

FLOW CONTROL
LEADER FROM TAIWAN



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German Lloyds
AD 2000 & PED MM
API 607
ISO 9001-2008
PED (CE)
Gost
TA-Luft
API 6D
ATEX



INVESTMENT CASTING

BALL VALVES



STAINLESS STEEL & CARBON STEEL

FLOW
CONTROL
LEADER
FROM
TAIWAN



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METAL SEATED BALL VALVES

Size: 1/4"~4"

Design: 2-pc Flanged end & 3-pc Thread/ Socket/ Butt Weld, any OEM designed end!

Pressure: ASME Class 150, 300, 600, DIN PN16 & 40

Features: Low Torque, Two way Direction

Application: Water, Oil, Gas, Thermal Fluid, Chemicals, High-Temperature Fluids, Slurry, Pulp Stock, Steam, Solid-Containing Fluids

(Please advise your application liquid along enquiry for correct technical support & quotation!)

Options: One way direction; Ball in general material, or Hard Chrome plating or Nickel-Based Alloy or Tungsten Carbide, or Ceramic; Spring in general design or Belleville in material of 301 & Inconel x750.

Precise details are offered upon your application!

Just contact with valtec for prompt evaluation and your quotation will be offered soon!



V-1 TYPE

SIZE: 1/4"~2"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1,
Rp, Rc, G

*Blow-out proof stem

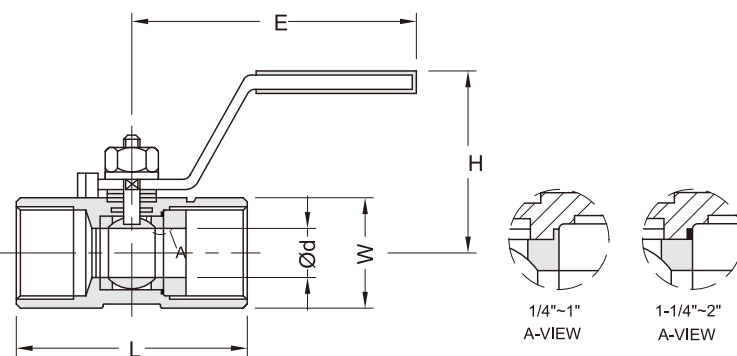
*Investment casting body and inscrewed

*1000 PSI (PN 63)

OPTION: Locking device
Oval handle
Wing handle

DIMENSIONS UNIT:mm

NOMINAL SIZE	Ød	L	E	H	W	KG
1/4"	5.0	39.0	69.0	35.0	17.0	0.064
3/8"	7.2	44.0	79.0	36.0	21.0	0.104
1/2"	9.2	56.5	109.0	40.0	25.0	0.190
3/4"	12.5	59.0	109.0	42.0	32.0	0.264
1"	15.0	71.0	111.7	47.0	38.0	0.420
1-1/4"	20.0	78.0	111.7	53.0	48.0	0.650
1-1/2"	25.0	83.0	157.0	62.0	53.0	0.840
2"	32.0	100.0	155.5	67.0	64.0	1.330



V-1M TYPE

SIZE: 1/4"~2"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1,
Rp, Rc, G

*Blow-out proof stem

*Investment casting body and inscrewed

*2000 PSI (PN 130) / 1500 PSI (PN 100)

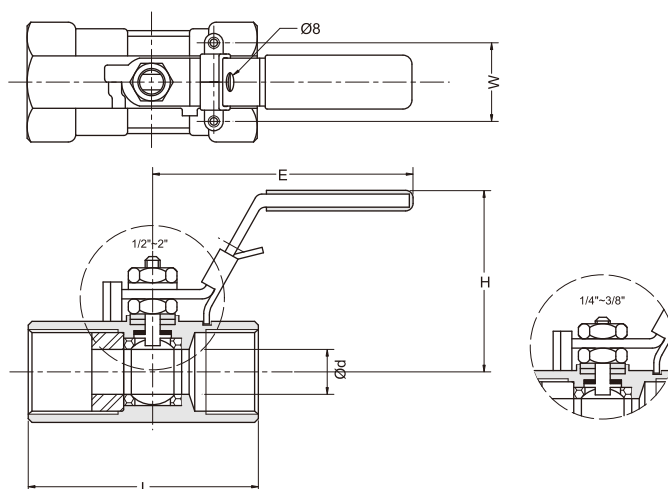
*With mounting Pad

OPTION: Locking device
Drilled and tapped mounting pad

2000 PSI

DIMENSIONS UNIT:mm

NOMINAL SIZE	Ød	L	H	E	W
1/4"~3/8"	9.2	58.5	46.9	109	28.5
1/2"	9.2	66	57.9	102	28.2
3/4"	12.5	70	60.9	102	28.2
1"	15	80	63.8	104.7	35.6
1-1/4"	20	95	70.3	101.9	35.6
1-1/2"	25	101	72.3	156.1	35.6
2"	32	114	78.3	155.1	35.6



V-1H(1000) / V-1HC(2000) TYPE

SIZE: 1/4"~2"



BAR STOCK/INVESTMENT CASTING STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1,
Rp, Rc, G

*Blow-out proof stem

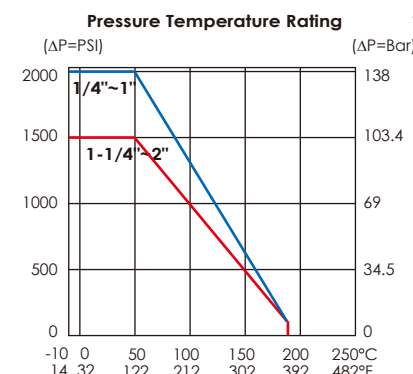
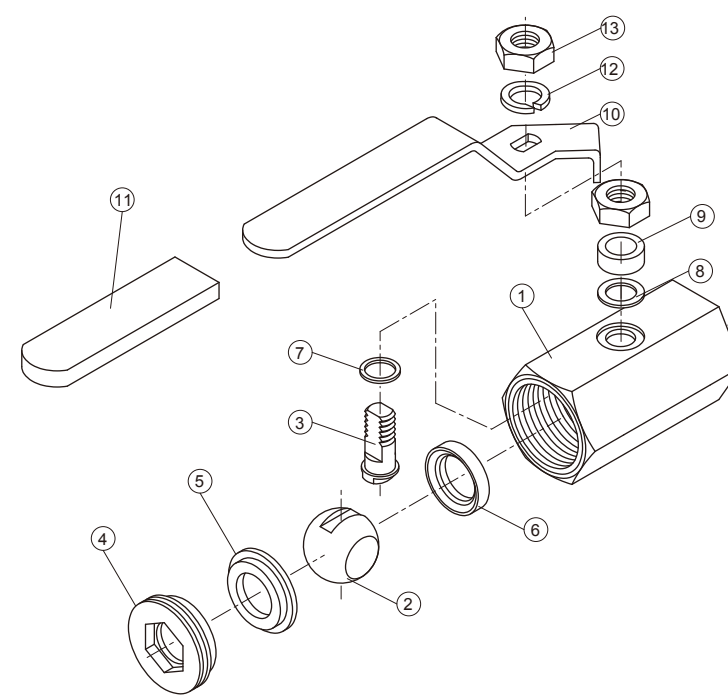
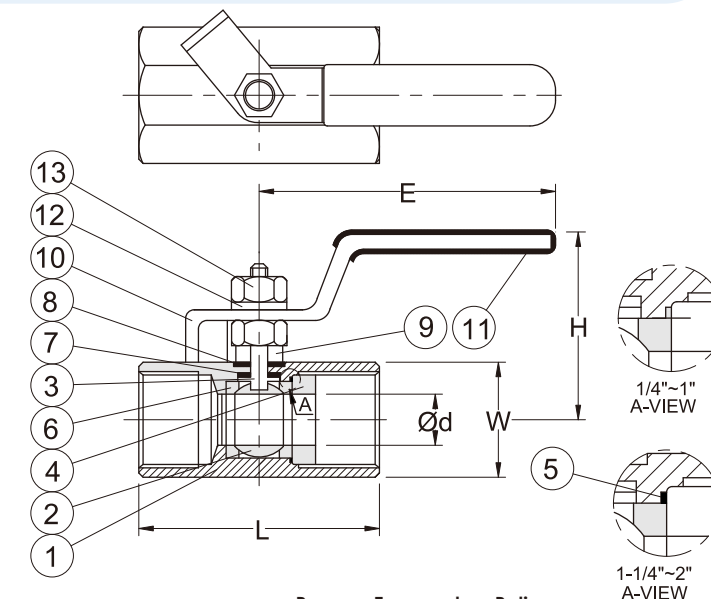
*VIH: 1000 PSI (PN 63)/VIHC: 2000 PSI (PN 130)

*Dimension of VIH is different

OPTION: Polished surface (VIH: Stainless steel only)

V-1HC

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
3	STEM	1	AISI 316	AISI 304	AISI 304
4	INSERT	1	ASTM-A351-CF8M	ASTM-A351-CF8M	ASTM-A216-WCB
5	BODY SEAL	1	PTEE	PTEE	PTEE
6	BALL SEAT	2	15% R-PTFE	15% R-PTFE	15% R-PTFE
7	THRUST WASHER	1	PTEE	PTEE	PTEE
8	STEM PACKING	1	PTEE	PTEE	PTEE
9	GLAND BUSHING	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
12	HANDLE WASHER	1	AISI 304	AISI 304	AISI 304
13	HANDLE NUT	1	AISI 304	AISI 304	AISI 304



V-1HC-CF8M

DIMENSIONS UNIT:mm

NOMINAL SIZE	Ød	L	E	H	W
1/4"	5.0	39	61.0	29.5	17
3/8"	7.2	44	79.0	34.5	21
1/2"	9.2	56.2	108.0	56.0	28
3/4"	12.5	65.1	110.0	65.0	34.5
1"	15.0	76.2	122.0	68.0	40.5
1-1/4"	20.0	92.1	145.0	79.5	53.5
1-1/2"	24.5	98.4	148.0	84.0	57.5
2"	32.0	114.3	148.0	92.5	73

V-2 TYPE

SIZE: 1/4"~4"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

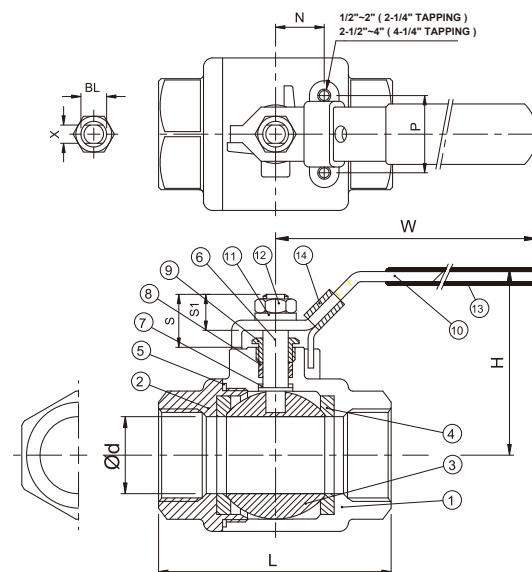
S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

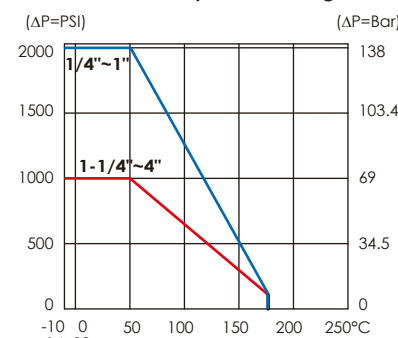
- *Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G
- *With mounting pad
- *Blow-out proof stem
- *Investment casting body and cap
- *1/4"~1" 2000 PSI (PN 130)/1-1/4"~4" 1000 PSI (PN 63)

OPTION: Locking device
Drilled and tapped mounting pad
DIN 3202 M3 length

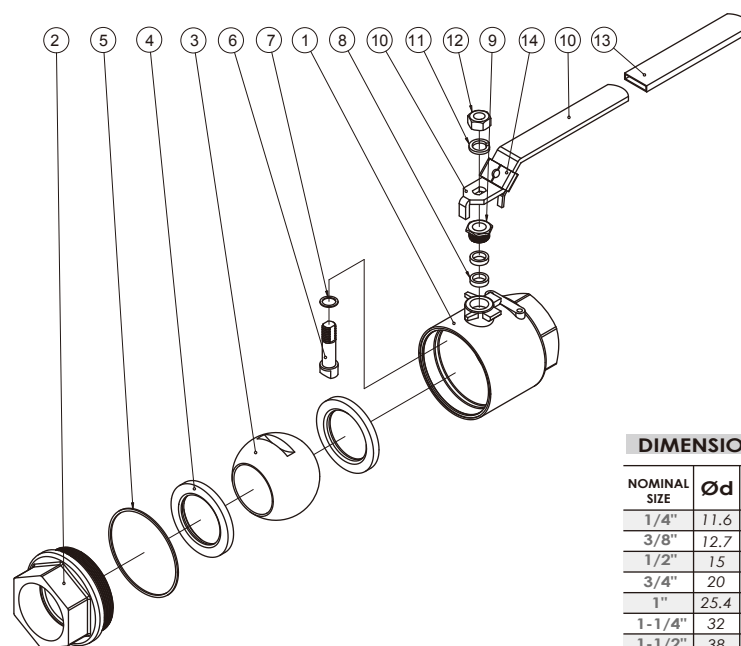
ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	SPRING WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304



Pressure Temperature Rating



DIMENSIONS														UNIT:mm	
NOMINAL SIZE	Ød	L	H	W	S	S1	X	N	P	BL	CV FACTOR	TORQUE kgf-cm	KGS		
1/4"	11.6	60.5	53	95	16.5	10.2	5	12.5	28.5	5/16"	6.6	46	0.33		
3/8"	12.7	60.5	53	95	16.5	10.2	5	12.5	28.5	5/16"	7.9	46	0.33		
1/2"	15	62.5	53	95	16.5	10.2	5	12.5	28.5	5/16"	11.2	54	0.34		
3/4"	20	77	60	110	20	13.5	6.5	21	34.8	3/8"	21	78	0.60		
1"	25.4	90	74	135	23.5	16	8	22.5	34.8	7/16"	35	106	1.02		
1-1/4"	32	100	80	135	23.5	16	8	23.5	38.1	7/16"	57	150	1.57		
1-1/2"	38	118	92	165	25.5	17	9	23.5	38.1	1/2"	80	200	2.28		
2"	50.8	138	101	165	25.5	17	9	34	38.1	1/2"	150	280	3.70		
2-1/2"	65	167	130	215	41	29.5	12	35	56	3/4"	265	500	7.10		
3"	80	193	142	215	41	29.5	12	35	56	3/4"	415	770	11.68		
4"	100	260	174	325	48	36.5	16	50	63	1"	780	1100	23.00		



V-2E TYPE

SIZE: 1/4"~4"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

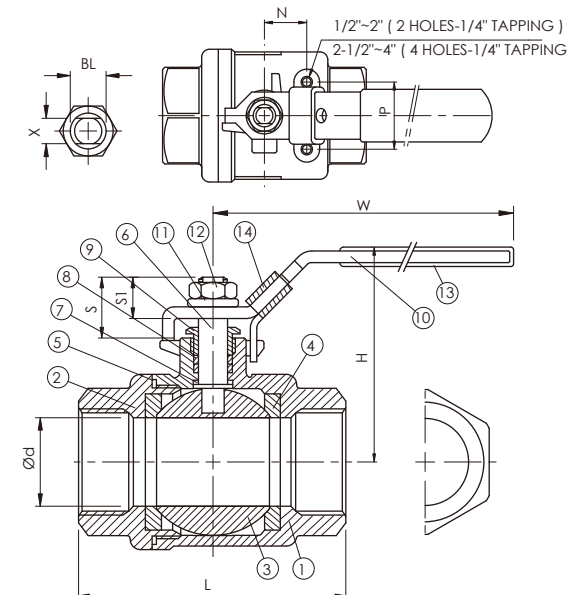
S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

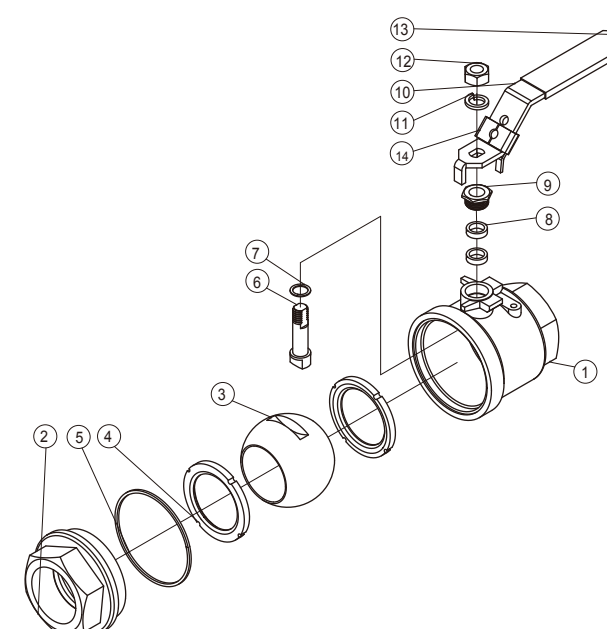
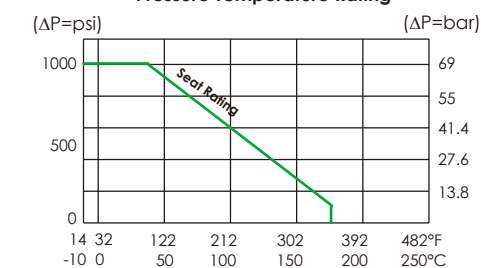
- *Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G
- *With mounting pad
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (PN 63)

OPTION: Locking device
Drilled and tapped mounting pad

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	SPRING WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304



Pressure Temperature Rating



DIMENSIONS														UNIT:mm	
NOMINAL SIZE	Ød	L	H	W	S	S1	X	N	P	BL	CV FACTOR	TORQUE kgf-cm	KGS		
1/4"	11.6	44.5	51	95	16.8	10.2	5.0	12.5	25	5/16"	6.6	40	0.22		
3/8"	12.7	44.5	51	95	16.8	10.2	5.0	12.5	25	5/16"	7.9	40	0.22		
1/2"	15	57	53	95	16.8	10.2	5.0	12.5	25	5/16"	11.2	54	0.29		
3/4"	20	65	59.5	110	21	13.5	6.5	21	24	3/8"	21	74	0.42		
1"	25	76	73	135	24	16	8	22.5	33.5	7/16"	35	104	0.71		
1-1/4"	32	87.5	79	135	25	16	8	23.5	38.1	7/16"	57	135	1.06		
1-1/2"	38	102	90.5	165	26.5	17	9	23.5	38.1	1/2"	80	180	1.68		
2"	50	123	98.5	165	26.5	17	9	23.5	38.1	1/2"	148	250	2.71		
2-1/2"	65	156	130.5	215	41.5	29.5	12	35	56	3/4"	265	480	5.25		
3"	80	184	142.5	215	41.5	29.5	12	35	56	3/4"	415	750	8.6		
4"	100	250	173.5	325	47.5	36.5	16	50	63	1"	780	1100	19.32		

V-25 TYPE

SIZE: 1/4"~4"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

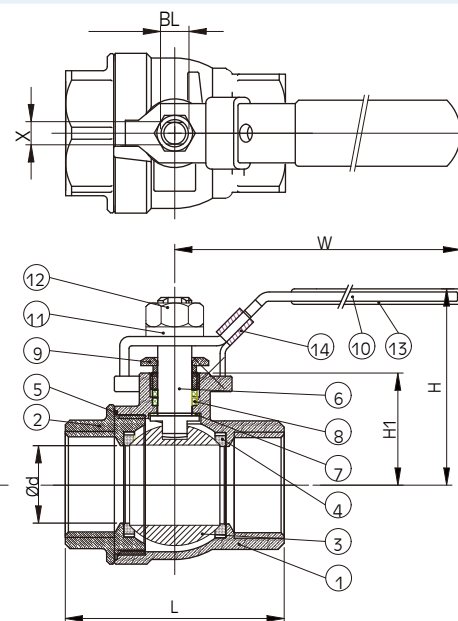
FEATURES:

- *Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (PN 63)

OPTION: Locking device

ECONOMIC TYPE

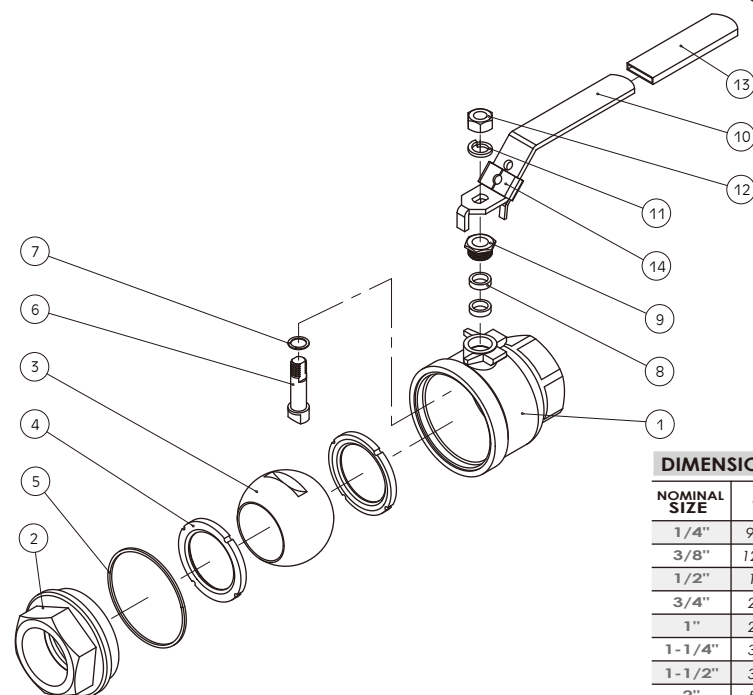
ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-WCB
2	CAP	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 304	AISI 304
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 430	AISI 430	AISI 430
11	SPRING WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 430	AISI 430	AISI 430



