

CRYOGENIC BALL VALVE

Certified for BS 6364 : Valves for Cryogenic Service
Temperature Range : -196°C ~ 200°C

ANSI Class 150/300 Flanged Ball Valves
2000 PSI Threaded / Butt Weld / Socket Weld Ball Valves

LNG (Liquefied Nature Gas)

LPG (Liquefied Petroleum Gas)

Liquid Nitrogen (N₂)

Liquid Oxygen (O₂)

Liquid Methane (CH₄)

Liquid Carbon Dioxide (CO₂)

Liquid Argon (A)



LT-2000

Cryogenic Ball Valve

2000PSI Three Pieces Ball Valve

Threaded / Socket Weld / Butt Weld

BS6364
CERTIFICATED

FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design
- ISO 5211 Direct Mounting Flange
- Blow-Out-Proof Stem Design & Anti-Static Device
- Extension Stem Design
- Available for Pneumatic or Electric Actuator
- Super Alloy materials for highly corrosive medium are available upon request

SPECIFICATIONS

- Size Range 1/4" ~ 4" (DN8 ~ DN100)
- End Connection Threaded / Socket / Butt Weld Ends
- Working Pressure 2000 PSI (CWP) for 1/4" ~ 2"
1000 PSI (CWP) for 2-1/2" ~ 4"
- Temperature Range -196 °C to 200 °C for PCTFE.

STANDARDS

- Design ASME/ANSI B16.34
- Mounting Flange ISO 5211
- Threaded End NPT/ BS 21 (BSP) / BSPT / ISO 228-1
/ DIN 2999 / ISO 7-1Rp
- Socket Weld End ASME/ANSI B16.11
- Butt Weld End ASME/ANSI B16.25
- Face to Face Manufacturer Standard
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

- Cryogenic Certificate BS6364
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN



Liquefied Nature Gas

Liquefied Petroleum Gas

Liquid Oxygen Liquid Nitrogen

Liquid Methane Liquid Argon

-196°C ~ 200°C

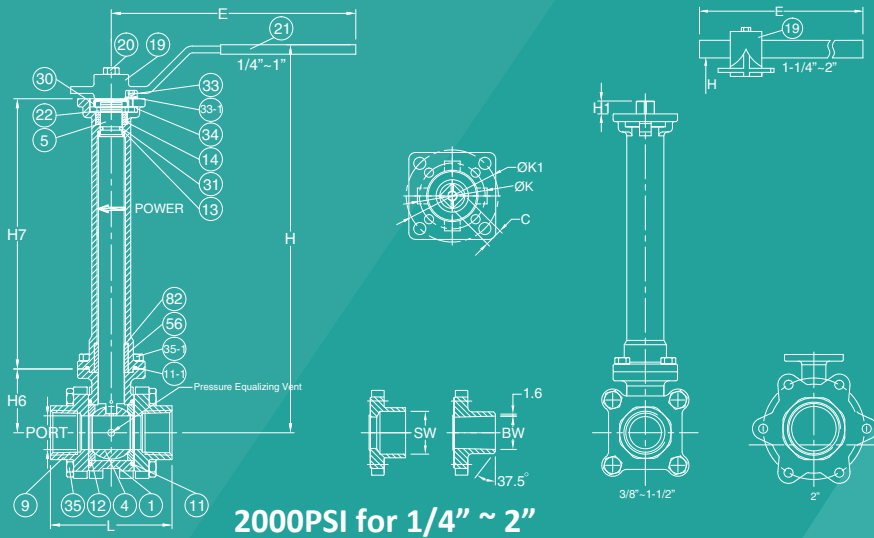
MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CF8M
4	BALL	ASTM A351 Gr.CF8M
5	STEM	17-4 PH
9	END CAP	ASTM A351 Gr.CF8M
11	BODY SEAL	SS316 SPIRAL WOUND + GRAPHITE
11-1	EXTENSION SEAL	GRAPHITE
12	SEAT	PCTFE. (KEL-F)
13	THRUST WASHER	PCTFE. (KEL-F)
14	STEM PACKING	PCTFE. (KEL-F)
19	HANDLE	SS304
20	HANDLE BOLT	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT	SS304
30	LOCK SADDLE	SS304
31	O-RING	VITON®
33	STOP BOLT	SS304
33-1	STOP WASHER	SS304
34	STOP NUT	SS304
35	BODY BOLT	SS304
35-1	EXTENSION BOLT	SS304
56	THRUST BEARING	25% CARBON + 75% PTFE.
82	EXTENSION BODY	ASTM A351 Gr.CF8M

