



ATEX II 2GD



0038



Certificate: 0038/PED/SHA/0013557/A



N EN ISO 9001
Certificate: T.W.0013557



BUREAU VERITAS
CERTIFIED



Uni-Direction ; Confirming to ANSI FC170-2 Class V

METAL SEATED BALL VALVE

Flanged / Threaded / Butt Weld / Socket Weld



Pulp & Papper
Oil & Gas
Refining
Petrochemical
Chemical Processes
Power Generation
Mining

Two Pieces Metal Seated Ball Valve

MD-120Q ANSI Class 150



0 °C to 500 °C

**Flanged End
Full Bore Design
ISO 5211 Direct Mounting
ASME / FCI 70-2 Class V
Uni-Direction
1/2" to 16"**

> FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Super Alloy materials for highly corrosive medium are available upon request

> STANDARD

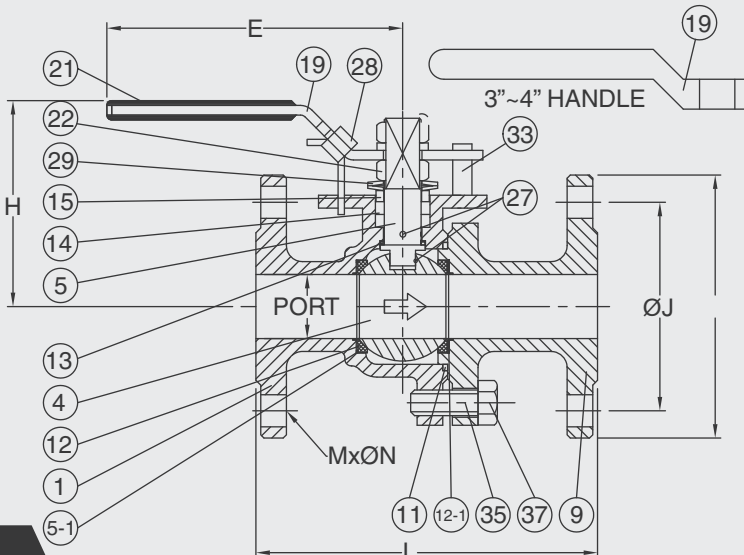
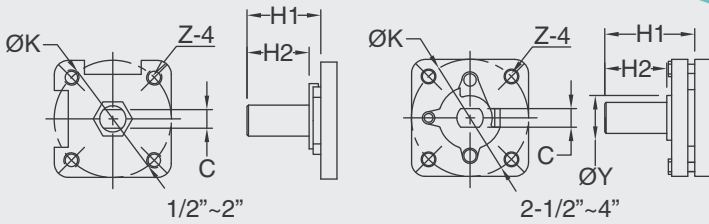
- Design ASME/ANSI B16.34
- Mounting Flange ISO 5211
- Face to Face ASME/ANSI B16.10 Class 150
- Flange Dimension ASME/ANSI B16.5 Class 150 RF
- Material ASTM
- Tightness Rates ASME / FCI 70-2 Class V
- Pressure Testing API 598

CERTIFICATE

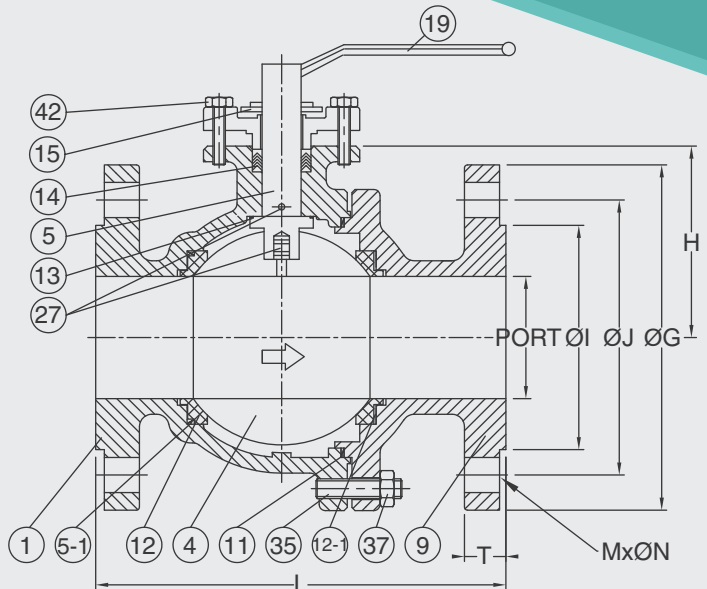
- Fire Safe API 607 Fire Safe Design
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN



DRAWING



SIZE : 1/2" ~ 4" (Lever Operated)



SIZE : 6" ~ 16" (Lever Operated)
Gear Operated as option

MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CF8M
4	BALL (CARBIDE COATING)	ASTM A351 Gr.CF8M + TUNGSTEN CARBIDE COATING
5	STEM	ASTM A276 Gr.316
5-1	SPRING	INCONEL 17-7
9	END CAP	ASTM A351 Gr.CF8M
11	BODY SEAL	GRAPHITE
12	SEAT	SS316 + TUNGSTEN CARBIDE COATING
12-1	SEAT SEAL	GRAPHITE
13	THRUST WASHER	GRAPHITE
14	STEM PACKING	GRAPHITE
15	GLAND	SS304 for 1/2" ~ 4" / CF8M for 6" ~ 16"
		SS304 for 1/2" ~ 2"
19	HANDLE	FCD45 for 3" ~ 4"
		FCD for 6" ~ 16" or Gear Box for Option
22	STEM NUT (for 1/2" ~ 2" only)	SS304
28	LOCKING DEVICE (for 1/2" ~ 2" only)	SS304
29	BELLEVILLE WASHER (for 1/2" ~ 4" only)	SS301
33	STOP PIN	SS304
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
42	GLAND BOLT (for 2-1/2" ~ 6" only)	S.STEEL

> Temperature : 0°C ~ 500°C

> Size : 1/2" ~ 16"

> Available Material :
CF8M / CF3M / WCB
/ Special Alloys

> Seat / Seal Material :
AISI 316 + Stellite /
AISI 316 + HRC,etc.

> Available Rating :
ANSI Class 150 / 300 / 600
EN1092-1 PN10/16/25/40

> NACE MR0175 available

MATERIAL

SIZE	PORT	L	E	H	H1	H2	C	ØG	ØJ	ØI	I	ØY	MxØN	ØK	Z	
DN15	1/2"	15.0	108	165	66	14.0	7.9	6.4	89	60.5	-	-	9.4	4xØ16	42/F04	#10-24UNC
DN20	3/4"	20.0	117	165	74	14.0	7.9	6.4	98	70.1	-	-	9.4	4xØ16	42/F04	#10-24UNC
DN25	1"	25.0	127	200	87	19.1	10.9	8.0	108	79.5	-	-	10.9	4xØ16	50/F05	1/4"-20UNC
DN40	1-1/2"	38.0	165	250	105	24.6	14.0	9.5	127	98.6	-	-	15.7	4xØ16	70/F07	5/16"-18UNC
DN50	2"	50.0	178	264	115	24.6	14.0	9.5	152	120.4	-	-	15.7	4xØ19	70/F07	5/16"-18UNC
DN80	3"	75.9	203	391	166	78.0	44.5	17.0	190	152.4	-	-	27.9	4xØ19	102/F10	1/2"-13UNC
DN100	4"	101.3	229	391	183	78.0	44.5	17.0	229	190.5	-	-	27.9	8xØ19	102/F10	1/2"-13UNC
DN150	6"	150.0	394	-	199	-	-	-	279	241.5	216	25.4	-	8xØ22	-	-
DN200	8"	200.0	457	-	227	-	-	-	343	270.0	270	28.6	-	8xØ22	-	-
DN150	10"	250.0	533	-	270	-	-	-	406	362.0	324	30.8	-	12xØ25	-	-
DN150	12"	300.0	610	-	336	-	-	-	483	432.0	381	31.8	-	12xØ25	-	-
DN150	14"	350.0	686	-	400	-	-	-	533	476.5	413	35.0	-	12xØ29	-	-
DN150	16"	400.0	762	-	453	-	-	-	597	539.0	470	36.6	-	16xØ29	-	-