Pressure Temperature Rating



DIMENSIONS		UNIT : mm							
NOMINAL SIZE	d	L	H1	H	W	BL	X	Cv FACTOR	TORQUE kgf-cm
1/4"	9.2	40	19	43	76	5/16"-18	4	6.6	36
3/8"	12.8	42	23	50	76	5/16"-18	4	7.9	36
1/2"	15	50	24	50	85	5/16"-18	5	11.2	48
3/4"	20	60	31	57	95	3/8"-16	5	21	66
1"	25	70	36	68	120	7/16"-14	6.5	35	94
1-1/4"	32	80	40	74	120	7/16"-14	6.5	57	122
1-1/2"	38	90	50	85	150	1/2"-12	8.5	80	162
2"	50	105	58	94	150	1/2"-12	8.5	148	225
2-1/2"	65	140	73	136	215	3/4"-10	12	265	432
3"	80	158	84	146	215	3/4"-10	12	415	675
4"	100	200	103	168	300	1"-8	16	415	990



V-2ER TYPE

SIZE: 1/4"~2"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

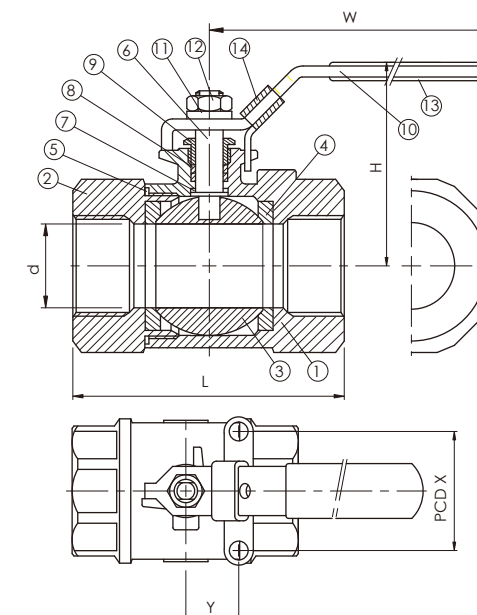
S-20C (EN10213 2 1.0619) (ASTM-A216-WCB)

FEATURES:

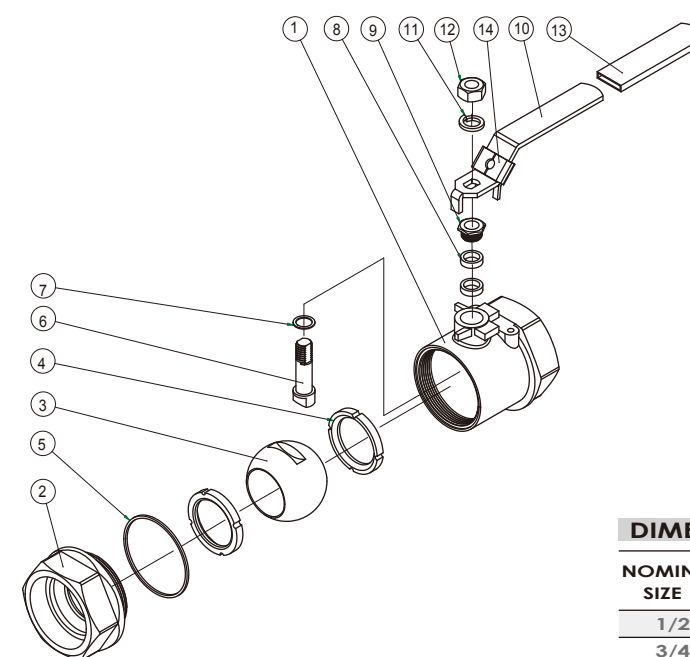
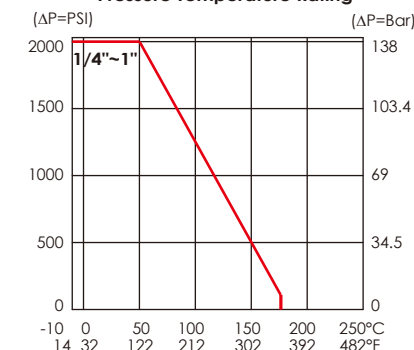
- *Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G
- *With mounting pad
- *Blow-out proof stem
- *Investment casting body and cap
- *2000 PSI (PN 130)

OPTION: Locking device
Drilled and tapped mounting pad

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	SPRING WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304



Pressure Temperature Rating



DIMENSIONS							UNIT:mm	
NOMINAL SIZE	d	L	H	W	X	Y	Cv FACTOR	TORQUE kgf-cm
1/2"	10	59.5	50.5	93	25	12.5	9.5	40
3/4"	15	60.0	52.9	93	25	12.5	14	57
1"	20	82.5	59.1	110	25	21	26	78
1-1/4"	25	91.0	65.1	110	33.5	22.5	43	106
1-1/2"	32	99.0	77.3	135	38.1	23.5	70	150
2"	40	120	86.9	135	38.1	23.5	102	200

V-2NF TYPE

SIZE : 1/4"~2"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

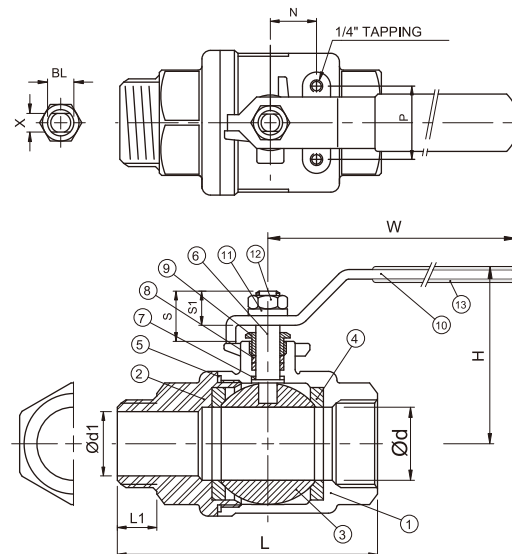
S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

- *Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G, R
- *With mounting pad
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (PN 63)

OPTION: Locking device
Drilled and tapped mounting pad

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	15% R-PTFE	15% R-PTFE	15% R-PTFE
5	JOINT GASKET	1	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	SPRING WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC



Pressure Temperature Rating



DIMENSIONS													UNIT:mm	
NOMINAL SIZE	Ød	Ød1	L	L1	H	W	S	S1	X	N	P	BL	Cv FACTOR	TORQUE kgf-cm
1/4"	11.6	7.0	63	12.6	51	95	16.5	10.2	5.0	12.5	28.5	5/16"	6.6	40
3/8"	12.7	8.5	63.5	13.2	51	95	16.5	10.2	5.0	12.5	28.5	5/16"	7.9	40
1/2"	15	12.5	74	16.7	53	95	16.5	10.2	5.0	12.5	28.5	5/16"	11.2	54
3/4"	20	17.5	82	18.2	59	110	20	13.5	6.5	21	34.8	3/8"	21	74
1"	25	23.6	98.5	21	73	135	23.5	16	8.0	22.5	34.8	7/16"	35	104
1-1/4"	32	30.8	112.4	23.5	78	135	23.5	16	8.0	23.5	38.1	7/16"	57	135
1-1/2"	38	36.6	126.4	23.5	91	165	25.5	17	9.0	23.5	38.1	1/2"	80	180
2"	50	47.5	151.7	27.8	99	165	25.5	17	9.0	23.5	38.1	1/2"	148	250

V-2MH TYPE

SIZE : 1/4"~3"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

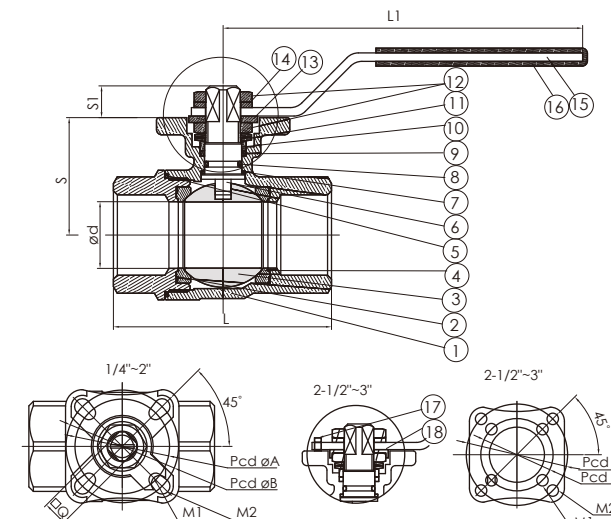
S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

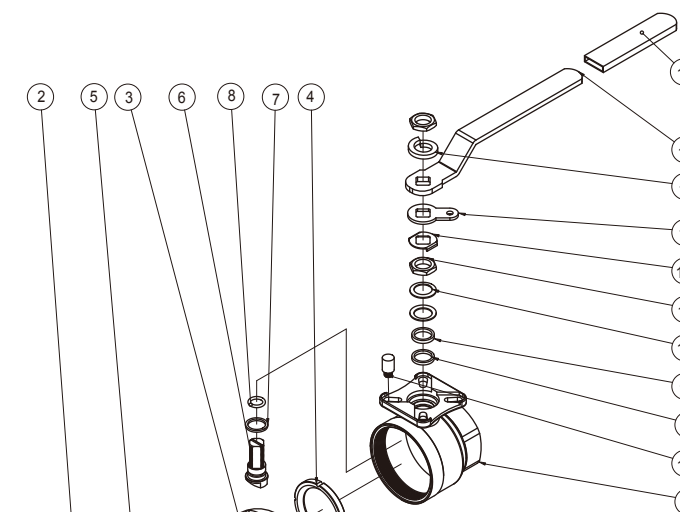
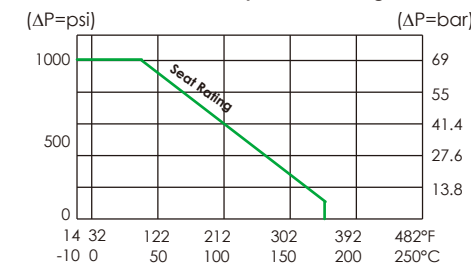
- *Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (PN 63)
- *Direct mounting pad ISO standard 5211

OPTION: C style clip design (Bare Stem)
DIN 3202 M3 length
Locking device (Different mould)
Low Mounting Pad ISO 5211 (V-2IM)

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	O-RING	1	VITON	VITON	VITON
9	STEM PACKING	1	PTFE	PTFE	PTFE
10	STEM RING	1	AISI 304	AISI 304	AISI 304
11	BELLEVILLE WASHER	2	AISI 304	AISI 304	AISI 304
12	STEM NUT	2	AISI 304	AISI 304	AISI 304
13	STOPPER	1	AISI 304	AISI 304	AISI 304
14	SPRING WASHER	1	AISI 304	AISI 304	AISI 304
15	HANDLE	1	AISI 304	AISI 304	AISI 304
16	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
17	STOPPER PIN	1	AISI 304	AISI 304	AISI 304
18	LOCK WASHER	1	AISI 304	AISI 304	AISI 304



Pressure Temperature Rating



DIMENSIONS													UNIT : mm	
NOMINAL SIZE	Ød	ISO 5211						L	S	S1	L1	TORQUE kgf-cm	CV FACTOR	KGS
		Pcd	ØA	Pcd	ØB	M1	M2							
1/4"	11	F03	36	-	-	Ø6.0	-	9.0	49.6	36	10	45	6.4	0.31
3/8"	12.7	F03	36	-	-	Ø6.0	-	9.0	49.6	36	10	45	7.9	0.31
1/2"	15	F04	42	-	-	Ø7.0	-	9.0	55	38	10	55	11.2	0.34
3/4"	20	F04	42	F05	50	R3.0	R3.5	11	75.5	41.7	12	136	90	21
1"	25	F04	42	F05	50	R3.0	R3.5	11	82.5	44.4	12	136	110	35
1-1/4"	32	F05	50	F07	70	R3.5	R4.5	14	90.8	54	16.5	158	155	57
1-1/2"	40	F05	50	F07	70	R3.5	R4.5	14	103	59.5	16.5	203	220	85
2"	50	F05	50	F07	70	R3.5	R4.5	14	120	67	16.5	203	330	148
2-1/2"	65	F07	70	F10	102	Ø9.0	Ø11	17	155	101.5	24.5	322.5	400	265
3"	80	F07	70	F10	102	Ø9.0	Ø11	17	182	112.5	24.5	322.5	660	415

V-2X TYPE

SIZE: 1/4"~3"



SPRING HANDLE

STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G

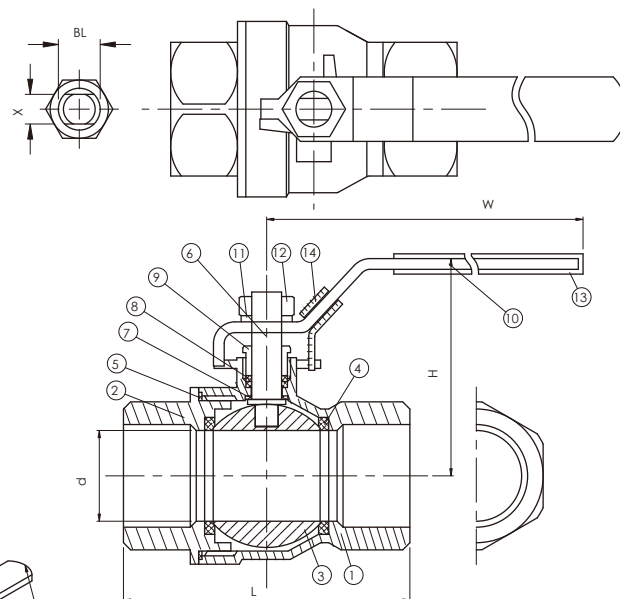
*Blow-out proof stem

*Investment casting body and cap

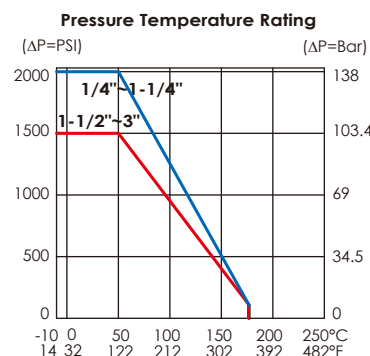
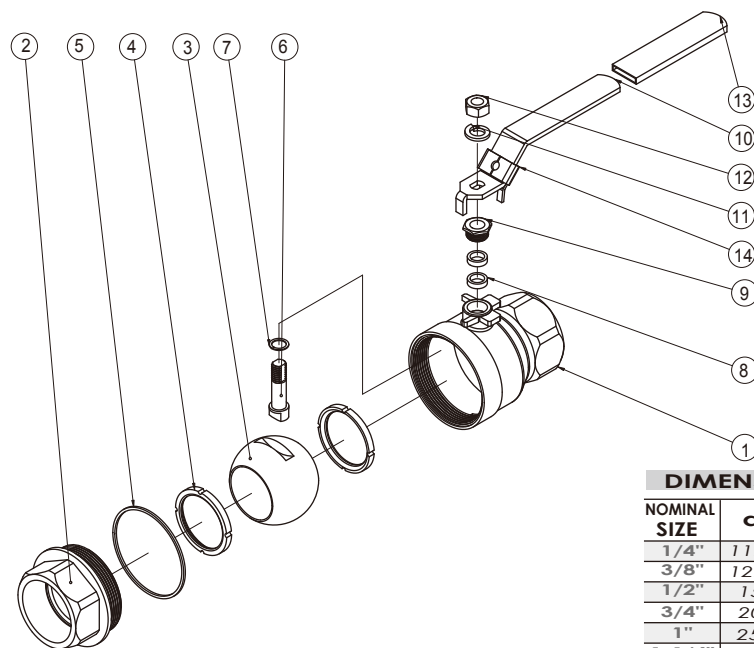
*1/4"~1-1/4": 2000 PSI (PN 130)

1-1/2"~3": 1500 PSI (PN 100)

OPTION: Locking device
DIN 3202 M3 length
Spring handle



ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	SPRING WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304



DIMENSIONS									UNIT:mm	
NOMINAL SIZE	Ød	L	H	W	X	BL	Cv FACTOR	TORQUE kgf-cm		
1/4"	11.6	46.5	51	95	5	5/16"	6.6	40		
3/8"	12.7	46.5	51	95	5	5/16"	7.9	40		
1/2"	15	57	53	95	5	5/16"	11.2	54		
3/4"	20	65	59.5	110	6.5	3/8"	21	74		
1"	25	76	73	135	8	7/16"	35	104		
1-1/4"	32	87.5	79	135	8	7/16"	57	135		
1-1/2"	38	102	90.5	165	9	1/2"	80	180		
2"	50	123	98.5	165	9	1/2"	148	250		
2-1/2"	65	156	130.5	215	12	3/4"	265	480		
3"	80	184	142.5	215	12	3/4"	415	750		

V-2W TYPE

SIZE: 1/4"~2"



3000 PSI

STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

FEATURES:

*360° Seal Welded

*Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G

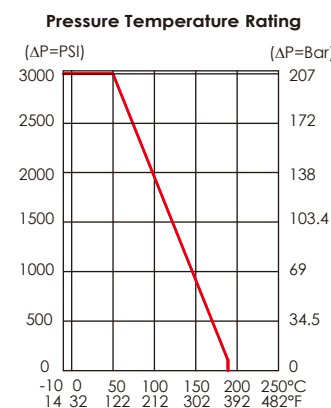
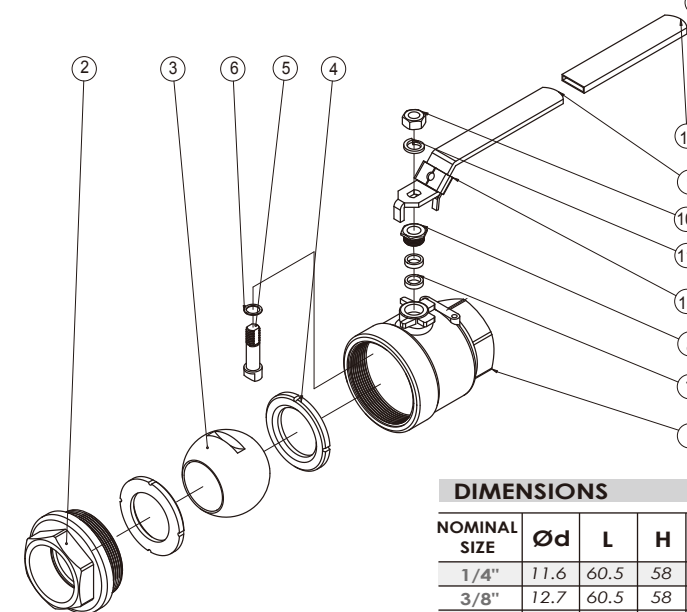
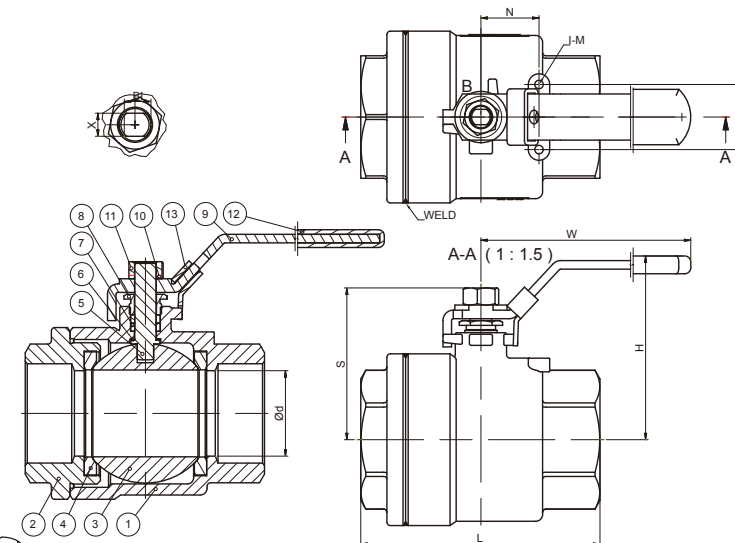
*Blow-out proof stem

*3000 PSI (PN 200)

*With Mounting Pad

OPTION: Locking device
Drilled and tapped mounting pad

ITEM	PARTS	Q'TY	MATERIALS	
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8
2	CAP	1	ASTM-A351-CF8M	ASTM-A351-CF8
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8
4	BALL SEAT	2	15%RTFE (1-1/2"-2":PCTFE)	15%RTFE (1-1/2"-2":PCTFE)
5	STEM	1	AISI 316	AISI 316
6	THRUST WASHER	1	PTFE	PTFE
7	STEM PACKING	2	PTFE	PTFE
8	GLAND NUT	1	AISI 304	AISI 304
9	HANDLE	1	AISI 304	AISI 304
10	STEM NUT	1	AISI 304	AISI 304
11	STEM WASHER	1	AISI 304	AISI 304
12	HANDLE SLEEVE	1	PLASTIC	PLASTIC
13	LOCK DEVICE	1	AISI 304	AISI 304



DIMENSIONS														UNIT:mm	
NOMINAL SIZE	Ød	L	H	W	N	S	P	I-M	X	BL	Cv FACTOR	TORQUE kgf-cm	KGS		
1/4"	11.6	60.5	58	95	12.5	42.4	28.5	2-1/4 20UNC	5	5/16"	6.6	46	0.36		
3/8"	12.7	60.5	58	95	12.5	42.4	28.5	2-1/4 20UNC	5	5/16"	7.9	46	0.36		
1/2"	15	62.5	58	95	12.5	42.5	28.5	2-1/4 20UNC	5	5/16"	11.2	54	0.37		
3/4"	20	77	62.5	110	21	52.3	34.8	2-1/4 20UNC	6.5	3/8"	21	78	0.67		
1"	25.4	90	77	135	22.5	63.1	34.8	2-1/4 20UNC	8	7/16"	35	106	1.17		
1-1/4"	32	103	82	158	23.5	67.7	38.1	2-1/4 20UNC	8	7/16"	57	500	1.80		
1-1/2"	38	120	98.5	253	23.5	78.9	38.1	2-1/4 20UNC	9	1/2"	80	680	2.60		
2"	50.8	140	107.5	253	34	87.7	38.1	2-1/4 20UNC	9	1/2"	150	800	4.27		