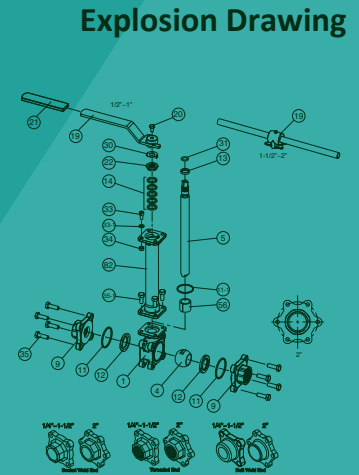
-196°C ~ 200°C Cryogenic Ball Valve

2000PSI for 1/4" ~ 2"
1000PSI for 2-1/2" ~ 4"

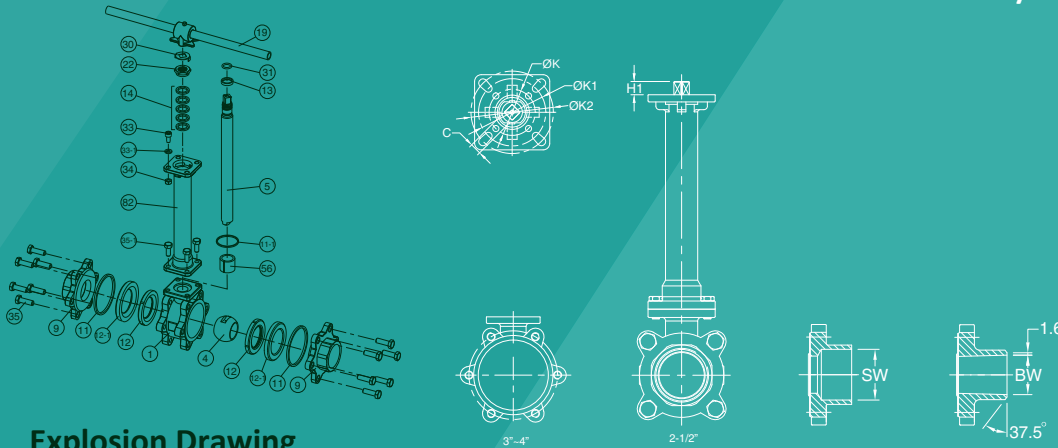
DRAWING



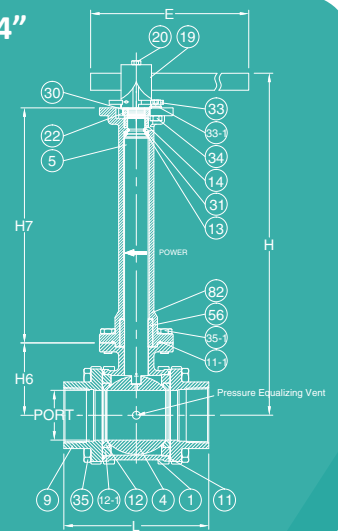
2000PSI for 1/4" ~ 2"



1000PSI for 2-1/2" ~ 4"



