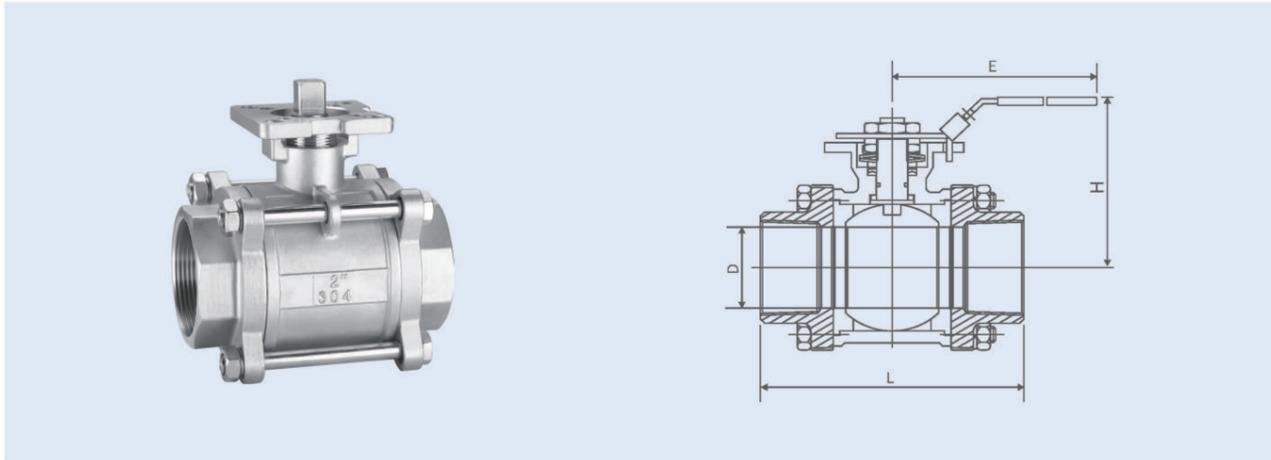
Dimension Parameter

Unit:mm

NPS	DN	d	L	H	W
1/4"	6	11.6	65	48	120
3/8"	10	12.7	65	48	120
1/2"	15	15	72	54	120
3/4"	20	20	83	57	130
1"	25	25	91	72	154
1 1/4"	32	32	103	79	154
1 1/2"	40	38	110	81	185
2"	50	50	131	97	185
2 1/2"	65	65	164.5	130	250

3-PC Full Port Direct Mounting Pad Ball Valve

Q11F-10/16P



□ Design Features

Product specification: NPS 1/4"~3"(DN6~80)
 Nominal pressure: PN 1.0/1.6MPa
 Applicable media: water, air, oil, acid
 Applicable temperature: -20~280°C
 Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
 Design and manufacture: GB/T 12224/ANSI B16.34
 Inspection and test: GB/T 13927/API 598

□ Parts And Materials

PART NAME	MATERIAL	
BODY	CF8M	CF8
BONNET	CF8M	CF8
BALL	SS316	SS304
STEM	SS316	SS304
SEAT	RTFE	
STEM SEAL	PTFE	
MIDDLE HEAD PAD	PTFE	
PACKING SLEEVE	SS202	
ELASTIC WASHER	SS202	
NUT	SS202	
BOLT	SS304	
ELASTIC WASHER	A193GR.B8	
NUT	A194.GR.8	

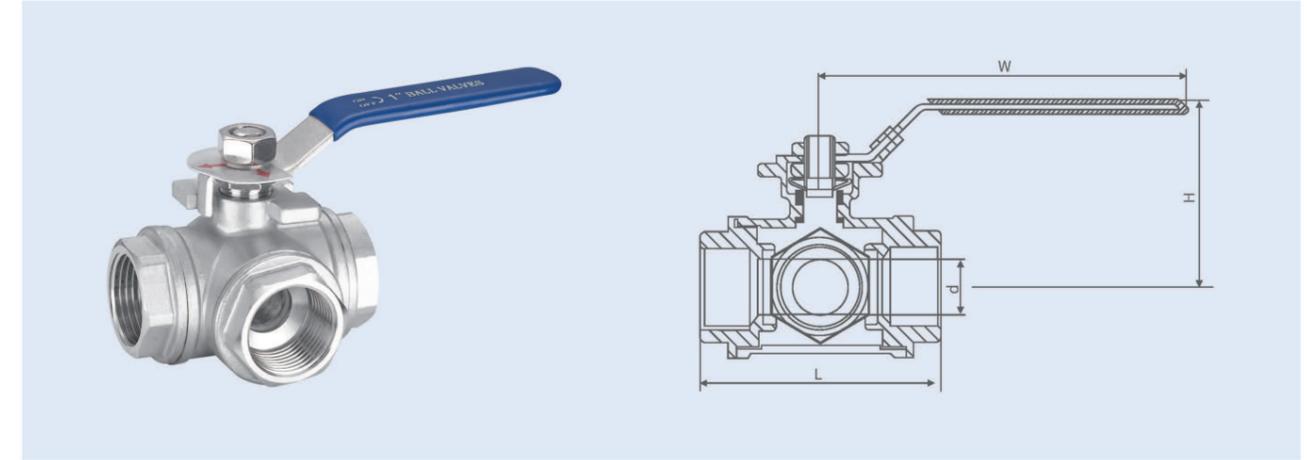
□ Dimension Parameter

Unit:mm

NPS	DN	L	D	H	E
1/4"	6	72	11	51	100
3/8"	10	72	12	51	100
1/2"	15	62	15	57	105
3/4"	20	71	20	63	118
1"	25	77	25	77	128
1 1/4"	32	92	32	80	137
1 1/2"	40	101	38	92	170
2"	50	122	48	102	170
2 1/2"	65	162	64	115	215
3"	80	200	80	136	235

3 WAY Reduced Port Ball Valve

Q14/15F-10/16P



□ Design Features

Product specification: NPS 1/4"~2"(DN6~50)
 Nominal pressure: PN 1.6MPa
 Applicable media: water, air, oil
 Applicable temperature: -20~220°C
 Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
 Design and manufacture: GB/T 12224/ANSI B16.34
 Inspection and test: GB/T 13927/API 598

□ Parts And Materials

PART NAME	MATERIAL	
BODY	CF8M	CF8
BONNET	CF8M	CF8
BALL	SS316	SS304
STEM	SS316	SS304
SEAT	RTFE	
MIDDLE HEAD PAD	PTFE	
PACKING SLEEVE	SS202	
ELASTIC WASHER	SS202	
NUT	SS202	
DIRECTION INDICATOR	POLYETHYLENE	

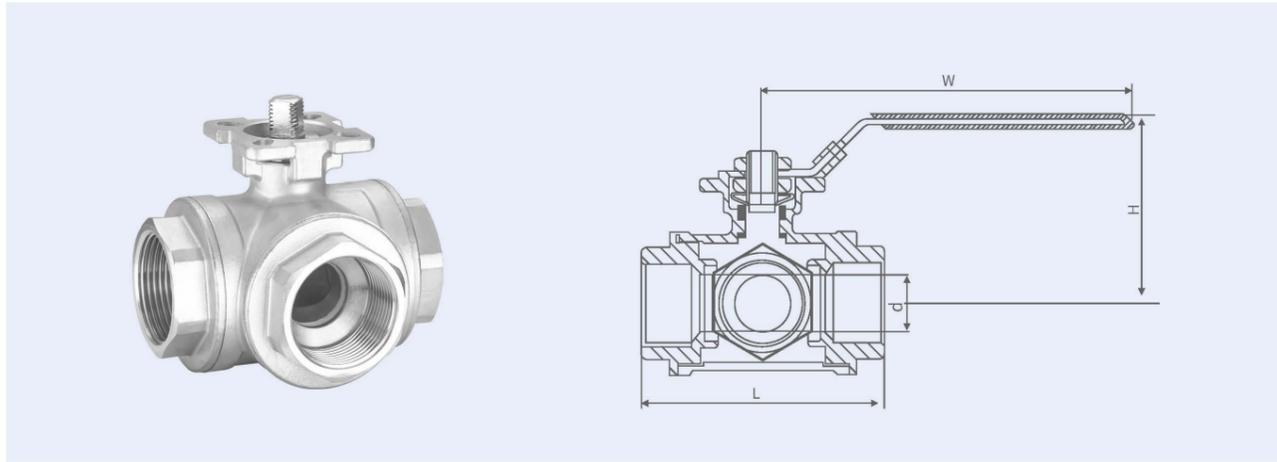
□ Dimension Parameter

Unit:mm

NPS	DN	L	d	H	W
1/4"	6	64	4.2	32	85
3/8"	10	64	6	32	95
1/2"	15	68	10	34	108
3/4"	20	78	15	60	115
1"	25	86	18	60	135
1 1/4"	32	111	25	76	150
1 1/2"	40	126	32	85	175
2"	50	143	40	95	190

3 WAY Reduced Port Direct Mounting Pad Ball Valve

Q14/15F-10/16P



Design Features

- Product specification: NPS 1/4"-2"(DN6-50)
- Nominal pressure: PN 1.6MPa
- Applicable media: water, air, oil
- Applicable temperature: -20~220°C
- Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
- Design and manufacture: GB/T 12224/ANSI B16.34
- Inspection and test: GB/T 13927/API598

Parts And Materials

PART NAME	MATERIAL	
BODY	CF8M	CF8
BONNET	CF8M	CF8
BALL	SS316	SS304
STEM	SS316	SS304
SEAT	RTFE	
MIDDLE HEAD PAD	PTFE	
PACKING SLEEVE	SS202	
LINE BAR	PTFE	
DIRECTION INDICATOR	POLYETHYLENE	

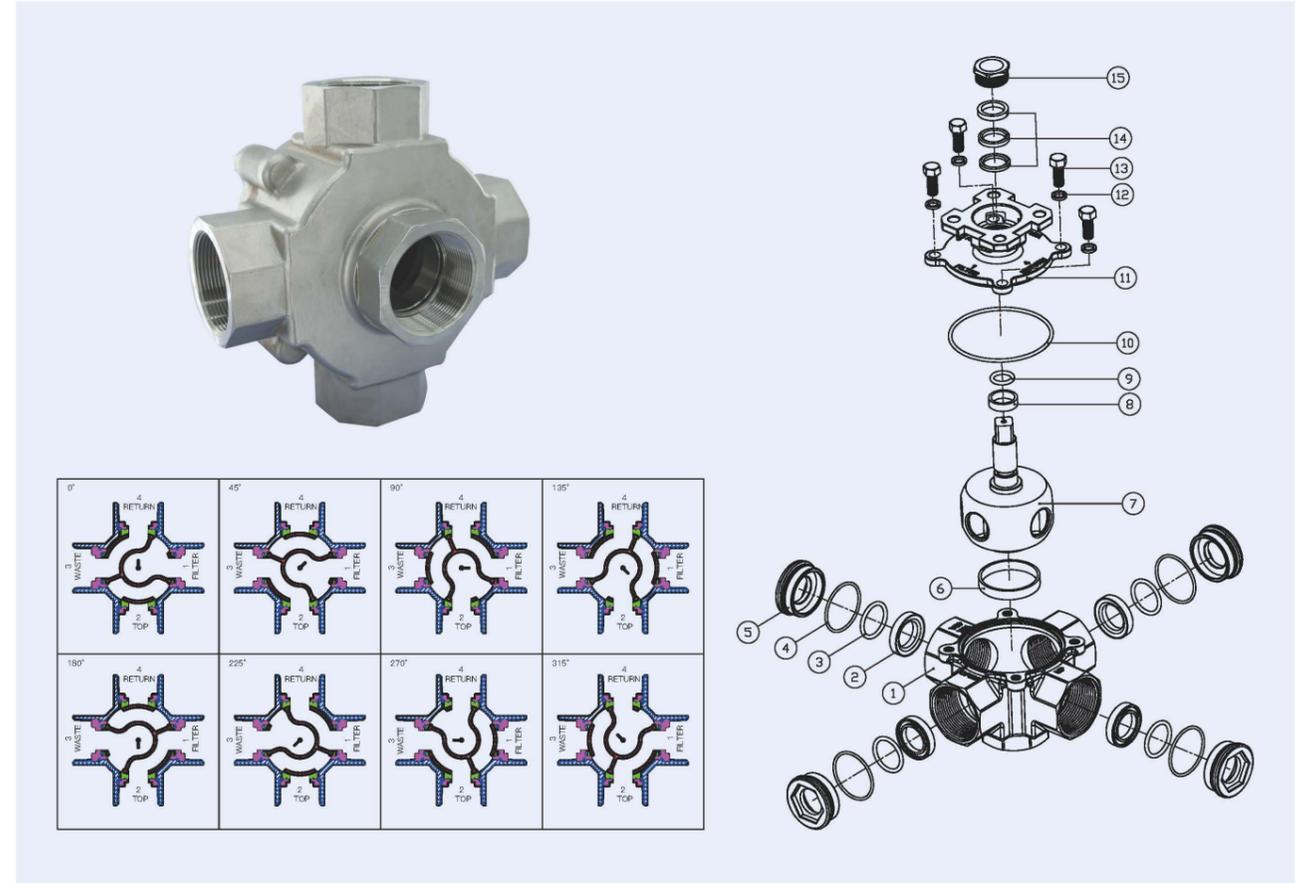
Dimension Parameter

Unit:mm

NPS	DN	L	d	H	W
1/4"	6	64	4.2	32	85
3/8"	10	64	6	32	95
1/2"	15	68	10	34	108
3/4"	20	78	15	60	115
1"	25	86	18	60	135
1 1/4"	32	111	25	76	150
1 1/2"	40	126	32	85	175
2"	50	143	40	95	190

Direct Mount Type Five WAY Threaded Fixed Ball Valve

5GA-150/5K/10K/PN10/16



Design Features

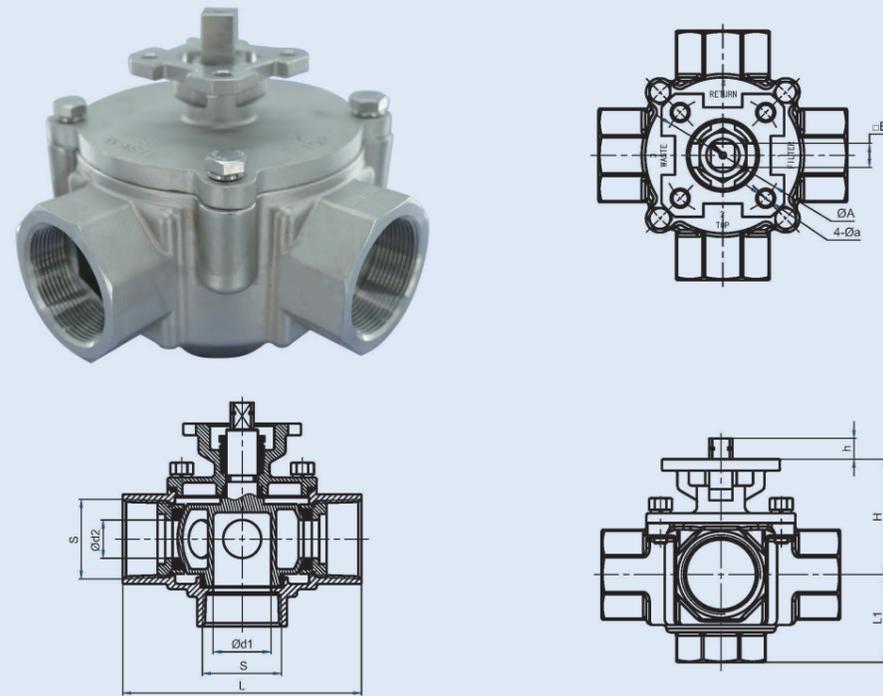
- Other Alloy are Available
- Casting per NACE/MR-01-75 for Sour Gas Service.
- Casting Approved by TUV AD 2000-Merkblatt W0
- Inspection Certificate according to EN 10204 3.1 Form

- Pressure levels:ASME B16.34:CLASS 150, JIS B2001:5K/10K, EN 12516-1:PN10/PN16
- Quality assurance system: ISO 9001,PED 2014/68/EU CE 0036

Parts And Materials

NO.	PART NAME	MATERIALS		
		ASTM/JIS G5121/EN 10213	ASTM/JIS G5121/EN 10213	ASTM/JIS G5121/EN 10213
1	BODY	A351-CF3M/SCS16A/1.4409	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308
2	SEAT	PEEK/TFM1600/PTFE/RTFE		
3	O RING	FKM/VITON/VMQ		
4	O RING	FKM/VITON/VMQ		
5	CAP	A351-CF3M/SCS16A/1.4409	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308
6	BUSH	PEEK/TFM1600/PTFE/RTFE		
7	FIXED BALL	A351-CF3M/SCS16A/1.4409	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308
8	BUSH	PEEK/TFM1600/PTFE/RTFE		
9	O RING	FKM/VITON/VMQ		
10	O RING	FKM/VITON/VMQ		
11	UPPRE COVER	A351-CF3M/SCS16A/1.4409	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308
12	SPRING WASHER	A276-304		
13	BOLT	A2-70		
14	PACKING	PTFE/GRAPHITE		
15	GLAND NUT	A2-70		

Direct Mount Type
Five WAY Threaded Fixed Ball Valve



□ Design Features

1. Dewaxed precision cast body
2. Built-in ISO 5211 direct mounting pad easy automation
3. The valve stem and sphere are designed in a fixed manner
4. Reduce flow path, eight directional conversions
5. The shaft cap method compresses the packing material tightly

□ Applicable Standards

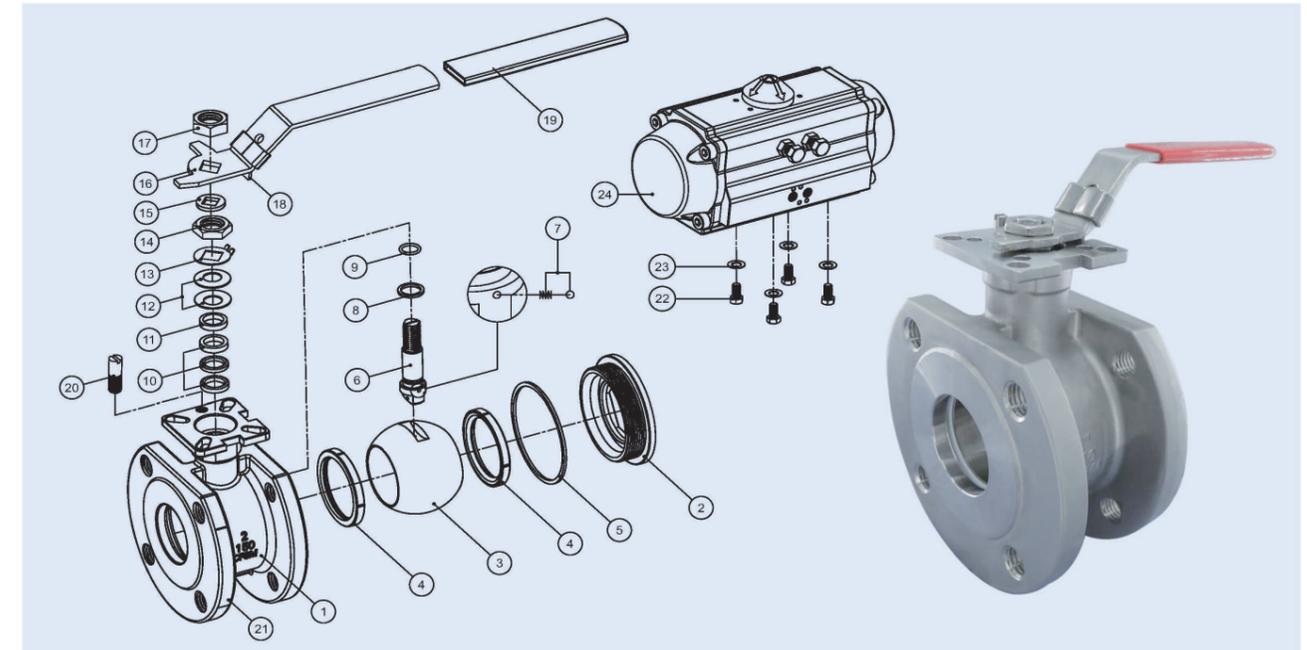
1. Design ASME B16.34, MSS SP-110
2. Standard for pipe threads: ASME B1.20.1, JIS B0203, BS 21, DIN 2999/259, ISO 7/1, ISO 228/1
3. Inspection & Testing: API 598, MSS SP-110

□ Dimension Parameter

Unit:mm

SIZE	d1	d2	S	L	L1	H	h	A	a	B	TORQUE N.m
1½"	35	23	1½" PT,NPT,PF	144	52.5	69.5	12.5	70	9.0	17.0	35
2"	50	40	2" PT,NPT,PF	212	72.5	87.0	21.7	70	9.0	17.0	55

1-PC Full Port Wafer Type Direct Mount Pad
Flanged End Ball Valve



□ Applicable Standards:

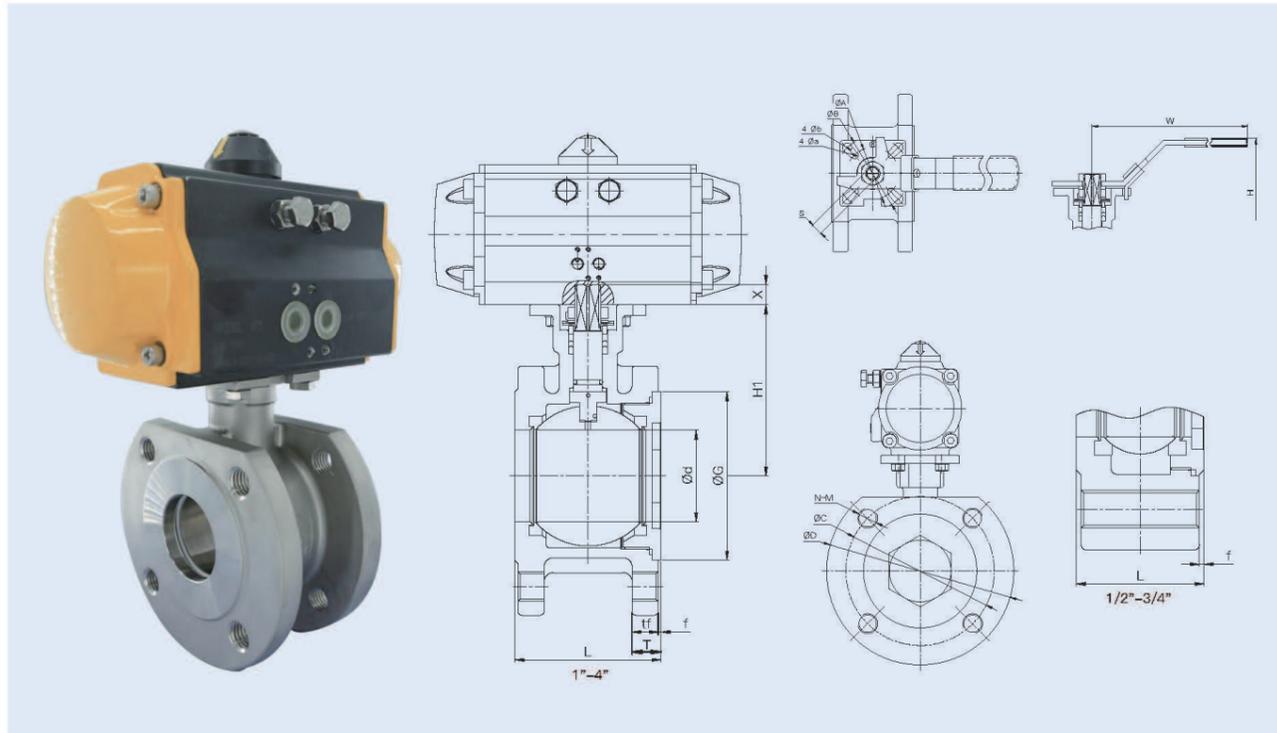
1. Other alloy are available
2. Casting per NACE/MR-01-75 for sour gas service
3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection Certificate according to EN 10204 3.1 Form
5. Quality assurance system: ISO 9001 ,PED 2014/68/EU CE 0036
6. Pressure levels: ASME B16.34: CLASS 150/300
IS B2001: 10K/20K, EN 12516-1: PN16/PN40

□ Parts And Materials

NO.	PART NAME	MATERIALS		
		ASTM/JIS G5121/EN 10213	ASTM/JIS G5121/EN 10213	ASTM/JIS G5151/EN 10213
1	BODY	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
2	CAP	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
3	BALL	A182-F316	A182-F304	
4	SEAT	PEEK/TFM1600/PTFE/RTFE		
5	GASKET	TFM1600/PTFE/316 SPIRALWOUND+GRAPHITE		
6	STEM	A276-316	A276-304	
7	ANTI STATIC	A276-316	A276-304	
8	THRUST WASHER	PTFE/15CF+FF(PTFE+15%CARBON FIBER)		
9	O RING	FKM		
10	PACKING	PTFE/GRAPHITE		
11	GLAND	A276-304		
12	DISC WASHER	A240-301		
13	PREVENT LOOSENESS	A240-304		
14	STEM NUT	A2-70		
15	HANDLE SHIM	A240-304		
16	HANDLE	A240-304		
17	HANDLE NUT	A2-70		
18	LOCKING PAD	A240-304		
19	PLASTIC COVER	VINYL PLASTIC		
20	STOP PIN	A276-304		
21	NAMEPLATE	A666-304		
22	BOLT	A2-70		
23	BOLT WASHER	A240-304		
24	ACTUATORS	PNEUMATIC KP / ELECTRIC KQ		

1-PC Full Port Direct Mounting Pad
Flanged End Ball Valve

1GB-Q41F-CL150/10K/PN16



□ Design Features

1. Dewaxed precision cast body and cap
2. With fire-resistant structural design and certification
3. Built-in ISO 5211 direct mounting pad easy automation
4. Blow-out proof stem
5. Pressure balance hole in ball slot
6. Anti-static devices for ball-stem-body
7. Options: (1). Actuator, (2). Limit switch, (3). Positioner

□ Applicable Standards

1. Design Standard: ASME B16.34, JIS B2001, EN 12516-1
2. Fire Safe: API 607, ISO 10497
3. Flanged Ends: ASME B16.5, JIS B2220, EN 1092-1
4. Wall Thickness: ASME B16.34, EN 12516-1
5. Inspection & Testing: API 598, JIS B2003, DIN 3230/3, EN12266-1

□ Dimension Parameter(ASME CLASS 150)

Unit:mm

NPS	Φd	L	H	H1	W	ΦG	ΦC	ΦD	tf	f	N-M	S	X	A	a	B	b	ISO 5211
1/2"	15	42	89	49.5	113	35.1	60.5	89	\	1.5	4½*13UNC	9	9	36	6	42	6	F03,F04
3/4"	20	44	97	57.5	113	42.9	69.8	99	\	1.5	4½*13UNC	9	9	36	6	42	6	F03,F04
1"	25	51	102	62	188	50.8	79.2	108	9.7	1.5	4½*13UNC	9	9	42	6	50	7	F04,F05
1¼"	32	56	112	72	188	63.5	88.9	117	11.2	1.5	4½*13UNC	9	9	42	6	50	7	F04,F05
1½"	38	65	127	86	200	73.0	98.6	127	12.7	1.5	4⅝*11UNC	11	11	50	7	70	9	F05,F07
2"	50	80	135	93.5	200	91.9	120.6	152	14.2	1.5	4⅝*11UNC	11	11	50	7	70	9	F05,F07
2½"	64	102	147	105	273	104.6	139.7	178	15.7	1.5	4⅝*11UNC	14	14	70	9	102	11	F07,F10
3"	78	122	158	115	273	127.0	152.4	190	17.5	1.5	4⅝*11UNC	14	14	70	9	102	11	F07,F10
4"	98	153	178	132	292	157.2	190.5	229	22.4	1.5	8⅝*11UNC	17	17	102	11	125	13	F10,F12
5"	120	182	197	150	400	185.7	215.9	254	22.5	1.5	8¾*10UNC	22	22	102	11	125	13	F10,F12
6"	137	205	212	164	400	215.9	241.3	279	23.9	1.5	8¾*10UNC	22	22	102	11	125	13	F10,F12

1-PC Full Port Direct Mounting Pad
Flanged End Ball Valve

□ Dimension Parameter(JIS 10K)

Unit:mm

SIZE	Φd	L	H	H1	W	ΦG	ΦC	ΦD	T	f	N-M	S	X	A	a	B	b	ISO 5211
15A	15	42	89	49.5	113	51	70	95	\	1	4-M12	9	9	36	6	42	6	F03,F04
20A	20	44	97	57.5	113	56	75	100	\	1	4-M12	9	9	36	6	42	6	F03,F04
25A	25	51	102	62	188	67	90	125	14	1	4-M16	9	9	42	6	50	7	F04,F05
32A	32	56	112	72	188	76	100	135	16	2	4-M16	9	9	42	6	50	7	F04,F05
40A	38	65	127	86	200	81	105	140	16	2	4-M16	11	11	50	7	70	9	F05,F07
50A	50	80	135	93.5	200	96	120	155	16	2	4-M16	11	11	50	7	70	9	F05,F07
65A	64	102	147	105	273	116	140	175	18	2	4-M16	14	14	70	9	102	11	F07,F10
80A	78	122	158	115	273	126	150	185	18	2	8-M16	14	14	70	9	102	11	F07,F10
100A	98	153	178	132	292	151	175	210	18	2	8-M16	17	17	102	11	125	13	F10,F12
125A	120	182	197	150	400	182	210	250	20	2	8-M20	22	22	102	11	125	13	F10,F12
150A	137	205	212	164	400	212	240	280	22	2	8-M20	22	22	102	11	125	13	F10,F12

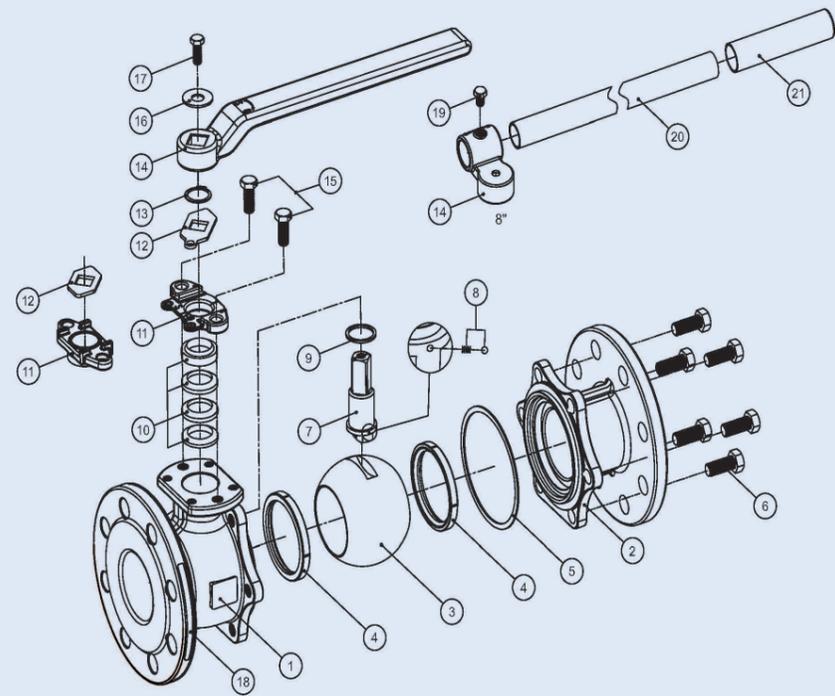
□ Dimension Parameter(EN PN16)

Unit:mm

SIZE	Φd	L	H	H1	W	ΦG	ΦC	ΦD	T	f	N-M	S	X	A	a	B	b	ISO 5211
DN15	15	42	89	49.5	113	45	65	95	\	2	4-M12	9	9	36	6	42	6	F03,F04
DN20	20	44	97	57.5	113	58	75	105	\	2	4-M12	9	9	36	6	42	6	F03,F04
DN25	25	51	102	62	188	68	85	115	18	2	4-M12	9	9	42	6	50	7	F04,F05
DN32	32	56	112	72	188	78	100	140	18	2	4-M16	9	9	42	6	50	7	F04,F05
DN40	38	65	127	86	200	88	110	150	18	3	4-M16	11	11	50	7	70	9	F05,F07
DN50	50	80	135	93.5	200	102	125	165	18	3	4-M16	11	11	50	7	70	9	F05,F07
DN65	64	102	147	105	273	122	145	185	18	3	8-M16	14	14	70	9	102	11	F07,F10
DN80	78	122	158	115	273	138	160	200	20	3	8-M16	14	14	70	9	102	11	F07,F10
DN100	98	153	178	132	292	158	180	220	20	3	8-M16	17	17	102	11	125	13	F10,F12
DN125	120	182	197	150	400	188	210	250	22	3	8-M16	22	22	102	11	125	13	F10,F12
DN150	137	205	212	164	400	212	240	285	22	3	8-M20	22	22	102	11	125	13	F10,F12

2-PC Full Port Flanged End Ball Valve

2DB-Q41F-CL150/300/10K/20K/PN16/40

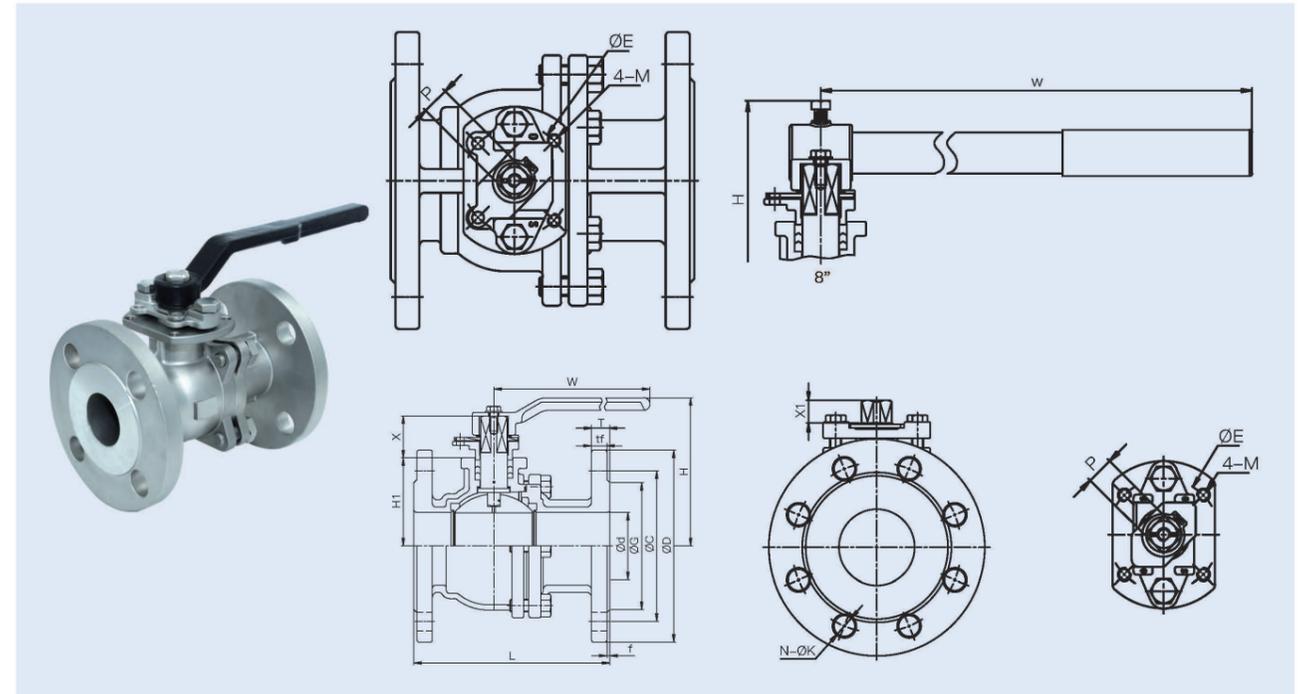


Parts And Materials

NO.	PART NAME	MATERIALS		
		ASTM/JIS G5121/EN 10213	ASTM/JIS G5121/EN 10213	ASTM/JIS G5151/EN 10213
1	BODY	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
2	CAP	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
3	BALL	A182-F316/A351-CF8M A182-F304/A351-CF8		
4	SEAT	PEEK/TFM1600/PTFE/RTFE		
5	GASKET	TFM1600/PTFE/316 SPIRAL WOUND+GRAPHITE		
6	BOLT	A2-70,F593C		
7	STEM	A276-316	A276-304	
8	ANTI STATIC	A276-316	A276-304	
9	THRUST WASHER	PTFE/15CF+FF(PTFE+15%CARBON FIBER)		
11	PACKING	PTFE/GRAPHITE		
11	GLAND	A351-CF8		
12	STOP PLATE	A240-304		
13	SNAP RING	A240-301		
14	HANDLE	A351-CF8/A216-WCB/QT400		
15	GLAND BOLT	A2-70		
16	WASHER	A240-304		
17	HANDLE BOLT	A2-70		
18	NAMEPLATE	A666-304		
19	LEVER BOLT	A2-70		
20	LEVER	A53+PLATED ZN		
21	PLASTIC COVER	PLASTIC-PVC		
22	BOLT WASHER	A240-304		
23	BOLT	A2-70		
24	MOUNTING BRACKET	A351-CF8		
25	QUICK COUPLING	A351-CF8/A276-304		
26	FLAT KEYS	A240-304		
27	GEAR BOX	FINISHED PRODUCT		
28	ACTUATORS	PNEUMATIC KP / ELECTRIC KQ		

2-PC Full Port Flanged End Ball Valve

2DB-Q41F-CL150/300/10K/20K/PN16/40



Design Features

1. Dewaxed precision cast body and cap
2. With fire-resistant structural design and certification
3. Built-in ISO 5211 direct mounting pad easy automation
4. Blow-out proof stem
5. Pressure balance hole in ball slot
6. Anti-static devices for ball-stem-body
7. Options: (1). Actuator, (2). Limit switch, (3). Positioner

Applicable Standards:

1. Design standard: ASME B16.34, JIS B2001
2. Fire safe: API 607, ISO 10497
3. Face to face: JIS B2002
4. Flanged ends: JIS B2220
5. Wall thickness: ASME B16.34
6. Inspection & Testing: JIS B2003 API 598

Dimension Parameter (ASME CLASS 150)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	tf		f	N-ΦK	P	X	X1	E	M	ISO5211
									Table 8	Table 9								
1/2"	15	108	70	31	150	35.1	60.5	89	9.7	7.9	1.5	4-Φ16.0	9	21	8	42	M6	F04
3/4"	20	117	78	37	150	42.9	69.8	99	11.2	8.6	1.5	4-Φ16.0	9	24	9	42	M6	F04
1"	25	127	88	40	200	50.8	79.2	108	12.7	9.7	1.5	4-Φ16.0	11	26	11	50	M6	F05
1 1/4"	32	140	95	45	200	63.5	88.9	117	14.2	11.2	1.5	4-Φ16.0	11	26	11	50	M6	F05
1 1/2"	40	165	117	59	220	73.0	98.6	127	15.9	12.7	1.5	4-Φ16.0	14	34	16	70	M8	F07
2"	50	178	121	65	220	91.9	120.6	152	17.5	14.2	1.5	4-Φ19.1	14	35	17	70	M8	F07
2 1/2"	65	190	143	85	315	104.6	139.7	178	20.6	15.7	1.5	4-Φ19.1	17	40	20	70	M8	F07
3"	80	203	156	100	315	127.0	152.4	190	22.4	17.5	1.5	4-Φ19.1	17	41	20	70	M8	F07
4"	100	229	179	123	400	157.2	190.5	229	22.4	22.4	1.5	8-Φ19.1	22	41	20	70	M8	F07
5"	125	356	260	141	600	185.7	215.9	254	22.4	22.5	1.5	8-Φ22.2	25.7	64	38	102	M10	F10
6"	150	394	279	159	600	215.9	241.3	279	23.9	23.9	1.5	8-Φ22.2	25.7	64	38	125	M12	F12
8"	200	457	290	210	800	269.7	298.4	343	26.9	26.9	1.5	8-Φ22.2	32	75	42	125	M12	F12

Dimension Parameter (ASME CLASS 300)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	tf	f	N-ΦK	P	X	X1	E	M	ISO5211
3/4"	20	152	78	37	150	42.9	82.6	117	14.2	1.5	4-Φ19.1	9	24	9	42	M6	F04
1"	25	165	88	40	200	50.8	88.9	124	15.7	1.5	4-Φ19.1	11	26	11	50	M6	F05
1 1/4"	32	178	95	45	200	63.5	98.6	133	17.5	1.5	4-Φ19.1	11	26	11	50	M6	F05
1 1/2"	40	190	117	59	220	73.0	114.3	155	19.0	1.5	4-Φ22.2	14	34	16	70	M8	F07
2"	50	216	121	65	220	91.9	127.0	165	20.6	1.5	8-Φ19.1	14	35	17	70	M8	F07
2 1/2"	65	241	143	85	315	104.6	149.4	190	23.9	1.5	8-Φ22.2	17	40	20	70	M8	F07
3"	80	282	156	100	315	127.0	168.1	210	26.9	1.5	8-Φ22.2	17	41	20	70	M8	F07
4"	100	305	179	123	400	157.2	200.2	254	30.2	1.5	8-Φ22.2	22	41	20	70	M8	F07
5"	125	381	260	141	600	185.7	235.0	279	33.3	1.5	8-Φ22.2	25.7	64	38	102	M10	F10
6"	150	403	279	159	600	215.9	269.7	318	35.1	1.5	12-Φ22.2	25.7	64	38	125	M12	F12
8"	200	502	290	210	800	269.7	330.2	381	39.6	1.5	12-Φ25.4	32	75	42	125	M12	F12

2-PC Full Port Flanged End Ball Valve

Dimension Parameter(JIS 10K)

Unit:mm

SIZE	d	L	H	H1	W	G	C	D	T	f	N-ΦK	P	X	X1	E	M	ISO5211
15A	15	108	70	31	150	44	60	80	9	1	4-Φ12	9	21	8	42	M6	F04
20A	20	117	78	37	150	49	65	85	10	1	4-Φ12	9	24	9	42	M6	F04
25A	25	127	88	40	200	59	75	95	10	1	4-Φ12	11	26	11	50	M6	F05
32A	32	140	95	45	200	70	90	115	12	2	4-Φ15	11	26	11	50	M6	F05
40A	40	165	117	59	220	75	95	120	12	2	4-Φ15	14	34	16	70	M8	F07
50A	50	178	121	65	220	85	105	130	14	2	4-Φ15	14	35	17	70	M8	F07
65A	65	190	143	85	315	110	130	155	14	2	4-Φ15	17	40	20	70	M8	F07
80A	80	203	156	100	315	121	145	180	14	2	4-Φ19	17	41	20	70	M8	F07
100A	100	229	179	123	400	141	165	200	16	2	8-Φ19	22	41	20	70	M8	F07
125A	125	356	260	141	600	176	200	235	16	2	8-Φ19	25.7	64	38	102	M10	F10
150A	150	394	279	159	600	206	230	265	18	2	8-Φ19	25.7	64	38	125	M12	F12
200A	200	457	290	210	800	252	280	320	20	2	8-Φ23	32	75	42	125	M12	F12

Dimension Parameter(JIS 20K)