UNIT : MM

SIZE	PORT	L	E	H	H1	H2	C	ØG	ØJ	ØI	I	ØY	MxØN	ØK	Z	
DN15	1/2"	0.59	4.25	6.50	2.60	0.55	0.31	0.25	3.50	2.38	-	-	0.37	4xØ0.63	1.65/F04	#10-24UNC
DN20	3/4"	0.79	4.61	6.50	2.91	0.55	0.31	0.25	3.86	2.76	-	-	0.37	4xØ0.63	1.65/F04	#10-24UNC
DN25	1"	0.98	5.00	7.87	3.43	0.75	0.43	0.31	4.25	3.13	-	-	0.43	4xØ0.63	1.97/F05	1/4"-20UNC
DN40	1-1/2"	1.50	6.50	9.84	4.13	0.97	0.55	0.37	5.00	3.88	-	-	0.62	4xØ0.63	2.76/F07	5/16"-18UNC
DN50	2"	1.97	7.01	10.39	4.53	0.97	0.55	0.37	5.98	4.74	-	-	0.62	4xØ0.75	2.76/F07	5/16"-18UNC
DN80	3"	2.99	7.99	15.40	6.54	3.07	1.75	0.67	7.48	6.00	-	-	1.10	4xØ0.75	4.02/F10	1/2"-13UNC
DN100	4"	3.99	9.02	15.40	7.20	3.07	1.75	0.67	9.02	7.50	-	-	1.10	8xØ0.75	4.02/F10	1/2"-13UNC
DN150	6"	5.91	15.51	-	7.83	-	-	-	10.98	9.51	8.50	25.4	-	8xØ0.87	-	-
DN200	8"	7.87	17.99	-	8.94	-	-	-	13.50	10.63	10.63	28.6	-	8xØ0.87	-	-
DN150	10"	9.84	20.98	-	10.63	-	-	-	15.98	14.25	12.76	30.8	-	12xØ0.98	-	-
DN150	12"	11.81	24.02	-	13.23	-	-	-	19.02	17.01	15.00	31.8	-	12xØ0.98	-	-
DN150	14"	13.78	27.01	-	15.75	-	-	-	20.98	18.76	16.30	35.0	-	12xØ1.14	-	-
DN150	16"	15.75	30.00	-	17.83	-	-	-	23.50	21.22	18.50	36.6	-	16xØ1.14	-	-

UNIT : INCH

Three Pieces Metal Seated Ball Valve

V-855Q 2250 PSI (CWP)



0 °C to 500 °C

Threaded / Socket / Butt Weld

Full Bore Design

ISO 5211 Direct Mounting

ASME / FCI 70-2 Class V

Uni-Direction

1/2" ~ 4"



> FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design
- ISO 5211 Direct Mounting Flange
- Blow-Out-Proof Stem Design & Anti-Static Device
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Super Alloy materials for highly corrosive medium are available upon request