Explosion Drawing



DIMENSION

unit : mm

SIZE		PORT	L		E	H	H1	H6	H7	ØK	ØK1	ØK2	C	SW	BW
			TH / SW	BW											
DN8	1/4"	9.6	67	67	156	274	8	39.0	200	F04	F05	-	9	14.4	10.4
DN10	3/8"	9.6	67	67	156	274	8	39.0	200	F04	F05	-	9	17.8	13.7
DN15	1/2"	15.0	75	75	156	274	8	39.0	200	F04	F05	-	9	22.0	15.8
DN20	3/4"	20.0	80	90	156	276	8	42.6	200	F04	F05	-	9	27.4	20.9
DN25	1"	25.0	90	100	181	287	10	47.2	200	F05	F07	-	11	34.1	26.6
DN32	1-1/4"	31.0	110	110	181	292	10	51.2	200	F05	F07	-	11	42.9	35.0
DN40	1-1/2"	38.0	120	125	395	403	13	58.5	300	F07	F10	-	14	49.0	40.8
DN50	2"	50.0	140	150	395	423	13	76.2	300	F07	F10	-	14	61.5	52.5
DN65	2-1/2"	63.5	185	190	495	438	19	92.4	301	F07	F10	F12	17	77.2	65.9
DN80	3"	76.0	205	220	495	448	19	101.9	301	F07	F10	F12	17	90.0	77.9
DN100	4"	97.0	240	270	650	469	21	123.5	301	F07	F10	F12	22	115.4	102.3

unit : inch

SIZE		PORT	L		E	H	H1	H6	H7	ØK	ØK1	ØK2	C	SW	BW
			TH / SW	BW											
DN8	1/4"	0.38	2.64	2.64	6.14	10.79	0.31	1.54	7.87	F04	F05	-	0.35	0.57	0.41
DN10	3/8"	0.38	2.64	2.64	6.14	10.79	0.31	1.54	7.87	F04	F05	-	0.35	0.70	0.54
DN15	1/2"	0.59	2.95	2.95	6.14	10.79	0.31	1.54	7.87	F04	F05	-	0.35	0.87	0.62
DN20	3/4"	0.79	3.15	3.54	6.14	10.87	0.31	1.68	7.87	F04	F05	-	0.35	1.08	0.82
DN25	1"	0.98	3.54	3.94	7.13	11.30	0.39	1.86	7.87	F05	F07	-	0.43	1.34	1.05
DN32	1-1/4"	1.22	4.33	4.33	7.13	11.50	0.39	2.02	7.87	F05	F07	-	0.43	1.69	1.38
DN40	1-1/2"	1.50	4.72	4.92	15.55	15.87	0.51	2.30	11.81	F07	F10	-	0.55	1.93	1.61
DN50	2"	1.97	5.51	5.91	15.55	16.65	0.51	3.00	11.81	F07	F10	-	0.55	2.42	2.07
DN65	2-1/2"	2.50	7.28	7.48	19.49	17.24	0.75	3.64	11.85	F07	F10	F12	0.67	3.04	2.59
DN80	3"	2.99	8.07	8.66	19.49	17.64	0.75	4.01	11.85	F07	F10	F12	0.67	3.54	3.07
DN100	4"	3.82	9.45	10.63	25.59	18.46	0.83	4.86	11.85	F07	F10	F12	0.87	4.54	4.03

LTF-150

Cryogenic Ball Valve

ANSI Class150 Two Pieces Ball Valve

Full Bore / Flanged End

BS6364
CERTIFICATED

FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Direct Mounting Flange
- Blow-Out-Proof Stem Design & Anti-Static Device
- Extension Stem Design
- Available for Pneumatic or Electric Actuator
- Super Alloy materials for highly corrosive medium are available upon request

SPECIFICATIONS

- Size Range 1/2" ~ 4" (DN15 ~ DN100)
- End Connection Flanged End, RF
- Working Pressure CF8M - 275 PSI (CWP)
- Temperature Range -196 °C to 200 °C for PCTFE.