V-2HP TYPE NEW

SIZE: 1/4"~2"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

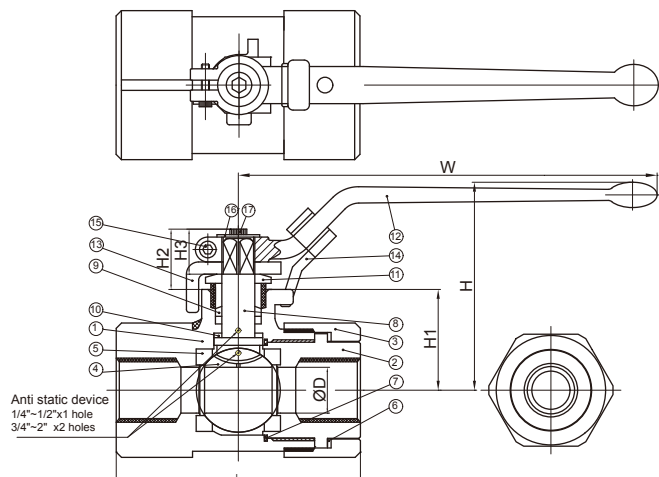
S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

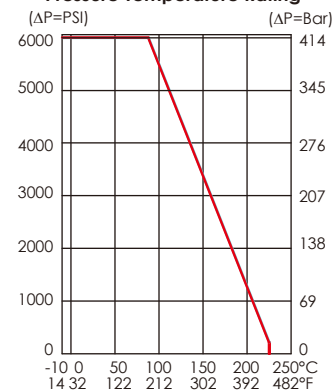
- *Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G
- *Blow-out proof stem
- *Investment casting body and cap
- *6000 PSI (PN 414)
- *Casting handle
- *Anti-Static device
- *Fire Safe design

OPTION: Mounting pad ISO5211
Locking device
Press handle

ITEM	PARTS	Q'TY	MATERIALS		
			316	304	WCB
1	BODY	1	CF8M	CF8	WCB
2	INSERT	1	CF8M	CF8	WCB
3	SCREWED CAP	1	CF8M	CF8	WCB
4	BALL	1	CF8M	CF8	CF8
5	BALL SEAT	2	PEEK	PEEK	PEEK
6	SEAL	1	PTFE	PTFE	PTFE
7	GASKET	1	PTFE	PTFE	PTFE
8	STEM	1	AISI 316	AISI 304	AISI 304
9	STEM PACKING	2	PTFE	PTFE	PTFE
10	THRUSE WASHER	1	PTFE	PTFE	PTFE
11	GLAND NUT	1	AISI 304	AISI 304	AISI 304
12	HANDLE	1	AISI 304	AISI 304	AISI 304
13	STOPPER 2	1	AISI 304	AISI 304	AISI 304
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304
15	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
16	WASHER	1	AISI 304	AISI 304	AISI 304
17	HANDLE NUT	1	AISI 304	AISI 304	AISI 304



Pressure Temperature Rating



DIMENSIONS

NOMINAL SIZE	ØD	W±5	L±2	H	H1	H2	H3	Cv FACTOR	TORQUE kgf-cm	KGS
1/4"	11.6	150	69	66	30	20.3	16.8	6.6	60	0.69
3/8"	12.5	150	69	66	30	20.3	16.8	7.9	75	0.69
1/2"	15	150	79	72	33	22.7	16.8	11.2	75	0.92
3/4"	20	150	94	81	40.8	24.3	17.8	21	150	1.72
1"	25	180	120	105	46	32	24.9	35	250	2.68
1-1/4"	32	180	130	115	55	33	24.9	57	300	4.00
1-1/2"	38	235	149	125	67.5	38	33	80	450	8.27
2"	50	235	174	135	76.5	37.5	30	150	750	12.16

V-3HP TYPE NEW

SIZE: 1/4"~2"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

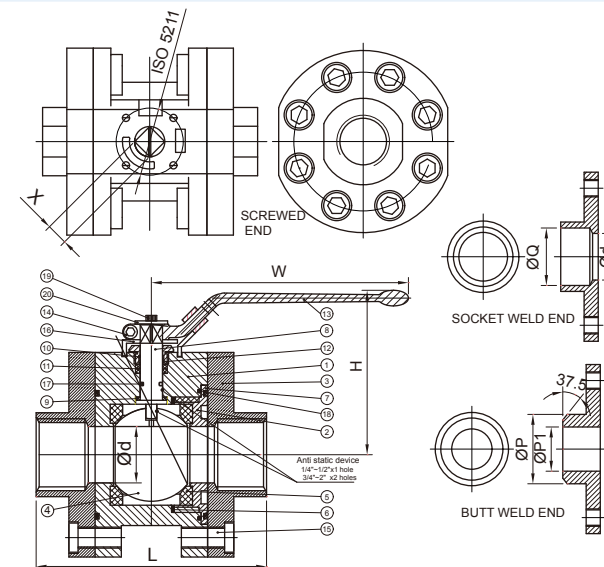
S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

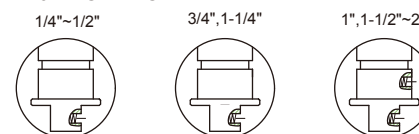
- *Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G
- *Mounting Pad ISO 5211
- *Blow-out proof
- *Investment casting body and cap
- *6000 PSI (PN 414)
- *Casting handle
- *Low torque
- *Anti-Static device
- *Easy assembling cap
- *Temperature limit -30°C~260°C

OPTION: Locking device
10000PSI (PN 670)

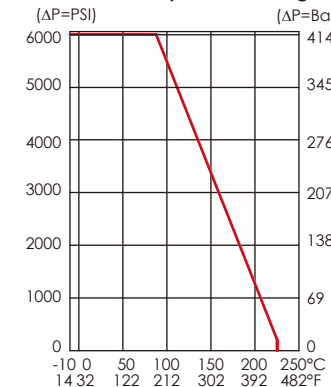
ITEM	PARTS	Q'TY	MATERIALS		
			316	304	WCB
1	BODY	1	CF8M	CF8	WCB
2	INSERT	1	CF8M	CF8	CF8
3	CAP	2	CF8M	CF8	WCB
4	BALL	1	CF8M	CF8	CF8
5	BALL SEAT	2	PEEK	PEEK	PEEK
6	GASKET	1	PTFE	PTFE	PTFE
7	GASKET 2	2	PTFE	PTFE	PTFE
8	STEM	1	AISI 316	AISI 304	AISI 304
9	THRUST WASHER	1	PTFE	PTFE	PTFE
10	BUSH	1	PTFE	PTFE	PTFE
11	STEM PACKING	2	PTFE	PTFE	PTFE
12	GLAND	1	AISI 304	AISI 304	AISI 304
13	HANDLE	1	AISI 304	AISI 304	AISI 304
14	HANDLE BOLT 1	1	AISI 304	AISI 304	AISI 304
15	BOLT	12~16	AISI 304	AISI 304	AISI 304
16	STOPPER	1	AISI 304	AISI 304	AISI 304
17	O-RING 1	1	VITON	VITON	VITON
18	O-RING 2	1	VITON	VITON	VITON
19	HANDLE BOLT 2	1	AISI 304	AISI 304	AISI 304
20	WASHER	1	AISI 304	AISI 304	AISI 304



ANTI-STATIC DEVICE



Pressure Temperature Rating



DIMENSIONS

NOMINAL SIZE	Ød	L	W	H	ISO 5211	ØP	ØP1	ØQ	X	TORQUE kgf-cm
1/4"	11.6	95	150	68	F 03	13.7	7.7	14.1	7.0	60
3/8"	12.5	95	150	68	F 03	17.1	10.7	17.6	7.0	75
1/2"	15	110	150	70	F 03	21.3	13.9	21.7	7.0	75
3/4"	20	120	150	75	F 03	26.7	18.9	27.1	7.0	150
1"	25	150	180	104	F 04	33.5	24.5	33.9	11	220
1-1/4"	32	160	180	108	F 05	42.2	32.4	42.6	11	250
1-1/2"	38	180	235	120	F 07	48.3	38.1	48.7	17	440
2"	50	200	235	130	F 07	60.3	49.3	60.7	17	550

V-3 TYPE

SIZE: 1/4"~4"

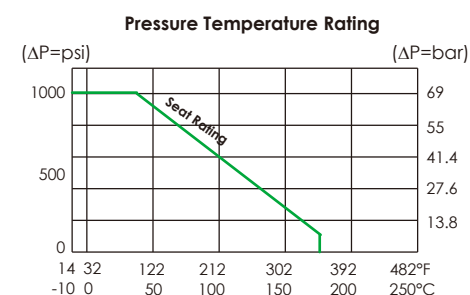
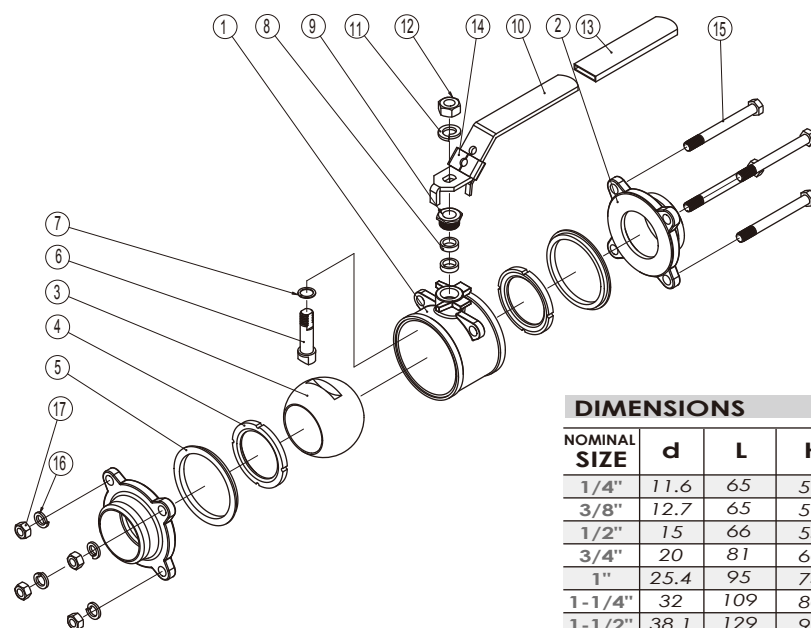
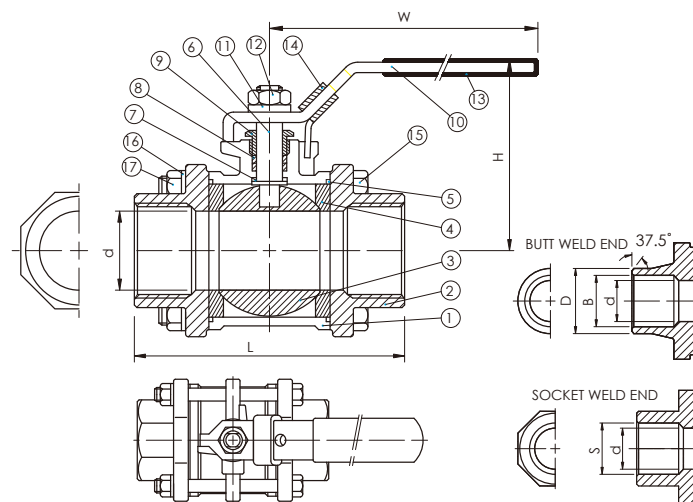


STAINLESS STEEL
AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)
AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)
CARBON STEEL
S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:
*Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G
*Lug body
*Blow-out proof stem
*Investment casting body and cap
*1000 PSI (PN 63)

OPTION: Locking device
DIN 3202 M3 length

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	2	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	2	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	STEM WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	PLASTIC COVER	1	PLASTIC	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304
15	BOLT	4(3",4"x6)	AISI 304	AISI 304	AISI 304
16	SPRING WASHER	4(3",4"x6)	AISI 304	AISI 304	AISI 304
17	HEX NUT	4(3",4"x6)	AISI 304	AISI 304	AISI 304



DIMENSIONS										UNIT:mm
NOMINAL SIZE	d	L	H	W	B	D	S	Cv FACTOR	TORQUE kgf-cm	KGS
1/4"	11.6	65	51	95	12	18	14.1	6.6	40	0.41
3/8"	12.7	65	51	95	14	18	17.6	7.9	40	0.41
1/2"	15	66	55	95	17.1	22	21.7	11.2	54	0.65
3/4"	20	81	60	110	22.5	27.5	27.1	21	78	0.80
1"	25.4	95	74	135	28	33.5	33.8	35	106	1.20
1-1/4"	32	109	80	135	33.5	44	42.6	57	150	2.05
1-1/2"	38.1	129	92	165	43	50	48.7	80	200	2.80
2"	50.8	150	101	165	53	61.5	61.1	150	280	4.35
2-1/2"	65	180	130	215	65	76	76.9	265	500	8.40
3"	80	206	142	215	80	92	89.8	415	770	14.5
4"	100	261	174	325	100	115	115.4	780	1100	26.5

V-3E TYPE

SIZE: 1/4"~4"

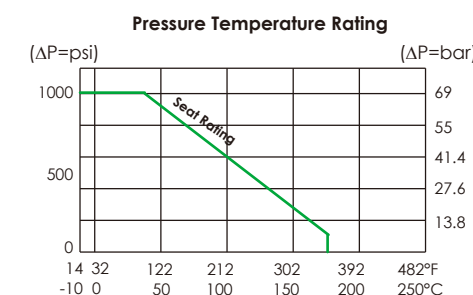
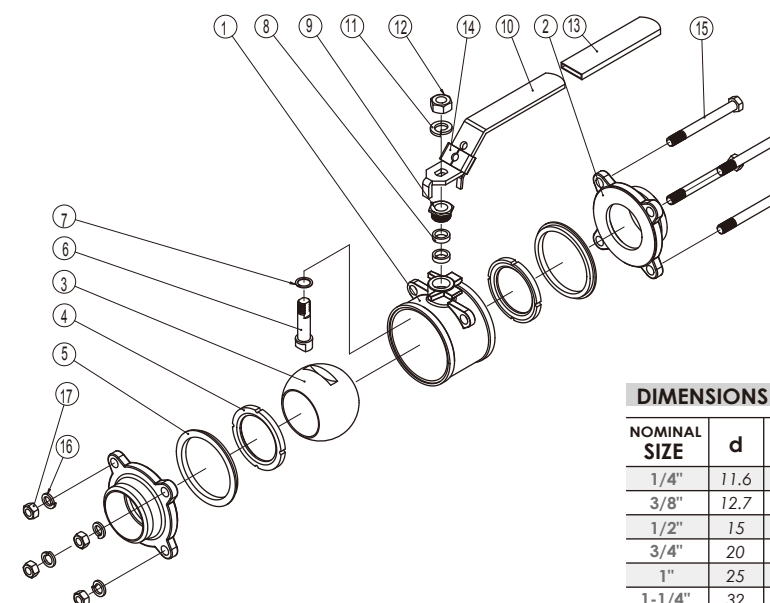
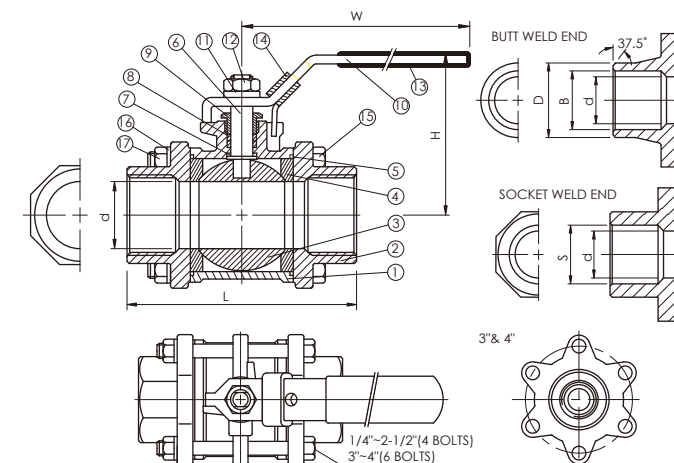


STAINLESS STEEL
AISI-316 (EN10213-1.4408) (ASTM-A351-CF8M)
AISI-304 (EN10213-1.4308) (ASTM-A351-CF8)
CARBON STEEL
S-20C (EN10213-1.0619) (ASTM-A216-WCB)

FEATURES:
*Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G
*Lug body
*Blow-out proof stem
*Investment casting body and cap
*1000 PSI (PN 63)

OPTION: Locking device
Reduced port (Different mould)

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	2	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	2	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	STEM WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304
15	BOLT	4(3",4"x6)	AISI 304	AISI 304	AISI 304
16	SPRING WASHER	4(3",4"x6)	AISI 304	AISI 304	AISI 304
17	HEX NUT	4(3",4"x6)	AISI 304	AISI 304	AISI 304



DIMENSIONS										UNIT:mm
NOMINAL SIZE	d	L	H	W	B	D	S	Cv FACTOR	TORQUE kgf-cm	KGS
1/4"	11.6	54	51	95	12	18	14.1	6.6	40	0.34
3/8"	12.7	54	51	95	12.52	18	17.6	7.9	40	0.34
1/2"	15	61.5	55	95	15.8	22	21.7	11.2	54	0.46
3/4"	20	71	58.5	110	20.93	28	27.2	21	74	0.62
1"	25	83.5	73	135	26.64	34	33.9	34	104	0.96
1-1/4"	32	97	78.5	135	35.05	44	42.6	57	135	1.49
1-1/2"	38	110.5	90.5	165	40.9	50	48.7	80	180	2
2"	50	129	99	165	52.5	61.5	61.1	148	250	3.12
2-1/2"	65	171.5	127	215	69	76	76.9	265	480	6.5
3"	80	200	136	215	82	90	89.8	415	750	10.42
4"	100	252	172	325	106	115	115.4	780	1100	20.2

V-3X TYPE HOT

SIZE: 1/4"~4"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G

*Lug body

*Blow-out proof stem

*Investment casting body and cap

*1000 PSI (PN 63)

OPTION: Locking device

ECONOMIC TYPE

V-3L TYPE

SIZE: 1/4"~4"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Long butt weld end

*Lug body

*Blow-out proof stem

*Investment casting body and cap

*1000 PSI (PN 63)

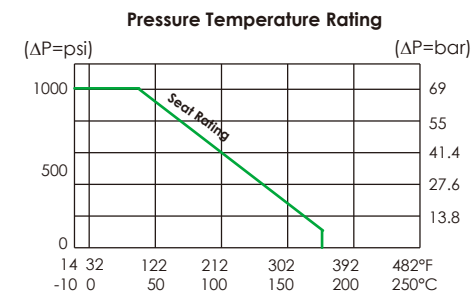
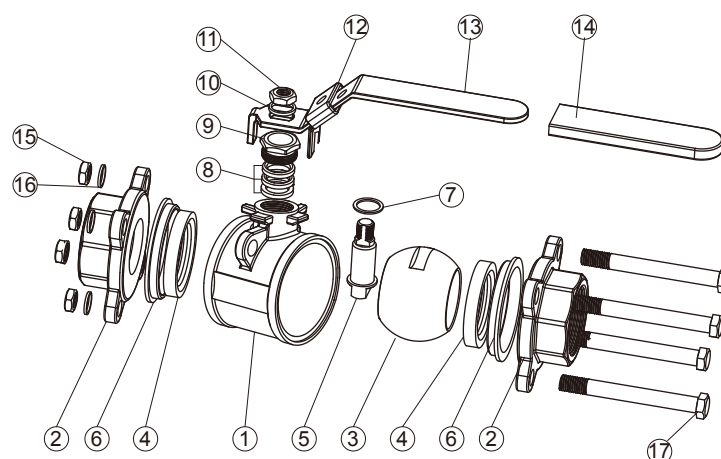
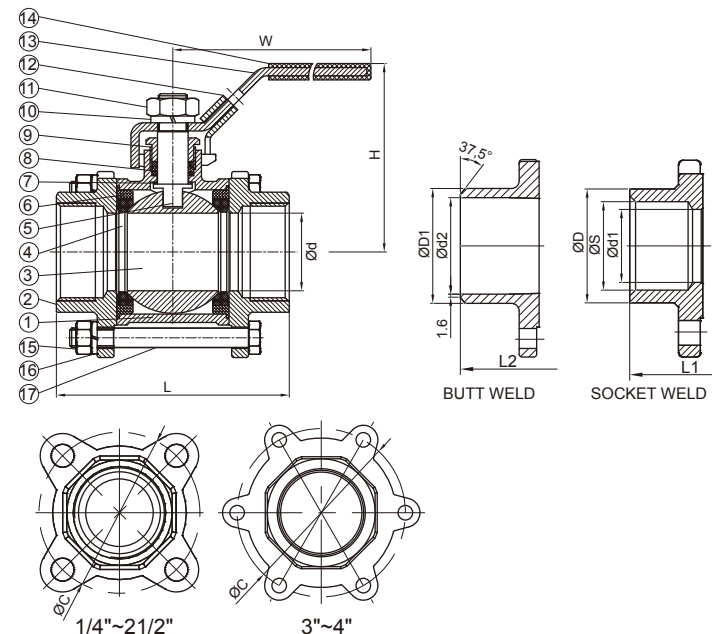
OPTION: Locking device

Mounting pad ISO 5211

End caps 316L (EN10213 1.4409)