Unit:mm

SIZE	d	L	H	H1	W	G	C	D	T	f	N-ΦK	P	X	X1	E	M	ISO5211
15A	15	140	70	31	150	51	70	95	14	1	4-Φ15	9	21	8	42	M6	F04
20A	20	152	78	37	150	56	75	100	16	1	4-Φ15	9	24	9	42	M6	F04
25A	25	165	88	40	200	67	90	125	16	1	4-Φ19	11	26	11	50	M6	F05
32A	32	178	95	45	200	76	100	135	18	2	4-Φ19	11	26	11	50	M6	F05
40A	40	190	117	59	220	81	105	140	18	2	4-Φ19	14	34	16	70	M8	F07
50A	50	216	121	65	220	96	120	155	18	2	8-Φ19	14	35	17	70	M8	F07
65A	65	241	143	85	315	116	140	175	20	2	8-Φ19	17	40	20	70	M8	F07
80A	80	283	156	100	315	132	160	200	22	2	8-Φ23	17	41	20	70	M8	F07
100A	100	305	179	123	400	160	185	225	24	2	8-Φ23	22	41	20	70	M8	F07
125A	125	381	260	141	600	195	225	270	26	2	8-Φ25	25.7	64	38	102	M10	F10
150A	150	403	279	159	600	230	260	305	28	2	12-Φ25	25.7	64	38	125	M12	F12
200A	200	502	290	210	800	275	305	350	30	2	12-Φ25	32	75	42	125	M12	F12

Dimension Parameter(EN PN16)

Unit:mm

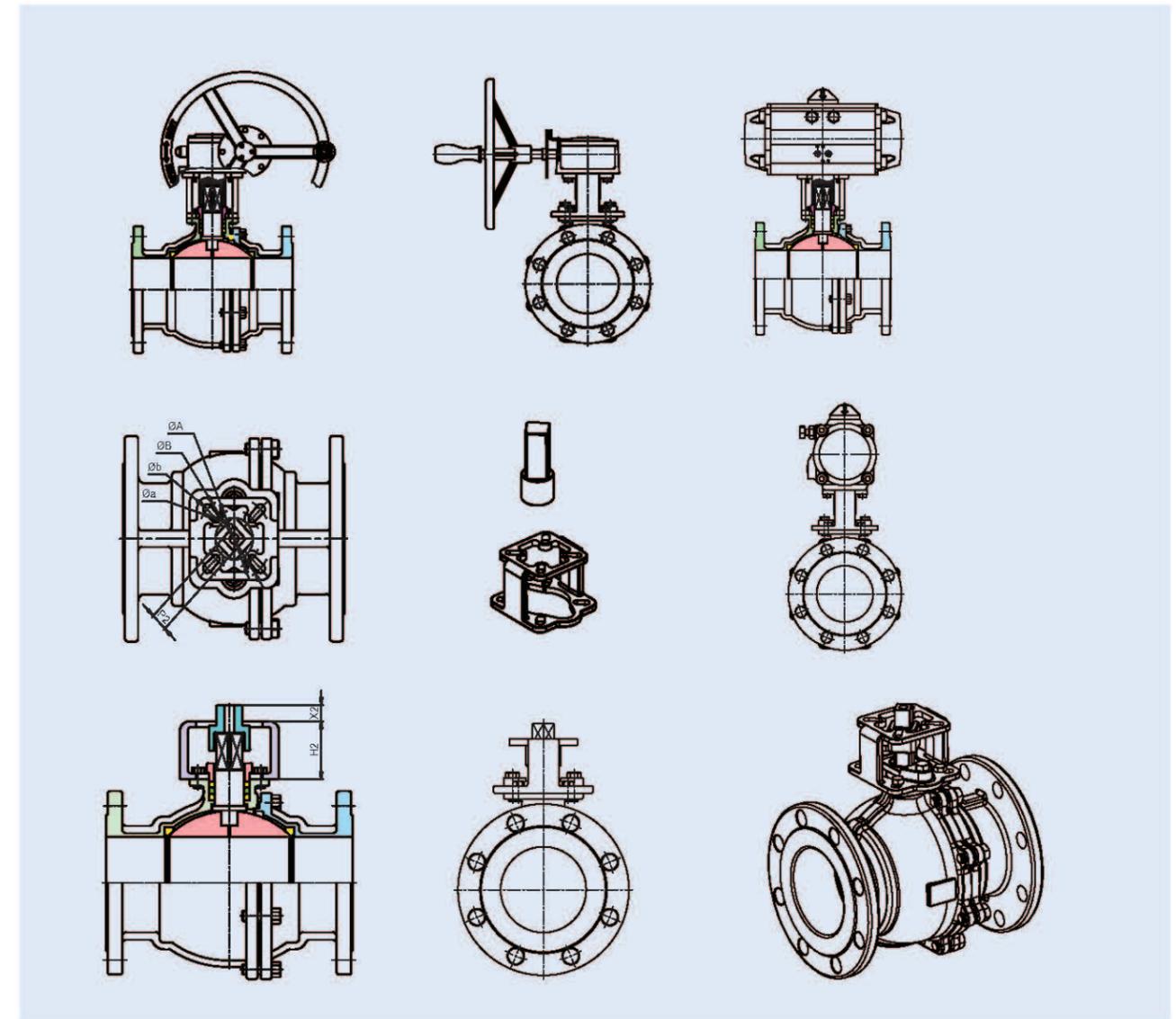
DN	d	L27	L1	H	H1	W	G	C	D	T	f	N-ΦK	P	X	X1	E	M	ISO5211
15	15	115	130	70	31	150	45	65	95	16	2	4-Φ14	9	21	8	42	M6	F04
20	20	120	150	78	37	150	58	75	105	18	2	4-Φ14	9	24	9	42	M6	F04
25	25	125	160	88	40	200	68	85	115	18	2	4-Φ14	11	26	11	50	M6	F05
32	32	130	180	95	45	200	78	100	140	18	2	4-Φ18	11	26	11	50	M6	F05
40	40	140	200	117	59	220	88	110	150	18	3	4-Φ18	14	34	16	70	M8	F07
50	50	150	230	121	65	220	102	125	165	18	3	4-Φ18	14	35	17	70	M8	F07
65	65	170	290	143	85	315	122	145	185	18	3	8-Φ18	17	40	20	70	M8	F07
80	80	180	310	156	100	315	138	160	200	20	3	8-Φ18	17	41	20	70	M8	F07
100	100	190	350	179	123	315	158	180	220	20	3	8-Φ18	22	41	20	70	M8	F07
125	125	325	400	260	141	600	188	210	250	22	3	8-Φ18	25.7	64	38	102	M10	F10
150	150	350	480	279	159	600	212	240	285	22	3	8-Φ22	25.7	64	38	125	M12	F12
200	200	400	600	290	210	800	268	295	340	24	3	12-Φ22	32	75	42	125	M12	F12

Dimension Parameter(EN PN40)

Unit:mm

DN	d	L27	L1	H	H1	W	G	C	D	T	f	N-ΦK	P	X	X1	E	M	ISO5211
15	15	115	130	70	31	150	45	65	95	16	2	4-Φ14	9	21	8	42	M6	F04
20	20	120	150	78	37	150	58	75	105	18	2	4-Φ14	9	24	9	42	M6	F04
25	25	125	160	88	40	200	68	85	115	18	2	4-Φ14	11	26	11	50	M6	F05
32	32	130	180	95	45	200	78	100	140	18	2	4-Φ18	11	26	11	50	M6	F05
40	40	140	200	117	59	220	88	110	150	18	3	4-Φ18	14	34	16	70	M8	F07
50	50	150	230	121	65	220	102	125	165	20	3	4-Φ18	14	35	17	70	M8	F07
65	65	170	290	143	85	315	122	145	185	22	3	8-Φ18	17	40	20	70	M8	F07
80	80	180	310	156	100	315	138	160	200	24	3	8-Φ18	17	41	20	70	M8	F07
100	100	190	350	179	123	315	162	190	235	24	3	8-Φ22	22	41	20	70	M8	F07
125	125	325	400	260	141	600	188	220	270	26	3	8-Φ26	25.7	64	38	102	M10	F10
150	150	350	480	279	159	600	218	250	300	28	3	8-Φ26	25.7	64	38	125	M12	F12
200	200	400	600	290	210	800	285	320	375	34	3	12-Φ30	32	75	42	125	M12	F12

2-PC Full Port Flanged End Ball Valve



Dimension Parameter

Unit:mm

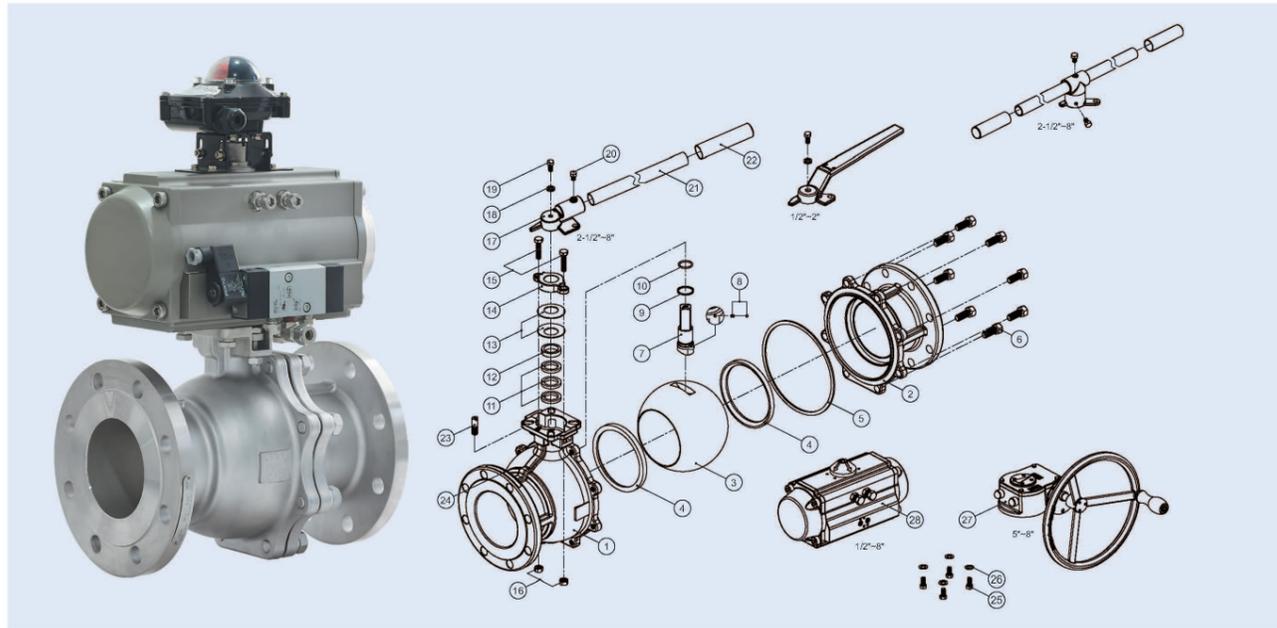
NPS	DN	H2	X2	P2	A	a	B	b	ISO 5211
1/2"	15	40.5	9	9	36	6.5	50	6.7	F03-F05
3/4"	20	40.5	9	9	36	6.5	50	6.7	F03-F05
1"	25	36	11	11	42	6.5	50	6.7	F04-F05
1 1/4"	32	36	11	11	42	6.5	50	6.7	F04-F05
1 1/2"	40	51	14	14	50	6.7	70	10	F05-F07
2"	50	51	14	14	50	6.7	70	10	F05-F07
2 1/2"	65	57	17	17	70	10	102	12.0	F07-F10
3"	80	57	17	17	70	10	102	12.0	F07-F10
4"	100	57	17	17	70	10	102	12.0	F07-F10
5"	125	79	22	22	70	10	102	12.0	F07-F10
6"	150	79	22	22	70	10	102	12.0	F07-F10
8"	200	90	27	27	102	12.0	165	22.0	F12-F16

2DB-Q41F-CL150/300/10K/20K/PN16/40

2DB-Q41F-CL150/300/10K/20K/PN16/40

2-PC Full Port Direct Mounting Pad
Flanged End Ball Valve

2GH-Q41F-CL150/300/10K/20/PN16/40



Design Features

1. Other alloy are available
2. Casting per NACE/MR-01-75 for sour gas service
3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection certificate according to EN 10204 3.1 form

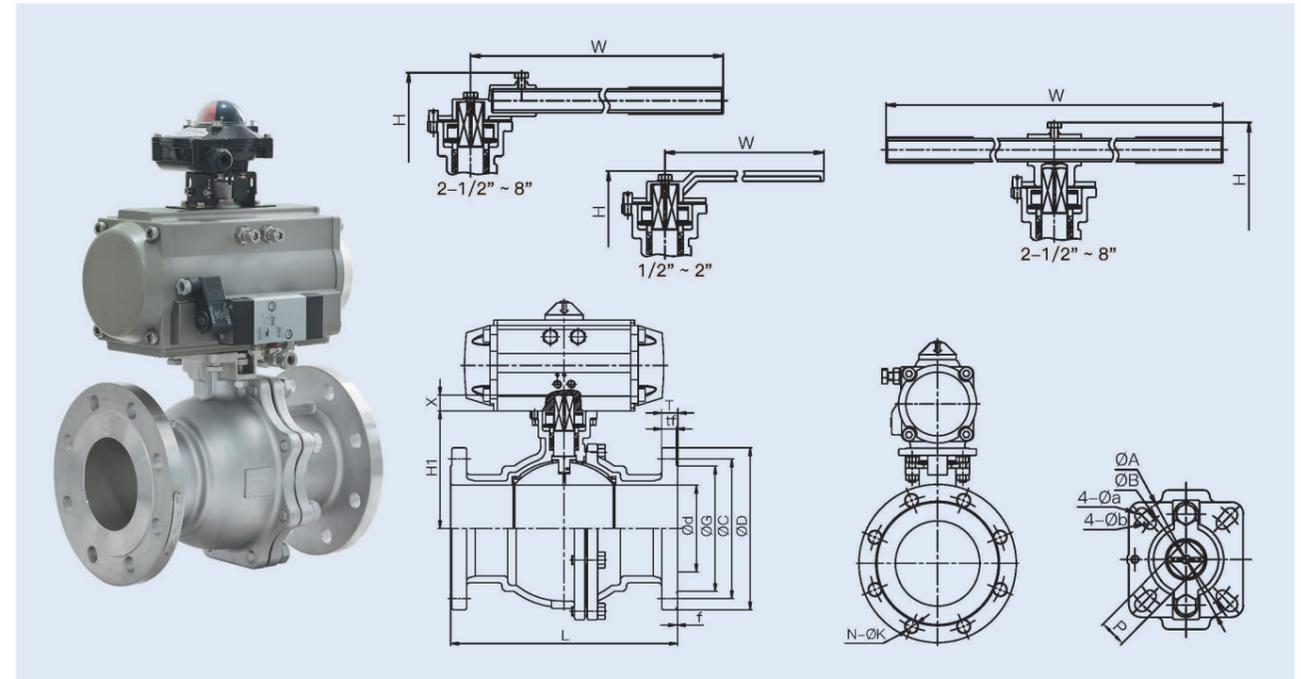
5. Level: EP / BA level, average roughness $Ra \leq 0.24-0.6\mu m$, can be customized according to project requirements
6. Quality assurance system: ISO 9001, PED 2014/68/EU CE 0036
7. Pressure levels: ASME B16.34: CLASS 150/300
JIS B2001: 10K/20K,
EN 12516-1: PN16/PN40

Parts And Materials

NO.	PART NAME	MATERIALS		
		ASTM/JIS G5121/EN 10213	ASTM/JIS G5121/EN 10213	ASTM/JIS G5151/EN 10213
1	BODY	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
2	CAP	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
3	BALL	A182-F316/A351-CF8M/SCS14A/1.4408	A182-F304/A351-CF8/SCS13A/1.4308	
4	SEAT	PEEK/TFM1600/PTFE/RTFE		
5	GASKET	TFM1600/PTFE/316 SPIRALWOUND+GRAPHITE		
6	BOLT	A2-70,F593C		
7	STEM	A276-316	A276-304	
8	ANTI STATIC	A276-316	A276-304	
9	THRUST WASHER	PTFE/15CF+FF(PTFE+15%CARBON FIBER)		
10	O RING	FKM		
11	PACKING	PTFE/GRAPHITE		
12	GLAND	A276-304		
13	DISC WASHER	A240-301		
14	GLAND PLATE	A351-CF8		
15	GLAND BOLT	A2-70		
16	GLAND NUT	A2-70		
17	HANDLE	A351-CF8		
18	SPRING WASHER	A240-304		
19	HANDLE BOLT	A2-70		
20	LEVER BOLT	A2-70		
21	LEVER	A53+PLATED ZN		
22	PLASTIC COVER	VINYL PLASTIC		
23	STOP PIN	A276-304		
24	NAMEPLATE	A666-304		
25	BOLT	A2-70		
26	BOLT WASHER	A240-304		
27	GEAR BOX	FINISHED PRODUCT		
28	ACTUATORS	PNEUMATIC KP/ELECTRIC KQ		

2-PC Full Port Direct Mounting Pad
Flanged End Ball Valve

2GH-Q41F-CL150/300/10K/20/PN16/40



Design Features

1. Dewaxed precision cast body and cap
2. With fire-resistant structural design and certification
3. Built-in ISO 5211 direct mounting pad easy automation
4. Blow-out proof stem
5. Pressure balance hole in ball slot
6. Anti-static devices for ball-stem-body
7. Options: (1).Actuator,(2).Limit switch,(3).Positioner

Applicable Standards

1. Design standard : API 608,ASME B 16.34,JIS B200 1,EN 125 16-1
2. Fire safe : API 607,ISO 10497
3. Face to face: ASME B 16.10,JIS B2002, EN 558-27-1
4. Flanged ends : ASME B16.5, JIS B2220
5. Wall thickness : ASME B 16.34,EN 125 16-1
6. Inspection&testing : API 598,API 6D , JIS B2003,EN 12266-1

Dimension Parameter(ASME CLASS 150)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	tf	f	N-ΦK	P	X	A	a	B	b	ISO 5211
1/2"	15	108	89	49	150	35.1	60.5	89	7.9	1.5	4-Φ16.0	9	9	42	6	36	6	F03,F04
3/4"	20	117	91	52	150	42.9	69.8	99	8.6	1.5	4-Φ16.0	9	9	42	6	36	6	F03,F04
1"	25	127	105	64	200	50.8	79.2	108	9.7	1.5	4-Φ16.0	11	11	50	7	42	6	F04,F05
1 1/4"	32	140	113	71.5	200	63.5	88.9	117	11.2	1.5	4-Φ16.0	11	11	50	7	42	6	F04,F05
1 1/2"	40	165	120	79	220	73.0	98.6	127	12.7	1.5	4-Φ16.0	14	14	70	9	50	7	F05,F07
2"	50	178	128	87	220	91.9	120.6	152	14.2	1.5	4-Φ19.1	14	14	70	9	50	7	F05,F07
2 1/2"	65	190	155	110	315	104.6	139.7	178	15.7	1.5	4-Φ19.1	17	17	102	11	70	9	F07,F10
3"	80	203	165	121	315	127.0	152.4	190	17.5	1.5	4-Φ19.1	17	17	102	11	70	9	F07,F10
4"	100	229	187	140	400	157.2	190.5	229	22.4	1.5	8-Φ19.1	22	22	102	11	70	9	F07,F10
5"	125	356	257	186	600	185.7	215.9	254	22.5	1.5	8-Φ22.2	27	27	125	13.5	102	11.5	F10,F12
6"	150	394	275	204	600	215.9	241.3	279	23.9	1.5	8-Φ22.2	27	27	125	13.5	102	11.5	F10,F12
8"	200	457	336	242	800	269.7	298.4	343	26.9	1.5	8-Φ22.2	36	36	140	18	125	13.5	F12,F14

Dimension Parameter(ASME CLASS 300)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	tf	f	N-ΦK	P	X	A	a	B	b	ISO 5211
1/2"	15	140	89	49	150	35.1	66.5	95	12.7	1.5	4-Φ16.0	9	9	42	6	36	6	F03,F04
3/4"	20	152	99	59.5	150	42.9	82.6	117	14.2	1.5	4-Φ19.1	9	9	42	6	36	6	F03,F04
1"	25	165	105	64	200	50.8	88.9	124	15.7	1.5	4-Φ19.1	11	11	50	7	42	6	F04,F05
1 1/4"	32	178	113	71.5	200	63.5	98.6	133	17.5	1.5	4-Φ19.1	11	11	50	7	42	6	F04,F05
1 1/2"	40	190	120	79	220	73.0	114.3	155	19.0	1.5	4-Φ22.2	14	14	70	9	50	7	F05,F07
2"	50	216	128	87	220	91.9	127.0	165	20.6	1.5	8-Φ19.1	14	14	70	9	50	7	F05,F07
2 1/2"	65	241	155	110	315	104.6	149.4	190	23.9	1.5	8-Φ22.2	17	17	102	11	70	9	F07,F10
3"	80	282	165	121	315	127.0	168.1	210	26.9	1.5	8-Φ22.2	17	17	102	11	70	9	F07,F10
4"	100	305	187	140	400	157.2	200.2	254	30.2	1.5	8-Φ22.2	22	22	102	11	70	9	F07,F10
5"	125	381	257	186	600	185.7	235.0	279	33.3	1.5	8-Φ22.2	27	27	125	13.5	102	11.5	F10,F12
6"	150	403	275	204	600	215.9	269.7	318	35.1	1.5	12-Φ22.2	27	27	125	13.5	102	11.5	F10,F12
8"	200	502	336	242	800	269.7	330.2	381	39.6	1.5	12-Φ25.4	36	36	140	18	125	13.5	F12,F14

2-PC Full Port Direct Mounting Pad
Flanged End Ball Valve

Dimension Parameter(JIS 10K)