STANDARDS

- Design ASME/ANSI B16.34
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 150
- Flange Dimension ASME/ANSI B16.5 Class 150 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

- Cryogenic Certificate BS6364
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN



Liquefied Nature Gas

Liquefied Petroleum Gas

Liquid Oxygen Liquid Nitrogen

Liquid Methane Liquid Argon

-196°C ~ 200°C

MATERIAL

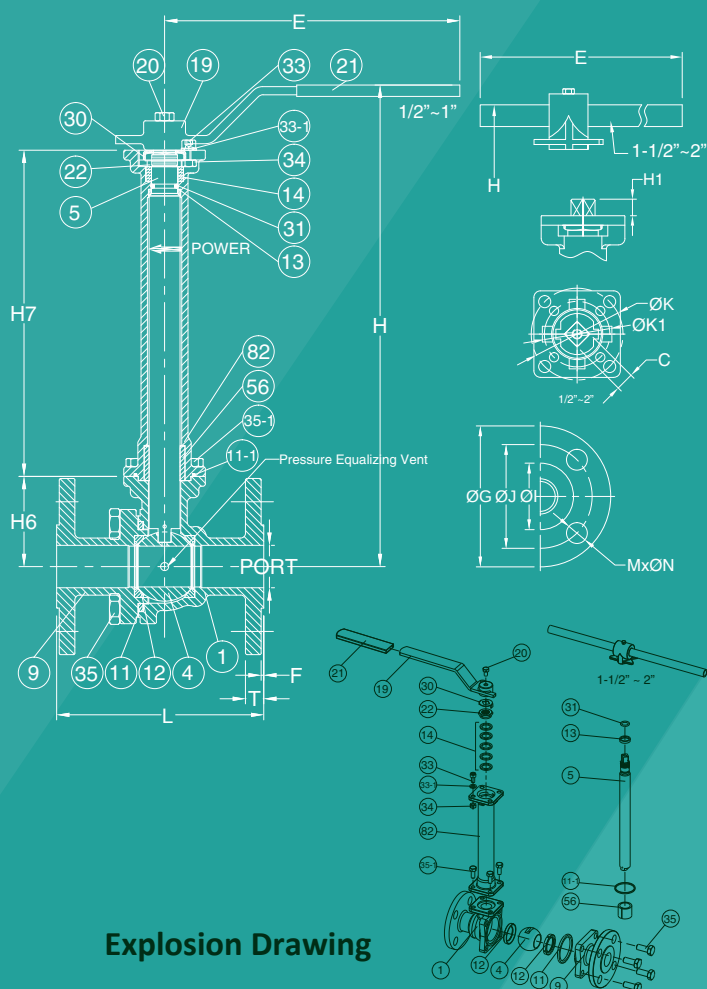
NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CF8M
4	BALL	ASTM A351 Gr.CF8M
5	STEM	17-4 PH
9	END CAP	ASTM A351 Gr.CF8M
11	BODY SEAL	SS316 SPIRAL WOUND + GRAPHITE
11-1	EXTENSION SEAL	GRAPHITE
12	SEAT	PCTFE. (KEL-F)
13	THRUST WASHER	PCTFE. (KEL-F)
14	STEM PACKING	PCTFE. (KEL-F)
19	HANDLE	SS304
20	HANDLE BOLT	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT	SS304
30	LOCK SADDLE	SS304
31	O-RING	VITON®
33	STOP BOLT	SS304
33-1	STOP WASHER	SS304
34	STOP NUT	SS304
35	BODY BOLT	SS304
35-1	EXTENSION BOLT	SS304
50	HANDLE ADAPTER	FCD
56	THRUST BEARING	25% CARBON + 75% PTFE.
82	EXTENSION BODY	ASTM A351 Gr.CF8M

-196°C ~ 200°C Cryogenic Ball Valve

ANSI Class 150 for 1/2" ~ 4"