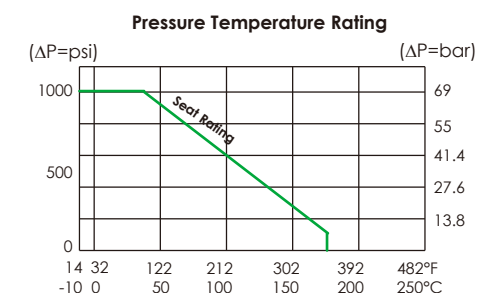
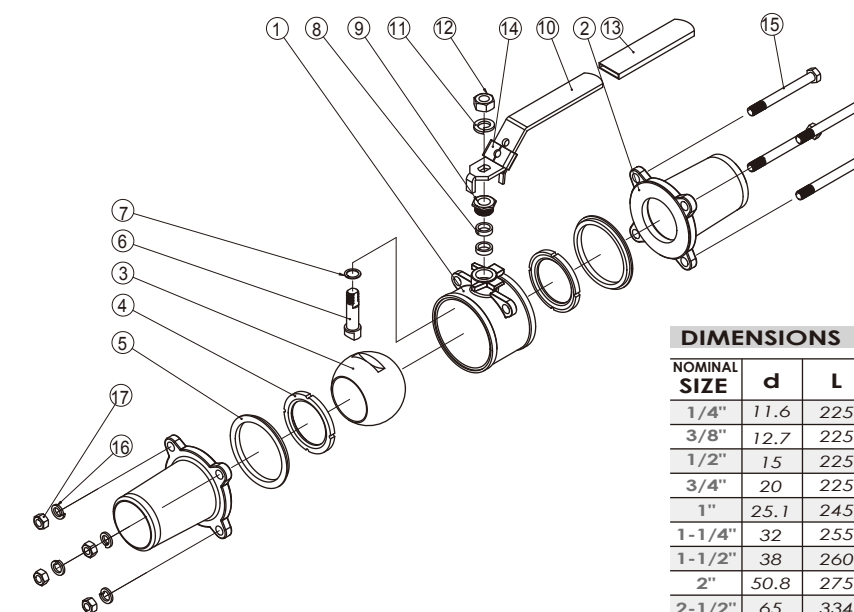
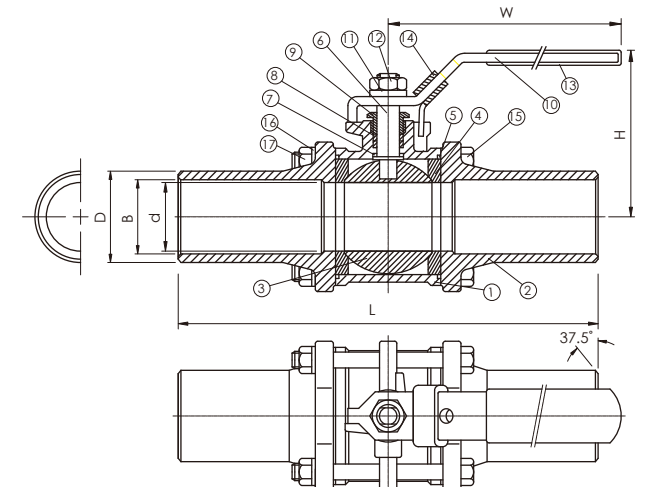
Direct mounting Pad ISO 5211

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8M	ASTM-A216-WCB
2	CAP	2	ASTM-A351-CF8M	ASTM-A351-CF8M	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8M	ASTM-A351-CF8
4	SEAT	2	PTFE	PTFE	PTFE
5	STEM	1	AISI 316	AISI 316	AISI 316
6	GASKET	2	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	PACKING	1SET	PTFE	PTFE	PTFE
9	GLAND	1	AISI 304	AISI 304	AISI 304
10	SPRING WASHER	1	AISI 304	AISI 304	AISI 304
11	STEM NUT	1	AISI 304	AISI 304	AISI 304
12	LOCKING DEVICE	1	AISI 304	AISI 304	AISI 304
13	HANDLE	1	AISI 304	AISI 304	AISI 304
14	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
15	HEX NUT	4(3",4"x6)	AISI 304	AISI 304	AISI 304
16	BOLT WASHER	4(3",4"x6)	AISI 304	AISI 304	AISI 304
17	JOINT BOLT	4(3",4"x6)	AISI 304	AISI 304	AISI 304



DIMENSIONS														UNIT:mm	
NOMINAL SIZE	Ød	Ød1	Ød2	ØD	ØD1	ØS	L	L1	L2	H	W	ØC	KGS		
1/4"	11.6	11.6	11.6	22.6	17	14.1	58	58	70	54	102	37.5	0.33		
3/8"	12.7	12.7	12.7	22.6	17	17.6	58	58	70	54	102	37.5	0.32		
1/2"	15	15	16	27.3	21.3	21.7	63	63	75	62	123	45.5	0.47		
3/4"	20	20	20	33.1	26.7	27.1	73	73	90	66	123	52.5	0.60		
1"	25	25	25	39.8	33.6	33.8	85	85	100	77	153	57.5	0.86		
1-1/4"	32	32	33.8	48.6	42.4	42.6	96	96	110	80	153	71.5	1.34		
1-1/2"	38	38	39.5	55.1	48	48.7	114	114	125	91	183	79	1.96		
2"	50	50	50.8	68.1	60.5	61.1	134	134	150	98	183	97	3.06		
2-1/2"	65	65	62.7	85.9	76.1	76.9	180	180	190	138	246	124.5	6.41		
3"	80	80	77.9	100.8	88.9	89.8	200	200	220	149	246	149	9.10		
4"	100	100	100	127.5	114.2	115.5	228	228	270	175	246	180.6	14.33		

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	2	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	2	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	STEM WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304
15	BOLT	4-6	AISI 304	AISI 304	AISI 304
16	SPRING WASHER	4-12	AISI 304	AISI 304	AISI 304
17	HEX NUT	4-12	AISI 304	AISI 304	AISI 304



DIMENSIONS										UNIT:mm	
NOMINAL SIZE	d	L	H	W	B	D	Cv FACTOR	TORQUE kgf-cm	KGS		
1/4"	11.6	225	51	95	12.2	17.8	6.6	40	0.62		
3/8"	12.7	225	51	95	14	19.2	7.9	40	0.66		
1/2"	15	225	55	95	17	22	11.2	54	0.85		
3/4"	20	225	60	110	22.5	27	21	78	1.16		
1"	25.1	245	74	135	27	34.5	35	106	1.74		
1-1/4"	32	255	80	135	35	44	57	150	2.76		
1-1/2"	38	260	92	165	41.5	50	80	200	4.10		
2"	50.8	275	101	165	53	61.5	150	280	5.18		
2-1/2"	65	334	130	215	68	77	265	500	9.06		
3"	80	354	142	215	80	90	415	770	14.54		
4"	100	365	174	325	100	115	780	1100	26.50		

V-3M TYPE

SIZE: 1/4"~4"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1,
Rp, Rc, G

*Lug body

*Blow-out proof stem

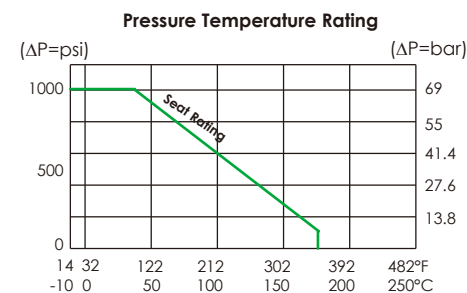
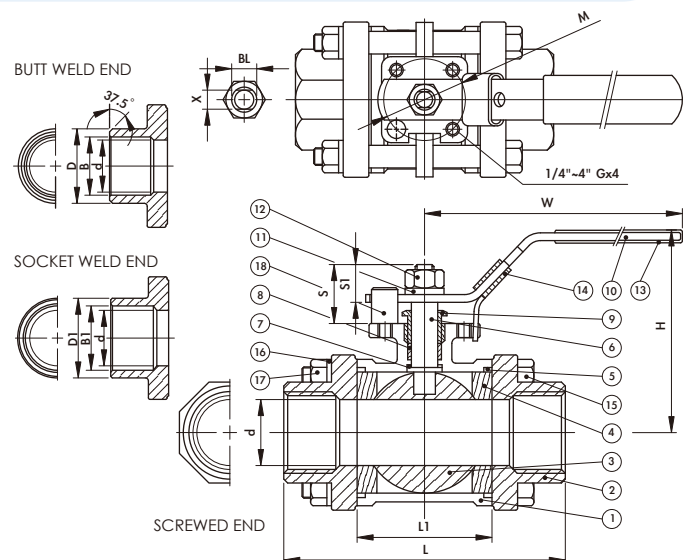
*Investment casting body and cap

*1000 PSI (PN 63)

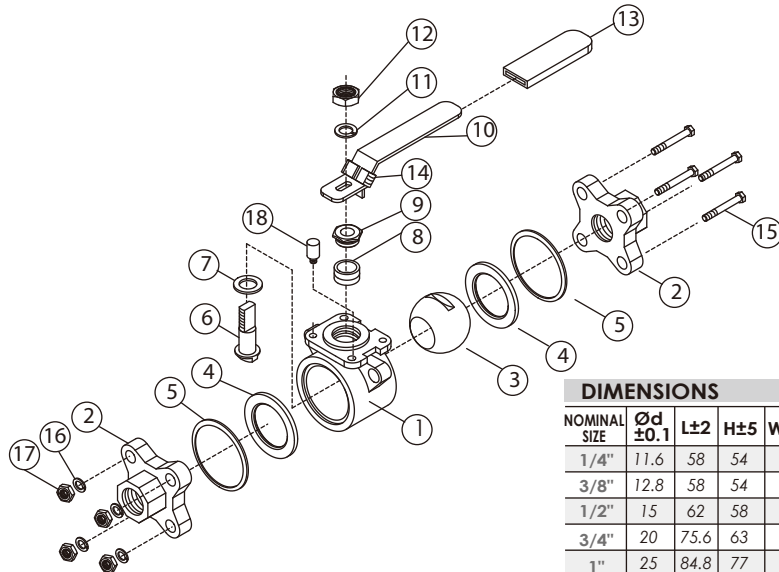
*Mounting Pad ISO 5211

OPTION: Locking device

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	2	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	2	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	STEM WASHER	1	AISI 304	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304
15	BOLT	4(3"x4"x6)	AISI 304	AISI 304	AISI 304
16	SPRING WASHER	4(3"x4"x6)	AISI 304	AISI 304	AISI 304
17	HEX NUT	4(3"x4"x6)	AISI 304	AISI 304	AISI 304
18	STOP PIN	1	AISI 304	AISI 304	AISI 304



DIMENSIONS													UNIT:mm				
NOMINAL SIZE	Ød±0.1	L±2	H±5	W ₁₀ ±0	S±1	S1±1	ØB±0.1	ØB1±0.1	ØD	ØD1	X±0.1	BL	ISO5211 ØM	G	Cv FACTOR	TORQUE kgf-cm	KGS
1/4"	11.6	58	54	110	11	7.0	12	14.1	18	19	5.0	5/16"	36	M5	6.6	40	0.45
3/8"	12.8	58	54	110	11	7.0	14	17.6	18	22.5	5.0	5/16"	36	M5	7.9	40	0.43
1/2"	15	62	58	110	13.5	8.8	17.1	21.7	22	27	5.0	5/16"	36	M5	11.2	54	0.56
3/4"	20	75.6	63	123	18.3	12.5	22.5	27.1	27.5	33	6.5	3/8"	36	M5	21	78	0.76
1"	25	84.8	77	152	21.5	15.6	28	33.8	33.5	40	8.0	7/16"	42	M5	35	106	1.18
1-1/4"	32	100	82	152	23	15.6	35.5	42.6	44	48.8	8.0	7/16"	42	M5	57	150	1.75
1-1/2"	38	115	94	163	26	16.9	43	48.7	50	55	9.0	1/2"	50	M6	80	200	2.54
2"	50	132	102	163	24	16.9	53	61.1	61.5	67.2	9.0	1/2"	50	M6	150	280	3.66
2-1/2"	65	165	130	238	41.2	29	65	76.9	76	86.4	12	3/4"	70	M8	265	500	7.73
3"	80	183	145	238	38.5	29	80	89.5	92	103	12	3/4"	102	M10	415	770	13
4"	100	231.4	170	308	49	36.6	100	115.5	115	130	16	1"	102	M10	780	1100	23



V-3MH TYPE

SIZE: 1/4"~6"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1,
Rp, Rc, G

*lug body

*Blow-out proof stem

*Investment casting body and cap

*1000 PSI (PN 63)

*Direct Mounting Pad ISO 5211

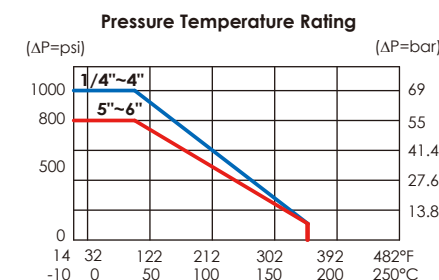
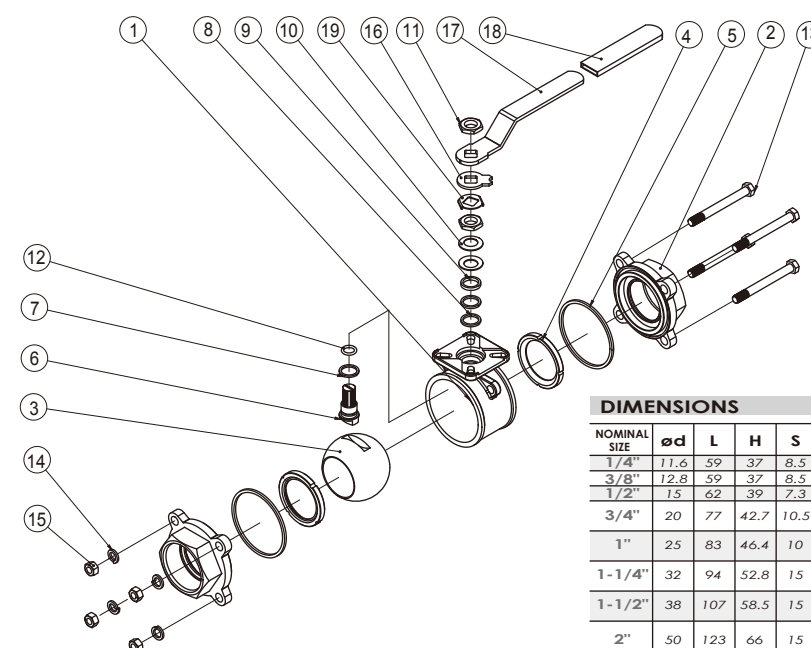
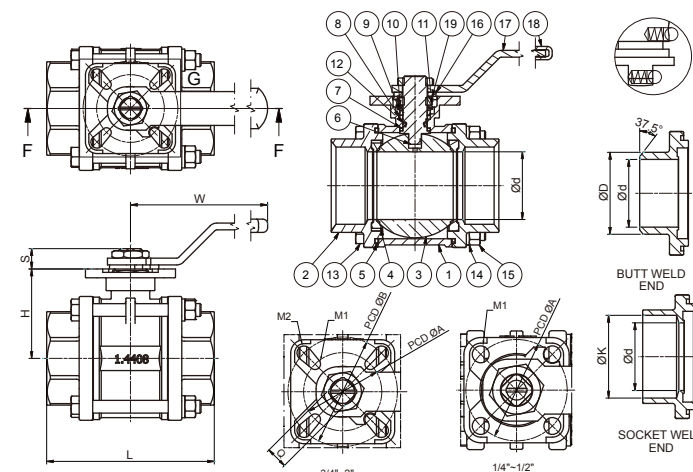
*5"~6" Butt Weld only

OPTION: C Style clip (Bare Stem)

DIN 3202 M3 length (Different mould)

Locking device (Different mould)

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	CAP	2	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	JOINT GASKET	2	PTFE	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE	PTFE
9	HIGH WASHER	1	AISI 304	AISI 304	AISI 304
10	BELLEVILLE WASHER	2	AISI 304	AISI 304	AISI 304
11	STEM NUT	2	AISI 304	AISI 304	AISI 304
12	O-RING	1	VITON	VITON	VITON
13	BOLT	4~6	AISI 304	AISI 304	AISI 304
14	SPRING WASHER	4~6	AISI 304	AISI 304	AISI 304
15	HEX NUT	4~6	AISI 304	AISI 304	AISI 304
16	STOPPER	1	AISI 304	AISI 304	AISI 304
17	HANDLE	1	AISI 304	AISI 304	AISI 304
18	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
19	LOCK WASHER	1	AISI 304	AISI 304	AISI 304



DIMENSIONS															UNIT:mm	
NOMINAL SIZE	Ød	L	H	S	W	Pcd ø	Q	M1	M2	D	d	K	K1	Cv FACTOR	TORQUE kgf-cm	KGS
1/4"	11.6	59	37	8.5	112	F03 ø36	9	R3.0	-	ø18.1	ø12.7	ø14.1	-	6.6	45	
3/8"	12.8	59	37	8.5	112	F03 ø36	9	R3.0	-	ø18.1	ø12.7	ø17.6	-	7.9	45	
1/2"	15	62	39	7.3	112	F03 ø36	9	R3.0	-	ø21.7	ø15	ø21.7	-	11.2	55	
3/4"	20	77	42.7	10.5	138	F04 ø42	11	R3.5	R3.0	ø27.2	ø20	ø27.2	-	21	90	
1"	25	83	46.4	10	138	F05 ø50	11	R3.5	R3.0	ø34	ø25	ø33.9	-	34	110	
1-1/4"	32	94	52.8	15	160	F05 ø50	14	R4.5	R3.5	ø42.7	ø32	ø43.2	-	57	155	
1-1/2"	38	107	58.5	15	205	F05 ø50	14	R4.5	R3.5	ø48.6	ø40	ø48.7	-	80	220	
2"	50	123	66	15	205	F05 ø50	14	R4.5	R3.5	ø60.5	ø50	ø61.1	-	148	330	
2-1/2"	65	156	101.5	18	322.5	F07 ø70	17	R5.5	ø9.0	ø76.3	ø65	ø73.8	ø70.9	265	400	
3"	80	182	112.5	18	322.5	F07 ø70	17	R5.5	ø9.0	ø93	ø80	ø89.8	ø82.5	415	660	
4"	100	213.6	127.0	18	322.5	F10 ø102	17	R5.5	ø9.0	ø114	ø100	ø115.4	ø108	780	900	
5"	125	319	158.5	47.0	616	F10 ø102	27	R7.0	ø12	ø145	ø125	-	-	1040	1200	
6"	150	350	175	47.0	616	F12 ø125	27	R7.0	ø12	ø168.4	ø150	-	-	1200	1500	

V-3WMH TYPE

SIZE: 1/4"~4"

DIRECT MOUNTING PAD
3000PSI & 2000PSI



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Heavy Duty Design

*Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G

*Blow-out proof stem

*Investment casting body and cap

*1/4"~2": 3000 PSI (PN 200), 2-1/2"~4": 2000 PSI (PN 130)

*Encapsulated body

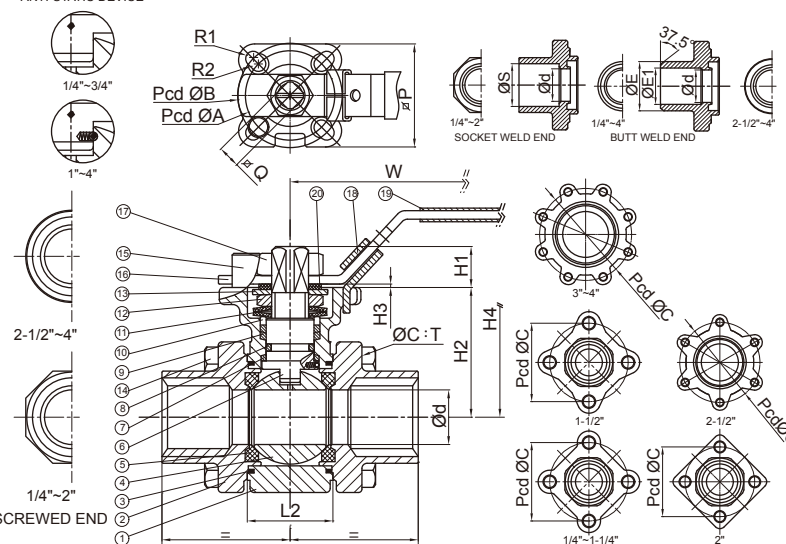
*Direct mounting pad ISO 5211

*Firesafe design

OPTION: Locking device
Reduced port
Bare Stem
DIN 3202 M3 length

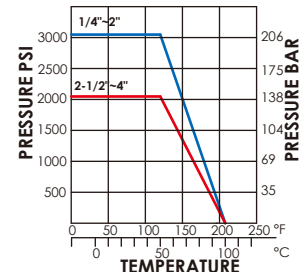
ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	END CAP	2	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	JOINT GASKET	2	Graphite	Graphite	Graphite
4	SOLID BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
5	BALL SEAT	2	POM	POM	POM
6	STEM	1	AISI 316	AISI 304	AISI 304
7	THRUST WASHER	1	25% CARBON	25% CARBON	25% CARBON
8	O-RING	1	VITON	VITON	VITON
9	STEM PACKING	2	Graphite	Graphite	Graphite
10	STEM RING	1	AISI 304	AISI 304	AISI 304
11	BELLEVILLE WASHER	2	AISI 301	AISI 301	AISI 301
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	SADDLE WASHER	1	AISI 304	AISI 304	AISI 304
14	HEX BOLT	8	AISI 304	AISI 304	AISI 304
		12			
		16			
15	STOP PIN	1	AISI 304	AISI 304	AISI 304
16	HANDLE	1	AISI 304	AISI 304	AISI 304
17	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
18	LOCKING DEVICE	1	AISI 304	AISI 304	AISI 304
19	PLASTIC COVER	1	P.V.C	P.V.C	P.V.C
20	SQUARE WASHER	1	AISI 304	AISI 304	AISI 304

ANTI-STATIC DEVICE



PRESSURE-TEMPERATURE

RATING 1/4" ~ 4"