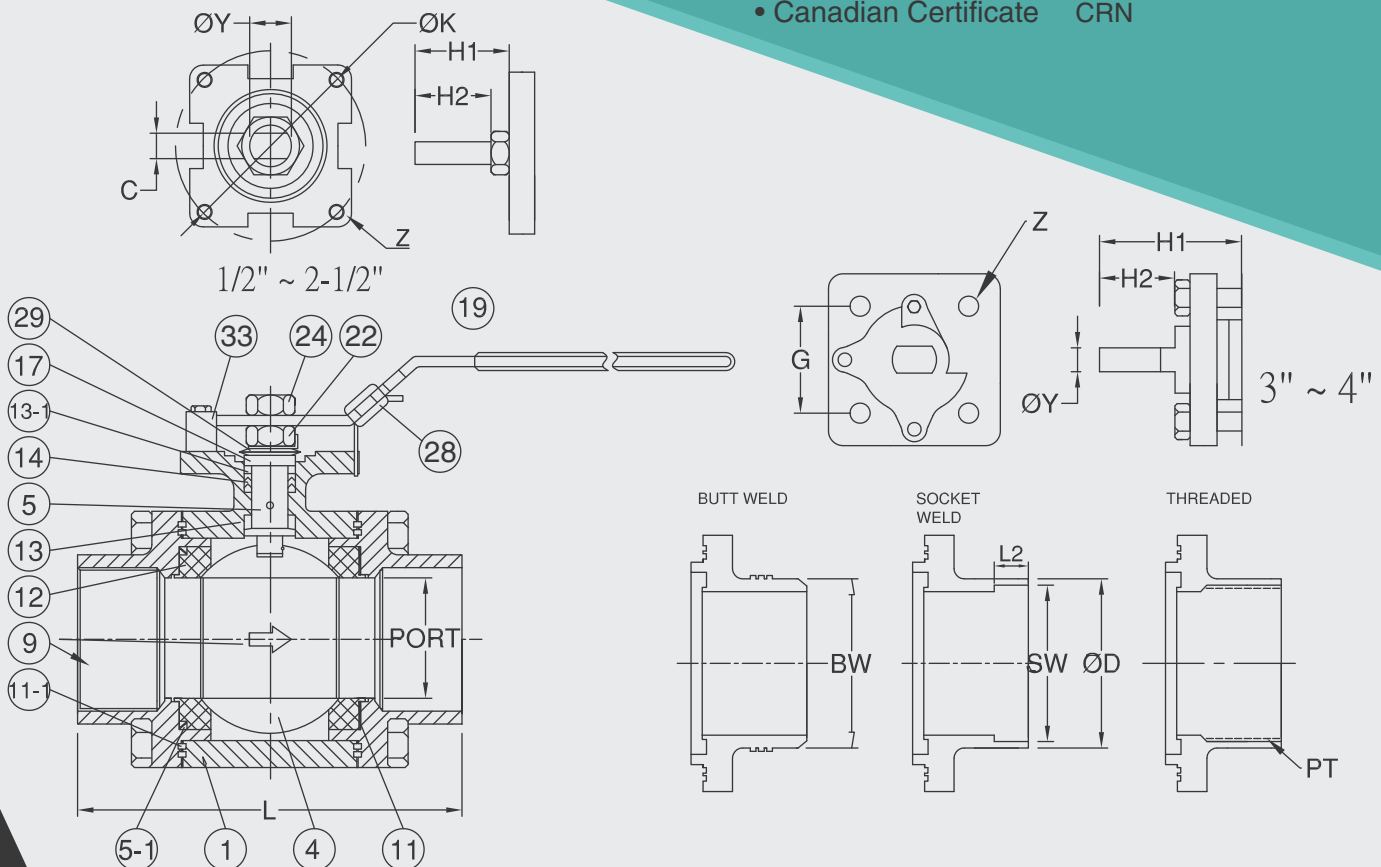
> STANDARD

- 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 Standards
- Material ASTM
- Tightness Rate ASME / FCI 70-2 Class V
- Pressure Testing API 598

> CERTIFICATE

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

DRAWING



MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CF8M
4	BALL (CARBIDE COATING)	ASTM A351 Gr.CF8M + HARD CR.
5	STEM	ASTM A276 Gr.316
5-1	SPRING	INCONEL 17-7
9	END CAP	ASTM A351 Gr.CF8M
11	BODY SEAL	GRAPHITE
11-1	SEAT SEAL	GRAPHITE
12	SEAT	SS316 + STL#6
13	THRUST WASHER	NITRONIC
11-1	THRUST WASHER	GRAPHITE
14	STEM PACKING	GRAPHITE
15	GLAND	SS304
19	HANDLE	SS304 for 1/2" ~ 2" FCD45 for 3" ~ 4"
22	STEM NUT	SS304
24	HANDLE NUT	SS304
28	LOCKING DEVICE	SS304
29	BELLEVILLE WASHER	SS304
33	STOP PIN	SS304
35	BODY BOLT	ASTM A193 Gr.B8

> Temperature : 0°C ~ 500°C

> Size : 1/2" ~ 16"

> Available Material :
CF8M / CF3M / WCB
/ Special Alloys

> Seat / Seal Material :
AISI 316 + Stellite /
AISI 316 + HRC,etc.

> NACE MR0175 available

MATERIAL

SIZE	PORT	L	L2	H1	H2	C	ØY	BW	SW	ØD	ØK	Z	UNIT : MM
DN15	1/2"	15.0	124.2	9.9	13.5	7.1	6.4	11.9	21.6	21.6	31.5	42/F04	#10-24UNC
DN20	3/4"	20.0	131.3	13.0	13.5	7.1	6.4	11.9	27.2	27.2	38.6	42/F04	#10-24UNC
DN25	1"	25.0	133.1	13.0	18.8	11.2	8.0	14.0	34.0	33.8	42.9	50/F05	1/4"-20UNC
DN40	1-1/2"	40.0	157.2	13.0	22.4	13.5	9.5	16.0	48.5	48.5	62.0	70/F07	5/16"-18UNC
DN50	2"	50.0	168.2	16.0	22.4	14.2	9.5	16.0	60.5	61.2	74.9	70/F07	5/16"-18UNC
DN80	3"	76.0	254.0	24.9	70.0	44.5	17.0	28.0	88.9	89.4	109.0	125/F12	1/2"-13UNC
DN100	4"	100.0	431.8	30.0	74.0	51.6	26.0	34.0	114.3	115.3	134.9	125/F12	1/2"-13UNC