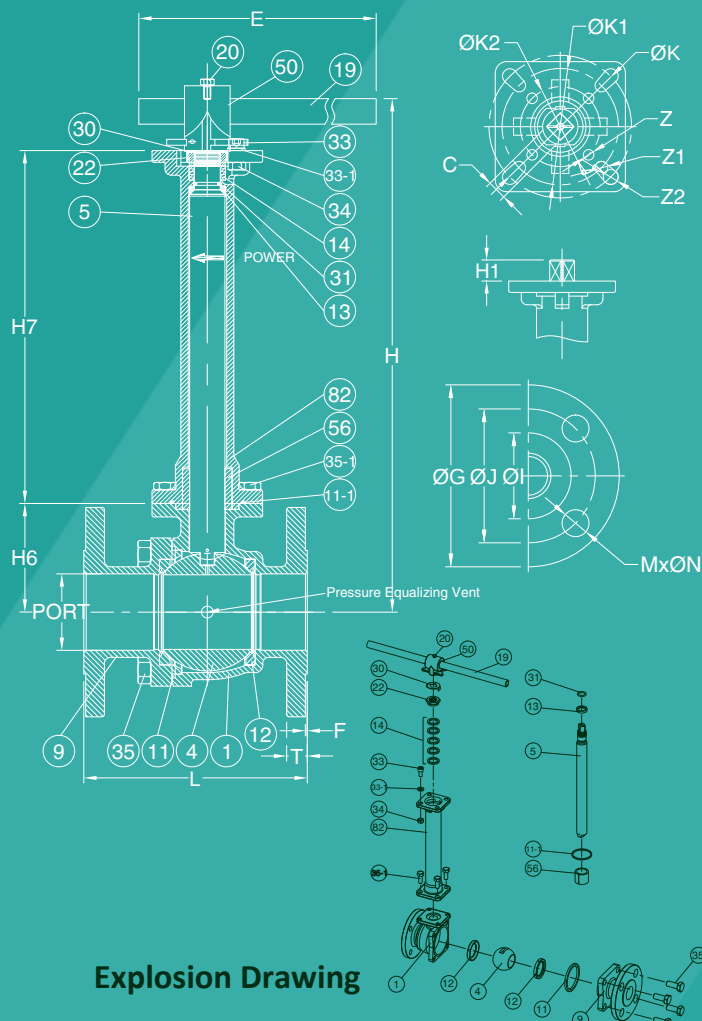
DRAWING

1/2" ~ 2"



Explosion Drawing

2-1/2" ~ 4"



Explosion Drawing

DIMENSION

unit : mm

SIZE	PORT	L	E	H	H1	H6	H7	T	F	C	ØG	ØJ	ØI	MxØN	ØK/ØK1/ØK2	Z/Z1/Z2
DN15	1/2"	15.0	108	156	282	8	48.0	200	10.5	1.6	9	89.0	60.5	35	4xØ16	F05/F04/ -
DN20	3/4"	20.0	118	156	287	8	53.0	200	10.5	1.6	9	98.6	70.0	43	4xØ16	F05/F04/ -
DN25	1"	25.0	127	181	297	10	58.0	200	11.2	1.6	11	108.0	79.5	51	4xØ16	F07/F05/ -
DN40	1-1/2"	38.0	165	395	421	13	76.2	300	14.2	1.6	14	127.0	98.5	73	4xØ16	F10/F07/ -
DN50	2"	50.0	178	395	430	13	85.2	300	16.0	1.6	14	152.5	120.5	92	4xØ19	F10/F07/ -
DN65	2-1/2"	65.0	190	495	438	19	92.4	301	17.5	1.6	17	178.0	139.5	105	4xØ19	F12/F10/F07
DN80	3"	80.0	203	495	448	19	101.9	301	19.1	1.6	17	190.5	152.5	127	4xØ19	F12/F10/F07
DN100	4"	100.0	229	650	469	21	123.5	301	23.9	1.6	22	229.0	190.5	157	8xØ19	F12/F10/F07