DIMENSIONS																							UNIT:mm		
NOMINAL SIZE	ød	L±2			L2	H1±1	H2	H3	H4±3	ISO-5211					ØE	ØE1	ØP	ØC	T	Pcd ØC	W _{±0.10}	CV FACTOR	TORQUE kgf-cm	KGS	
		L _{SD}	L _{SW}	L _{BW}						ØPcd	ØQ	R1	R2												
1/4"	11	60	60	60	22.7	11	34	between 1.0 - 5.0 mm	68	F03/0236	9.0	Ø6.0	---	18	12	14.1	37.5	6.5	M6	40	117	6.4	60	0.52	
3/8"	12.7	60	60	60	22.7	11	34		68	F03/0236	9.0	Ø6.0	---	18	14	17.6	37.5	6.5	M6	40	117	7.9	60	0.53	
1/2"	16	65	65	65	24	11	38		72	F03/0236 F04/0242	9.0	R3	R3	22	17.1	21.7	41.5	6.5	M6	44	117	11.2	110	0.64	
3/4"	20	75	75	75	28	14	43		79	F03/0236 F04/0242	11	R3	R3	27.5	22.5	27.1	41.5	8.4	M8	53.4	127	21	170	0.95	
1"	25	85	85	85	34	12	50		85	F03/0236 F04/0242 F05/0250	11	R3.5	R3	33.5	28	33.8	50.4	8.4	M8	65	170	34	200	1.34	
1-1/4"	32	100	100	100	44	12	55	88	F04/0242 F05/0250	11	R3.5	R3	44	33.5	44	50.4	10.6	M10	77	170	57	270	2.25		
1-1/2"	38	110	110	110	53	16	65	105	F05/0250 F07/0270	14	R4.5	R3.5	50	43	50	66.5	10.6	M10	93	182	80	350	3.63		
2"	50	130	130	130	65	16	75	114	F05/0250 F07/0270	14	R4.5	R3.5	61.5	53	61.5	66.5	10.6	M10	122	182	148	500	5.97		
2-1/2"	65	170	170	170	74.6	28	103	153	F07/0270 F10/03102	17	R5.5	R4.5	76	65	76.9	90	12.6	M12	140	333	265	700	11		
3"	80	190	190	190	87	28	113	165	F07/0270 F10/03102	17	R5.5	R4.5	92	80	89.8	90	12.6	M12	160	333	415	900	14.22		
4"	100	220	220	220	112.5	40	150	205	F10/03102 F12/04126	22	R6.5	R5.5	115	100	115.4	113	16.6	M16	210	333	780	1200	28		

V-3WLN TYPE NEW

SIZE: 1/2"~4"

CRYOGENIC USE



INVESTMENT CASTING STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G

*Encapsulated body, Long neck design

*Blow-out proof stem

*Investment casting body and cap

*1/2"~2": 2000PSI (PN130), 2-1/2"~4": 1000PSI (PN63)

*Direct mounting pad ISO 5211, Anti-Static design

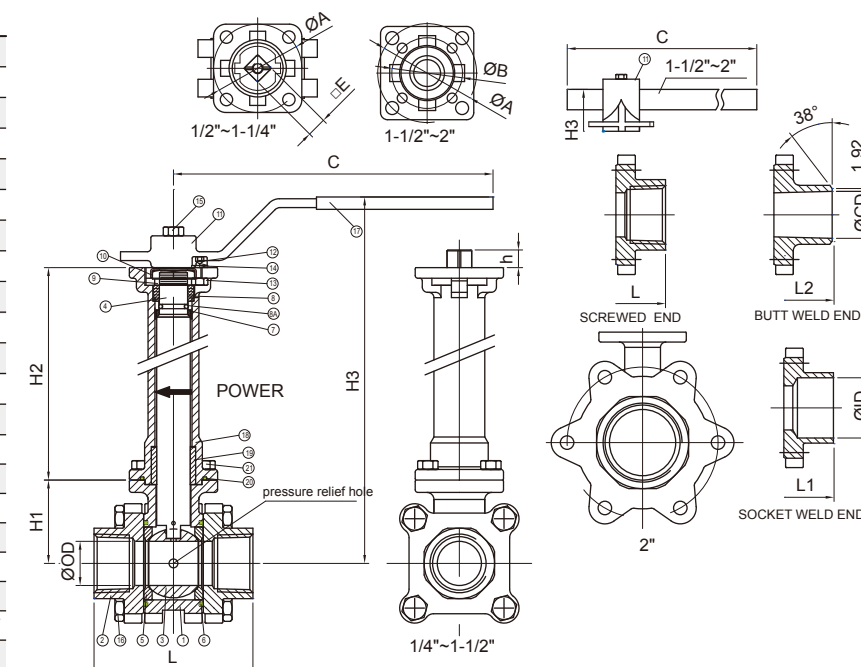
*Face to Face DIN3202 M3 length

*Lowest temperature for -196°C use

*Locking device design

OPTION: End Cap in material of CF3M/ 1.4409
Flanged end design AISI 150LBS & DIN PN16 (1/2"~2")
Bare stem

ITEM	PARTS	Q'TY	MATERIALS
1	Body	1	CF8M
2	End Cap	2	CF8M
3	Ball	1	CF8M
4	Anti Static Stem	1	17-4 PH SS
5	Ball Seat	2	PCTFE (KEL-F)
6	Body Seal	2	GRAFOIL
7	Thrust Washer	1	PCTFE (KEL-F)
8	O-Ring	1	VITON
8A	Stem Packing	5	PCTFE (KEL-F)
9	Stem Nut	1	AISI 304
10	Lock Saddle	1	AISI 304
11	Handle	1	AISI 304
12	Stop Bolt	1	AISI 304
13	Stop Nut	1	AISI 304
14	Stop Washer	1	AISI 304
15	Handle Bolt	1	AISI 304
16	Body Bolt	8-12	AISI 304
17	Handle Sleeve	1	PLASTIC
18	Extension	1	CF8M
19	Thrust Bearing	1	25%CARBON + 75%PTFE
20	Extension Gasket	1	GRAFOIL
21	Extension Bolt	4	AISI 304



DIMENSIONS															UNIT : mm	
NOMINAL SIZE	ØOD	ØCD	ØID	L	L1	L2	C	□E	ØA	ØB	H1	H2	H3	h	TORQUE (Lb-In)	
															NORMAL	-196°
1/4"	9.6	10.4	14.4	67	67	67	156	9	F04		39.0	200	274	8	150	250
3/8"	9.6	13.7	17.8	67	67	67	156	9	F04		39.0	200	274	8	150	250
1/2"	15.0	15.8	22.0	75	75	75	156	9	F04		39.0	200	274	8	150	250
3/4"	20.0	20.9	27.4	80	80	90	156	9	F04		42.6	200	276	8	180	300
1"	25.0	26.6	34.1	90	90	100	181	11	F05		47.2	200	287	10	200	400
1-1/4"	31.0	35.0	42.9	110	110	110	181	11	F05		51.2	200	292	10	280	560
1-1/2"	38.0	40.8	49.0	120	120	125	395	14	F05	F07	58.5	300	403	13	350	700
2"	50.0	52.5	61.5	140	140	150	395	14	F05	F07	76.2	300	423	13	500	1600

* 2-1/2"~4" drawing is offered on request

V-3WM TYPE

SIZE: 1/4"~2-1/2"



STAINLESS STEEL

AISI-316 (ASTM-A351-CF8M)

AISI-304 (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Heavy Duty Design

*Pipe thread in accordance with ASME B1.20.1, Rp, Rc, G

*Blow-out proof stem

*Investment casting body and cap

*1/4"~1/2": 3000 PSI, 3/4"~2-1/2": 2250 PSI

*Encapsulated body

*Mounting Pad ISO 5211

*Heat diffusion: Socket & Butt weld end

*Fire-safe design

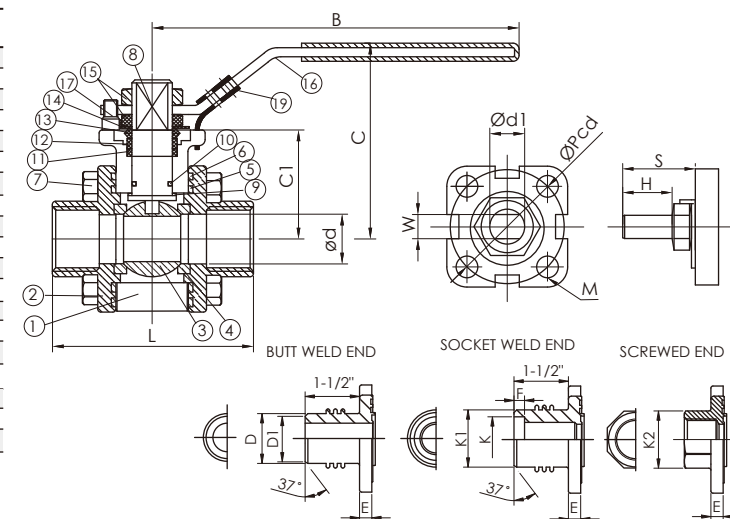
OPTION: Locking device

Reduced Port

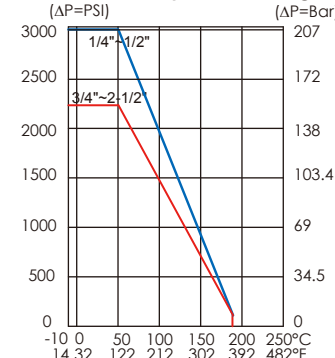
API 607 fire safe approved

Material Alloy-20

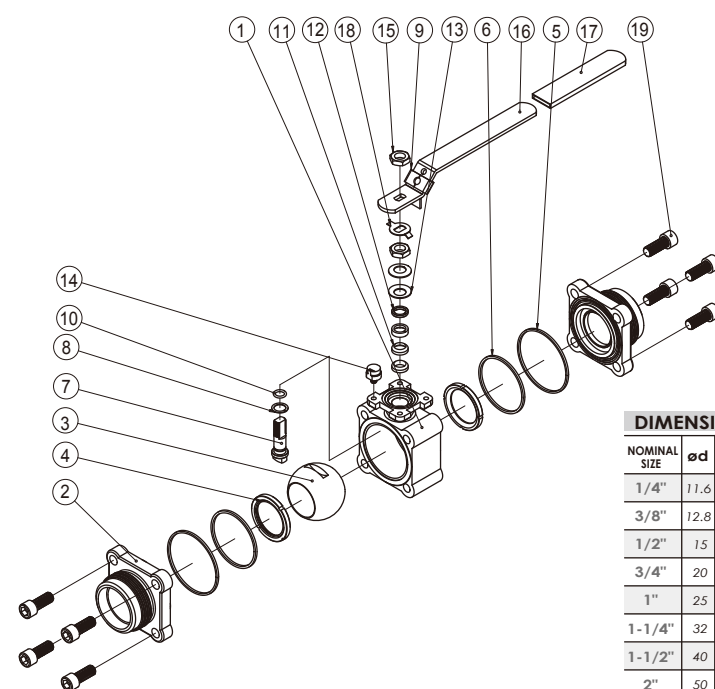
ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-WCB	ALLOY-20
2	CAP	2	ASTM-A351-CF8M	ASTM-A351-WCB	ALLOY-20
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ALLOY-20
4	BALL SEAT	2	PEEK	PEEK	PEEK
5	JOINT GASKET	2	TFM 1600	TFM 1600	TFM 1600
6	JOINT GASKET	2	GRAPHITE	GRAPHITE	GRAPHITE
7	BOLT	8	AISI 316	AISI 316	AISI 316
8	STEM	1	ASTM 17-4PH	AISI 304	ALLOY-20
9	THRUST WASHER	1	GRAPHITE	GRAPHITE	GRAPHITE
10	O-RING	1	VITON	VITON	VITON
11	STEM PACKING	2	TFM 1600	TFM 1600	TFM 1600
12	HIGH WASHER	1	AISI 304	AISI 304	AISI 304
13	BELLEVE WASHER	2	AISI 304	AISI 304	AISI 304
14	LOCK WASHER	1	AISI 304	AISI 304	AISI 304
15	STEM NUT	2	AISI 304	AISI 304	AISI 304
16	HANDLE	1	AISI 304	AISI 304	AISI 304
17	STOPPER	1	AISI 304	AISI 304	AISI 304
18	PLASTIC COVER	1	PLASTIC	PLASTIC	PLASTIC
19	LOCKING DEVICE	1	AISI 304	AISI 304	AISI 304



Pressure Temperature Rating



DIMENSIONS																		UNIT:mm		
NOMINAL SIZE	ød	H	S	Pcdø	ød1	w	M	D	D1	K	K1	K2	F	E	B	C	C1	BT	L	SW
1/4"	11.6	7.0	13.5	42	12	6.35	#10-24UNC	18.1	13	14.1	26	22	10	10.5	160	68.4	39.1	69	122.2	122.2
3/8"	12.8	7.0	13.5	42	12	6.35	#10-24UNC	18.1	14.7	17.5	26	27.5	10	10.5	160	68.4	39.1	69	122.2	122.2
1/2"	15	7.0	13.5	42	12	6.35	#10-24UNC	21.7	17	21.7	31.5	33	10	11	160	68.4	39.1	74	124.2	124.2
3/4"	20	7.0	13.5	42	12	6.35	#10-24UNC	27.2	22	27.1	38.5	40	13	12	160	72.4	43.1	86	131.2	131.2
1"	25	11.3	18.7	50	14	8	1/4"-20UNC	34	28	33.8	43	48.5	13	12.5	175	87.4	52.2	94	133.2	133.2
1-1/4"	32	11.3	18.7	50	14	8	1/4"-20UNC	42.7	35	42.5	55	57.5	13	15	175	90.7	55.5	104	145.2	145.2
1-1/2"	40	13.4	22.4	70	16	9.5	5/16"-18UNC	48.6	43	48.6	62	65	13	17	220	107.7	67.2	117	157.2	157.2
2"	50	13.4	22.4	70	16	9.5	5/16"-18UNC	60.5	54	61.1	75	81	16	18	220	114.0	73.7	132	168.2	168.2
2-1/2"	65	-	19.0	102	27	17	Ø11	76.3	70	73.8	86	96.5	16	20	278	137.0	118	178	220.0	220.0



V-1FW TYPE

SIZE: 1/2"~4"



STAINLESS STEEL

AISI-316 (EN10213 1.4408)

AISI-304 (EN10213 1.4308)

CARBON STEEL

S-20C (EN10213 1.0619)

FEATURES:

*Flange: PN40

*Anti-static device, fire safe design

*Blow-out proof stem, lever operated

*Solid ball

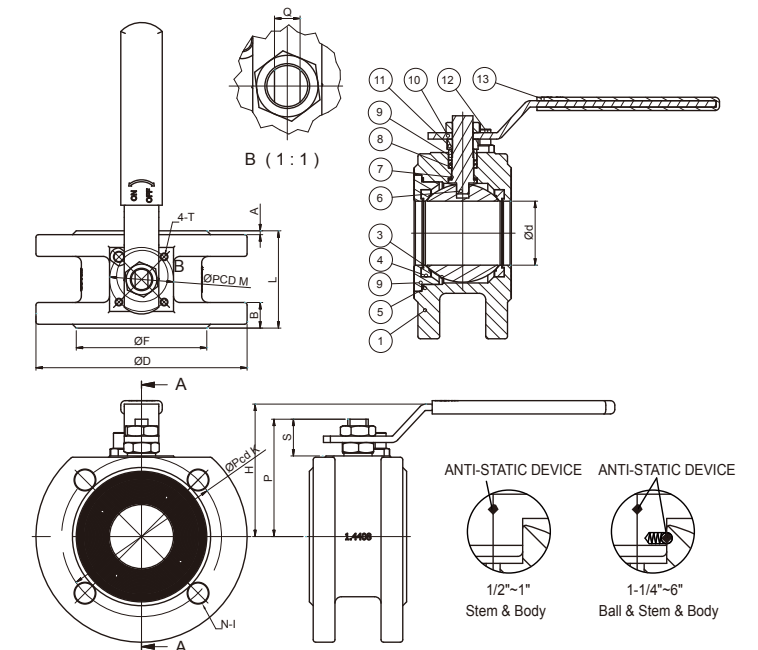
*Mounting pad ISO 5211

OPTION: Direct mounting pad (Different mould)

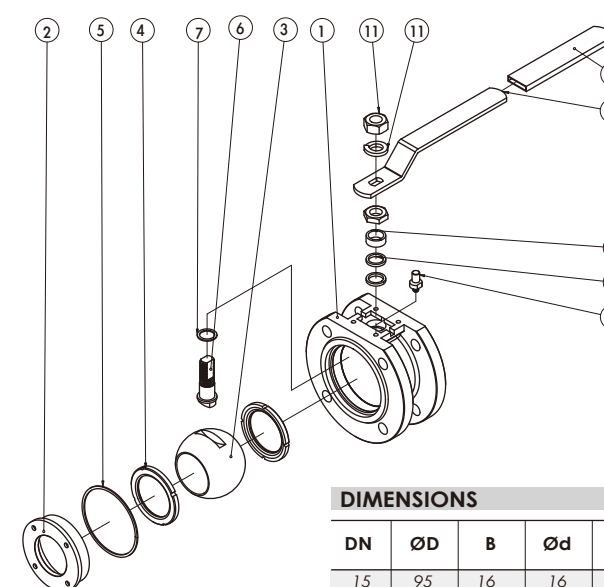
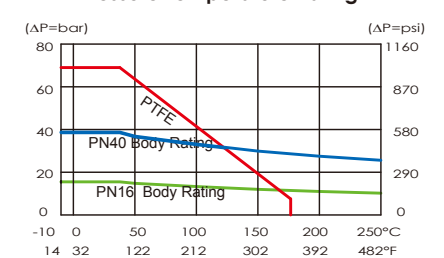
DIN PN 16 (1/2"~6")

ASME Class 150 (1/2"~2")

ITEM	PARTS	Q'TY	MATERIAL	MATERIAL-C
1	BODY	1	1.4408	1.0619
2	INSERT	1	1.4408	1.0619
3	BALL	1	1.4408	1.4308
4	BALL SEAT	2	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE
8	STEM PACKING	2~3	PTFE	PTFE
9	STEM RING	1	AISI 304	AISI 304
10	HANDLE	1	AISI 430	AISI 430
11	STEM NUT	2	AISI 304	AISI 304
12	STOP PIN	1	AISI 304	AISI 304
13	PLASTIC COVER	1	PLASTIC	PLASTIC



Pressure Temperature Rating



DIMENSIONS															UNIT:mm		
DN	ØD	B	Ød	ØF	A	N-I	H	ØK	L	ØM	P	Q	S	T	W		
15	95	16	16	45	2	4-M12	64	65	41	36	51	6.5	15.6	M5	123		
20	105	18	20	58	2	4-M12	68	75	45	36	56	6.5	16.1	M5	123		
25	115	18	25	68	2	4-M12	81	85	54	42	68	8.7	22.9	M5	158		
32	140	18	32	78	2	4-M16	88	100	58	42	75	8.7	22.9	M5	158		
40	150	18	40	88	3	4-M16	96	110	63	50	84	10	28.9	M6	198		
50	165	20	50	102	3	4-M16	104	125	76	50	92	10	28.7	M6	198		
65	185	22	65	122	3	8-M16	122	145	99	70	110	12	36.7	M8	248		
80	200	24	76	138	3	8-M16	154	160	118	70	134	12	39.2	M8	283		
100	235	24	96	162	3	8-M20	164	190	139	70	142	12	36.8	M8	333		

V-1 FM Class 150 TYPE

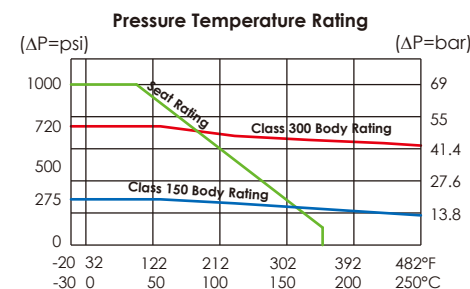
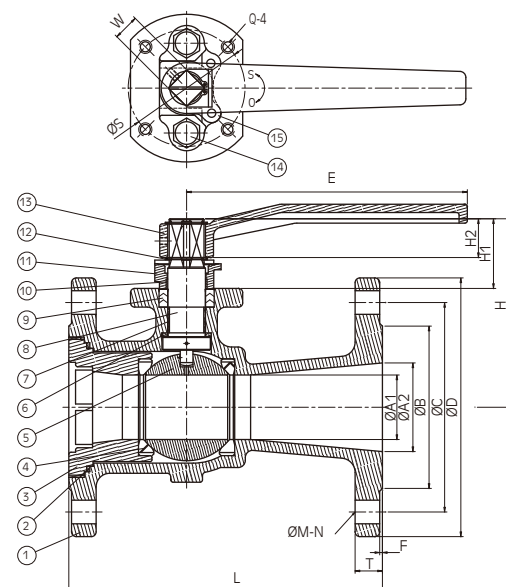
SIZE: 1/2"~6"



STAINLESS STEEL
AISI-316 (ASTM-A351-CF8M)
AISI-304 (ASTM-A351-CF8)
CARBON STEEL
S-20C (ASTM-A216-WCB)

FEATURES:
*Flange: ASME B16.5 class 150
*Face to face: ASME B16.10
*Anti-static device
*Blow-out proof stem, lever operated
*Solid ball
*Mounting Pad ISO 5211
OPTION: Fire safe design
Locking device
ASME Class 300 (Different mould)
Direct Mounting Pad ISO 5211

NO	PART NAME	Q'TY	MATERIAL	
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-WCB
2	BODY SEAL	1	PTFE	PTFE
3	END CAP	1	ASTM-A351-CF8M	ASTM-A351-WCB
4	SEAT	2	15% R-PTFE	15% R-PTFE
5	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8M
6	THRUST WASHER	1	PTFE	PTFE
7	STEM BUSHING	1	PTFE	PTFE
8	STEM	1	ANSI 316	ANSI 316
9	STEM PACKING	3, 4	PTFE	PTFE
10	GLAND BEARING	1	PTFE	PTFE
11	GLAND	1	ASTM-A351-CF8	ASTM-A351-CF8
12	SNAP RING	2	AISI 304	AISI 304
13	HANDLE	1	FCD45	FCD45
14	BOLT	2	AISI 304	AISI 304
15	STOP PLATE	1	AISI 304	AISI 304