SIZE	PORT	L	L2	H1	H2	C	ØY	BW	SW	ØD	ØK	Z	UNIT : INCH
DN15	1/2"	0.59	4.89	0.39	0.53	0.28	0.25	0.47	0.85	0.85	1.24	1.65/F04	#10-24UNC
DN20	3/4"	0.79	5.17	0.51	0.53	0.28	0.25	0.47	1.07	1.07	1.52	1.65/F04	#10-24UNC
DN25	1"	0.98	5.24	0.51	0.74	0.44	0.31	0.55	1.34	1.33	1.69	1.97/F05	1/4"-20UNC
DN40	1-1/2"	1.57	6.19	0.51	0.88	0.53	0.37	0.63	1.91	1.91	2.44	2.76/F07	5/16"-18UNC
DN50	2"	1.97	6.62	0.63	0.88	0.56	0.37	0.63	2.38	2.41	2.95	2.76/F07	5/16"-18UNC
DN80	3"	2.99	10.00	0.98	2.76	1.75	0.67	1.10	3.50	3.52	4.29	4.92/F12	1/2"-13UNC
DN100	4"	3.94	17.00	1.18	2.91	2.03	1.02	1.34	4.50	4.54	5.31	4.92/F12	1/2"-13UNC

Three Pieces Metal Seated Ball Valve

MD-54Q ANSI Class 150



Trunnion Type

Trunnion Mounted Type
Flanged End / Full Bore Design
ISO 5211 Direct Mounting
ASME / FCI 70-2 Class V
Uni-Direction
3" to 12"



> FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design, Trunnion Mounted Type
- ISO 5211 Direct Mounting Flange
- Blow-Out-Proof Stem & Anti-Static Design
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Super Alloy materials for highly corrosive medium are available upon request

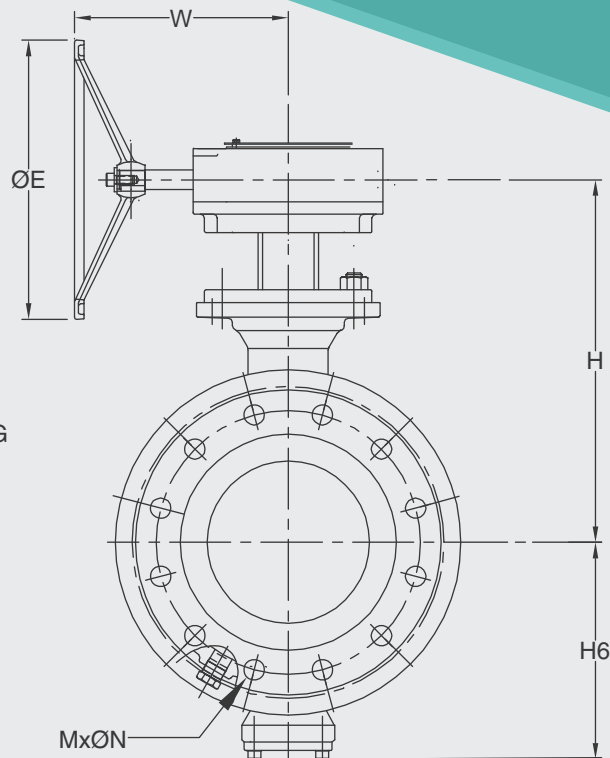
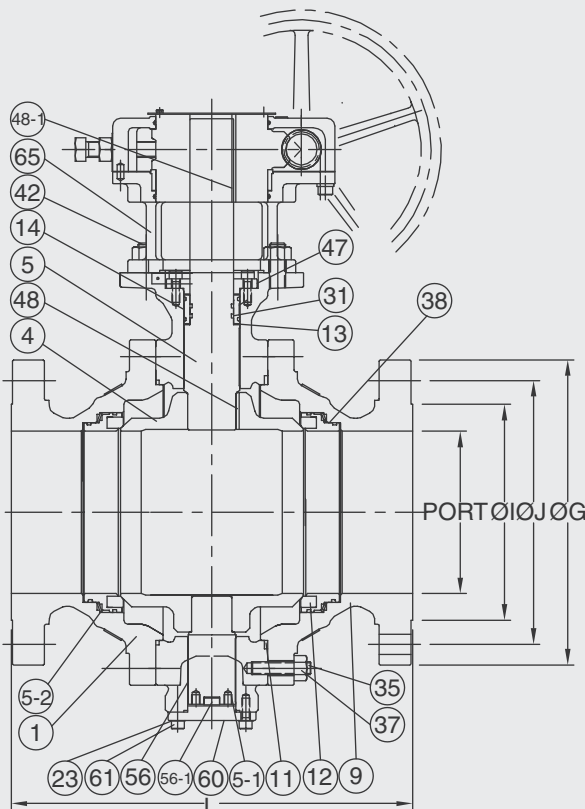
> STANDARD