unit : inch

SIZE	PORT	L	E	H	H1	H6	H7	T	F	C	ØG	ØJ	ØI	MxØN	ØK/ØK1/ØK2	Z/Z1/Z2
DN15	1/2"	0.59	4.25	6.14	11.10	0.31	1.89	7.87	0.41	0.06	0.35	3.50	2.38	1.38	4xØ0.63	F05/F04/ -
DN20	3/4"	0.79	4.65	6.14	11.30	0.31	2.09	7.87	0.41	0.06	0.35	3.88	2.76	1.69	4xØ0.63	F05/F04/ -
DN25	1"	0.98	5.00	7.13	11.69	0.39	2.28	7.87	0.44	0.06	0.43	4.25	3.13	2.01	4xØ0.63	F07/F05/ -
DN40	1-1/2"	1.50	6.50	15.55	16.57	0.51	3.00	11.81	0.56	0.06	0.55	5.00	3.88	2.87	4xØ0.63	F10/F07/ -
DN50	2"	1.97	7.01	15.55	16.93	0.51	3.35	11.81	0.63	0.06	0.55	6.00	4.74	3.62	4xØ0.75	F10/F07/ -
DN65	2-1/2"	2.56	7.48	19.49	17.24	0.75	3.64	11.85	0.69	0.06	0.67	7.01	5.49	4.13	4xØ0.75	F12/F10/F07
DN80	3"	3.15	7.99	19.49	17.64	0.75	4.01	11.85	0.75	0.06	0.67	7.50	6.00	5.00	4xØ0.75	F12/F10/F07
DN100	4"	3.94	9.02	25.59	18.46	0.83	4.86	11.85	0.94	0.06	0.87	9.02	7.50	6.18	8xØ0.75	F12/F10/F07

LTF-300

Cryogenic Ball Valve

ANSI Class 300 Two Pieces Ball Valve

Full Bore / Flanged End

BS6364
CERTIFICATED

FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Direct Mounting Flange
- Blow-Out-Proof Stem Design & Anti-Static Device
- Extension Stem Design
- Available for Pneumatic or Electric Actuator
- Super Alloy materials for highly corrosive medium are available upon request

SPECIFICATIONS

- Size Range 1/2" ~ 4" (DN15 ~ DN100)
- End Connection Flanged End, RF
- Working Pressure CF8M - 275 PSI (CWP)
- Temperature Range -196 °C to 200 °C for PCTFE.

STANDARDS

- Design ASME/ANSI B16.34
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 300
- Flange Dimension ASME/ANSI B16.5 Class 300 RF
- Material ASTM
- Pressure Testing API 598

CERTIFICATE

- Cryogenic Certificate BS6364
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN



Liquefied Nature Gas

Liquefied Petroleum Gas

Liquid Oxygen Liquid Nitrogen

MODENTIC

Liquid Methane Liquid Argon

-196°C ~ 200°C

MATERIAL

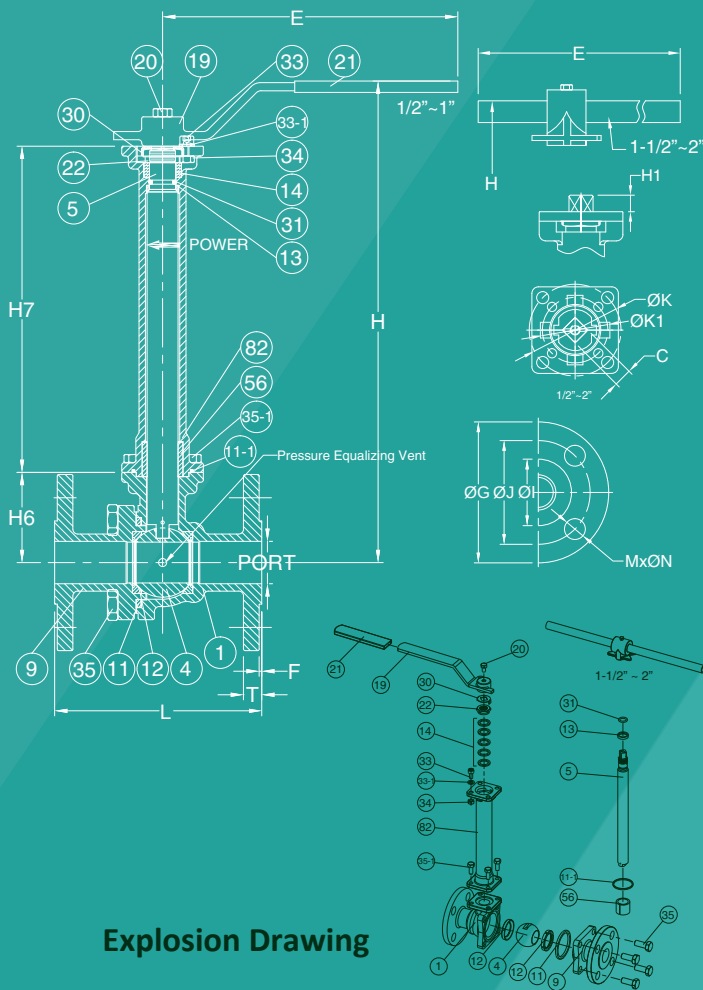
NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CF8M
4	BALL	ASTM A351 Gr.CF8M
5	STEM	17-4 PH
9	END CAP	ASTM A351 Gr.CF8M
11	BODY SEAL	SS316 SPIRAL WOUND + GRAPHITE
11-1	EXTENSION SEAL	GRAPHITE
12	SEAT	PCTFE. (KEL-F)
13	THRUST WASHER	PCTFE. (KEL-F)
14	STEM PACKING	PCTFE. (KEL-F)
19	HANDLE	SS304
20	HANDLE BOLT	SS304
21	HANDLE COVER	PLASTIC
22	STEM NUT	SS304
30	LOCK SADDLE	SS304
31	O-RING	VITON®
33	STOP BOLT	SS304
33-1	STOP WASHER	SS304
34	STOP NUT	SS304
35	BODY BOLT	SS304
35-1	EXTENSION BOLT	SS304
50	HANDLE ADAPTER	FCD
56	THRUST BEARING	25% CARBON + 75% PTFE.
82	EXTENSION BODY	ASTM A351 Gr.CF8M

-196°C ~ 200°C Cryogenic Ball Valve

ANSI Class 300 for 1/2" ~ 4"

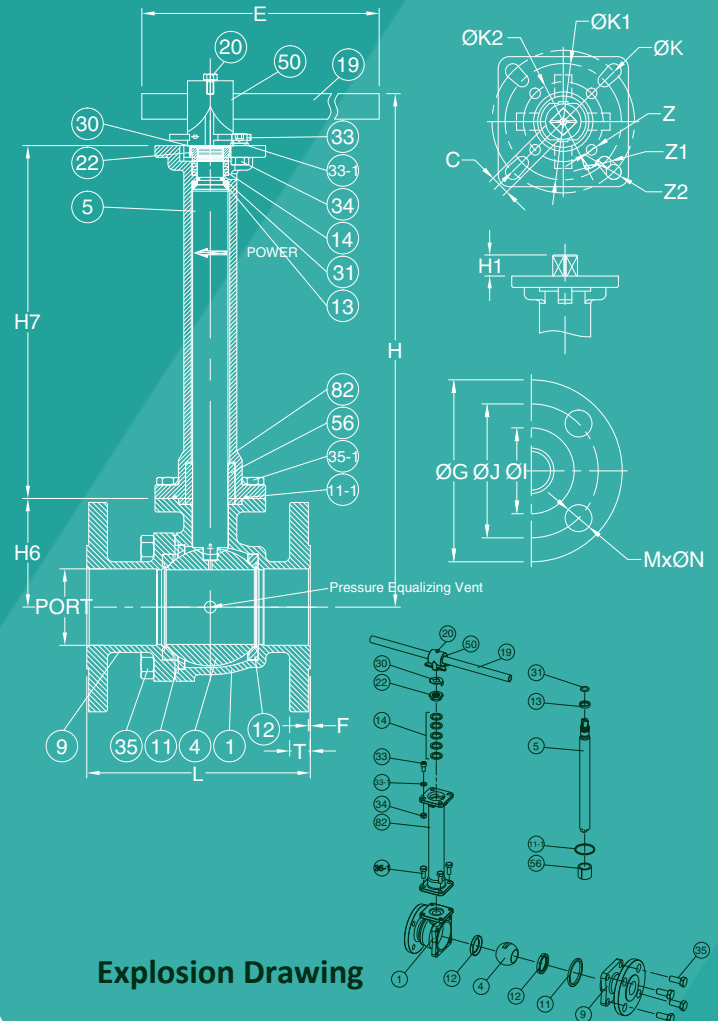
DRAWING

1/2" ~ 2"