DIMENSIONS														UNIT:mm		
NOMINAL SIZE	ØA1	ØA2	ØB	ØC	ØD	E	F	H	H1	H2	L	W	ØS	T	Q	ØM-N
1/2"	12.5	15.0	35.1	60.5	88.9	130.0	1.6	45.0	17.5	8.5	108.0	9.0	36.0	11.2	1/4"-20	Ø15.7-4
3/4"	16.0	20.0	42.9	69.9	98.6	130.0	1.6	47.2	17.5	8.5	117.0	9.0	36.0	11.2	1/4"-20	Ø15.7-4
1"	20.0	25.0	50.8	79.2	108.0	130.8	1.6	80.5	22.5	12.5	127.0	11.0	50.0	11.2	1/4"-20	Ø15.7-4
1-1/2"	32.0	38.9	73.2	98.6	127.0	165.0	1.6	86.4	29.2	15.5	165.0	14.0	50.0	14.2	1/4"-20	Ø15.7-4
2"	38.0	46.0	92	120.7	152.4	202.0	1.6	116.6	38.4	21.5	178.0	17.0	70.0	15.7	5/16"-18	Ø19.1-4
2-1/2"	51.0	66.0	104.6	139.7	177.8	202.0	1.6	139.0	38.4	21.5	190.0	17.0	70.0	17.5	5/16"-18	Ø19.1-4
3"	58.0	76.0	127.0	152.4	190.5	328.5	1.6	169.4	58.4	31.5	203.0	22.0	102.0	19.1	3/8"-16	Ø19.1-4
4"	80.0	95.0	157.2	190.5	228.6	328.5	1.6	193.3	60.2	33.1	229.0	22.0	102.0	23.9	3/8"-16	Ø19.1-8
6"	114.0	150.0	215.9	241.3	279.4	752.5	1.6	256.0	74.9	45.5	267.0	27.0	125.0	25.4	1/2"-13	Ø22.4-8

V-2F Class 150 TYPE

SIZE: 1/2"~12"

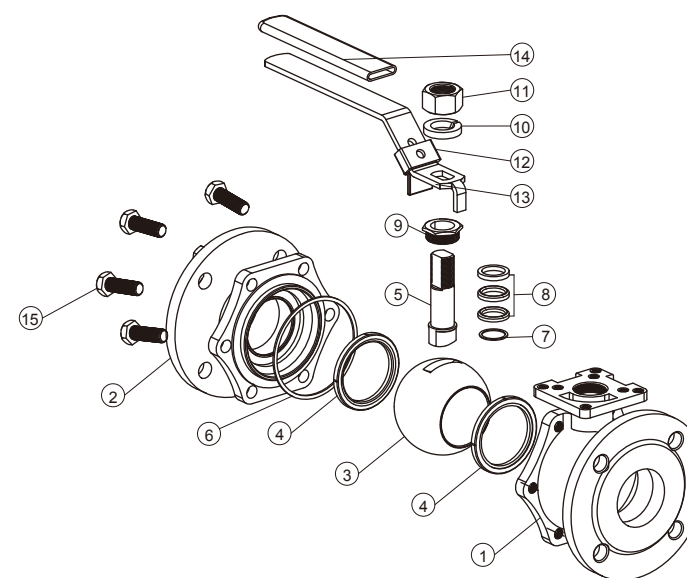
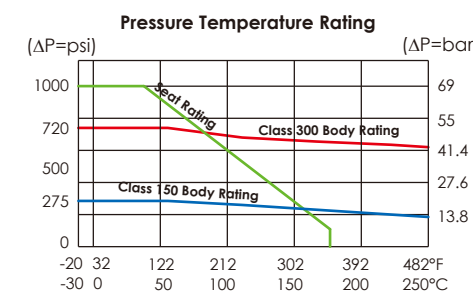
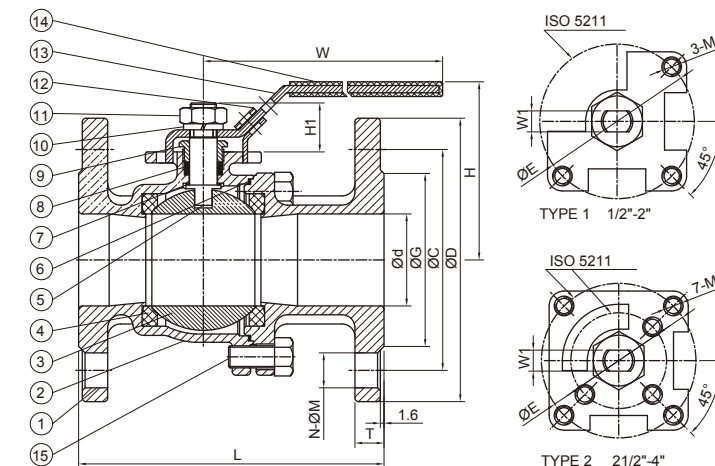


STAINLESS STEEL
AISI-316 (ASTM-A351-CF8M)
AISI-304 (ASTM-A351-CF8)
CARBON STEEL
S-20C (ASTM-A216-WCB)

FEATURES:
*Flange: ASME B16.5 class 150
*Face to face: ASME B16.10
*Anti-static device, fire safe design
*Blow-out proof stem, lever operated
*Mounting Pad ISO 5211

OPTION: Solid ball / Hollow ball / Welding ball
Casting handle (WCB)
Locking device

NO	PART NAME	MATERIALS		
1	BODY	CF8M	CF8	WCB
2	CAP	CF8M	CF8	WCB
3	BALL	CF8M	CF8	CF8
4	SEAT		PTFE	
5	STEM	SUS316	SUS304	SUS304
6	GASKET		PTFE	
7	THRUST WASHER		PTFE	
8	PACKING		PTFE	
9	GLAND		SUS304	
10	SPRING WASHER		SUS304	
11	STEM NUT		SUS304	
12	LOCKING DEVICE		SUS304	
13	HANDLE		SUS304	
14	PLASTIC COVER		PLASTIC	
15	BOLT		SUS304	

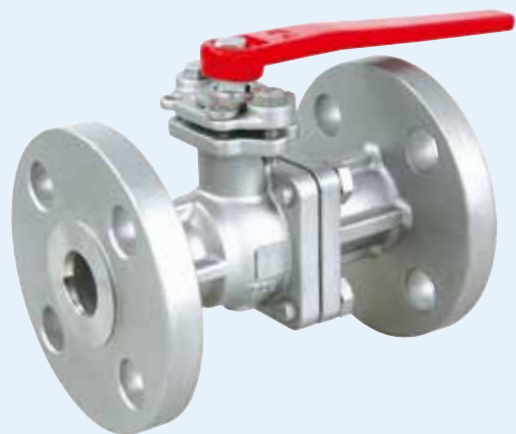


DIMENSIONS														UNIT:mm	
NOMINAL SIZE	Ød	ØD	ØC	ØG	T	N-ØM	L	H	H1	W	W1	ISO 5211	E	Ma	
1/2"	15	89	60.5	35	12.1	4-Ø16	108	72	16.5	123	6.5	F03	36	M5	
3/4"	20	98	70.0	43	12.1	4-Ø16	117	76	16.5	123	6.5	F03	36	M5	
1"	25	108	79.5	51	12.1	4-Ø16	127	92	23.5	183	9.5	F04	42	M5	
1 1/4"	32	117	89.5	64	12.7	4-Ø16	140	95	21.0	153	8.0	F04	42	M5	
1 1/2"	40	127	98.5	73	14.3	4-Ø16	165	125	37.5	246	12	F07	70	M8	
2"	50	152	120.5	92	15.9	4-Ø19	178	132	37.5	246	12	F07	70	M8	
2 1/2"	65	178	139.5	105	17.5	4-Ø19	190	166	47.0	285	16	F07-F10	70-102	M10	
3"	80	190	152.5	127	19.1	4-Ø19	203	176	47.0	285	16	F07-F10	70-102	M10	
4"	100	229	190.5	157	23.9	8-Ø19	229	189	47.0	385	16	F07-F10	70-102	M10	

*5"~12" drawing is offered on request

V-2F Class 300 TYPE

SIZE: 1/2"~10"

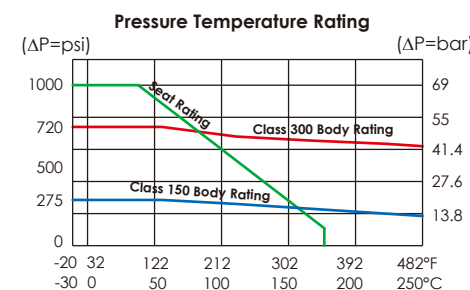
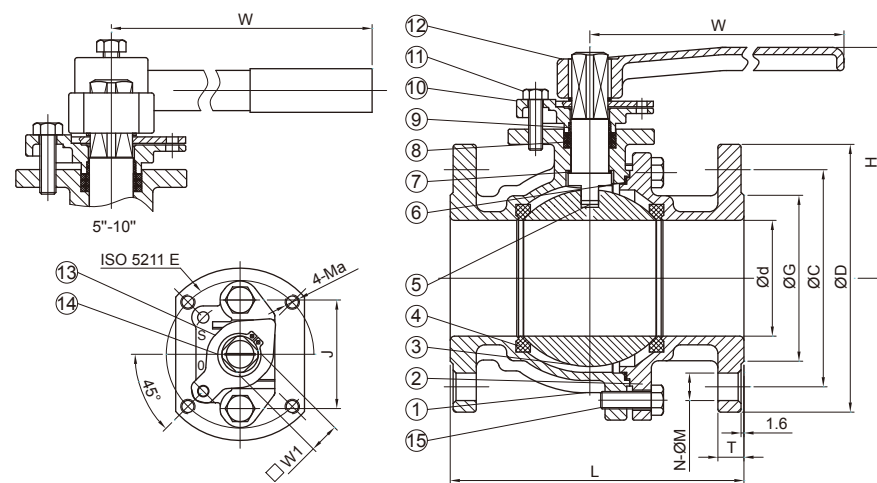


STAINLESS STEEL
AISI-316 (ASTM-A351-CF8M)
AISI-304 (ASTM-A351-CF8)
CARBON STEEL
S-20C (ASTM-A216-WCB)

FEATURES:
*Flange: ASME B16.5 class 300
*Face to face : ASME B16.10
*Anti-static, fire safe design
*Blow-out proof stem, lever operated
*Solid ball
*Mounting Pad ISO 5211

OPTION: Fixed handle
Locking device

ITEM	PARTS	Q'TY	MATERIALS		
1	BODY	1	CF8M	CF8	WCB
2	CAP	1	CF8M	CF8	WCB
3	BALL	1	CF8M	CF8	CF8
4	SEAT	2	PTFE		
5	STEM	1	AISI 316	AISI 304	AISI 304
6	GASKET	1	PTFE		
7	THRUST WASHER	1	PTFE		
8	PACKING	1SET	PTFE		
9	STEM PACKING	1	PTFE		
10	GLAND	1	CF8		
11	GLAND BOLT	2	AISI 304		B7
12	HANDLE	1	WCB		
13	STOPPER	1	AISI 304		
14	SNAP RING	1	AISI 304		
15	BOLT	4-16	AISI 304		B7



DIMENSIONS														UNIT:mm	
NOMINAL SIZE	Ød	ØD	ØC	ØG	T	N-ØM	L	H	W	W1	J	ISO-5211	E	Ma	
1/2"	15	95	66.5	35	14.3	4-Ø16	140	72	160	12	50	F04	42	M5	
3/4"	20	117	82.5	43	15.9	4-Ø19	152	74	160	12	50	F04	42	M5	
1"	25	124	89.0	51	17.5	4-Ø19	165	82	160	12	50	F05	50	M6	
1 1/4"	32	133	98.5	64	19.1	4-Ø19	178	85	160	12	50	F05	50	M6	
1 1/2"	40	156	114.5	73	20.7	4-Ø22	190	104	186	17	62	F07	70	M8	
2"	50	165	127.0	92	22.3	8-Ø19	216	114	186	17	62	F07	70	M8	
2 1/2"	65	190	149.0	105	25.4	8-Ø22	241	142	324	21	75	F07	70	M8	
3"	80	210	168.0	127	28.6	8-Ø22	283	155	324	21	75	F10	102	M10	
4"	100	254	200.0	157	31.8	8-Ø22	305	169	324	21	75	F10	102	M10	
5"	125	279	235.0	186	35.0	8-Ø22	381	224	750	24	89	F12	125	M12	
6"	150	318	270.0	216	36.6	12-Ø22	403	247	750	24	89	F12	125	M12	
8"	200	381	330.0	270	41.3	12-Ø25	502	305	1000	32	100	F12	125	M12	
10"	250	444	387.5	324	47.7	12-Ø29	568	351	1000	32	100	F14	140	M16	

V-2F PN16,PN40 TYPE

SIZE: 1/2"~12"

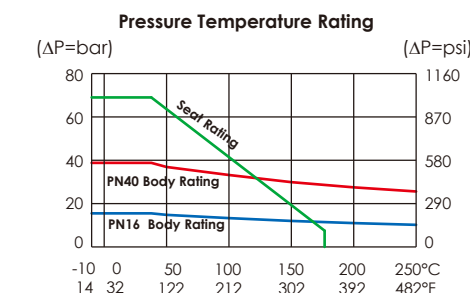
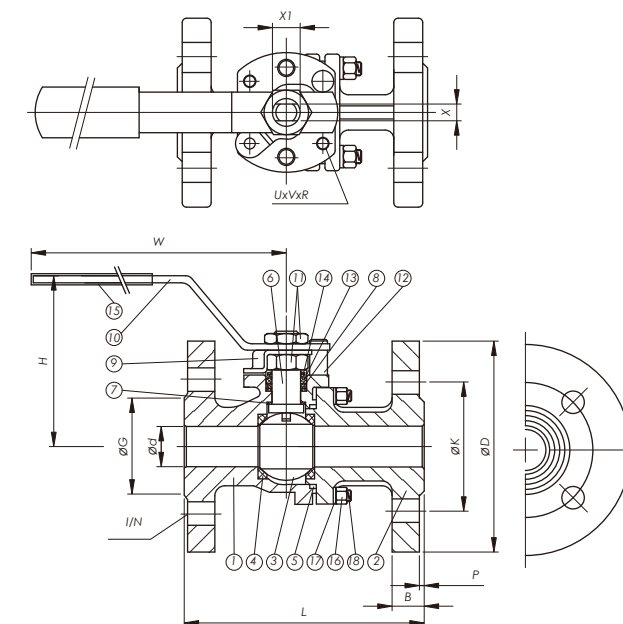


STAINLESS STEEL
AISI-316 (EN10213 1.4408)
AISI-304 (EN10213 1.4308)
CARBON STEEL
S-20C (EN10213 1.0619)

FEATURES:
*Flange: EN 1092-1 PN 16/ PN 40
*Face to face: DIN3202 F4
*Anti-static device, fire safe design
*Blow-out proof stem, lever operated
*Mounting Pad ISO 5211
*DN125-300: Round iron handle nickel plated

OPTION: Casting handle (WCB)
Locking device
Solid ball / Hollow ball / Welding ball
Face to face DIN 3202 F1

ITEM	PARTS	Q'TY	MATERIALS	
1	BODY	1	1.4408	1.0619
2	CAP	1	1.4408	1.0619
3	BALL	1	1.4408	1.4308
4	BALL SEAT	2	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE
6	STEM	1	AISI 316	AISI 304
7	THRUST WASHER	1	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE
9	STOPPER	1	AISI 304(1/2"-4")	AISI 304
10	HANDLE	1	AISI 304	AISI 304
11	HANDLE NUT	2	AISI 304	AISI 304
12	STOP PIN	1	AISI 304	AISI 304
13	STEM RING	1	AISI 304	AISI 304
14	BELLEVILLE WASHER	2	AISI 301	AISI 301
15	HANDLE SLEEVE	1	PLASTIC	PLASTIC
16	NUT	1/2"-2"x4pcs	AISI 304	AISI 304
17	SPRING WASHER	2-1/2"-3"x6pcs	AISI 304	AISI 304
18	STUD BOLT	4"x8pcs	AISI 304	AISI 304



DIMENSIONS														UNIT:mm					
NOMINAL SIZE		Ød	ISO 5211	L(DIN3202)		DIN-PN16					DIN-PN40					H	W	TORQUE kgf-cm	
INCH	MM		UxVxR	F4	F5	ØD	ØK	ØG	B	I/N	ØD	ØK	ØG	B	I/N				
1/2"	15	15	4-42xM5xP0.8	115	-	95	65	45	14	14/4	95	65	45	16	14/4	74	170	54	
3/4"	20	20	4-42xM5xP0.8	120	-	105	75	58	16	14/4	105	75	58	18	14/4	77	170	78	
1"	25	25	4-50xM6xP1.0	125	-	115	85	68	16	14/4	115	85	68	18	14/4	83	170	106	
1-1/4"	32	31.8	4-50xM6xP1.0	130	-	140	100	78	16	18/4	140	100	78	18	18/4	88	170	150	
1-1/2"	40	38	4-70xM8xP1.25	140	-	150	110	88	16	18/4	150	110	88	18	18/4	123	250	200	
2"	50	50.8	4-70xM8xP1.25	150	-	165	125	102	18	18/4	165	125	102	20	18/4	132	250	290	
2-1/2"	65	65	4-70xM8xP1.25	170	-	185	145	122	18	18/4	185	145	122	22	18/8	157	320	500	
3"	80	80	8-102xM10xP1.5	180	-	200	160	138	20	18/8	200	160	138	24	18/8	166	365	770	
4"	100	100	8-102xM10xP1.5	190	-	220	180	158	20	18/8	235	190	162	24	22/8	182	365	1100	

*5"-12" drawing is offered on request

V-2FH-PN40 TYPE

SIZE: 1/2"~6"



STAINLESS STEEL

AISI-316 (EN10213 1.4408)

AISI-304 (EN10213 1.4308)

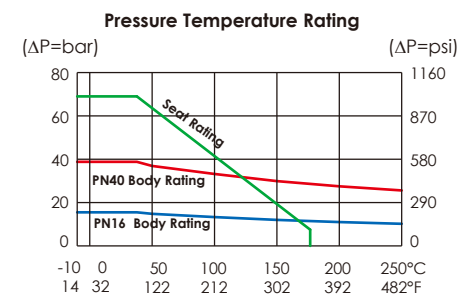
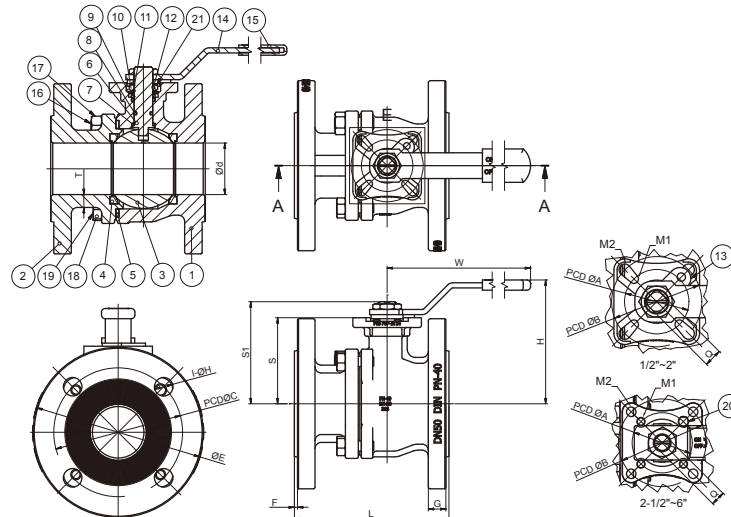
CARBON STEEL

S-20C (EN10213 1.0619)

FEATURES:

- *Flange: EN1092-1 PN16/ PN40
- *Face to face: DIN3202 F4 (1/2"~4"), F5 (5"~6")
- *Anti-static device, fire safe design
- *Blow-out proof stem, lever operated
- *Solid ball
- *Direct mounting pad ISO 5211
- *5"~6": Round handle design
- OPTION: DIN PN16(2-1/2"~6")
- API 607 fire safe approved
- Locking device (Different mould)
- Hollow ball (Different mould)
- ISO 15848-1 Approval

ITEM	PARTS	Q'TY	MATERIALS
1	BODY	1	1.4408
2	CAP	1	1.4408
3	BALL	1	1.4408
4	BALL SEAT	2	PTFE
5	JOINT GASKET	1	PTFE
6	STEM	1	AISI 316
7	THRUST WASHER	1	PTFE
8	O-RING	1-2	VITON
9	STEM PACKING	1-2	PTFE
10	STEM RING	1	AISI 304
11	BELLEVILLE WASHER	2	AISI 304
12	STEM NUT	2	AISI 304
13	STOPPER	1	AISI 304
14	HANDLE	1	AISI 430
15	PLASTIC COVER	1	PLASTIC
16	NUT-1	1	AISI 304
17	STUD BOLT-1	1	AISI 304
18	NUT-2	3~7	AISI 304
19	STUD BOLT-2	3~7	AISI 304
20	STOPPER PIN	1	AISI 304
21	LOCK WASHER	1	AISI 304



DIMENSIONS		UNIT : mm	
NOMINAL SIZE	Ød	ØA	ØB
1/2"	15	42	65
3/4"	20	42	75
1"	25	42	85
1-1/4"	32	50	100
1-1/2"	40	50	110
2"	50	50	125
2-1/2"	65	70	145
3"	80	70	160
4"	100	70	190
5"	125	102	220
6"	150	102	250

V-2FH-150L TYPE

SIZE: 1/2"~6"



STAINLESS STEEL

AISI-316 (ASTM-A351-CF8M)

AISI-304 (ASTM-A351-CF8)