Unit:mm

SIZE	d	L	H	H1	W	G	C	D	T	f	N-ΦK	P	X	A	a	B	b	ISO 5211
15	15	108	89	49	150	51	70	95	12	1	4-Φ15	9	9	42	6	36	6	F03,F04
20	20	117	91	52	150	56	75	100	14	1	4-Φ15	9	9	42	6	36	6	F03,F04
25	25	127	105	64	200	67	90	125	14	1	4-Φ19	11	11	50	7	42	6	F04,F05
32	32	140	113	71.5	200	76	100	135	16	2	4-Φ19	11	11	50	7	42	6	F04,F05
40	40	165	120	79	220	81	105	140	16	2	4-Φ19	14	14	70	9	50	7	F05,F07
50	50	178	128	87	220	96	120	155	16	2	4-Φ19	14	14	70	9	50	7	F05,F07
65	65	190	155	110	315	116	140	175	18	2	4-Φ19	17	17	102	11	70	9	F07,F10
80	80	203	165	121	315	126	150	185	18	2	8-Φ19	17	17	102	11	70	9	F07,F10
100	100	229	187	140	400	151	175	210	18	2	8-Φ19	22	22	102	11	70	9	F07,F10
125	125	356	257	186	600	182	210	250	20	2	8-Φ23	27	27	125	13.5	102	11.5	F10,F12
150	150	394	275	204	600	212	240	280	22	2	8-Φ23	27	27	125	13.5	102	11.5	F10,F12
200	200	457	336	242	800	262	290	330	22	2	12-Φ23	36	36	140	18	125	13.5	F12,F14

Dimension Parameter(JIS 20K)

Unit:mm

SIZE	d	L	H	H1	W	G	C	D	T	f	N-ΦK	P	X	A	a	B	b	ISO 5211
15	15	140	89	49	150	51	70	95	14	1	4-Φ15	9	9	42	6	36	6	F03,F04
20	20	152	99	59.5	150	56	75	100	16	1	4-Φ15	9	9	42	6	36	6	F03,F04
25	25	165	105	64	200	67	90	125	16	1	4-Φ19	11	11	50	7	42	6	F04,F05
32	32	178	113	71.5	200	76	100	135	18	2	4-Φ19	11	11	50	7	42	6	F04,F05
40	40	190	120	79	220	81	105	140	18	2	4-Φ19	14	14	70	9	50	7	F05,F07
50	50	216	128	87	220	96	120	155	18	2	8-Φ19	14	14	70	9	50	7	F05,F07
65	65	241	155	110	315	116	140	175	20	2	8-Φ19	17	17	102	11	70	9	F07,F10
80	80	282	165	121	315	132	160	200	22	2	8-Φ23	17	17	102	11	70	9	F07,F10
100	100	305	187	140	400	160	185	225	24	2	8-Φ23	22	22	102	11	70	9	F07,F10
125	125	381	257	186	600	195	225	270	26	2	8-Φ25	27	27	125	13.5	102	11.5	F10,F12
150	150	403	275	204	600	230	260	305	28	2	12-Φ25	27	27	125	13.5	102	11.5	F10,F12
200	200	502	336	242	800	275	305	350	30	2	12-Φ25	36	36	140	18	125	13.5	F12,F14

Dimension Parameter(EN PN16)

Unit:mm

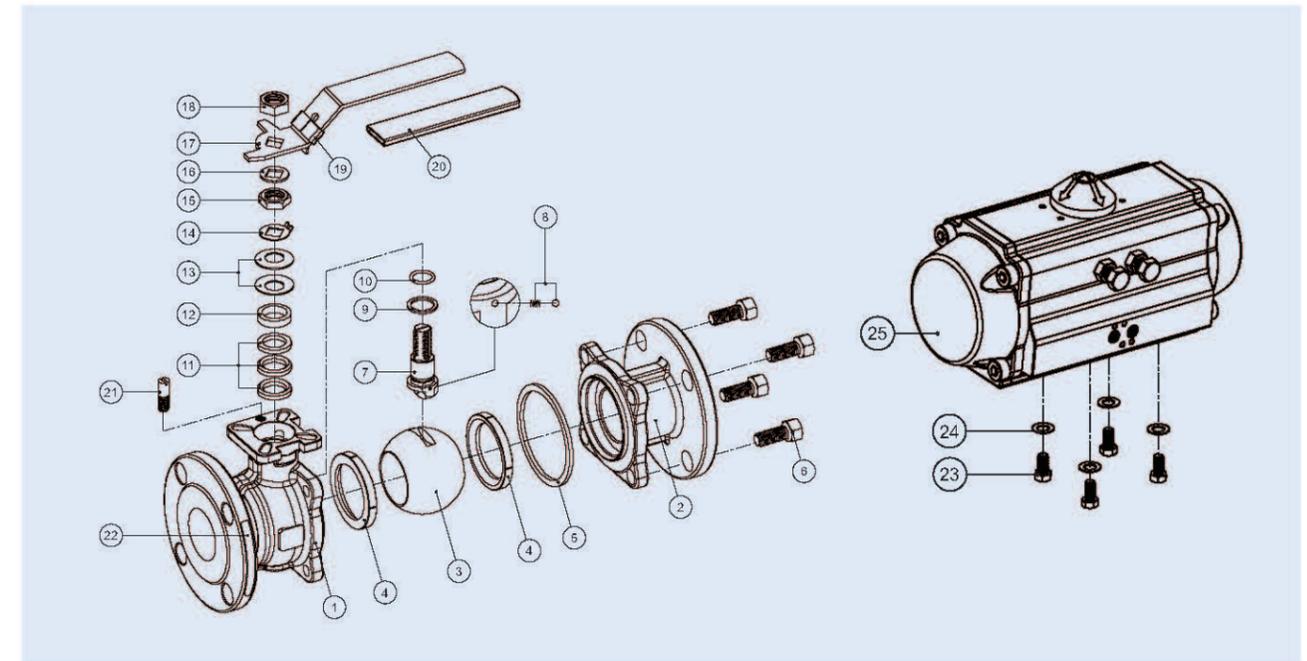
DN	d	L27	L1	H	H1	W	G	C	D	T	f	N-ΦK	P	X	A	a	B	b	ISO 5211
15	15	115	130	89	49	150	45	65	95	16	2	4-Φ14	9	9	42	6	36	6	F03,F04
20	20	120	150	91	52	150	58	75	105	18	2	4-Φ14	9	9	42	6	36	6	F03,F04
25	25	125	160	105	64	200	68	85	115	18	2	4-Φ14	11	11	50	7	42	6	F04,F05
32	32	130	180	113	71.5	200	78	100	140	18	2	4-Φ18	11	11	50	7	42	6	F04,F05
40	40	140	200	120	79	220	88	110	150	18	3	4-Φ18	14	14	70	9	50	7	F05,F07
50	50	150	230	128	87	220	102	125	165	18	3	4-Φ18	14	14	70	9	50	7	F05,F07
65	65	170	290	155	110	315	122	145	185	18	3	8-Φ18	17	17	102	11	70	9	F07,F10
80	80	180	310	165	121	315	138	160	200	20	3	8-Φ18	17	17	102	11	70	9	F07,F10
100	100	190	350	187	140	400	158	180	220	20	3	8-Φ18	22	22	102	11	70	9	F07,F10
125	125	325	400	257	186	600	188	210	250	22	3	8-Φ18	27	27	125	13.5	102	11.5	F10,F12
150	150	350	480	275	204	600	212	240	285	22	3	8-Φ22	27	27	125	13.5	102	11.5	F10,F12
200	200	400	600	336	242	800	268	295	340	24	3	12-Φ22	36	36	140	18	125	13.5	F12,F14

Dimension Parameter(EN PN40)

Unit:mm

DN	d	L27	L1	H	H1	W	G	C	D	T	f	N-ΦK	P	X	A	a	B	b	ISO 5211
15	15	115	130	89	49	150	45	65	95	16	2	4-Φ14	9	9	42	6	36	6	F03,F04
20	20	120	150	99	59.5	150	58	75	105	18	2	4-Φ14	9	9	42	6	36	6	F03,F04
25	25	125	160	105	64	200	68	85	115	18	2	4-Φ14	11	11	50	7	42	6	F04,F05
32	32	130	180	113	71.5	200	78	100	140	18	2	4-Φ18	11	11	50	7	42	6	F04,F05
40	40	140	200	120	79	220	88	110	150	18	3	4-Φ18	14	14	70	9	50	7	F05,F07
50	50	150	230	128	87	220	102	125	165	20	3	4-Φ18	14	14	70	9	50	7	F05,F07
65	65	170	290	155	110	315	122	145	185	22	3	8-Φ18	17	17	102	11	70	9	F07,F10
80	80	180	310	165	121	315	138	160	200	24	3	8-Φ18	17	17	102	11	70	9	F07,F10
100	100	190	350	187	140	400	162	190	235	24	3	8-Φ22	22	22	102	11	70	9	F07,F10
125	125	325	400	257	186	600	188	220	270	26	3	8-Φ26	27	27	125	13.5	102	11.5	F10,F12
150	150	350	480	275	204	600	218	250	300	28	3	8-Φ26	27	27	125	13.5	102	11.5	F10,F12
200	200	400	600	336	242	800	285	320	375	34	3	12-Φ30	36	36	140	18	125	13.5	F12,F14

2-PC Full Port Direct Mounting Pad
Flanged End Ball Valve



Design Features

1. Other alloy are available
2. Casting per NACE/MR-01-75 for sour gas service
3. Casting approved by TUV ad 2000-merkblatt W0
4. Inspection certificate according to EN 10204 3.1 form
5. Level: EP/BA level, average roughness $ra \leq 0.24-0.6\mu m$
Can be customized according to project requirements
6. Quality assurance system:
ISO 9001, PED 2014/68/EU CE 0036
7. Pressure levels:
ASME B16.34: CLASS 150/300, JIS B2001: 10K/20K,
EN 12516-1: PN16/PN40

Parts And Materials

NO.	PART NAME	MATERIALS		
		ASTM/JIS G5121/EN 10213	ASTM/JIS G5121/EN 10213	ASTM/JIS G5151/EN 10213
1	BODY	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
2	CAP	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
3	BALL	A182-F316 / A182-F304		
4	SEAT	PEEK/TFM1600/PTFE/RTFE		
5	GASKET	TFM1600/PTFE/316 SPIRALWOUND+GRAPHITE		
6	BOLT	A2-70, F593C		
7	STEM	A276-316	A276-304	
8	ANTI STATIC	A276-316	A276-304	
9	THRUST WASHER	PTFE/15CF+FF(PTFE+15%CARBON FIBER)		
10	O RING	FKM		
11	PACKING	PTFE/GRAPHITE		
12	GLAND	A276-304		
13	DISC WASHER	A240-301		
14	PREVENT LOOSENESS	A240-304		
15	STEM NUT	A2-70		
16	HANDLE SHIM	A240-304		
17	HANDLE	A240-304		
18	HANDLE NUT	A2-70		
19	LOCKING PAD	A240-304		
20	PLASTIC COVER	VINYL PLASTIC		
21	STOP PIN	A276-304		
22	NAMEPLATE	A666-304		
23	BOLT	A2-70		
24	BOLT WASHER	A240-304		
25	ACTUATORS	PNEUMATIC KP / ELECTRIC KQ		

2GH-Q41F-CL150/300/10K/20/PN16/40

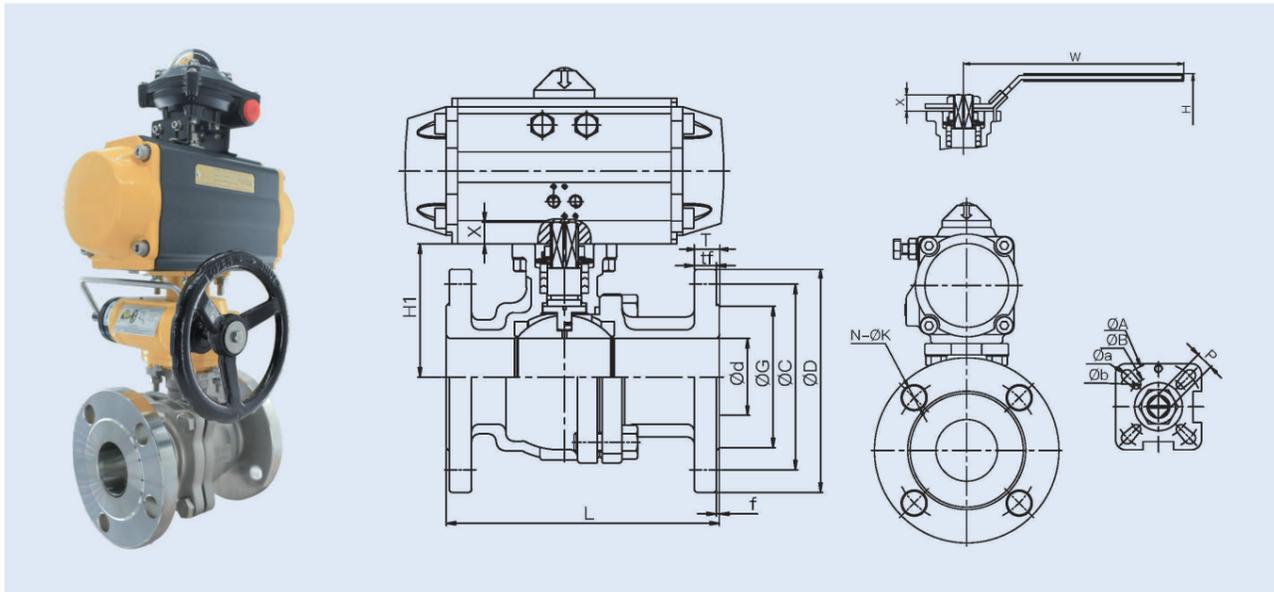
2GA/GB-Q41F-150/300/10K/20K/16/40

2-PC Full Port Direct Mounting Pad
Flanged End Ball Valve

2-PC Full Port Direct Mounting Pad
Flanged End Ball Valve

2GA/GB-Q41F-150/300/10K/20K/16/40

2GA/GB-Q41F-150/300/10K/20K/16/40



□ Design Features

1. Dewaxed precision cast body and cap
2. With fire-resistant structural design and certification
3. Built-in ISO 5211 direct mounting pad easy automation
4. Blow-out proof stem
5. Pressure balance hole in ball slot
6. Anti-static devices for ball-stem-body
7. Options: (1).Actuator,(2).Limit switch,(3).Positioner

□ Applicable Standards

1. Design standard : API 608,ASME B 16.34, JIS B200 1, EN 12516-1
2. Frie safe : API 607,ISO 10497
3. Face to face: ASME B 16.10,JIS B2002, EN 558-27-1
4. Flanged ends : ASME B 16.5 , JIS B2220, EN 1092-1
5. Wall thickness : ASME B 16.34 , EN 125 16-1
6. Inspection & testing : API 598,API 6D, JIS B2003 , DIN 3230/3, EN 12266- 1

□ Dimension Parameter (ASME CLASS 150)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	tf		f	N-ΦK	P	X	A	a	B	b	ISO 5211
									Table 8	Table 9									
1/2"	15	108	89	49	113	35.1	60.5	89	9.7	7.9	1.5	4-Φ16.0	9	9	42	6	36	6	F03,F04
3/4"	20	117	91	52	113	42.9	69.8	99	11.2	8.6	1.5	4-Φ16.0	9	9	42	6	36	6	F03,F04
1"	25	127	105	64	188	50.8	79.2	108	12.7	9.7	1.5	4-Φ16.0	11	11	50	7	42	6	F04,F05
1 1/4"	32	140	113	71.5	188	63.5	88.9	117	14.2	11.2	1.5	4-Φ16.0	11	11	50	7	42	6	F04,F05
1 1/2"	40	165	120	79	200	73.0	98.6	127	15.9	12.7	1.5	4-Φ16.0	14	14	70	9	50	7	F05,F07
2"	50	178	128	87	200	91.9	120.6	152	17.5	14.2	1.5	4-Φ19.1	14	14	70	9	50	7	F05,F07
2 1/2"	65	190	155	110	273	104.6	139.7	178	20.6	15.7	1.5	4-Φ19.1	17	17	102	11	70	9	F07,F10
3"	80	203	165	121	273	127.0	152.4	190	22.4	17.5	1.5	4-Φ19.1	17	17	102	11	70	9	F07,F10
4"	100	229	187	140	292	157.2	190.5	229	22.4	22.4	1.5	8-Φ19.1	22	22	102	11	70	9	F07,F10

□ Dimension Parameter (ASME CLASS 300)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	tf	f	N-ΦK	P	X	A	a	B	b	ISO 5211
3/4"	20	152	99	59.5	113	42.9	82.6	117	14.2	1.5	4-Φ19.1	9	9	42	6	36	6	F03,F04
1"	25	165	105	64	188	50.8	88.9	124	15.7	1.5	4-Φ19.1	11	11	50	7	42	6	F04,F05
1 1/4"	32	178	113	71.5	188	63.5	98.6	133	17.5	1.5	4-Φ19.1	11	11	50	7	42	6	F04,F05
1 1/2"	40	190	120	79	200	73.0	114.3	155	19.0	1.5	4-Φ22.2	14	14	70	9	50	7	F05,F07
2"	50	216	128	87	200	91.9	127.0	165	20.6	1.5	8-Φ19.1	14	14	70	9	50	7	F05,F07
2 1/2"	65	241	155	110	273	104.6	149.4	190	23.9	1.5	8-Φ22.2	17	17	102	11	70	9	F07,F10
3"	80	282	165	121	273	127.0	168.1	210	26.9	1.5	8-Φ22.2	17	17	102	11	70	9	F07,F10
4"	100	305	187	140	292	157.2	200.2	254	30.2	1.5	8-Φ22.2	22	22	102	11	70	9	F07,F10

□ Dimension Parameter (JIS 10K)

Unit:mm

SIZE	d	L	H	H1	W	ΦG	ΦC	ΦD	T	f	N-ΦK	P	X	A	a	B	b	ISO 5211
15A	15	108	89	49	113	51	70	95	12	1	4-Φ15	9	9	42	6	36	6	F03,F04
20A	20	117	91	52	113	56	75	100	14	1	4-Φ15	9	9	42	6	36	6	F03,F04
25A	25	127	105	64	188	67	90	125	14	1	4-Φ19	11	11	50	7	42	6	F04,F05
32A	32	140	113	71.5	188	76	100	135	16	2	4-Φ19	11	11	50	7	42	6	F04,F05
40A	40	165	120	79	200	81	105	140	16	2	4-Φ19	14	14	70	9	50	7	F05,F07
50A	50	178	128	87	200	96	120	155	16	2	4-Φ19	14	14	70	9	50	7	F05,F07
65A	65	190	155	110	273	116	140	175	18	2	4-Φ19	17	17	102	11	70	9	F07,F10
80A	80	203	165	121	273	126	150	185	18	2	8-Φ19	17	17	102	11	70	9	F07,F10
100A	100	229	187	140	292	151	175	210	18	2	8-Φ19	22	22	102	11	70	9	F07,F10

□ Dimension Parameter (JIS 20K)

Unit:mm

SIZE	d	L	H	H1	W	ΦG	ΦC	ΦD	T	f	N-ΦK	P	X	A	a	B	b	ISO 5211
15A	15	140	89	49	113	51	70	95	14	1	4-Φ15	9	9	42	6	36	6	F03,F04
20A	20	152	99	59.5	113	56	75	100	16	1	4-Φ15	9	9	42	6	36	6	F03,F04
25A	25	165	105	64	188	67	90	125	16	1	4-Φ19	11	11	50	7	42	6	F04,F05
32A	32	178	113	71.5	188	76	100	135	18	2	4-Φ19	11	11	50	7	42	6	F04,F05
40A	40	190	120	79	200	81	105	140	18	2	4-Φ19	14	14	70	9	50	7	F05,F07
50A	50	216	128	87	200	96	120	155	18	2	8-Φ19	14	14	70	9	50	7	F05,F07
65A	65	241	155	110	273	116	140	175	20	2	8-Φ19	17	17	102	11	70	9	F07,F10
80A	80	283	165	121	273	132	160	200	22	2	8-Φ23	17	17	102	11	70	9	F07,F10
100A	100	305	187	140	292	160	185	225	24	2	8-Φ23	22	22	102	11	70	9	F07,F10

□ Dimension Parameter (EN PN16)

Unit:mm

DN	d	L27	L1	H	H1	W	G	C	D	T	f	N-ΦK	P	X	A	a	B	b	ISO 5211
15	15	115	130	89	49	113	45	65	95	16	2	4-Φ14	9	9	42	6	36	6	F03,F04
20	20	120	150	91	52	113	58	75	105	18	2	4-Φ14	9	9	42	6	36	6	F03,F04
25	25	125	160	105	64	188	68	85	115	18	2	4-Φ14	11	11	50	7	42	6	F04,F05
32	32	130	180	113	71.5	188	78	100	140	18	2	4-Φ18	11	11	50	7	42	6	F04,F05
40	40	140	200	120	79	200	88	110	150	18	3	4-Φ18	14	14	70	9	50	7	F05,F07
50	50	150	230	128	87	200	102	125	165	18	3	4-Φ18	14	14	70	9	50	7	F05,F07
65	65	170	290	155	110	273	122	145	185	18	3	8-Φ18	17	17	102	11	70	9	F07,F10
80	80	180	310	165	121	273	138	160	200	20	3	8-Φ18	17	17	102	11	70	9	F07,F10
100	100	190	350	187	140	292	158	180	220	20	3	8-Φ18	22	22	102	11	70	9	F07,F10