Explosion Drawing

2-1/2" ~ 4"



Explosion Drawing

DIMENSION

unit : mm

SIZE	PORT	L	E	H	H1	H6	H7	T	F	C	ØG	ØJ	ØI	MxØN	ØK/ØK1/ØK2	Z/Z1/Z2
DN15	1/2"	15.0	140	156	274	8	39.0	200	14.3	1.6	9	95	66.5	35	4xØ16	F05/F04/ -
DN20	3/4"	20.0	152	156	276	8	42.6	200	15.9	1.6	9	117	82.5	43	4xØ19	F05/F04/ -
DN25	1"	25.0	165	181	287	10	47.2	200	17.5	1.6	11	124	98.0	51	4xØ19	F07/F05/ -
DN40	1-1/2"	38.0	190	395	403	13	58.5	300	20.7	1.6	14	156	114.5	73	4xØ22	F10/F07/ -
DN50	2"	50.0	216	395	423	13	76.2	300	22.3	1.6	14	165	127.0	92	8xØ19	F10/F07/ -
DN80	3"	80.0	283	495	448	19	101.9	301	28.6	1.6	17	210	168.0	127	8xØ22	F12/F10/F07
DN100	4"	100.0	305	650	469	21	123.5	301	31.8	1.6	22	254	200.0	157	8xØ22	F12/F10/F07

unit : inch

SIZE	PORT	L	E	H	H1	H6	H7	T	F	C	ØG	ØJ	ØI	MxØN	ØK/ØK1/ØK2	Z/Z1/Z2
DN15	1/2"	0.59	5.51	6.14	10.78	0.31	1.54	7.87	0.56	0.06	0.35	3.74	2.62	1.38	4xØ0.63	F05/F04/ -
DN20	3/4"	0.79	5.98	6.14	10.87	0.31	1.68	7.87	0.63	0.06	0.35	4.61	3.25	1.69	4xØ0.75	F05/F04/ -
DN25	1"	0.98	6.50	7.13	11.30	0.39	1.86	7.87	0.69	0.06	0.43	4.88	3.86	2.01	4xØ0.75	F07/F05/ -
DN40	1-1/2"	1.50	7.48	15.55	15.87	0.51	2.30	11.81	0.81	0.06	0.55	6.14	4.51	2.87	4xØ0.87	F10/F07/ -
DN50	2"	1.97	8.50	15.55	16.65	0.51	3.00	11.81	0.88	0.06	0.55	6.50	5.00	3.62	8xØ0.75	F10/F07/ -
DN80	3"	3.15	11.14	19.49	17.64	0.75	4.01	11.85	1.13	0.06	0.67	8.27	6.61	5.00	8xØ0.87	F12/F10/F07
DN100	4"	3.94	12.01	25.59	18.46	0.83	4.86	11.85	1.25	0.06	0.86	10.00	7.87	6.18	8xØ0.87	F12/F10/F07

PRODUCT



RANGE

- **API 607 FIRE SAFE APPROVED BALL VALVE**
- **FUGITIVE EMISSION APPROVED BALL VALVE**
- **SPECIAL ALLOY VALVE**
- **HIGH PURITY BALL VALVE**
- **SOFT SEAT BALL VALVE**
- **AUTOMATION VALVE**
- **METAL SEATED BALL VALVE**
- **TRUNNION BALL VALVE**
- **HIGH PRESSURE BALL VALVE**



KEVIN STEEL CORPORATION

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Wufeng Dist., Taichung City 41353, Taiwan
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