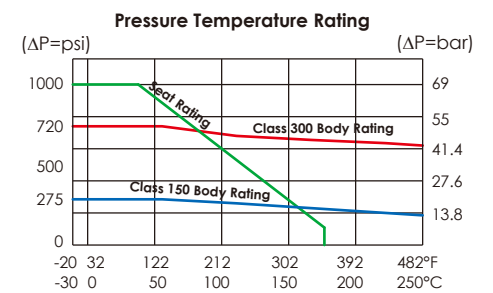
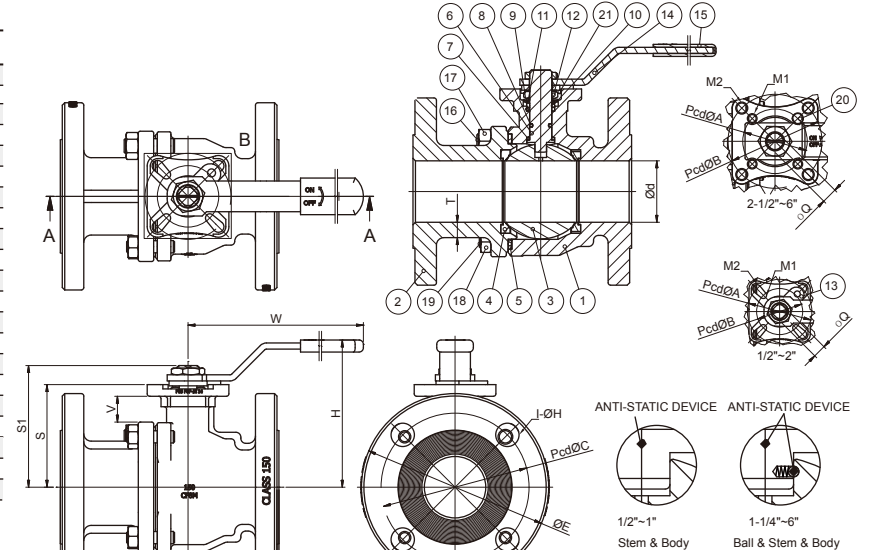
CARBON STEEL

S-20C (ASTM-A216-WCB)

FEATURES:

- *Flange: ASME B16.5 class 150 / class 300
- *Face to face: ASME B16.10
- *Anti-static device, fire safe design
- *Blow-out proof stem, lever operated
- *Solid ball
- *Direct mounting pad ISO 5211
- *5"~6": Round handle design
- OPTION: Locking device (Different mould)
- Hollow ball (Different mould:150L)
- Class 300

ITEM	PARTS	Q'TY	MATERIALS V2FH	MATERIALS V2FH-C
1	BODY	1	ASTM-A351-CF8M	ASTM-A216-WCB
2	CAP	1	ASTM-A351-CF8M	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8
4	BALL SEAT	2	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE
6	STEM	1	AISI 316	AISI 316
7	THRUST WASHER	1	PTFE	PTFE
8	O-RING	1-2	VITON	VITON
9	STEM PACKING	1-2	PTFE	PTFE
10	STEM RING	1	AISI 304	AISI 304
11	BELLEVILLE WASHER	2	AISI 304	AISI 304
12	STEM NUT	2	AISI 304	AISI 304
13	STOPPER	1	AISI 304	AISI 304
14	HANDLE	1	AISI 430	AISI 430
15	PLASTIC COVER	1	PLASTIC	PLASTIC
16	NUT-1	1	AISI 304	AISI 304
17	STUD BOLT-1	1	AISI 304	AISI 304
18	NUT-2	3~7	AISI 304	AISI 304
19	STUD BOLT-2	3~7	AISI 304	AISI 304
20	STOPPER PIN	1	AISI 304	AISI 304
21	LOCK WASHER	1	AISI 304	AISI 304



DIMENSIONS		UNIT : mm	
NOMINAL SIZE	Ød	ØA	ØB
1/2"	15	42	65
3/4"	20	42	75
1"	25	42	85
1-1/4"	32	50	100
1-1/2"	40	50	110
2"	50	50	125
2-1/2"	65	70	145
3"	80	70	160
4"	100	70	190
5"	125	102	220
6"	150	102	250

V-2FH-JIS 10K 20K TYPE

SIZE: 1/2"~6"



STAINLESS STEEL

AISI-316 (JIS G5121 SCS14A)

AISI-304 (JIS G5121 SCS13A)

CARBON STEEL

S-20C (JIS G5121 SCPH2)

FEATURES:

- *Flange: JIS B2220
- *Face to face JIS B2002
- *Anti-static device, fire safe design
- *Blow-out proof stem, lever operated
- *Solid ball
- *Direct mounting pad ISO 5211
- *5"~6": Round handle design

OPTION: Wrench handle (Different mould)
Locking device (Different mould:10K)
Hollow ball (Different mould:10K)

DIRECT MOUNTING PAD

V-3F PN16/40 Class 150 TYPE

SIZE: 1/2"~4"



STAINLESS STEEL

AISI-316 (EN10213 1.4408)(ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308)(ASTM-A351-CF8)

CARBON STEEL

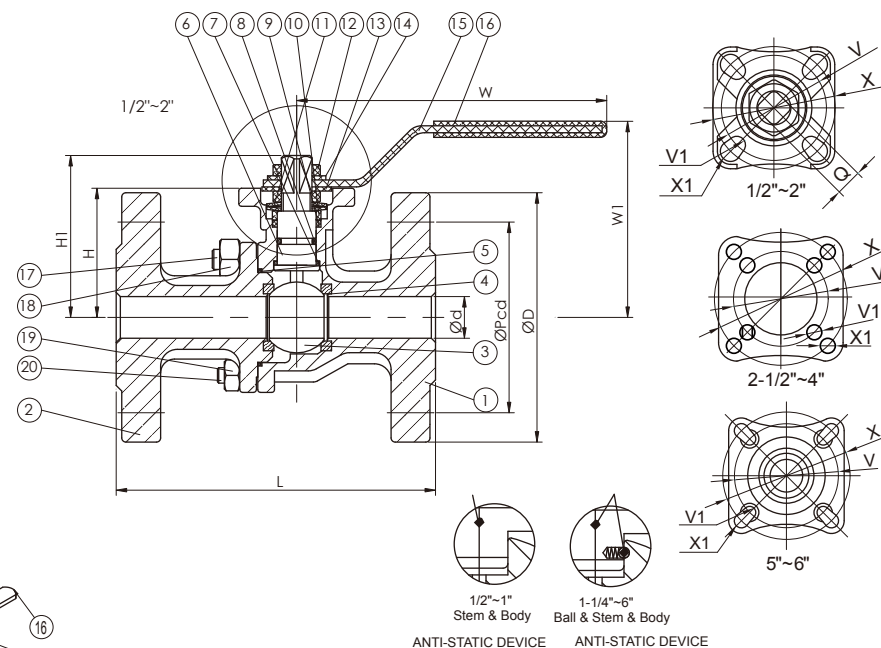
S-20C (EN10213 1.0619)(ASTM-A216-WCB)

FEATURES:

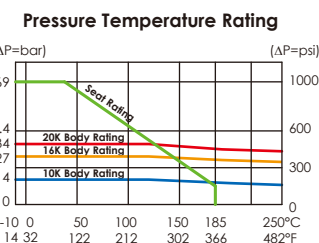
- *Face-to-face DIN 3202-F1, ASME Class 150
- *Lug body
- *Blow-out proof stem
- *Flange: DIN PN 16 & PN 40, ASME Class 150

OPTION: Locking device
Mounting pad ISO 5211

ITEM	PARTS	Q'TY	MATERIALS	
1	BODY	1	SCS14A	SCPH2
2	CAP	1	SCS14A	SCPH2
3	BALL	1	SCS14A	SCS13A
4	BALL SEAT	2	PTFE	PTFE
5	JOINT GASKET	1	PTFE	PTFE
6	STEM	1	AISI 316	AISI 304
7	THRUST WASHER	1	PTFE	PTFE
8	O-RING	1	VITON	VITON
9	STEM PACKING	1	PTFE	PTFE
10	STEM RING	1	AISI 304	AISI 304
11	BELLEVILLE WASHER	2	AISI 304	AISI 304
12	STEM NUT	2	AISI 304	AISI 304
13	STOPPER	1	AISI 304	AISI 304
14	SPRING WASHER	1	AISI 304	AISI 304
15	HANDLE	1	AISI 304	AISI 304
16	HANDLE SLEEVE	1	PLASTIC	PLASTIC
17	NUT*1	1	AISI 304	AISI 304
18	STUD BOLT*1	1	AISI 304	AISI 304
19	NUT*2	3.5.7	AISI 304	AISI 304
20	STUD BOLT*2	3.5.7	AISI 304	AISI 304
21	STOPPER PIN	1	AISI 304	AISI 304
22	LOCK WASHER	1	AISI 304	AISI 304

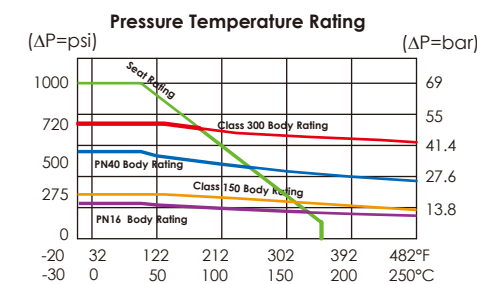
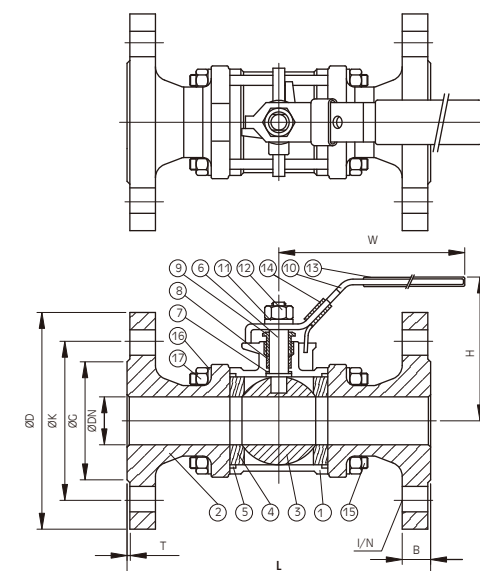


DIMENSIONS (JIS 10K)																	UNIT: mm
NOMINAL SIZE	Ød	ØD1	ØPcd	L	H	H1	W	Q	V	V1	X	X1	W1	TORQUE Nm			
1/2"	15	95	70	110	46.5	56	110	9.0	42	R3.0			89	4~5			
3/4"	20	100	75	120	51.5	61	110	9.0	42	R3.0	50	7	94	6~8			
1"	25	125	90	130	57.5	67	136	11	42	R3.0	50	7	95	8~10			
1-1/4"	32	135	100	140	71.5	87	175	14	50	R3.5	70	9	105.7	12~14			
1-1/2"	40	140	105	165	76.5	92	203	14	50	R3.5	70	9	110.7	18~20			
2"	50	155	120	180	83.5	99	203	14	50	R3.5	70	9	117.7	25~30			
2-1/2"	65	175	140	190	118.5	137	277.5	17	70	R4.5	102	11	155.3	32~36			
3"	80	185	150	200	129.5	148	277.5	17	70	R4.5	102	11	166.5	50~60			
4"	100	210	175	230	145	163.5	377.5	17	70	R4.5	102	11	182	85~95			
5"	125	250	210	325	158.5	202.5	500	27	102	R6	125	R7	225	145~160			
6"	150	280	240	350	175	221.5	600	27	102	R6	125	R7	241.5	170~185			



DIMENSIONS (JIS 20K)																	UNIT: mm
NOMINAL SIZE	Ød	ØD	ØPcd	L	H	H1	W	Q	V	V1	X	X1	W1	TORQUE Nm			
1/2"	15	95	70	140	47.5	56	110	9.0	42	R3.0			89	4~5			
3/4"	20	100	75	152	58.5	61	110	9.0	42	R3.0	50	R3.5	94	6~8			
1"	25	125	90	165	62.5	67	136	11	42	R3.0	50	R3.5	95	8~10			
1-1/4"	32	135	100	190	78.0	92	203	14	50	R3.5	70	R4.5	110.7	18~20			
2"	50	155	120	216	83.5	99	203	14	50	R3.5	70	R4.5	117.7	25~30			
2-1/2"	65	175	140	241	118.5	137	277.5	17	70	R4.5	102	11	155.3	32~36			
3"	80	200	160	283	129.5	148	277.5	17	70	R4.5	102	11	166.5	50~60			
4"	100	225	185	305	145	163.5	377.5	17	70	R4.5	102	11	182	85~95			

ITEM	PARTS	Q'TY	MATERIALS	
1	BODY	1	ASTM-A351-CF8M	ASTM-A216-WCB
2	FLANGED END CAP	2	ASTM-A351-CF8M	ASTM-A216-WCB
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8
4	BALL SEATS	2	PTFE	PTFE
5	JOINT GASKET	2	PTFE	PTFE
6	STEM	1	AISI 316	AISI 304
7	THRUST WASHER	1	PTFE	PTFE
8	STEM PACKING	2	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304
11	STEM WASHER	1	AISI 304	AISI 304
12	STEM NUT	1	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC
14	LOCK DEVICE	1	AISI 304	AISI 304
15	BOLT	4(3",4"x6)	AISI 304	AISI 304
16	SPRING WASHER	8(3",4"x12)	AISI 304	AISI 304
17	HEX NUT	8(3",4"x12)	AISI 304	AISI 304



DIMENSIONS																	UNIT: mm
NOMINAL SIZE	L	DIN-PN16				DIN-PN40				ANSI-150LBS				T	H	W	
DN	DIN F1	ANSI 150	ØD	ØK	ØG	B	I/N	ØD	ØK	ØG	B	I/N	ØD	ØK	ØG	B	I/N
15	130	108	95	65	45	14	14/4	95	65	45	16	14/4	89	60.5	35	11.2	16/4
20	150	117	105	75	58	16	14/4	105	75	58	18	14/4	98	70	43	12.7	16/4
25	160	127	115	85	68	16	14/4	115	85	68	18	14/4	108	79.5	51	14.3	16/4
32	180	140	100	78	16	18/4	140	100	78	18	18/4	117	89	64	15.9	16/4	2
40	200	165	150	110	88	16	18/4	150	110	88	18	18/4	127	98.5	73	17.5	16/4
50	230	178	165	125	102	18	18/4	165	125	102	20	18/4	152	120.5	92	19.1	19/4
65	290	190	185	145	122	18	18/4	185	145	122	22	18/8	178	139.5	105	22.3	19/4
80	310	203	200	160	138	20	18/8	200	160	138	24	18/8	190	152.5	127	23.9	19/4
100	350	229	220	180	158	20	18/8	235	190	162	24	22/8	229	190.5	157	23.9	19/8

V-3WAY TYPE

SIZE: 1/4"~3"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1,
Rp, Rc, G

*Blow-out proof stem

*Investment casting body and cap

*1000 PSI (PN 63)

*Mounting Pad ISO 5211

*L port, T port

OPTION: Anti-static device

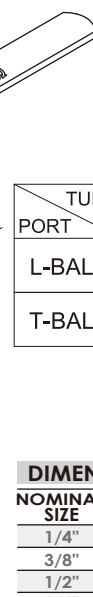
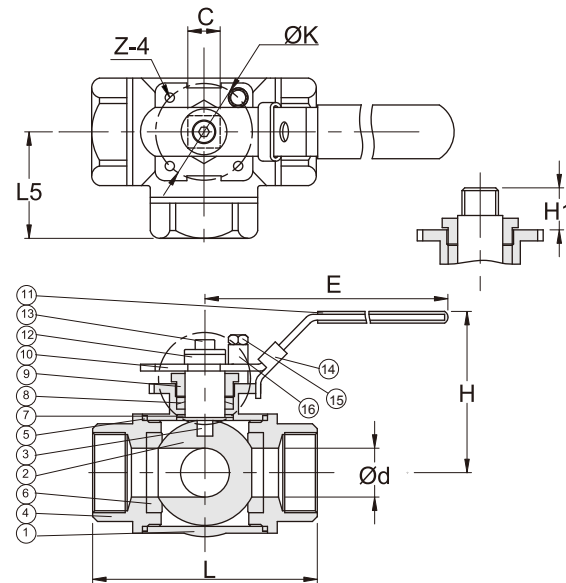
Locking device

Direct mounting pad ISO 5211 (Reduced & Full port, Anti-static device)

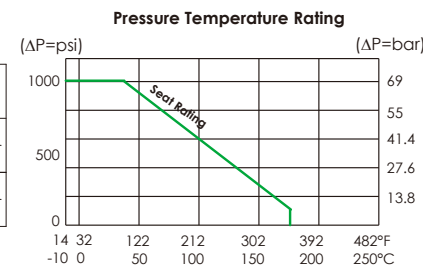
Mounting pad ISO 5211 (Reduced & Full port)

No mounting pad (Reduced port only)

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A351-CF8
3	STEM	1	AISI 316	AISI 304	AISI 304
4	END CAP	3	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
5	BODY SEAL	1	PTFE	PTFE	PTFE
6	BALL SEAT	3	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	1	PTFE	PTFE	PTFE
9	GLAND NUT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
12	HANDLE WASHER	1	AISI 304	AISI 304	AISI 304
13	BOLT	1	AISI 304	AISI 304	AISI 304
14	LOCK DEVICE	1	AISI 304	AISI 304	AISI 304
15	BOLT	1	AISI 304	AISI 304	AISI 304
16	STOPPER PIN	1	AISI 304	AISI 304	AISI 304



TURN	0°	90°	180°	270°
L-BALL				
T-BALL				



DIMENSIONS										UNIT:mm
NOMINAL SIZE	Ød	L	L5	E	H	H1	C	ØK	Z-4	
1/4"	11.0	69.4	34.6	133.4	60.7	10.7	9	42	M5xP0.8	
3/8"	11.0	69.4	34.6	133.4	60.7	10.7	9	42	M5xP0.8	
1/2"	12.5	75.7	37.3	133.4	64.1	10.7	9	42	M5xP0.8	
3/4"	16.0	86.6	44.7	178.5	82.4	13.9	11	50	M6xP1.0	
1"	20.0	102.4	51.4	178.5	86.1	20.0	11	50	M6xP1.0	
1-1/4"	25.0	118.2	57.7	209.9	91.4	23.8	11	50	M6xP1.0	
1-1/2"	32.0	125.8	62.7	208	102.7	25.8	11	70	M8xP1.25	
2"	38.0	149.0	74.6	229.9	110.7	25.3	14	70	M8xP1.25	
2 1/2"	50	160.0	80.0	229.9	115.8	24.5	14	70	M8xP1.25	
3"	65	185.0	92.5	265	132.0	25.5	17	102	M10xP1.5	

V-4WAY TYPE

SIZE: 1/2"~3"



STAINLESS STEEL

AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

*Pipe thread in accordance with ASME B1.20.1,
Rp, Rc, G

*Anti-static device

*Blow-out proof stem

*1000 PSI (PN 63)

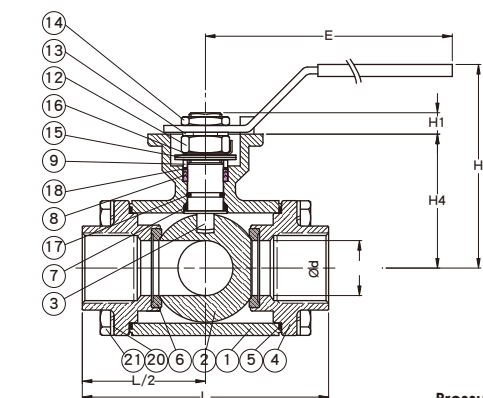
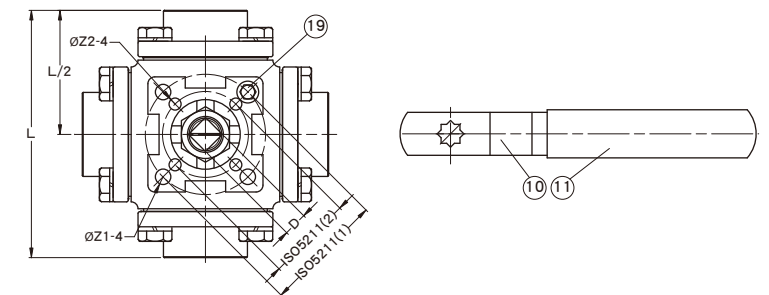
*L port, T port, X port

*Direct mounting pad ISO 5211

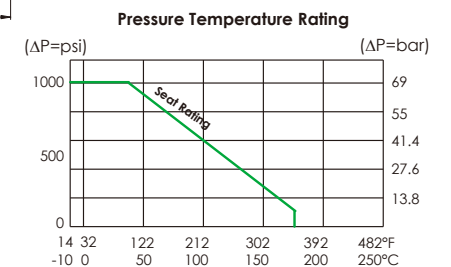
OPTION: Locking device

3-Way ball valve

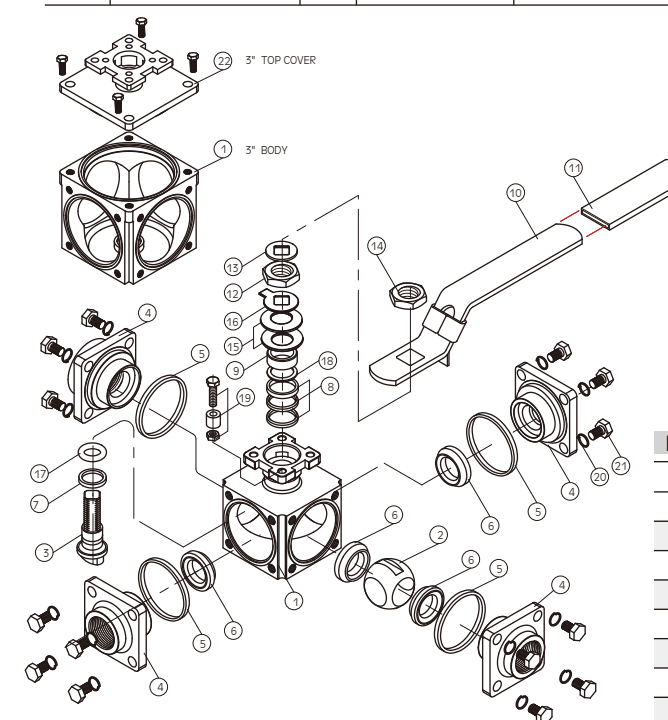
ITEM	PARTS	Q'TY	MATERIALS	
1	BODY	1	ASTM-A351-CF8M	ASTM-A216-WCB
2	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8
3	STEM	1	AISI 316	AISI 304
4	END CAP	4	ASTM-A351-CF8M	ASTM-A216-WCB
5	BODY SEAL	4	PTFE	PTFE
6	SEAT	4	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE
8	STEM PACKING	1SET	PTFE	PTFE
9	GLAND	1	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304
11	HANDLE SLEEVE	1	PLASTIC	PLASTIC
12	STEM NUT	1	AISI 304	AISI 304
13	HANDLE WASHER	1	AISI 304	AISI 304
14	HANDLE NUT	1	AISI 304	AISI 304
15	BELLEVILLE WASHER	2	AISI 410	AISI 410
16	STOP WASHER	1	AISI 304	AISI 304
17	O-RING	1	VITON	VITON
18	PACKING FOLLOWER	1	PTFE+25%GF	PTFE+25%GF
19	STOP PIN	1	AISI 304	AISI 304
20	BOLT WASHER	16	AISI 304	AISI 304
21	BOLT	16	AISI 304	AISI 304