- 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
- Tightness Rates ASME / FCI 70-2 Class V
- Pressure Testing API 598

CERTIFICATE

- Fire Safe API 6FA Fire Safe Design
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

DRAWING



MATERIAL

NO.	PART NAME	MATERIAL (more options available)
1	BODY	ASTM A351 Gr.CF8M
4	BALL	ASTM A351 Gr.CF8 + Hard Cr
5	STEM	ASTM A276 Gr.316
5-1	LOWER STEM	SS410
5-2	SPRING	SS301
9	END CAP	ASTM A351 Gr.CF8M
11	BODY SEAL	GRAPHITE + SS316
12	SEAT	SS316 + STELLITE#6
13	THRUST WASHER	P-H3 (PTFE.+MOS2)
14	STEM PACKING	GRAPHITE
23	SPRING WASHER	ASTM A510 1060
31	O-RING	VITON
35	BODY BOLT	ASTM A193 Gr.B8
37	BOLT NUT	ASTM A194 Gr.8
38	SEAT RETAINER	A105 + Cr.OLT.
42	GLAND BOLT	SS304
47	GLAND FLANGE	ASTM A351 Gr.CF8
48	KEY	SS316
48-1	KEY	ASTM A182 Gr.F304
56	BEARING	P-H3 (PTFE.+MOS2)
56-1	BOTTOM BEARING	P-H3 (PTFE.+MOS2)
60	BOTTOM COVER	ASTM A105
61	HEX SCREW	ASTM A193 Gr.B8
65	GEAR BOX	ASTM A536

> Temperature : 0°C ~ 350°C

> Size : 3" ~ 12"
Trunnion Mounted Design

> Available Material :
CF8M / CF3M / WCB
/ Special Alloys

> Seat / Seal Material :
AISI 316 + Stellite /
AISI 316 + HRC,etc.

> Available Rating :
ANSI Class 150 / 300 / 600

> NACE MR0175 available

MATERIAL

SIZE	PORT	L	E	H	H6	ØG	ØJ	ØI	I	F	MxØN	W	UNIT : MM
DN80	3"	80.0	203.2	400	272	145	190.5	152.4	127.0	19.1	1.6	4xØ19.1	40
DN100	4"	100.0	228.6	350	302	170	228.6	190.5	157.2	23.8	1.6	8xØ19.1	40
DN150	6"	150.0	393.7	350	380	210	279.4	241.3	215.9	25.4	1.6	8xØ22.2	80
DN200	8"	200.0	457.2	350	430	275	342.9	298.5	269.8	28.6	1.6	8xØ22.2	80
DN150	10"	250.0	533.4	457	480	330	406.4	362.0	323.9	30.2	1.6	12xØ25.4	120
DN150	12"	300.0	609.6	457	554	370	482.6	431.8	381.0	31.8	1.6	12xØ25.4	120

SIZE	PORT	L	E	H	H6	ØG	ØJ	ØI	I	F	MxØN	W	UNIT : INCH
DN80	3"	3.15	8.00	15.75	10.71	5.71	7.50	6.00	5.00	0.75	0.06	4xØ0.75	1.57
DN100	4"	3.94	9.00	13.78	11.89	6.69	9.00	7.50	6.19	0.94	0.06	8xØ0.75	1.57
DN150	6"	5.91	15.50	13.78	14.96	8.27	11.00	9.50	8.50	1.00	0.06	8xØ0.87	3.15
DN200	8"	7.87	18.00	13.78	16.93	10.83	13.50	11.75	10.62	1.13	0.06	8xØ0.87	3.15
DN150	10"	9.84	21.00	17.99	18.90	12.99	16.00	14.25	12.75	1.19	0.06	12xØ1.00	4.72
DN150	12"	11.81	24.00	17.99	21.81	14.57	19.00	17.00	15.00	1.25	0.06	12xØ1.00	4.72



PRODUCTS RANGE

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

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ATEX II 2GD



0038



ISO 9001
N EN ISO 900
Certificate: TWN015557



BUREAU
VERITAS



PED MODULE H
Certificate: 0038/PED/SHA/6013557/A