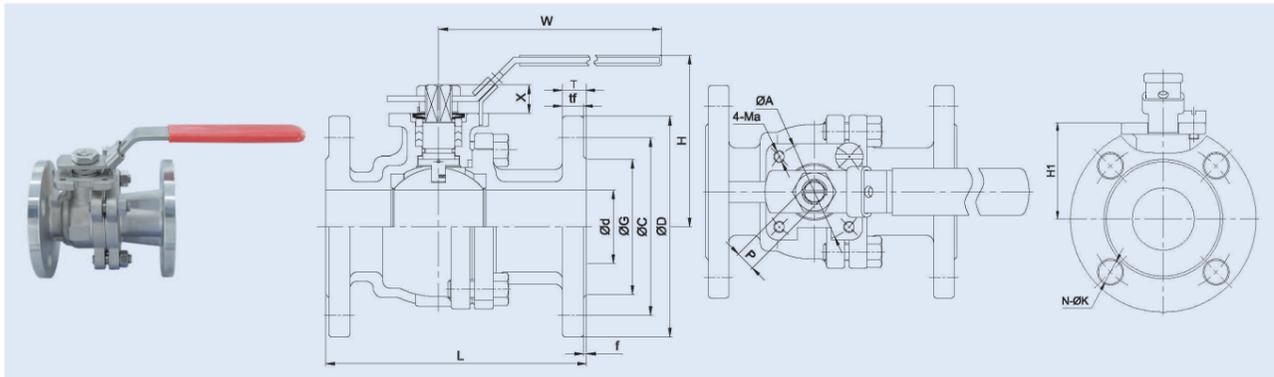
□ Dimension Parameter (EN PN40)

Unit:mm

DN	d	L27	L1	H	H1	W	G	C	D	T	f	N-ΦK	P	X	A	a	B	b	ISO 5211
15	15	115	130	89	49	113	45	65	95	16	2	4-Φ14	9	9	42	6	36	6	F03,F04
20	20	120	150	99	59.5	113	58	75	105	18	2	4-Φ14	9	9	42	6	36	6	F03,F04
25	25	125	160	105	64	188	68	85	115	18	2	4-Φ14	11	11	50	7	42	6	F04,F05
32	32	130	180	113	71.5	188	78	100	140	18	2	4-Φ18	11	11	50	7	42	6	F04,F05
40	40	140	200	120	79	200	88	110	150	18	3	4-Φ18	14	14	70	9	50	7	F05,F07
50	50	150	230	128	87	200	102	125	165	20	3	4-Φ18	14	14	70	9	50	7	F05,F07
65	65	170	290	155	110	273	122	145	185	22	3	8-Φ18	17	17	102	11	70	9	F07,F10
80	80	180	310	165	121	273	138	160	200	24	3	8-Φ18	17	17	102	11	70	9	F07,F10
100	100	190	350	187	140	292	162	190	235	24	3	8-Φ22	22	22	102	11	70	9	F07,F10

2-PC Full Port Flanged End Ball Valve

2DA-Q41F-CL150/300/10/20K/16/40



Design Features

1. Dewaxed precision cast body and cap.
2. With fire-resistant structural design and certification
3. ISO 5211 low platform, need to add bracket connection actuator
4. Blow-out proof stem.
5. Pressure balance hole in ball slot.
6. Anti-static devices for ball-stem-body.
7. Level: EP/BA level, average roughness RA 0.24~0.6um, can be customized according to project requirements

Applicable Standards

1. Design standard: API 608, JI S B2001
2. Fire safe: API 607, ISO 10497
3. Face to face: JIS B2002
4. Flanged ends: JIS B2220
5. Wall thickness: ASME B16.34
6. Inspection & testing: API 598, JIS B2003

Parts And Materials

NO.	PART NAME	MATERIALS		
1	BODY	A351-CF8M	A351-CF8	A216-WCB
2	CAP	A351-CF8M	A351-CF8	A216-WCB
3	BALL	A182-F316	A182-F304	
4	SEAT	PEEK/TFM 1600/PTFE/RTFE		
5	GASKET	TFM 1600/PTFE/316+GRAPH ITE		
6	STEM	A276-316	A276-304	
7	ANTI STATIC	A276-316	A276-304	
8	THRUST WASHER	PTFE/15CF+FF		
9	O RING	FKM		
10	PACKING	PTFE/GRAPHITE		
11	GLAND	A276-304		
12	DISC WASHER	A240-301		
13	STEM NUT	A2-70		
14	HANDLE	A240-304		
15	HANDLE NUT	A2-70		
16	LOCKING PAD	A240-304		
17	PLASTIC COVER	VINYL PLASTIC		
18	STOP PIN	A276-304		

Dimension Parameter (ASME CLASS 150)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	tf		f	N-ØK	P	X	A	Ma	ISO 5211
									Table 8	Table 9							
1/2"	15	108	74	41	136	35.1	60.5	89	9.7	7.9	1.5	4-Ø16.0	9	14	42	M5	F04
3/4"	20	117	75	43	136	42.9	69.8	99	11.2	8.6	1.5	4-Ø16.0	9	14	42	M5	F04
1"	25	127	86	50	186	50.8	79.2	108	12.7	9.7	1.5	4-Ø16.0	11	18	50	M6	F05
1 1/4"	32	140	92	55	186	63.5	88.9	117	14.2	11.2	1.5	4-Ø16.0	11	18	50	M6	F05
1 1/2"	40	165	105	69	202	73.0	98.6	127	15.9	12.7	1.5	4-Ø16.0	14	20	70	M8	F07
2"	50	178	113	77	202	91.9	120.6	152	17.5	14.2	1.5	4-Ø19.1	14	20	70	M8	F07
2 1/2"	65	190	172	99	272	104.6	139.7	178	20.6	15.7	1.5	4-Ø19.1	17	23	102	M10	F10
3"	80	203	182	110	272	127.0	152.4	190	22.4	17.5	1.5	4-Ø19.1	17	23	102	M10	F10
4"	100	229	196	124	292	157.2	190.5	229	22.4	22.4	1.5	8-Ø19.1	22	30	102	M10	F10

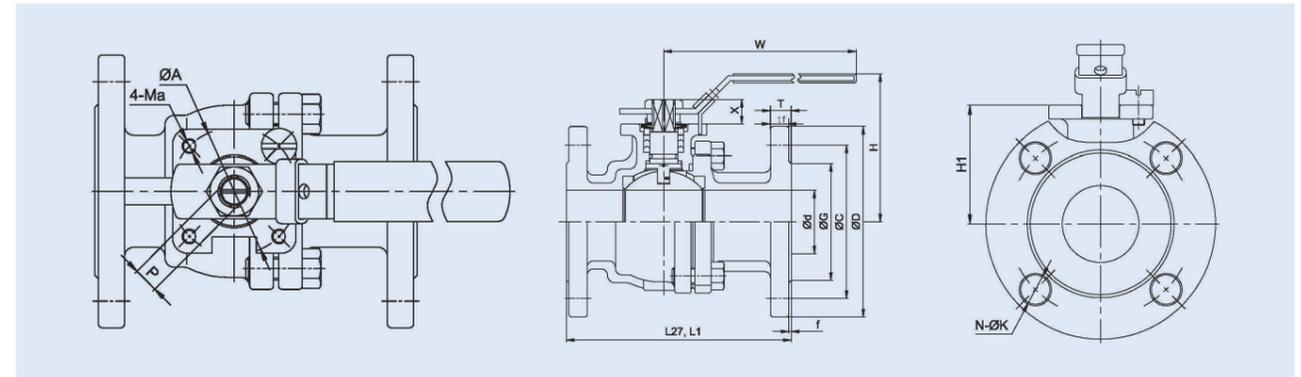
Dimension Parameter (ASME CLASS 300)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	tf	f	N-ØK	P	X	A	Ma	ISO 5211
1/2"	15	140	74	41	136	35.1	66.5	95	12.7	1.5	4-Ø16.0	9	14	42	M5	F04
3/4"	20	152	75	43	136	42.9	82.6	117	14.2	1.5	4-Ø19.1	9	14	42	M5	F04
1"	25	165	86	50	186	50.8	88.9	124	15.7	1.5	4-Ø19.1	11	18	50	M6	F05
1 1/4"	32	178	92	55	186	63.5	98.6	133	17.5	1.5	4-Ø19.1	11	18	50	M6	F05
1 1/2"	40	190	105	69	202	73.0	114.3	155	19.0	1.5	4-Ø22.2	14	20	70	M8	F07
2"	50	216	113	77	202	91.9	127.0	165	20.6	1.5	8-Ø19.1	14	20	70	M8	F07
2 1/2"	65	241	172	99	272	104.6	149.4	190	23.9	1.5	8-Ø22.2	17	23	102	M10	F10
3"	80	282	182	110	272	127.0	168.1	210	26.9	1.5	8-Ø22.2	17	23	102	M10	F10
4"	100	305	196	124	292	157.2	200.2	254	30.2	1.5	8-Ø22.2	22	30	102	M10	F10

2-PC Full Port Flanged End Ball Valve

2DA-Q41F-CL150/300/10/20K/16/40



Design Features

1. Dewaxed precision cast body and cap.
2. With fire-resistant structural design and certification
3. ISO 5211 Low platform, need to add bracket connection actuator
4. Blow-out proof stem.
5. Pressure balance hole in ball slot.
6. Anti-static devices for ball-stem-body.
7. Level: EP/BA level, average roughness Ra 0.24~0.6um, can be customized according to project requirements

Applicable Standards

1. Design standard: EN 12516-1
2. Fire safe: API 607, ISO 10497
3. Face to face: EN 558-27-1
4. Flanged ends: EN 1092-1
5. Wall thickness: ASME B16.34, EN 12516-1
6. Inspection & testing: DIN 3230/3, EN 12266-1

Parts And Materials

NO.	PART NAME	MATERIALS		
1	BODY	1.4408	1.4308	1.0619
2	CAP	1.4408	1.4308	1.0619
3	BALL	A182-F316	A182-F304	
4	SEAT	PEEK/TFM 1600/PTFE/RTFE		
5	GASKET	TFM 1600/PTFE/316+GRAPH ITE		
6	STEM	A276-316	A276-304	
7	ANTI STATIC	A276-316	A276-304	
8	THRUST WASHER	PTFE/15CF+FF		
9	O RING	FKM		
10	PACKING	PTFE/GRAPHITE		
11	GLAND	A276-304		
12	DISC WASHER	A240-301		
13	STEM NUT	A2-70		
14	HANDLE	A240-304		
15	HANDLE NUT	A2-70		
16	LOCKING PAD	A240-304		
17	PLASTIC COVER	VINYL PLASTIC		
18	STOP PIN	A276-304		

Dimension Parameter (EN PN16)

Unit:mm

DN	d	L27	L1	H	H1	W	G	C	D	T	f	N-ØK	P	x	A	Ma	ISO5211
15	15	115	130	74	41	136	45	65	95	16	2	4-Ø14	9	14	42	M5	F04
20	20	120	150	75	43	136	58	75	105	18	2	4-Ø14	9	14	42	M5	F04
25	25	125	160	86	50	186	68	85	115	18	2	4-Ø14	11	18	50	M6	F05
32	32	130	180	92	55	186	78	100	140	18	2	4-Ø18	11	18	50	M6	F05
40	40	140	200	105	69	202	88	110	150	18	3	4-Ø18	14	20	70	M8	F07
50	50	150	230	113	77	202	102	125	165	18	3	4-Ø18	14	20	70	M8	F07
65	65	170	290	172	99	272	122	145	185	18	3	8-Ø18	17	23	102	M10	F10
80	80	180	310	182	110	272	138	160	200	20	3	8-Ø18	17	23	102	M10	F10
100	100	190	350	196	124	292	158	180	220	20	3	8-Ø18	22	30	102	M10	F10

Dimension Parameter (EN PN40)

Unit:mm

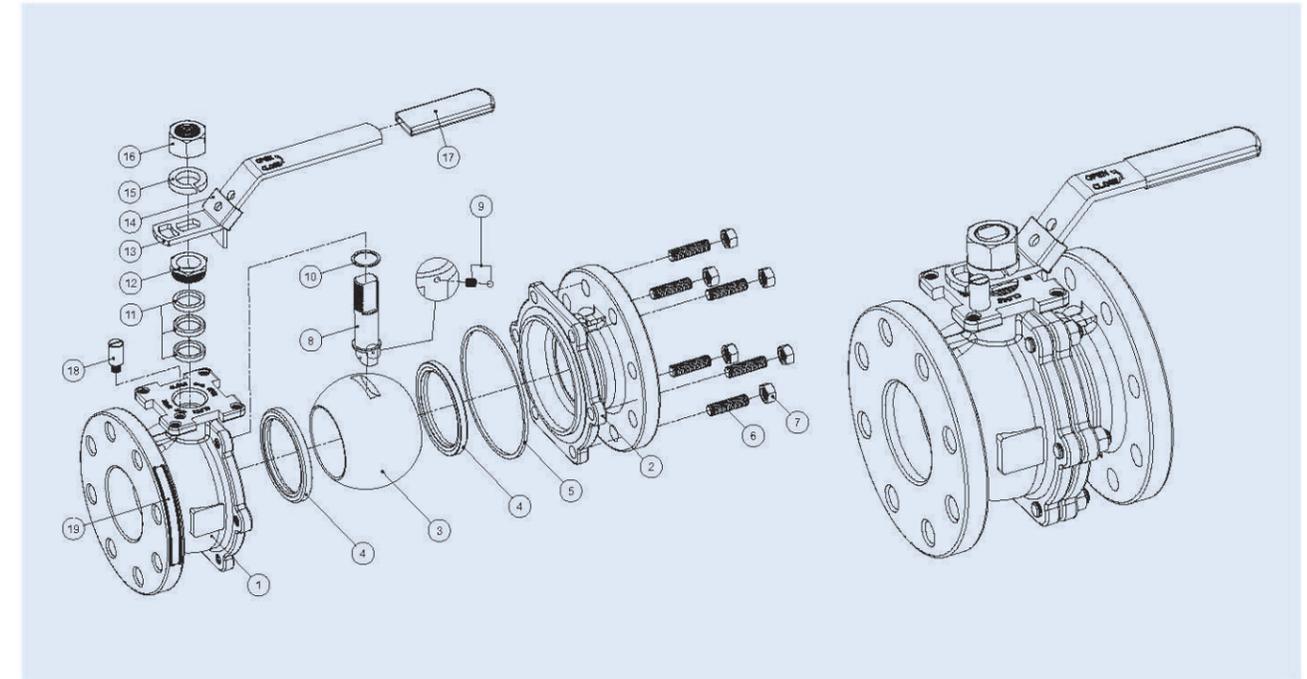
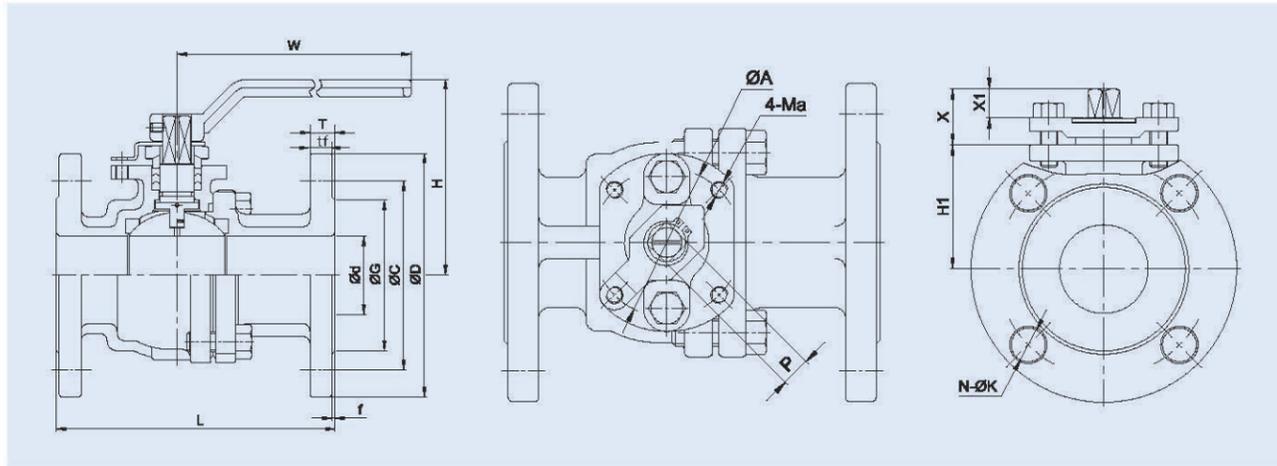
DN	d	L27	L1	H	H1	W	G	C	D	T	f	N-ØK	P	x	A	Ma	ISO5211
15	15	115	130	74	41	136	45	65	95	16	2	4-Ø14	9	14	42	M5	F04
20	20	120	150	75	43	136	58	75	105	18	2	4-Ø14	9	14	42	M5	F04
25	25	125	160	86	50	186	68	85	115	18	2	4-Ø14	11	18	50	M6	F05
32	32	130	180	92	55	186	78	100	140	18	2	4-Ø18	11	18	50	M6	F05
40	40	140	200	105	69	202	88	110	150	18	3	4-Ø18	14	20	70	M8	F07
50	50	150	230	113	77	202	102	125	165	20	3	4-Ø18	14	20	70	M8	F07
65	65	170	290	172	99	272	122	145	185	22	3	8-Ø18	17	23	102	M10	F10
80	80	180	310	182	110	272	138	160	200	24	3	8-Ø18	17	23	102	M10	F10
100	100	190	350	196	124	292	162	190	235	24	3	8-Ø22	22	30	102	M10	F10

2-PC Full Port Flanged End Ball Valve

2-PC Full Port Flanged End Ball Valve

2DA-Q41F-CL150/300/10/20K/16/40

AR104/108-Q41F-150/300/10/20K/16/40



Design Features

1. Dewaxed precision cast body and cap
2. With fire-resistant structural design and certification
3. ISO 5211 low platform, need to add bracket connection actuator
4. Blow-out proof stem
5. Pressure balance hole in ball slot
6. Anti-static devices for ball-stem-body
7. Level: EP / BA level, average roughness RA 0.24~0.6um, can be customized according to project requirements

Applicable Standards

1. Design standard: API 608, JIS B2001
2. Fire safe: API 607, ISO 10497
3. Face to face: JIS B2002
4. Flanged ends: JIS B2220
5. Wall thickness: ASME B16.34
6. Inspection & testing: API 598, JIS B2003

Dimension Parameter (JIS 10K)

SIZE	d	L	H	H1	W	G	C	D	T	f	N-ØK	P	X	X1	A	Ma	ISO5211
15A	15	108	74	37	150	51	70	95	12	1	4-Ø15	9	21	9	42	M5	F04
20A	20	117	76	39	150	56	75	100	14	1	4-Ø15	9	21	9	42	M5	F04
25A	25	127	90	46	202	67	90	125	14	1	4-Ø19	11	26	14	50	M6	F05
32A	32	140	95	51	202	76	110	135	16	2	4-Ø19	11	26	14	50	M6	F05
40A	40	165	117	62	220	81	105	140	16	2	4-Ø19	14	32	16	70	M8	F07
50A	50	178	125	70	220	96	120	155	16	2	4-Ø19	14	32	16	70	M8	F07
65A	65	190	146	89	296	116	140	175	18	2	4-Ø19	17	40	20	102	M10	F10
80A	80	203	156	99	296	126	150	185	18	2	8-Ø19	17	40	20	102	M10	F10
100A	100	229	169	115	324	151	175	210	18	2	8-Ø19	22	48	28	102	M10	F10
125A	125	356	215	151	500	182	210	250	20	2	8-Ø23	27	63	38	125	M12	F12
150A	150	394	233	169	500	212	240	280	22	2	8-Ø23	27	63	38	125	M12	F12

Parts And Materials

NO.	PART NAME	MATERIALS		
1	BODY	SCS14A	SCS 13A	SCPH2
2	CAP	SCS14A	SCS 13A	SCPH2
3	BALL	A182-F316	A182-F304	
4	SEAT	PEEK/TFM 1600/PTFE/RTFE		
5	GASKET	TFM 1600/PTFE/316+GRAPHITE		
6	STEM	A276-316	A276-304	
7	ANTI STATIC	A276-316	A276-304	
8	THRUST WASHER	PTFE/15CF+FF		
9	O RING	FKM		
10	PACKING	PTFE/GRAPHITE		
11	GLAND	A276-304		
12	PLATEN GLAND	SCS13A		
13	STOP PLATE	A240-304		
14	STOP PLATE	A240-304		
15	SCREWS	A2-70		
16	HANDLE	A351-CF8/A216-WCB/QT400		
17	GLAND BOLT	A2-70		
18	BOLT	A2-70,F593C		

Available Options

1. Other alloy are available
2. Casting per NACE/MR-01-75 for sour gas service.
3. Casting approved by TUV AD 2000-Merkblatt W0