TURN	0°	90°	180°	270°
L-BALL				
T-BALL				
X-BALL				



DIMENSIONS										UNIT:mm
NOMINAL SIZE	Ød	L	E	H1	H	H4	D	ØZ1	ØZ2	ISO 5211
1/2"	16.0	96.0	186.5	9.0	89.0	47.8	9.0	6.0		42
3/4"	20.0	107.0	218.0	11.0	98.0	58.2	9.0	7.0		F04
1"	25.0	126.0	218.0	11.5	102.0	64.0	9.0	7.0		F05
1-1/4"	32.0	133.0	235.0	15.2	118.5	79.0	14.0	9.0	7.0	F05
1-1/2"	38.0	151.0	235.0	14.3	127.0	88.5	14.0	9.0	7.0	F05
2"	50.0	166.0	252.0	17.8	139.0	105.8	17.0	11.0	9.0	F07
2-1/2"	65.0	175.0	252.0	17.5	165.7	117.3	17.0	11.0	9.0	F07
3"	80.0	207.2	252.0	17.5	170.0	128.0	17.0	11.0	9.0	F07



3WAY-F 150LB5 TYPE

SIZE: 1/2"~6"



STAINLESS STEEL

AISI-316 (ASTM-A351-CF8M)

AISI-304 (ASTM-A351-CF8)

CARBON STEEL

S-20C (EN10213 1.0619) (ASTM-A216-WCB)

FEATURES:

- *Flange:ANSI B16.5 class 150
- *Anti-static device
- *Blow-out proof stem, lever operated
- *Full port, solid ball
- *Investment casting body and cap
- *L port, T port

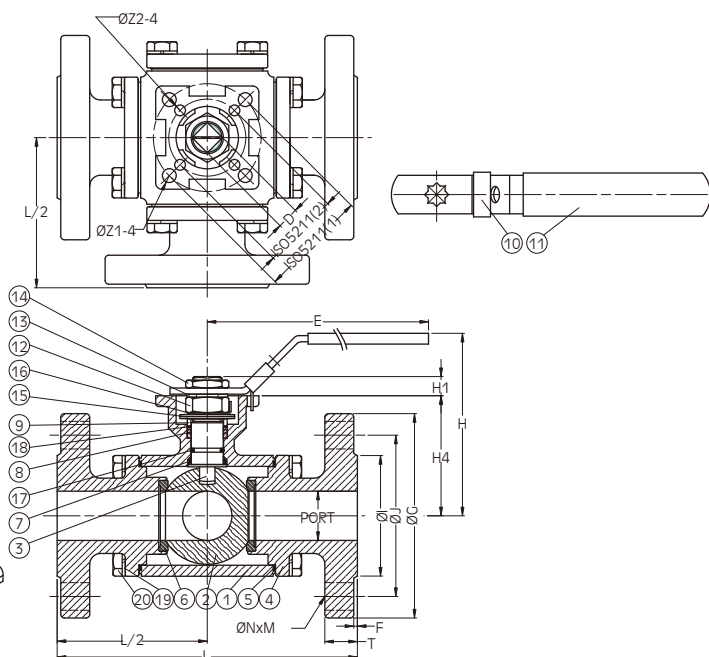
OPTION: Flange DIN PN16 Dimension

Locking device

T handle (Different mould)

Face to face: ASME B16.10 class 150 (Different mould, 1/2"~6")

ITEM	PARTS	Q'TY	MATERIALS	
1	BODY	1	ASTM-A351-CF8M	ASTM-A216-WCB
2	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8
3	STEM	1	AISI 316	AISI 304
4	END CAP	4	ASTM-A351-CF8M	ASTM-A216-WCB
5	BODY SEAL	4	PTFE	PTFE
6	SEAT	4	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE
8	STEM PACKING	1SET	PTFE	PTFE
9	GLAND	1	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304
11	HANDLE SLEEVE	1	PLASTIC	PLASTIC
12	STEM NUT	1	AISI 304	AISI 304
13	HANDLE WASHER	1	AISI 304	AISI 304
14	HANDLE NUT	1	AISI 304	AISI 304
15	BELLEVILLE WASHER	2	AISI 410	AISI 410
16	STOP WASHER	1	AISI 304	AISI 304
17	O-RING	1	VITON	VITON
18	PACKING FOLLOWER	1	PTFE+25%GF	PTFE+25%GF
19	BOLT	16	AISI 304	AISI 304
20	BOLT WASHER	16	AISI 304	AISI 304



TURN	0°	90°	180°	270°
PORT				
L-BALL				
T-BALL				

DIMENSIONS																	UNIT : mm	
NOMINAL SIZE	PORT	L	E	H1	H	H4	D	G	J	I	T	F	M	N	Z1	Z2	ISO 5211	
1/2"	16.0	147.2	186.5	9.0	89.0	47.8	9.0	89.0	60.5	35.0	11.1	1.60	4	16	6.0		42	F04
3/4"	20.0	153.5	218.0	11.0	98.0	58.2	9.0	98.6	70.0	43.0	11.1	1.60	4	16	7.0		50	F05
1"	25.0	169.0	218.0	11.5	102.0	64.0	9.0	108.0	79.2	51.0	11.1	1.60	4	16	7.0		50	F05
1-1/4"	32.0	192.5	235.0	15.2	118.5	79.0	14.0	117.5	88.9	63.5	12.7	1.60	4	16	9.0	7.0	50	F05
1-1/2"	38.0	214.6	235.0	14.3	127.0	88.5	14.0	127.0	98.6	73.2	14.3	1.60	4	16	9.0	7.0	50	F05
2"	50.0	221.0	252.0	17.8	150.8	105.8	17.0	152.5	120.7	92.0	15.9	1.60	4	19	11.0	9.0	70	F07

* 2-1/2"~6" drawing is offered on request

4WAY-F PN16 TYPE

SIZE: 1/2"~6"



STAINLESS STEEL

AISI-316 (EN10213 1.4408)

AISI-304 (EN10213 1.4308)

CARBON STEEL

S-20C (EN10213 1.0619)

FEATURES:

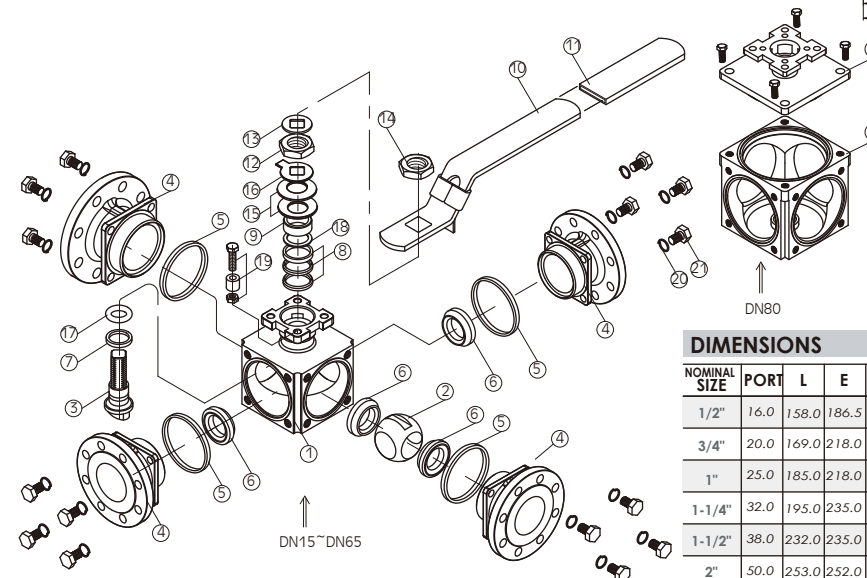
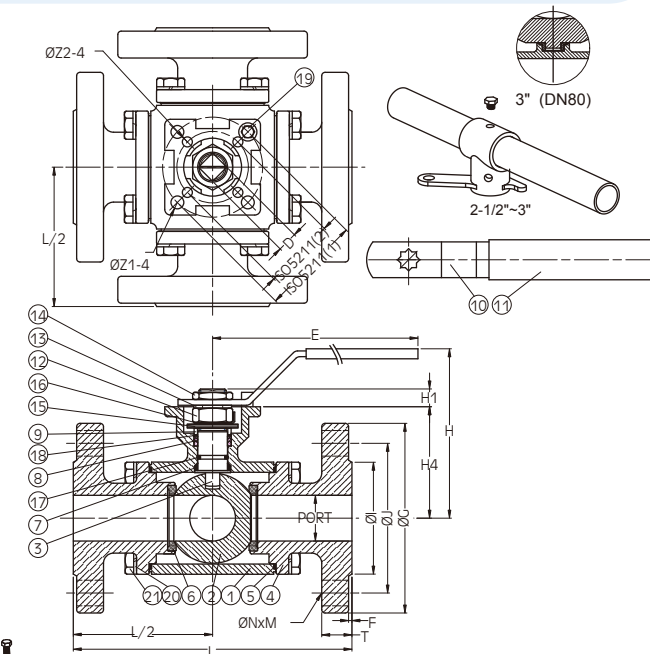
- *Flange:DIN PN 16
- *Anti-static device
- *Blow-out proof stem, lever operated
- *Full port, solid ball
- *Investment casting body and cap
- *L port, T port, X port

OPTION: Locking device

Flange ASME B16.5 class 150 Dimension

T handle (Different mould)

ITEM	PARTS	Q.TY	MATERIALS	
1	BODY	1	1.4408	1.0619
2	BALL	1	1.4408	1.4308
3	STEM	1	SS316	SS304
4	END CAP	4	1.4408	1.0619
5	BODY SEAL	4	PTFE	PTFE
6	SEAT	4	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE
8	STEM PACKING	1SET	PTFE	PTFE
9	GLAND	1	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304
11	HANDLE SLEEVE	1	PLASTIC	PLASTIC
12	STEM NUT	1	AISI 304	AISI 304
13	HANDLE WASHER	1	AISI 304	AISI 304
14	HANDLE NUT	1	AISI 304	AISI 304
15	BELLEVILLE WASHER	2	AISI 410	AISI 410
16	STOP WASHER	1	AISI 304	AISI 304
17	O-RING	1	VITON	VITON
18	PACKING FOLLOWER	1	PTFE+25%GF	PTFE+25%GF
19	STOP PIN	1SET	AISI 304	AISI 304
20	BOLT	16	AISI 304	AISI 304
21	BOLT WASHER	16	AISI 304	AISI 304



TURN	0°	90°	180°	270°
PORT				
L-BALL				
T-BALL				
X-BALL				

DIMENSIONS																	UNIT : mm	
NOMINAL SIZE	PORT	L	E	H1	H	H4	C	G	J	I	T	F	M	N	Z1	Z2	ISO 5211	
1/2"	16.0	158.0	186.5	9.0	89.0	47.8	9.0	95.0	65.0	45.0	16.0	2.0	4	14	6.0		42	F04
3/4"	20.0	169.0	218.0	11.0	98.0	58.2	9.0	105.0	75.0	58.0	18.0	2.0	4	14	7.0		50	F05
1"	25.0	185.0	218.0	11.5	102.0	64.0	9.0	115.0	85.0	68.0	18.0	2.0	4	14	7.0		50	F05
1-1/4"	32.0	195.0	235.0	15.2	118.5	79.0	14.0	140.0	100.0	78.0	18.0	2.0	4	18	9.0	7.0	50	F05
1-1/2"	38.0	232.0	235.0	14.3	127.0	88.5	14.0	150.0	110.0	88.0	18.0	2.0	4	18	9.0	7.0	50	F05
2"	50.0	253.0	252.0	17.8	139.0	105.8	17.0	165.0	125.0	102.0	18.0	2.0	4	18	11.0	9.0	70	F07
2-1/2"	65.0	270.0	252.0	17.5	165.7	117.3	17.0	185.0	145.0	122.0	18.0	2.0	4	18	11.0	9.0	70	F07
3"	76.0	292.2	252.0	17.5	170.0	128.0	17.0	200.0	160.0	138.0	20.0	2.0	8	18	11.0	9.0	70	F10

* 4"-6" drawing is offered on request

V-35AN TYPE

SIZE: 1/2"~4"



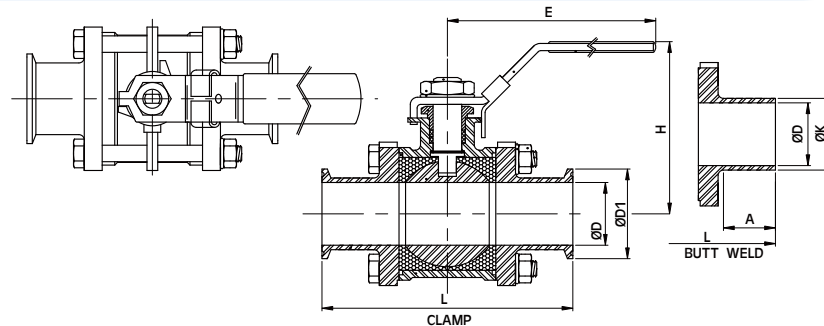
STAINLESS STEEL AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

FEATURES:

- *Full cavity filled seats
- *Blow-out proof stem
- *1000 PSI (PN 63)
- *Clamp end: 3A standard, Weld end
- *Inside polished $ra \leq 0.3\mu m$

OPTION: Locking device
Mounting pad ISO 5211
Direct mounting pad ISO 5211

DIMENSIONS		UNIT:mm					
SIZE	$\varnothing D \pm 0.5$	$\varnothing D1$	$\varnothing K$	A	$L \pm 1.0$	$H \pm 3.0$	$E \pm 3.0$
1/2"	9.5	25.4	12.7	18	89	61	106
3/4"	15.9	25.4	19.1	21	101	64	106
1"	22.2	50.4	25.4	25	114	68	130
1-1/2"	35.0	50.4	38.2	28	140	95	193
2"	47.6	63.6	50.8	25	156	100	193
2-1/2"	60.2	77.5	63.4	35	197	140	263
3"	73.0	90.8	76.2	43	229	155	263
4"	97.4	118.5	101.6	37	241	180	285



V-35AN POLISH TYPE

SIZE: 1/2"~2"

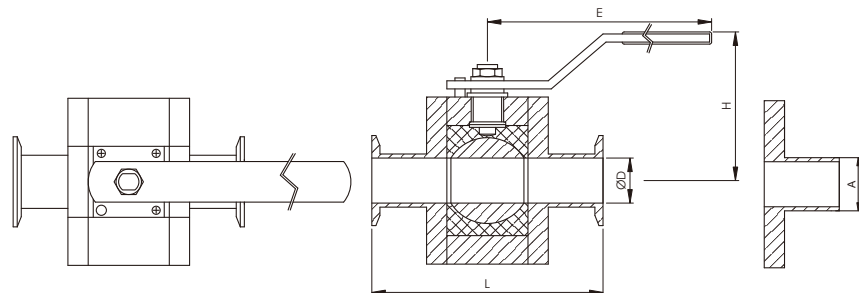


STAINLESS STEEL AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

FEATURES:

- *Full cavity filled seats
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 WOG (PN 63)
- *Clamp end: 3A standard, Weld end
- *Outside polished
- *Inside polished $ra \leq 0.3\mu m$

DIMENSIONS					UNIT:mm	
SIZE	ØD±0.5	A	L±1.0	H±2.0	E±3.0	ISO-5211
1/2"	9.5	12.7	89	61	137	F03
3/4"	15.9	19.2	101	57	137	F03
1"	22.2	25.4	114	60	137	F04
1-1/2"	35.0	38.2	140	90	198	F05
2"	47.6	50.8	156	108	198	F05



V-3WAY-SAN TYPE

SIZE: 1/2"~4"



STAINLESS STEEL AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)

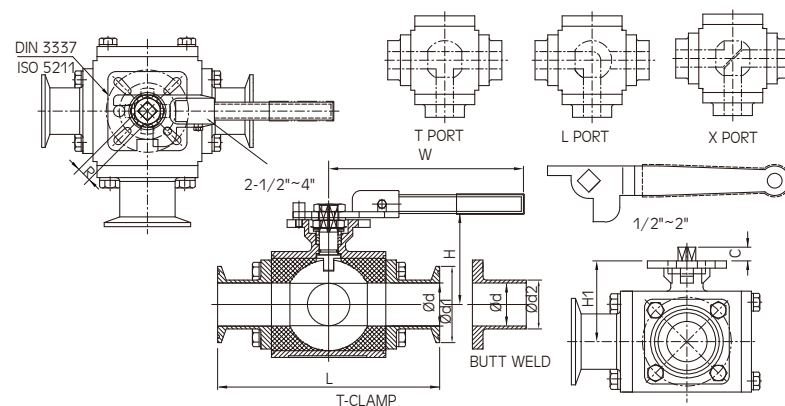
FEATURES:

- *3-Way design, L port/ T port
- *Full cavity filled seats
- *Blow-out proof stem
- *1000 PSI (PN 63): 1/2"~2"
- 800 PSI (PN 40): 2-1/2"~4"

- *Clamp end: 3A standard; Butt weld end
- *Direct mounting pad for ISO 5211
- *Inside port $ra \leq 0.4\mu m$
- *Square stem

OPTION: Butt Weld end cap: AISI-316L
Body material: AISI-316L, AISI-304
4-Way design, L port/ T port/ X port

DIMENSIONS		UNIT:mm									
SIZE	$\varnothing d$	$\varnothing d1$	$\varnothing d2$	C	L	H	H1	W	R	ISO-5211	TORQUE lb-in
1/2"	9.5	25.4	12.7	9	118	78	44.5	121	9	F03-F04	79
3/4"	15.8	25.4	19.1	9	127	82	48	121	9	F03-F04	85
1"	22.2	50.4	25.4	11	152.4	90	59	137	11	F04-F05	110
1-1/2"	35	50.4	38.2	14	175	110	72	182	14	F05-F07	290
2"	47.6	63.9	50.8	14	180	114.7	82	182	14	F05-F07	680
2-1/2"	60.2	77.5	63.4	17	228	108	100	370	17	F07-F10	1060
3"	73	90.9	76.2	23	260	134	125.5	400	22	F10-F12	1770
4"	97.4	118.9	101.6	23	318	140	132.5	400	22	F10-F12	1900



STEMS



FEATURES:

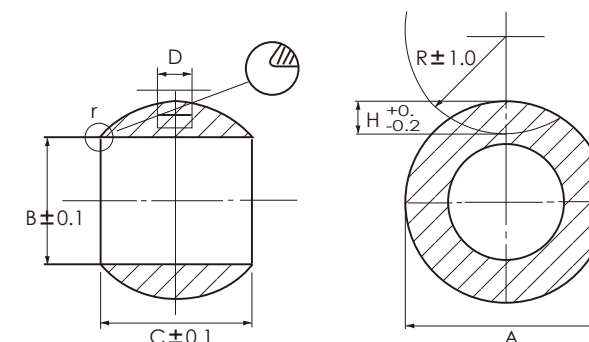
- *Size: 1/4"~12"
- *Production: Bar stock
- *Material: ASME 316, 304, 316L
- *Options: Extension stem, OEM design

VALVE BALLS



FEATURES:

- *Main Production: Investment Casting, Sand Casting, Centrifugal Casting
- *Option Production: Forged Casting, Bar Stock, Pipe & Plate
- *Type: Solid/ Hollow/ Welding Balls, L/ T/ V/ X Port Balls
- *Material: ASTM CF8/ CF8M/ CF3/ WCB/ CA15/ F51, CN7M, 316Ti, AISI 410, Alloy 20, Hastelloy C276
- *OEM/ ODM Balls: Outside Dimension 10-520mm



NO	SIZE	A	B	C	D	H	r	R
V2010	3/8"	21.8	12.7	16.7	4.7	3.7	0.7	12
V2015	1/2"	28	16	21.3	5	5	0.8	12
V2020	3/4"	34	20	26.2	5	5.5	0.8	17
V2025	1"	43	25	33.1	5	5.5	0.8	17
V2032	1-1/4"	54	32	42	8	7	0.9	27
V2038	1-1/2"	63	38.1	48.3	9.6	10	0.9	27
V2050	2"	80	50.8	59.8	10	9.5	1	37.5
V2065	2-1/2"	102	65	76.2	12	14	1.1	37.5
V2080	3"	125	80	93	12	16	1.3	50
V2100	4"	154	100	114.5	12	16	1.5	50
V2125	5"	190	124	139	20	18	1.7	50
V2150	6"	230	150	170	20	18	1.7	50
V2175	8"	300	200	220	20	20	2	50
V2200	10"	370	250	267	30	30	2.3	62.5

A=below V2100 is +0.05
-0.0
above V2100 is +0.1
-0.0

D=below V2050 is +0.04
-0.0
above V2050 is +0.07
-0.0

MATERIALS:

- *PTFE, 15% / 20% / 25% GLASSFIBER TEFLON, TF 4215 (25% CARBON), GRAPHITE, 50% S.S.316, PEEK, TFM1600, POM (MODELS THE STEEL+PTFE), MG 1431 (15% GLASSFIBER + 15% MOS2), MG 1241 (20% GLASSFIBER + 5% GRAPHITE+ 75% PTFE)

BALL SEATS