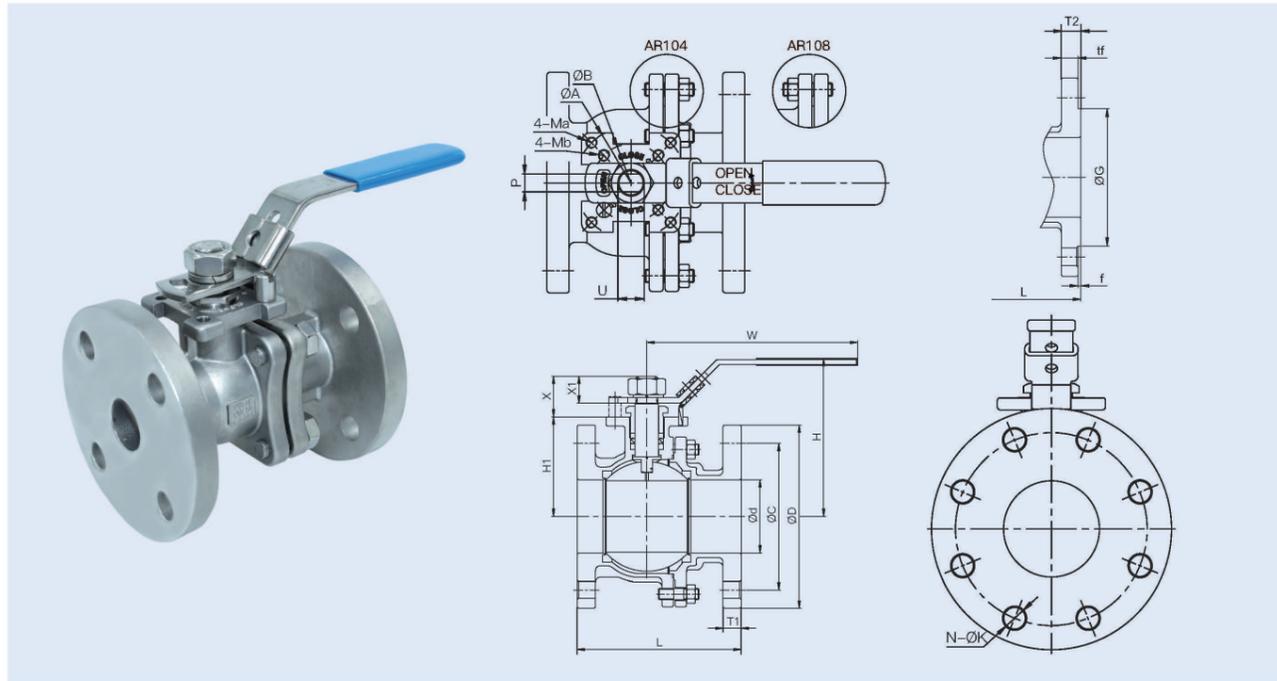
4. Inspection certificate according to EN 10204 3.1 form
5. Pressure levels: ASME B16.34:CLASS 150/300, JIS B2001:10K/20K, EN 12516-1:PN16/PN40
6. Quality assurance system: ISO 9001, PED 2014/68/EU CE 0036

Parts And Materials

NO.	PART NAME	MATERIALS		
		ASTM/JIS G5121/EN 10213	ASTM/JIS G5121/EN 10213	ASTM/JIS G5151/EN 10213
1	BODY	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
2	CAP	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
3	BALL	A182-F316		A182-F304
4	SEAT	PEEK/TFM1600/PTFE/RTFE		
5	GASKET	TFM1600/PTFE/316 SPIRALWOUND+GRAPHITE		
6	BOLT	A2-70		
7	NUT	A2-70		
8	STEM	A276-316	A276-304	
9	ANTI STATIC	A276-316	A276-304	
10	THRUST WASHER	PTFE/15CF+FF(PTFE+15%CARBON FIBER)		
11	PACKING	PTFE/GRAPHITE		
12	GLAND	A276-304		
13	HANDLE	A240-304		
14	LOCKING PAD	A240-304		
15	SPRING WASHER	A240-301		
16	STEM NUT	A2-70		
17	PLASTIC COVER	VINYL PLASTIC		
18	STOP PIN	A276-304		
19	NAMEPLATE	A666-304		

2-PC Full Port Flanged End Ball Valve

AR104/108-Q41F-150/300/10/20K/16/40



Design Features

1. Dewaxed precision cast body and cap
2. With fire-resistant structural design and certification
3. Built-in ISO 5211 direct mounting pad easy automation
4. Blow-out proof stem
5. Pressure balance hole in ball slot
6. Anti-static devices for ball-stem-body

Applicable Standards

1. Design standard : API 608, ASME B16.34, JIS B2001, EN 12516-1
2. Fire safe : API 607, ISO 10497
3. Face to face : ASME B16.10, JIS B2002, EN558-27-1
4. Flanged ends : ASME B16.5, JIS B2220
5. Wall thickness : ASME B16.34, EN 12516-1
6. Inspection & testing : API 598, API 6D, JIS B2003, DIN 3230/3, EN 12266-1

Dimension Parameter(EN PN16)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	T1	tf	f	U	P	X	X1	A	Ma	B	Mb	ISO5211
1/2"	15	108	76	32	155	35.1	60.5	89	9.4	7.9	1.5	M12	8	19	12	42	M5			F04
3/4"	20	117	79	35	155	42.9	69.8	99	10.1	8.6	1.5	M12	8	19	12	42	M5			F04
1"	25	127	92	48	162	50.8	79.2	108	11.2	9.7	1.5	M14	9.5	27	19	50	M5			F05
1 1/4"	32	140	96	52	162	63.5	88.9	117	12.7	11.2	1.5	M14	9.5	27	19	50	M6			F05
1 1/2"	38	165	111	63	187	73.0	98.6	127	14.2	12.7	1.5	M20	12	36	25	70	M8			F07
2"	50	178	118	70	187	91.9	120.6	152	15.7	14.2	1.5	M20	12	36	25	70	M8			F07
2 1/2"	64	190	164	99	232	104.6	139.7	178	17.2	15.7	1.5	M24	16	45	29	102	M10	70	M10	F07-F10
3"	78	203	176	109	232	127.0	152.4	190	19.0	17.5	1.5	M24	16	45	29	102	M10	70	M10	F07-F10
4"	98	229	187	124	330	157.2	190.5	229	23.9	22.4	1.5	M24	16	45	29	102	M10	70	M10	F07-F10

Dimension Parameter(EN PN40)

Unit:mm

NPS	d	L	H	H1	W	G	C	D	T1	tf	f	N-ΦK	U	P	X	X1	A	Ma	B	Mb	ISO5211
1/2"	15	140	76	32	155	35.1	66.5	95	14.2	12.7	1.5	4-Φ16.0	M12	8	19	12	42	M5			F04
3/4"	20	152	79	35	155	42.9	82.6	117	15.7	14.2	1.5	4-Φ19.1	M12	8	19	12	42	M5			F04
1"	25	165	92	48	162	50.8	88.9	124	17.2	15.7	1.5	4-Φ19.1	M14	9.5	27	19	50	M5			F05
1 1/4"	32	178	96	52	162	63.5	98.6	133	19.0	17.5	1.5	4-Φ19.1	M14	9.5	27	19	50	M6			F05
1 1/2"	38	190	111	63	187	73.0	114.3	155	20.5	19.0	1.5	4-Φ22.2	M20	12	36	25	70	M8			F07
2"	50	216	118	70	187	91.9	127.0	165	22.1	20.6	1.5	8-Φ19.1	M20	12	36	25	70	M8			F07
2 1/2"	64	241	164	99	232	104.6	149.4	190	25.4	23.9	1.5	8-Φ22.2	M24	16	45	29	102	M10	70	M10	F07-F10
3"	78	282	176	109	232	127.0	168.1	210	28.4	26.9	1.5	8-Φ22.2	M24	16	45	29	102	M10	70	M10	F07-F10
4"	98	305	187	124	330	157.2	200.2	254	31.7	30.2	1.5	8-Φ22.2	M24	16	45	29	102	M10	70	M10	F07-F10

2-PC Full Port Flanged End Ball Valve

Dimension Parameter(JIS 10K)

Unit:mm

SIZE	d	L	H	H1	W	G	C	D	T1	T2	f	N-ΦK	U	P	X	X1	A	Ma	B	Mb	ISO5211
15	15	108	76	32	155	51	70	95	12	12	1	4-Φ15	M12	8	19	12	42	M5			F04
20	20	117	79	35	155	56	75	100	14	14	1	4-Φ15	M12	8	19	12	42	M5			F04
25	25	127	92	48	162	67	90	125	14	14	1	4-Φ19	M14	9.5	27	19	50	M5			F05
32	32	140	96	52	162	76	100	135	16	16	2	4-Φ19	M14	9.5	27	19	50	M6			F05
40	38	165	111	63	187	81	105	140	16	16	2	4-Φ19	M20	12	36	25	70	M8			F07
50	50	178	118	70	187	96	120	155	16	16	2	4-Φ19	M20	12	36	25	70	M8			F07
65	64	190	164	99	232	116	140	175	18	18	2	4-Φ19	M24	16	45	29	102	M10	70	M10	F07-F10
80	78	203	176	109	232	126	150	185	18	18	2	8-Φ19	M24	16	45	29	102	M10	70	M10	F07-F10
100	98	229	187	124	330	151	175	210	18	18	2	8-Φ19	M24	16	45	29	102	M10	70	M10	F07-F10

Dimension Parameter(JIS 20K)

Unit:mm

SIZE	d	L	H	H1	W	G	C	D	T1	T2	f	N-ΦK	U	P	X	X1	A	Ma	B	Mb	ISO5211
15	15	140	76	32	155	51	70	95	14	14	1	4-Φ15	M12	8	19	12	42	M5			F04
20	20	152	79	35	155	56	75	100	16	16	1	4-Φ15	M12	8	19	12	42	M5			F04
25	25	165	92	48	162	67	90	125	16	16	1	4-Φ19	M14	9.5	27	19	50	M5			F05
32	32	178	96	52	162	76	100	135	18	18	2	4-Φ19	M14	9.5	27	19	50	M6			F05
40	38	190	111	63	187	81	105	140	18	18	2	4-Φ19	M20	12	36	25	70	M8			F07
50	50	216	118	70	187	96	120	155	18	18	2	8-Φ19	M20	12	36	25	70	M8			F07
65	64	241	164	99	232	116	140	175	20	20	2	8-Φ19	M24	16	45	29	102	M10	70	M10	F07-F10
80	78	282	176	109	232	132	160	200	22	22	2	8-Φ23	M24	16	45	29	102	M10	70	M10	F07-F10
100	98	305	187	124	330	160	185	225	24	24	2	8-Φ23	M24	16	45	29	102	M10	70	M10	F07-F10

Dimension Parameter(EN PN16)

Unit:mm

DN	d	L	H	H1	W	G	C	D	T1	T2	f	N-ΦK	U	P	X	X1	A	Ma	B	Mb	ISO5211
15	15	115	76	32	155	45	65	95	12	16	2	4-Φ14	M12	8	19	12	42	M5			F04
20	20	120	79	35	155	58	75	105	13	18	2	4-Φ14	M12	8	19	12	42	M5			F04
25	25	125	92	48	162	68	85	115	14	18	2	4-Φ14	M14	9.5	27	19	50	M5			F05
32	32	130	96	52	162	78	100	140	14	18	2	4-Φ18	M14	9.5	27	19	50	M6			F05
40	38	140	111	63	187	88	110	150	14	18	3	4-Φ18	M20	12	36	25	70	M8			F07
50	50	150	118	70	187	102	125	165	18	18	3	4-Φ18	M20	12	36	25	70	M8			F07
65	64	170	164	99	232	122	145	185	18	18	3	8-Φ18	M24	16	45	29	102	M10	70	M10	F07-F10
80	78	180	176	109	232	138	160	200	20	20	3	8-Φ18	M24	16	45	29	102	M10	70	M10	F07-F10
100	98	190	187	124	330	158	180	220	20	20	3	8-Φ18	M24	16	45	29	102	M10	70	M10	F07-F10

Dimension Parameter(EN PN40)

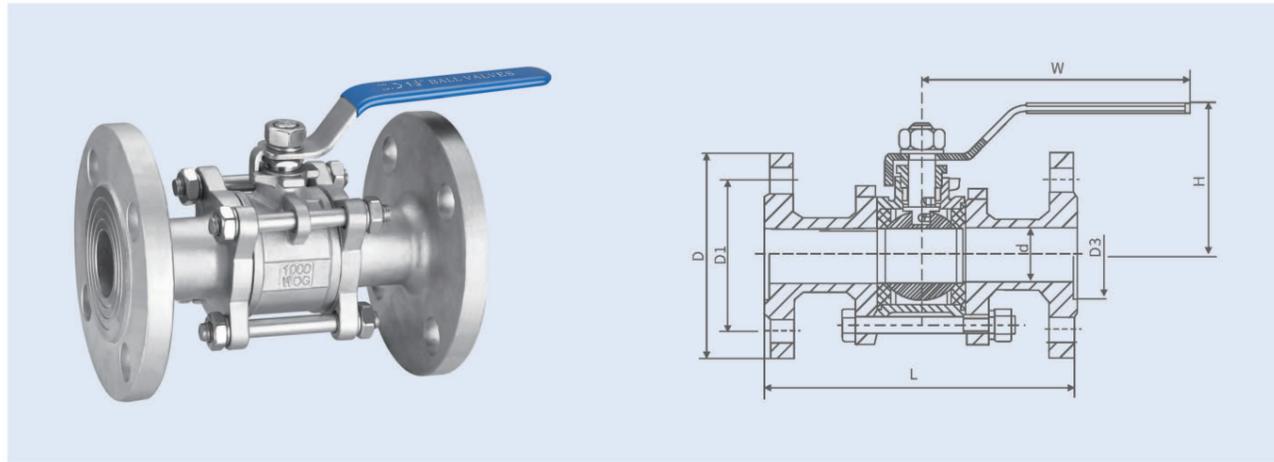
Unit:mm

DN	d	L	H	H1	W	G	C	D	T1	T2	f	N-ΦK	U	P	X	X1	A	Ma	B	Mb	ISO5211
15	15	115	76	32	155	45	65	95	14	16	2	4-Φ14	M12	8	19	12	42	M5			F04
20	20	120	79	35	155	58	75	105	16	18	2	4-Φ14	M12	8	19	12	42	M5			F04
25	25	125	92	48	162	68	85	115	16	18	2	4-Φ14	M14	9.5	27	19	50	M5			F05
32	32	130	96	52	162	78	100	140	16	18	2	4-Φ18	M14	9.5	27	19	50	M6			F05
40	38	140	111	63	187	88	110	150	16	18	3	4-Φ18	M20	12	36	25	70	M8			F07
50	50	150	118	70	187	102	125	165	17	20	3	4-Φ18	M20	12	36	25	70	M8			F07
65	64	170	164	99	232	122	145	185	19	22	3	8-Φ18	M24	16	45	29	102	M10	70	M10	F07-F10
80	78	180	176	109	232	138	160	200	21	24	3	8-Φ18	M24	16	45	29	102	M10	70	M10	F07-F10
100	98	190	187	124	330	162	190	235	21	24	3	8-Φ22	M24	16	45	29	102	M10	70	M10	F07-F10

AR104/108-Q41F-150/300/10/20K/16/40

3-PC Full Port Flange End Ball Valve

Q41W-16P



Design Features

Product specification: DN15~100
 Nominal pressure: PN 1.6MPa
 Applicable medium: water, gas and oil
 Applicable temperature: -20~120°C
 Thread standard: BSPT/BSP/NPT/DIN/JIS/RC/G
 Design and manufacture: GB/T 12224/ANSI B16.34
 Inspection and test: GB/T 13927/API 598
 Air pressure test: 1.6MPa

Parts And Materials

PART NAME	MATERIAL	
BODY	CF8M	CF8
BONNET	CF8M	CF8
BALL	SS316	SS304
STEM	SS316	SS304
SEAT	RTFE	RTFE
STEM SEAL	PTFE	PTFE
MIDDLE HEAD PAD	PTFE	PTFE
PACKING SLEEVE	SS202	SS202
HANDLE	SS202	SS202
RUBBER SLEEVE	PLASTIC	PLASTIC
ELASTIC WASHER	SS202	SS202
NUT	SS202	SS202
BOLT	SS202	SS202
ELASTIC WASHER	A193GR.B8	A193GR.B8

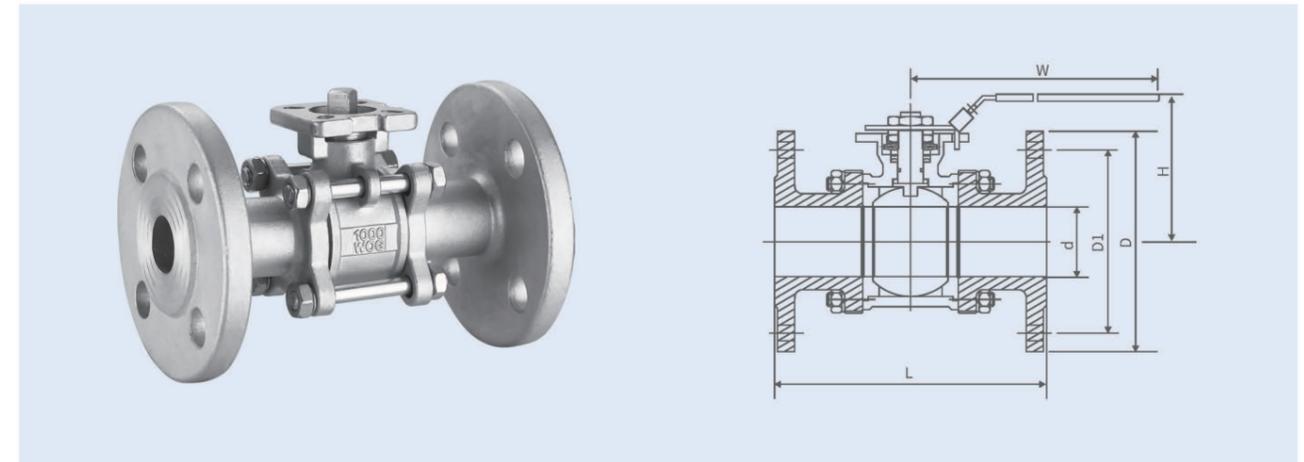
Dimension Parameter

Unit:mm

DN	L	d	H	D	D1	D3	W
15	130	15	57	95	65	40	105
20	150	20	63	105	75	51	118
25	158	25	77	115	85	58	128
32	175	32	80	140	100	66	137
40	202	39	92	150	110	76	170
50	227	50	102	165	125	88	170
65	284	65	115	185	145	110	215
80	316	78	136	200	160	121	235
100	348	100	178	220	180	150	318

3-PC Full Port Direct Mounting Pad Ball Valve

Q41W-16P



Design Features

Product specification: NPS 1/4~2"
 Applicable temperature: -20~120°C
 Nominal pressure: PN 1.0 /1.6MPa
 Design and manufacture: GB/T 12237/ANSI B16.34
 Connection size: GB/T 9113.1/ASME B16.5
 Structural length: GB/T 12221/ASME B16.1
 Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
 Inspection and test: GB/T 13927/API 598

Parts And Materials

PART NAME	MATERIAL	
BODY	CF8M	CF8
BONNET	CF8M	CF8
BALL	SS316	SS304
STEM	SS316	SS304
SEAT	RTFE	RTFE
STEM SEAL	PTFE	PTFE
MIDDLE HEAD PAD	PTFE	PTFE
PACKING SLEEVE	SS202	SS202
ELASTIC WASHER	SS302	SS302
NUT	SS302	SS302
BOLT	SS302	SS302
ELASTIC WASHER	SS302	SS302

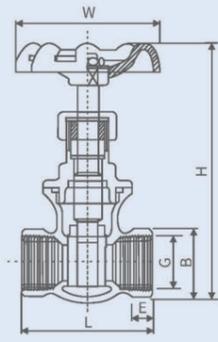
Dimension Parameter

Unit:mm

DN	L	d	H	D	D1	W
15	130	15	72	95	65	145
20	150	20	75	105	75	145
25	158	25	85	115	85	166
32	175	32	100	140	100	166
40	202	39	110	150	110	206
50	227	50	125	165	125	206

Threaded Gate Valve

Z15W-16P



Design Features

Product specification: NPS 1/2"~4"(DN15~100)

Applicable temperature: -20~120°C

Nominal pressure: PN 1.6MPa

Design and manufacture: GB/T 12237/ANSI B16.34

Connection size: GB/T 9113.1/ASME B16.5 CLASS150

Structural length: GB/T 12221/ASME B16.1

Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G

Inspection and test: GB/T 13927/API 598

Parts And Materials

PART NAME	MATERIAL
BODY	ASTM A351 CF8M/CF8
BONNET	ASTM A351 CF8M/CF8
STEM	SS 316
CENTRAL SERBIA	ASTM A351 GR.CF8M
GASKET	R-PTFE
SPRING	SS 304
SEALING RING	SS 316
PACKING	R-PTFE
PACKING SLEEVE	SS 304
HEX CAP	SS 316
HANDWHEEL	ALUMINUM ALLOY

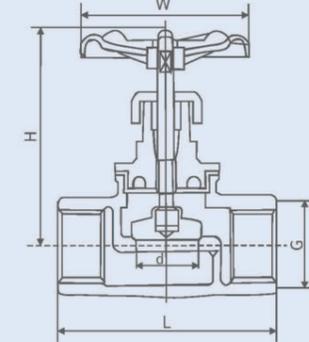
Dimension Parameter

Unit:mm

NPS	DN	L	E	B	H	W	G
1/2"	15	52	16	25	90	63	19
3/4"	20	57	18	31	98	63	24
1"	25	62	20	38	108	63	31
1 1/4"	32	71	21.5	46	128	73	39
1 1/2"	40	74	23	51	152	97	45
2"	50	84	24.5	65	166	97	57
2 1/2"	65	105	32	83	198	126	73
3"	80	115	35	98	220	126	85
4"	100	125	40	122	260	140	110

Internal Thread Globe Valve

J11W-16P



Design Features

Product specification: NPS 1/2"~2"(DN15~50)

Applicable temperature: -20~120°C

Nominal pressure: PN 1.6MPa

Design and manufacture: GB/T 12237/ANSI B16.34

Connection size: GB/T 9113.1/ASME B16.5 CLASS150

Structural length: GB/T 12221/ASME B16.1

Thread standard: according to BSPT/BSP/NPT/DIN/JIS /RC/G

Inspection and test: GB/T 13927/API 598

Parts And Materials

PART NAME	MATERIAL
BODY	ASTM A351 CF8M/CF8
BONNET	ASTM A351 CF8M/CF8
CENTRE SHAFT	SS 316
MIDDLE STOPPER	SS 316
HEXAGONAL NUTS	SS 316
PACKING SLEEVE	SS 304
PACKING	R-PTFE
GASKET	SS 304
SEAL RING	R-PTFE
HANDWHEEL	ASTM B85

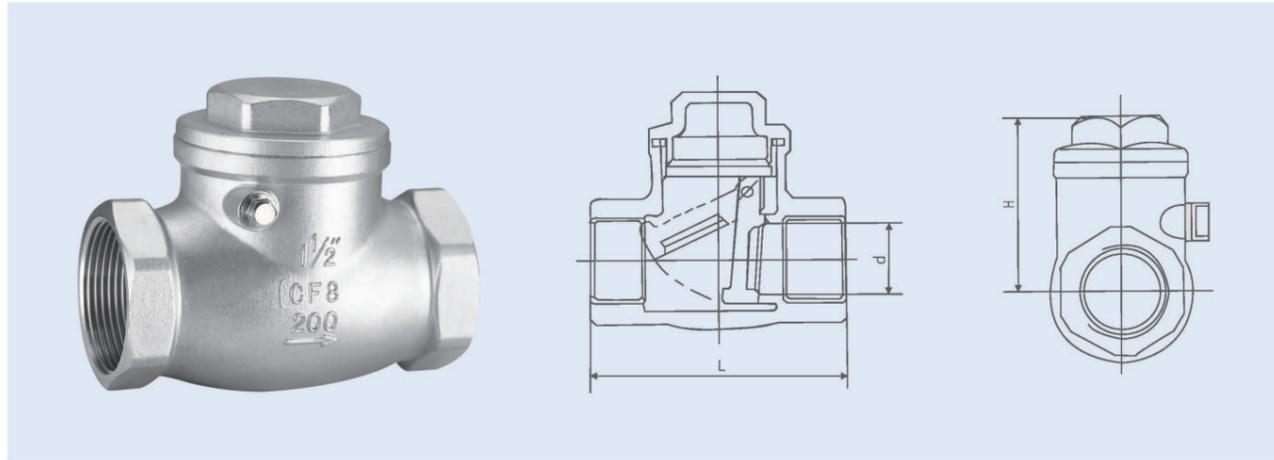
Dimension Parameter

Unit:mm

NPS	DN	L	H	W	G
1/2"	15	60	88	63	19
3/4"	20	75	90	63	24
1"	25	85	100	73	31
1 1/4"	32	99	120	96	39
1 1/2"	40	115	130	96	45
2"	50	132	143	107	57
2 1/2"	65	164	190	125	73
3"	80	188	205	125	85

Horizontal Threaded Check Valve

H14W-16P



Design Features

Product specification: NPS 1/2"-2"(DN15-50)

Applicable temperature: -20~120°C

Nominal pressure: PN 1.6MPa

Design and manufacture: GB/T 12237 / ANSI B16.34

Dimension reference: GB/T 9113.1/ASME B16.5 CLASS150

Structural length: GB/T 12221/ASME B16.1

Thread standard: according to BSPT/BSP/NPT /DIN/JIS /RC /G

Inspection and test: GB/T 13927/API 598

Parts And Materials

PART NAME	MATERIAL
BODY	CF8M、CF8
STEM	CF8M、CF8
BONNET	CF8M、CF8
LINE BAR	TEFLON
BOLT	SS316、304
PTFE GASKET	TEFLON
METAL GASKET	SS316、304
PIN	SS316、304

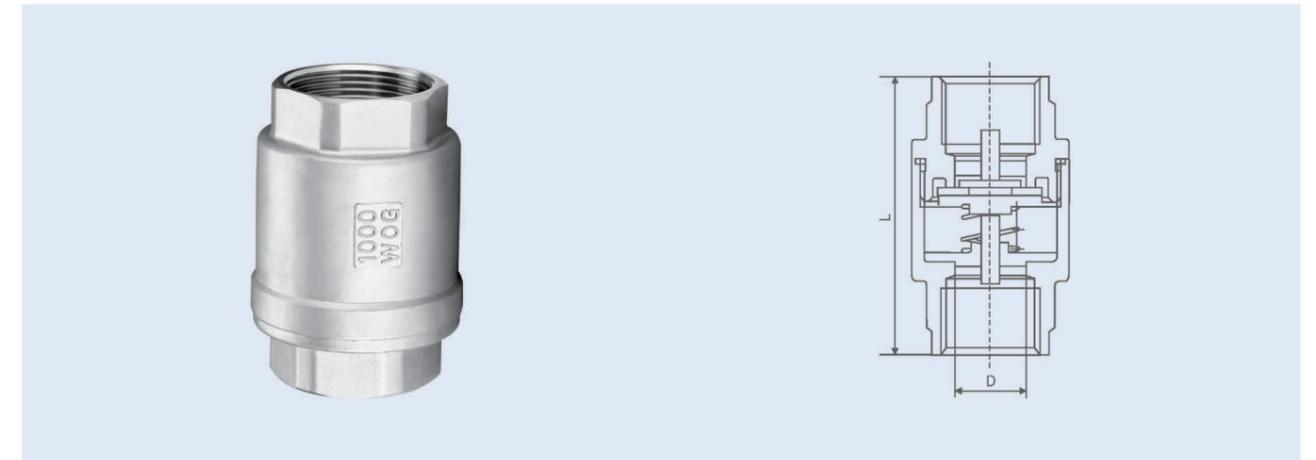
Dimension Parameter

Unit:mm

NPS	DN	L	d	H
1/2"	15	65	15	44
3/4"	20	80	20	53
1"	25	90	25	58
1 1/4"	32	105	32	62
1 1/2"	40	120	40	73
2"	50	141	50	78

Vertical Threaded Spring Plate Valve

H12W-16P



Design Features

Product specification: NPS 3/8"-3"(DN10-80)

Applicable temperature: -20~180°C

Nominal pressure: PN 1.6 ~6.4MPa

Design and manufacture: GB/T 12237/ANSI B16.34

Connection size: GB/T 9113.1/ASME B16.5 CLASS150

Structural length: GB/T 12221/ASME B16.1

Thread standard: according to BSPT/ BSP/NPT/DIN/JIS/RC/G

Inspection and test: GB/T 13927/API 598

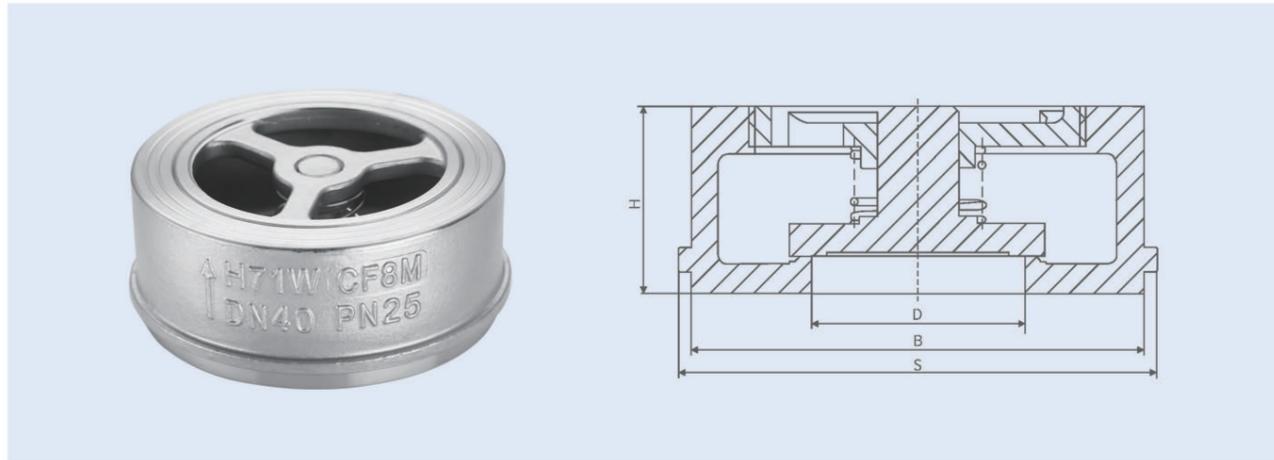
Parts And Materials

PART NAME	MATERIAL
BODY	CF8M、CF8
BONNET	CF8M、CF8
STEM	CF8M、CF8
SEAT	FLUORORUBBER
LINE BAR	TEFLON
SPRING	SS316、304

Dimension Parameter

Unit:mm

NPS	DN	L	D
3/8"	10	56	11
1/2"	15	61	14
3/4"	20	69	18
1"	25	82	24
1 1/4"	32	92	31
1 1/2"	40	107	38
2"	50	121	47
2 1/2"	65	127	64
3"	80	168	80



□ Design Features

Product specification: DN15~150
 Applicable temperature: -20~180°C
 Nominal pressure: PN 1.6~6.4MPa
 Design and manufacture: GB/T 12237/ANSI B16.34
 Connection size: GB/T 9113.1/ASME B16.5
 Structural length: GB/T 12221/ASME B16.1
 Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
 Inspection and test: GB/T 13927/API 598

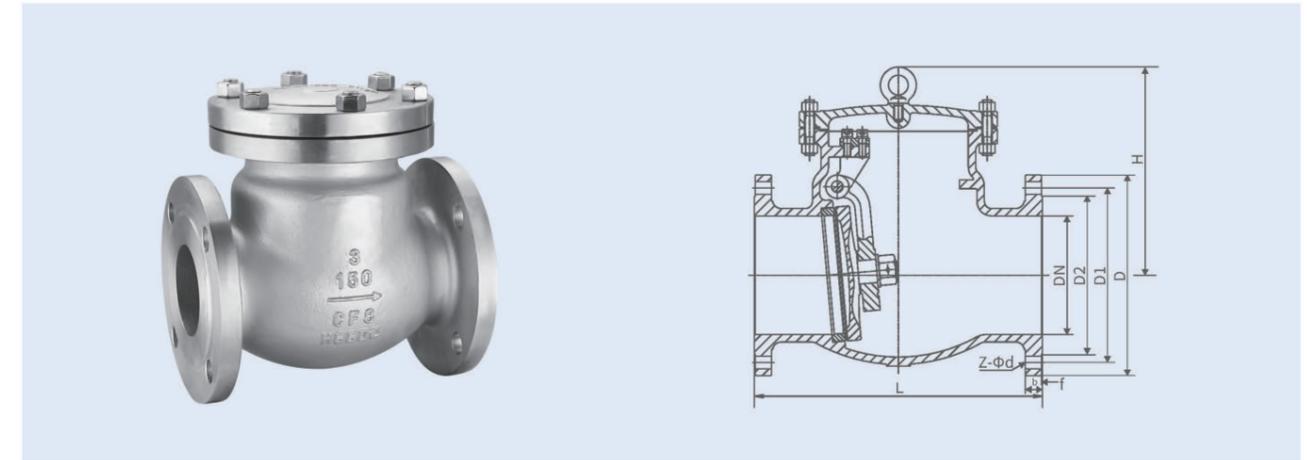
□ Parts And Materials

PART NAME	MATERIAL
BODY	CF8M、CF8
BONNET	CF8M、CF8
STEM	CF8M、CF8
SEAT	FLUORORUBBER
LINE BAR	TEFLON
SPRING	SS316、304

□ Dimension Parameter

Unit:mm

DN	D	B	S	H
15	15	48	52	28
20	17	54	60	28
25	25	66	71	30
32	32	77	82	33
40	40	85	92	36
50	50	100	105	40
65	64	121	127	50
80	71	136	143	60
100	92	155	163	70
125	117	182	188	82
150	135	205	215	100



□ Dimension Parameter (Class 150Lb)

Unit:mm

DN	NPS (in)	d	D	D1	C	R	Z-d1	L
15	1/2	13	90	60.3	8.0	34.9	4-Φ16	108
20	3/4	19	100	69.9	8.9	42.9	4-Φ16	117
25	1	25	110	79.4	9.6	50.8	4-Φ16	127
32	1¼	32	115	88.9	11.2	63.5	4-Φ16	140
40	1½	38	125	98.4	12.7	73.0	4-Φ16	165
50	2	51	150	120.7	14.3	92.1	4-Φ19	203
65	2½	64	180	139.7	15.9	104.8	4-Φ19	216
80	3	76	190	152.4	17.5	127.0	4-Φ19	241
100	4	102	230	190.5	22.3	157.2	8-Φ19	292
125	5	127	255	215.9	22.3	185.7	8-Φ22	
150	6	152	280	241.3	23.9	215.9	8-Φ22	
200	8	203	345	298.5	27.0	269.9	8-Φ22	495

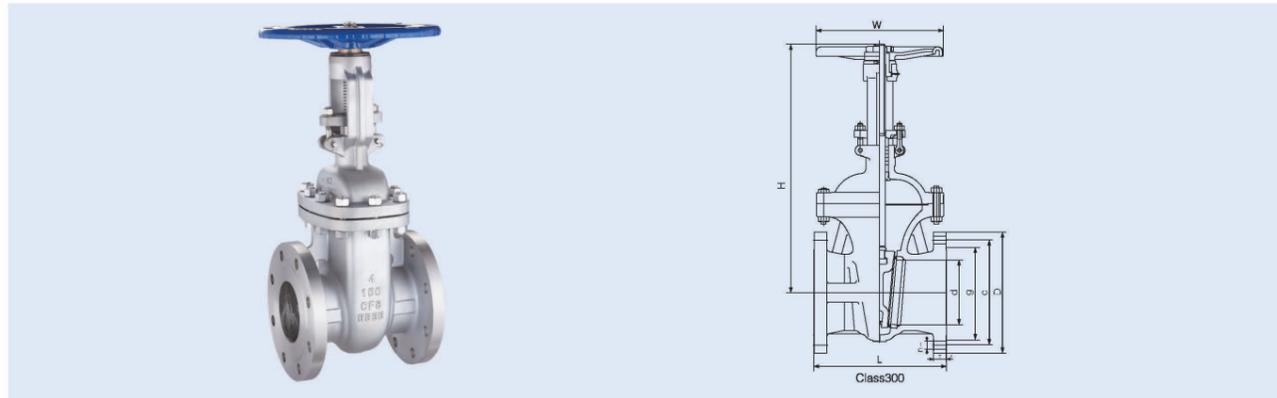
□ Dimension Parameter (JIS 10K)

Unit:mm

DN	d	D	D1	f	C	R	Z-d1	L
15	15	95	70	1	12	51	4-Φ15	108
20	20	100	75	1	14	56	4-Φ15	117
25	25	125	90	2	14	67	4-Φ19	127
32	32	135	100	2	16	76	4-Φ19	140
40	40	140	105	2	16	81	4-Φ19	165
50	50	155	120	2	16	96	4-Φ19	203
65	65	175	140	2	18	116	4-Φ19	216
80	80	185	150	2	18	126	8-Φ19	241
100	100	210	175	2	18	151	8-Φ19	292
125	125	250	210	2	20	182	8-Φ23	330
150	150	280	240	2	22	212	8-Φ23	356
200	200	330	290	2	22	262	12-Φ23	495

Flanged Gate Valve

Z41H-150/300/10K



Design Features

Design	API 600;API 603
Pressure-temperature rating	ASME B16.34
Face to face	ASME B16.10
Flange dimensions	ASME B16.5
Inspection & testing	API 598
Body material	A351-CF8;CF8M;WCB;CF3;CF3M;CN7M;

Parts And Materials

NO	PARE NAME	MATERIAL
1	BODY	A351-CF8M
2	DISC	A351-CF8M
3	STEM	A276-316
4	GASKET	PTEE/GRAPHITE
5	BONNET	A351-CF8M
6	PACKING	PTEE/GRAPHITE
7	GLAND	A276-316
8	GLAND FLANGE	A351-CF8M
9	STEM NUT	A439-D2
10	HANDWHEEL	QT400-15
11	NAMEPLATE	ALUMINUM
12	HANDWHEEL NUT	ALUMINUM BRONZE
13	NUT	A194-2H
14	BONNET BOLT	A193-B8
15	EYEBOLT	A193-B8

Dimension Parameter (Class 150Lb)

Size	Dimension(mm)								
	L	D	C	g	T	t	H	W	n-φ
1/2"	108	90	60.3	34.9	8	2	188	120	4-16
3/4"	117	100	69.9	42.9	8.9	2	202	120	4-16
1"	127	110	79.4	50.8	9.6	2	225	140	4-16
1 1/4"	140	115	88.9	63.5	11.2	2	252	160	4-16
1 1/2"	165	125	98.4	73	12.7	2	277	180	4-16
2"	178	150	120.7	92.1	14.3	2	310	200	4-19
2 1/2"	190	180	139.7	104.8	15.9	2	380	220	4-19
3"	203	190	152.4	127	17.5	2	412	240	4-19
4"	229	230	190.5	157.2	22.3	2	471	280	8-19
5"	254	255	215.9	185.7	22.3	2	516	300	8-22
6"	267	280	241.3	215.9	23.9	2	588	300	8-22
8"	292	345	298.5	269.9	27	2	741	350	8-22
10"	330	405	362	323.8	28.6	2	903	400	12-25
12"	356	485	431.8	381	30.2	2	1054	500	12-25
14"	381	535	476.3	412.8	33.4	2	1295	600	12-29
16"	406	595	539.8	469.9	35	2	1435	600	16-29
18"	432	635	577.9	533.4	38.1	2	1626	650	16-32
20"	457	700	635	584.2	41.3	2	1859	650	20-32
24"	508	815	749.5	692.2	46.1	2	2175	700	20-35
26"	559	870	806.4	749	66.7	2	2387	/	24-35
28"	610	925	863.6	800	69.9	2	2590	/	28-35
30"	610	985	914.4	857	73.1	2	2819	/	28-35
32"	711	1060	977.9	914	79.4	2	2870	/	28-41
36"	711	1170	1085.8	1022	88.9	2	2997	/	32-41
40"	1067	1290	1200.2	1124	88.9	2	3302	/	36-41

Flanged Gate Valve

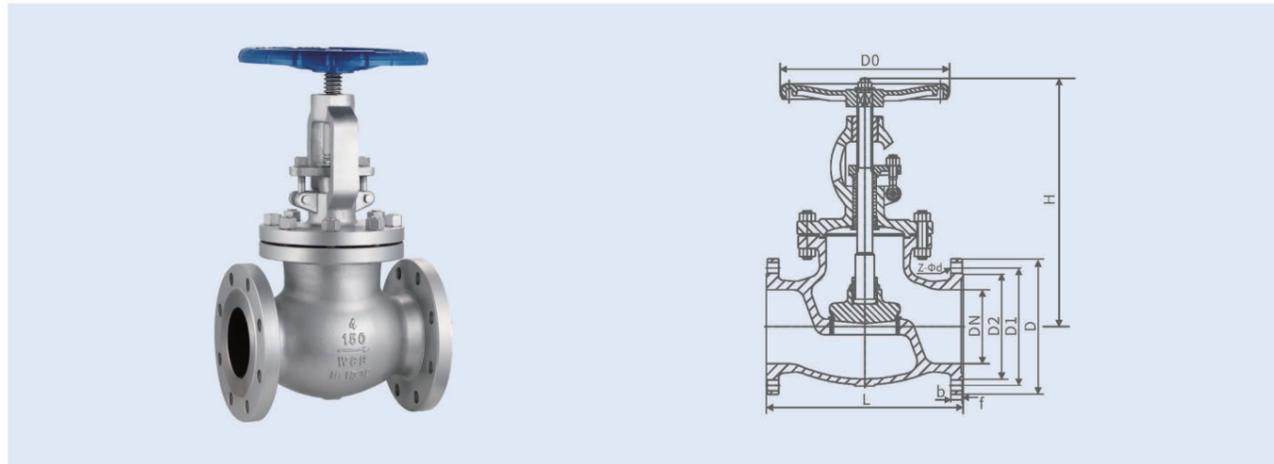
Z41H-150/300/10K

Dimension Parameter (Class 300Lb)

Size	Dimension(mm)								
	L	D	C	g	T	t	H	W	n-φ
1/2"	140	95	66.7	34.9	12.7	2	188	120	4-16
3/4"	152	115	82.6	42.9	14.3	2	202	120	4-19
1"	165	125	88.9	50.8	15.9	2	225	140	4-19
1 1/4"	178	135	98.4	63.5	17.5	2	252	160	4-19
1 1/2"	190	155	114.3	73	19.1	2	277	180	4-22
2"	216	165	127	92.1	20.7	2	353	250	8-19
2 1/2"	241	190	149.2	104.8	23.9	2	377	250	8-22.5
3"	282	210	168.3	127	27	2	398	300	8-22.5
4"	305	255	200	157.2	30.2	2	482	300	8-22.5
5"	381	280	234	185.7	33.4	2	568	350	8-22.5
6"	403	320	269.9	215.9	35	2	625	350	12-22.5
8"	419	380	330.2	269.9	39.7	2	776	400	12-25.5
10"	457	445	387.4	323.8	46.1	2	958	500	16-29
12"	502	520	450.8	381	49.3	2	1135	600	16-32
14"	762	585	514.4	412.8	52.4	2	1205	600	20-32
16"	838	650	571.5	469.9	55.6	2	1367	650	20-35
18"	914	710	628.6	533.4	58.8	2	2077	/	24-35
20"	991	775	685.8	584.2	62	2	2610	/	24-35
24"	1143	915	812.8	692.2	68.3	2	2810	/	24-41
26"	1245	970	876.3	749	77.8	2	3105	/	28-45
28"	1346	1035	939.8	800	84.2	2	3300	/	28-45

Dimension Parameter (JIS 10K)

Size	Dn	Dimension(mm)							
		L	D	D1	D2	b	z-φd	H	D0
1/2"	15	108	95	70	52	12	4-φ15	180	120
3/4"	20	117	100	75	58	14	4-φ15	185	120
1"	25	127	125	90	70	14	4-φ19	225	140
1 1/4"	32	140	135	100	80	16	4-φ19	245	160
1 1/2"	40	165	140	105	85	16	4-φ19	310	180
2"	50	178	155	120	100	16	4-φ19	335	200
2 1/2"	65	190	175	140	120	18	4-φ19	350	220
3"	80	203	185	150	130	18	8-φ19	420	240
4"	100	229	210	175	155	18	8-φ19	485	280
5"	125	254	250	210	185	20	8-φ23	515	300
6"	150	267	280	240	215	22	8-φ23	565	320
8"	200	282	330	290	265	22	12-φ23	760	400
10"	250	330	400	355	325	24	12-φ25	950	450
12"	300	356	445	400	370	24	16-φ25	1075	500
14"	350	381	490	445	415	26	16-φ25	1160	500
16"	400	406	560	510	475	28	16-φ27	1345	550
18"	450	432	620	565	530	30	20-φ27	1450	550
20"	500	457	675	620	580	30	20-φ27	1600	600
24"	600	508	795	730	690	32	24-φ33	1720	650



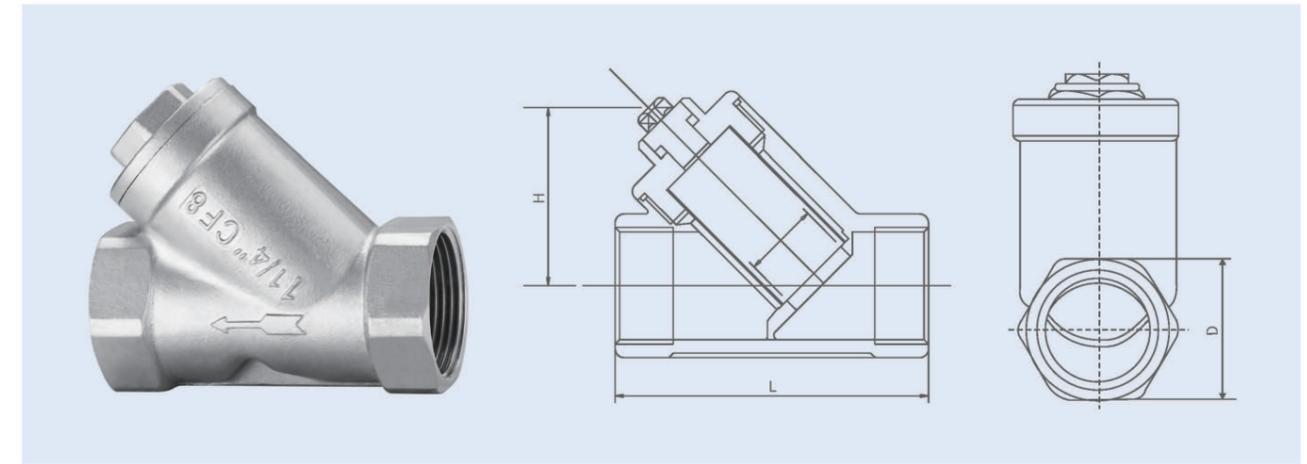
□ Design Features

Product specification	Design spec	Face to face	Flange end	Test & check	Pressure-temp
	ASME B16.34 BS1873	ASME B16.10	ASME B16.5 JIS B2238	API 598	ASME B16.34

□ Dimension Parameter (Class 150Lb/10K)

Unit:mm

Size	L	D	D1	D2	b-f	Z-φd	H	D0
1/2	108	90	60.3	34.9	8-2	4-16	235	120
3/4	117	100	69.9	42.9	8.9-2	4-16	241	120
1	127	110	79.4	50.8	9.6-2	4-16	242	140
1¼	140	115	88.9	63.5	11.2-2	4-16	280	160
1½	165	125	98.4	73	12.7-2	4-16	315	180
2	203	150	120.7	92.1	14.3-2	4-19	350	220
2½	216	180	139.7	104.8	15.9-2	4-19	370	240
3	241	190	152.4	127	17.5-2	4-19	385	280
4	292	230	190.5	157.2	22.3-2	8-19	454	280
5	356	255	215.9	185.7	22.3-2	8-22	472	350
6	406	280	241.3	215.9	23.9-2	8-22	541	350
8	495	345	298.5	269.9	27-2	8-22	590	450
10	622	405	362	323.8	28.6-2	12-25	780	500
12	698	485	431.8	381	30.2-2	12-25	870	550
14	787	535	476.3	412.8	33.4-2	12-29	900	600
16	914	595	539.8	469.9	35-2	16-29	1250	600
18	978	635	577.9	533.4	38.1-2	16-32	1320	610
20	978	700	635	584.2	41.3-2	20-32	1390	650



□ Design Features

Product specification: NPS 1/4~2"
Applicable temperature: -20~120°C
Nominal pressure: PN 1.0/1.6MPa
Design and manufacture: GB/T 12237/ANSI B16.34
Connection size: GB/T 9113.1/ASME B16.5
Structural length: GB/T 12221/ASME B16.1
Thread standard: according to BSPT/BSP/NPT/DIN/JIS/RC/G
Inspection and test: GB/T 13927/API 598

□ Parts And Materials

PART NAME	MATERIAL
BODY	CF8M
BONNET	CF8M
STEM	CF8M
SEAT	FLUORORUBBER
LINE BAR	TEFLON, PTFE
METAL GASKET	SS304, 304
ELASTIC WASHER	SS316, 304
NUT	SS316, 304
SPRING	SS316, 304

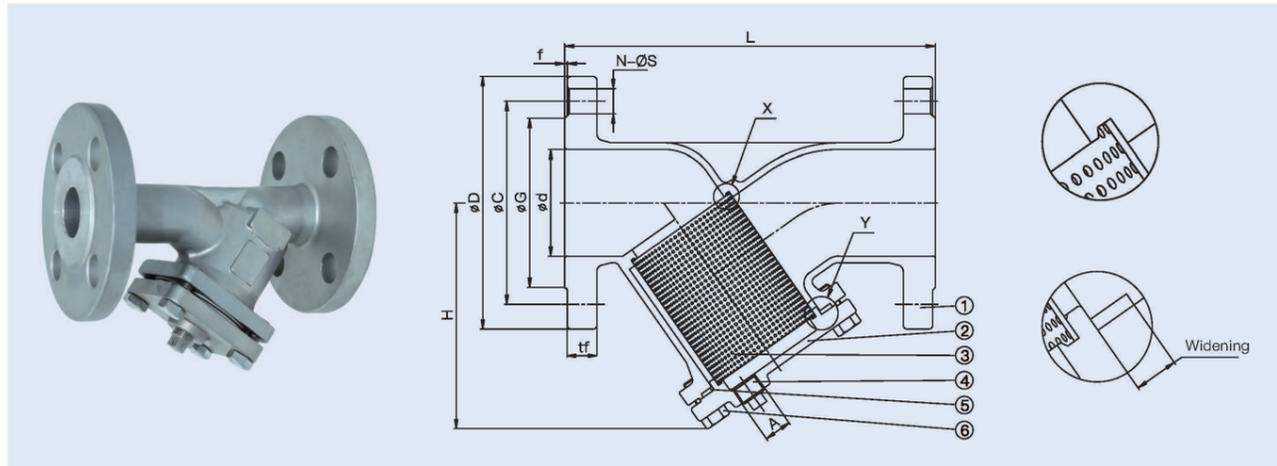
□ Dimension Parameter

Unit:mm

NPS	L	D	H
1/4"	78	15	50
3/8"	78	15	50
1/2"	78	15	50
3/4"	93	20	60
1"	108	25	70
1¼"	128	32	82
1½"	143	40	92
2"	173	50	118

Y-Strainer
Flange End Type

YF-CL150/300



Design Features

1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for sour gas service.
3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection certificate according to EN 10204 3.1 form
5. Other alloy are available
6. Simple installation and maintenance
7. Cleaning filter screen convenient
8. Mesh count is 40,60,80,100,120,customizable

Applicable Standards

1. Design:ASME B16.34
2. Wall thickness:ASME B16.34
3. Flanged ends:ASME B16.5
4. Inspection & testing:API 598

Dimension Parameter (ASME CLASS 150)

Unit:mm

NPS	DN	d	G	C	D	tf	f	N-ΦS	L	H	A
1/2"	15	15	35.1	60.5	89	9.7	1.5	4-Φ16	120	71	1/8"PT
3/4"	20	20	42.9	69.8	99	11.2	1.5	4-Φ16	140	79	1/8"PT
1"	25	25	50.8	79.2	108	12.7	1.5	4-Φ16	150	86	1/4"PT
1 1/4"	32	32	63.5	88.9	117	14.2	1.5	4-Φ16	180	96	1/4"PT
1 1/2"	40	40	73.0	98.6	127	15.9	1.5	4-Φ16	190	115	3/8"PT
2"	50	50	91.9	120.6	152	17.5	1.5	4-Φ19.1	210	134	3/8"PT
2 1/2"	65	65	104.6	139.7	178	20.6	1.5	4-Φ19.1	250	156	1/2"PT
3"	80	80	127.0	152.4	190	22.4	1.5	4-Φ19.1	280	175	1/2"PT
4"	100	100	157.2	190.5	229	22.4	1.5	8-Φ19.1	340	200	1/2"PT
5"	125	125	185.7	215.9	254	22.4	1.5	8-Φ22.2	380	253	3/4"PT
6"	150	150	215.9	241.3	279	23.9	1.5	8-Φ22.2	420	291	3/4"PT
8"	200	200	269.2	298.4	343	26.9	1.5	8-Φ22.2	540	382	3/4"PT

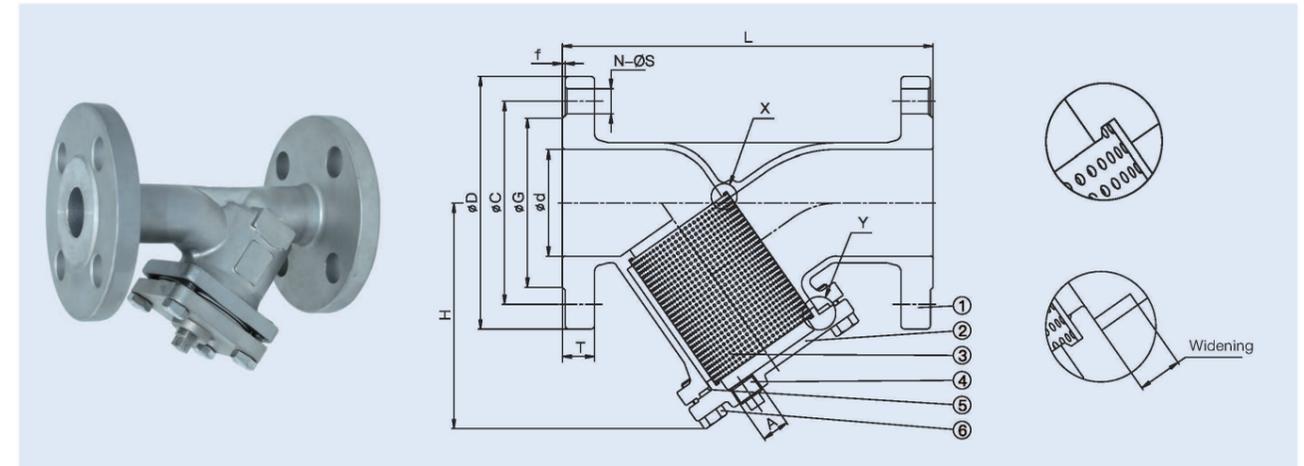
Dimension Parameter (ASME CLASS 300)

Unit:mm

NPS	DN	d	G	C	D	tf	f	N-ΦS	L	H	A
1/2"	15	15	35.1	66.5	95	12.7	1.5	4-Φ16	120	71	1/8"PT
3/4"	20	20	42.9	82.6	117	14.2	1.5	4-Φ19.1	140	79	1/8"PT
1"	25	25	50.8	88.9	124	15.7	1.5	4-Φ19.1	150	86	1/4"PT
1 1/4"	32	32	63.5	98.6	133	17.5	1.5	4-Φ19.1	180	96	1/4"PT
1 1/2"	40	40	73.0	114.3	155	19.0	1.5	4-Φ22.2	190	115	3/8"PT
2"	50	50	91.9	127.0	165	20.6	1.5	8-Φ19.1	210	134	3/8"PT
2 1/2"	65	65	104.6	149.4	190	23.9	1.5	8-Φ22.2	250	156	1/2"PT
3"	80	80	127.0	168.1	210	26.9	1.5	8-Φ22.2	280	175	1/2"PT
4"	100	100	157.2	200.2	254	30.2	1.5	8-Φ22.2	340	200	1/2"PT
5"	125	125	185.7	235.0	279	33.3	1.5	8-Φ22.2	380	253	3/4"PT
6"	150	150	215.9	269.7	318	35.1	1.5	12-Φ22.2	420	291	3/4"PT
8"	200	200	269.2	330.2	381	39.6	1.5	12-Φ25.4	540	382	3/4"PT

Y-Strainer
Flange End Type

YF-10K/20K



Design Features

1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for sour gas service.
3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection certificate according to EN 10204 3.1 form
5. Other alloy are available
6. Simple installation and maintenance
7. Cleaning filter screen convenient
8. Mesh count is 40,60,80,100,120, customizable

Applicable Standards

1. Design ASME B16.34, JIS B2001
2. Wall thickness:ASME B16.34
3. Flanged ends:JIS B2220
4. Inspection & testing:API 598,JIS B2003

Dimension Parameter (JIS 10K)

Unit:mm

NPS	DN	d	G	C	D	T	f	N-ΦS	L	H	A
1/2"	15	15	51	70	95	12	1	4-Φ15	120	71	1/8"PT
3/4"	20	20	56	75	100	14	1	4-Φ15	140	79	1/8"PT
1"	25	25	67	90	125	14	1	4-Φ19	150	86	1/4"PT
1 1/4"	32	32	76	100	135	16	2	4-Φ19	180	96	1/4"PT
1 1/2"	40	40	81	105	140	16	2	4-Φ19	190	115	3/8"PT
2"	50	50	96	120	155	16	2	4-Φ19	210	134	3/8"PT
2 1/2"	65	65	116	140	175	18	2	4-Φ19	250	156	1/2"PT
3"	80	80	126	150	185	18	2	8-Φ19	280	175	1/2"PT
4"	100	100	151	175	210	18	2	8-Φ19	340	200	1/2"PT
5"	125	125	182	210	250	20	2	8-Φ23	380	253	3/4"PT
6"	150	150	212	240	280	22	2	8-Φ23	420	291	3/4"PT
8"	200	200	262	290	330	22	2	12-Φ23	540	382	3/4"PT

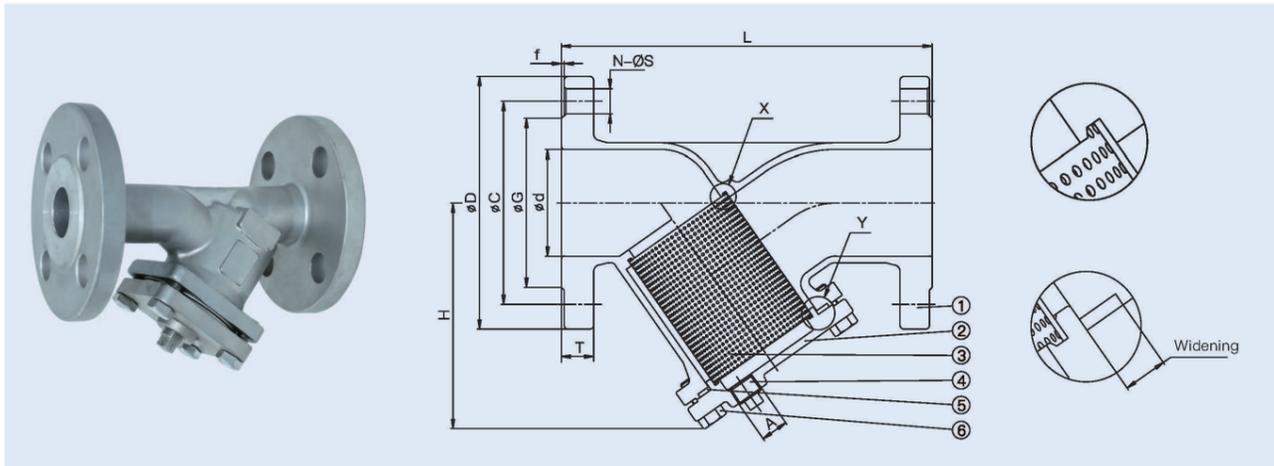
Dimension Parameter (JIS 20K)

Unit:mm

NPS	DN	d	G	C	D	T	f	N-ΦS	L	H	A
1/2"	15	15	51	70	95	14	1	4-Φ15	120	71	1/8"PT
3/4"	20	20	56	75	100	16	1	4-Φ15	140	79	1/8"PT
1"	25	25	67	90	125	16	1	4-Φ19	150	86	1/4"PT
1 1/4"	32	32	76	100	135	18	2	4-Φ19	180	96	1/4"PT
1 1/2"	40	40	81	105	140	18	2	4-Φ19	190	115	3/8"PT
2"	50	50	96	120	155	18	2	8-Φ19	210	134	3/8"PT
2 1/2"	65	65	116	140	175	20	2	8-Φ19	250	156	1/2"PT
3"	80	80	132	160	200	22	2	8-Φ23	280	175	1/2"PT
4"	100	100	160	185	225	24	2	8-Φ23	340	200	1/2"PT
5"	125	125	195	225	270	26	2	8-Φ25	380	253	3/4"PT
6"	150	150	230	260	305	28	2	12-Φ25	420	291	3/4"PT
8"	200	200	275	305	350	30	2	12-Φ25	540	382	3/4"PT

Y-Strainer Flange End Type

YF-PN16/PN40



Design Features

1. Dewaxed precision cast body
2. Casting per NACE/MR-01-75 for sour gas service.
3. Casting approved by TUV AD 2000-merkblatt W0
4. Inspection certificate according to EN 10204 3.1 form
5. Other alloy are available
6. Simple installation and maintenance
7. Cleaning filter screen convenient
8. Mesh count is 40,60,80,100,120,customizable

Applicable Standards

1. Design: EN12516-1
2. Wall thickness: EN12516-1
3. Face to face: L2: DIN 3202-F1
EN 588-1-1
4. Flanged ends: EN 1092-1
5. Inspection & testing: EN 12266-1

Parts And Materials

NO.	PART NAME	MATERIAL		
1	BODY	1.4408	1.4308	1.0619
2	CAP	1.4408	1.4308	1.0619
3	FILTERS	A240-316	A240-304	
4	STOPPER	1.4408	1.4308	
5	GASKET	PTFE/316 SPIRALWOUND+GRAPHITE		
6	BOLT	A2-70		

Dimension Parameter (EN PN16)

Unit:mm

NPS	DN	d	G	C	D	T	f	N-ΦS	L1	L2	H	A
1/2"	15	15	45	65	95	16	2	4-Φ14	120	130	71	1/8"PT
3/4"	20	20	58	75	105	18	2	4-Φ14	140	150	79	1/8"PT
1"	25	25	68	85	115	18	2	4-Φ14	150	160	86	1/4"PT
1 1/4"	32	32	78	100	140	18	2	4-Φ18	180	180	96	1/4"PT
1 1/2"	40	40	88	110	150	18	3	4-Φ18	190	200	115	3/8"PT
2"	50	50	102	125	165	18	3	4-Φ18	210	230	134	3/8"PT
2 1/2"	65	65	122	145	185	18	3	8-Φ18	250	290	156	1/2"PT
3"	80	80	138	160	200	20	3	8-Φ18	280	310	175	1/2"PT
4"	100	100	158	180	220	20	3	8-Φ18	340	350	200	1/2"PT
5"	125	125	188	210	250	22	3	8-Φ18	380	400	253	3/4"PT
6"	150	150	212	240	285	22	3	8-Φ22	420	480	291	3/4"PT
8"	200	200	268	295	340	24	3	12-Φ22	540	600	382	3/4"PT

Dimension Parameter (EN PN40)

Unit:mm

NPS	DN	d	G	C	D	T	f	N-ΦS	L1	L2	H	A
1/2"	15	15	45	65	95	16	2	4-Φ14	120	130	71	1/8"PT
3/4"	20	20	58	75	105	18	2	4-Φ14	140	150	79	1/8"PT
1"	25	25	68	85	115	18	2	4-Φ14	150	160	86	1/4"PT
1 1/4"	32	32	78	100	140	18	2	4-Φ18	180	180	96	1/4"PT
1 1/2"	40	40	88	110	150	18	3	4-Φ18	190	200	115	3/8"PT
2"	50	50	102	125	165	20	3	4-Φ18	210	230	134	3/8"PT
2 1/2"	65	65	122	145	185	22	3	8-Φ18	250	290	156	1/2"PT
3"	80	80	138	160	200	24	3	8-Φ18	280	310	175	1/2"PT
4"	100	100	162	190	235	24	3	8-Φ22	340	350	200	1/2"PT
5"	125	125	188	220	270	26	3	8-Φ26	380	400	253	3/4"PT
6"	150	150	218	250	300	28	3	8-Φ26	420	480	291	3/4"PT
8"	200	200	285	320	375	34	3	12-Φ30	540	600	382	3/4"PT

Quick Connector Series



A-Type Quick Connector

Type A: one side is stuck in the mother, head of the joint part is the internal thread connecting wire



AW-Type Quick Connector

Type AW: one side is stuck in the mother, head of the joint part is the internal thread connecting wire

B-Type Quick Connector

Type B: on one side is to take two male head of grooves and silk mouth on one side is male



Quick Connector Series



C-Type Quick Connector

Type C: one side is to take two male head of groove and one side is a bamboo-like hose connection



D-Type Quick Connector

Type D: one side is to take two male head of groove and one side is a female connection wire

E-Type Quick Connector

Type E: one side is stuck in the mother, the head of the joint on one side is with bamboo-like hose connection



F-Type Quick Connector

Type F: one side is stuck in the mother's head joint, one side is the hose connection with external thread connection



Product Highlights
