



BOLA-TEK MFG. CO., LTD.

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BALL VALVES / VALVE BALLS

GATE / GLOBE / CHECK VALVES

FITTINGS / FLANGES



BALL

SOLID BALLS HOLLOW BALLS (WITH / WITHOUT PIPE):

MADE BY:

INVESTMENT CASTING, SAND CASTING,
BAR STOCK, CENTRIFUGAL CASTING,
FORGED CASTING, PIPE & PLATE (HOLLOW BALL ONLY)

REGULAR MATERIAL:

ASTM-A351-CF8M, ASTM-A351-CF8, ASTM-A217-CA15,
DIN 1.4408, DIN 1.4404, DIN 1.4409, DIN 1.4308,
DIN 1.4027, AISI 316, AISI 304

DIMENSION RANGE:

OUTSIDE DIAMETER 10MM~520MM

EQUIPMENT OF TESTING:

ROUNDPAK, TESA MICRO-HUTE-3D,
SURFACE ROUGHNESS TESTER



WELCOME KINDS OF OEM/ODM BALLS ACC. TO CLIENTS' SPECIFICATION!

CASTING

OEM/ODM CASTINGS:

MADE BY:

INVESTMENT CASTING, SAND CASTING,
BAR STOCK, CENTRIFUGAL CASTING

MATERIALS:

ASTM: CF8, CF8M, CF3M, CN7M, WCB, A2

EN: 1.4308, 1.4408, 1.4409, 1.0619

DIN: 1.4308, 1.4408, 1.4409, 1.0619, X30CR13, 42CRMO4

JIS: SCS13A, SCS14A, SCS16A, SCS23, S20C,
420 J2, SCM 440, SNCM 220, SKD 12

OTHER: AISI 4140, AISI 8620

PROCESS:

UNDER ASSURANCE OF ISO 9001



WEIGHTS: 5 G ~ 30 KGS/PC

DIMENSION: MAX. 400X300X200 MM

WALL THICKNESS TOLERANCE: 0.25MM~0.38MM

MAX. CAPACITY: 80 TONS/ MONTH

INSPECTION:

IMPACT TEST, SPECTROMETER, HARDNESS TEST, TENSILE STRENGTH,
X-RAY RADIOGRAPH, PENETRATE TEST, COORDINATE MEASURING,
INTER-GRANULAR CORROSION TEST

ADVANTAGES:

FREE IN DESIGN

HEAT TREATMENT

EXCELLENT SURFACE FINISH

CHOICE APPROPRIATE STEEL

TIGHT DIMENSION TOLERANCES

BT-V13 TYPE

SIZE: 1/4"~2"

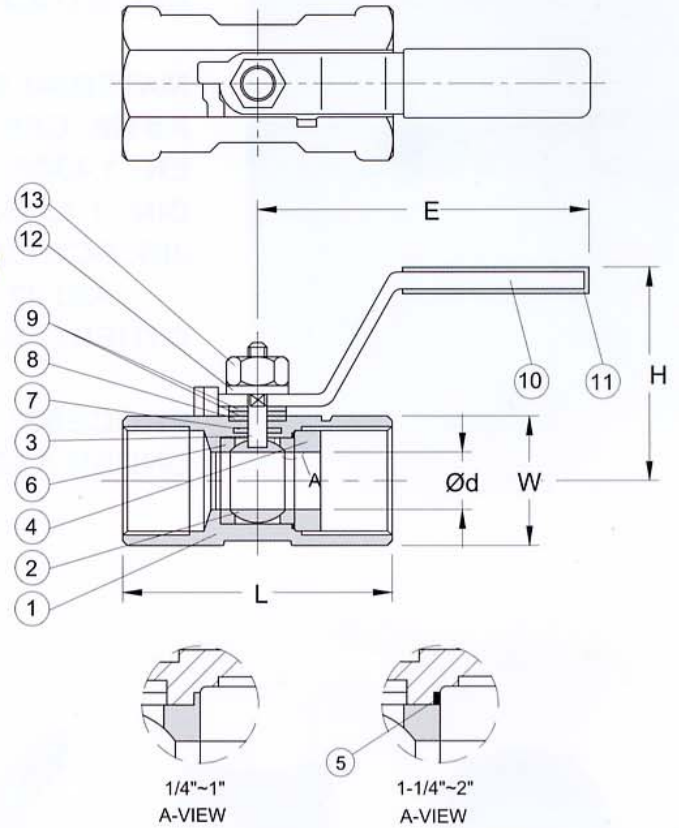
SCREWED END



STAINLESS STEEL

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

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



FEATURES:

*Pipe thread in accordance with ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

*Investment casting body and inscrewed

*1000 PSI (W.O.G.) / PN63

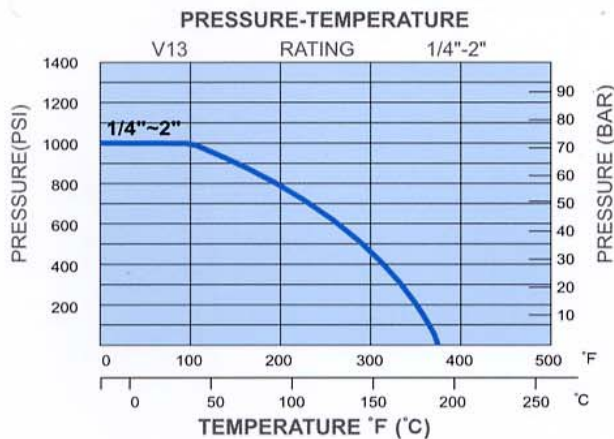
*OPTION:

Locking device

Oval handle

Wing handle

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



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	E	H	W	Cv FACTOR	TORQUE Kgf-cm	WEIGHT (Kg)
1/4"	5.0	39.0	69.0	35.0	17.0	4.0	12.24	0.064
3/8"	7.2	44.0	79.0	36.0	21.0	4.0	18.36	0.104
1/2"	9.2	56.5	109.0	40.0	25.0	4.5	20.4	0.190
3/4"	12.5	59.0	109.0	42.0	32.0	9.0	36.72	0.264
1"	15.0	71.0	111.7	47.0	38.0	16.0	45.9	0.420
1-1/4"	20.0	78.0	111.7	53.0	48.0	24.0	71.4	0.650
1-1/2"	25.0	83.0	157.0	62.0	53.0	37.0	91.8	0.840
2"	32.0	100.0	155.5	67.0	64.0	68.0	122.4	1.330

BT-V1HC TYPE

SIZE: 1/4"~2"

SCREWED END



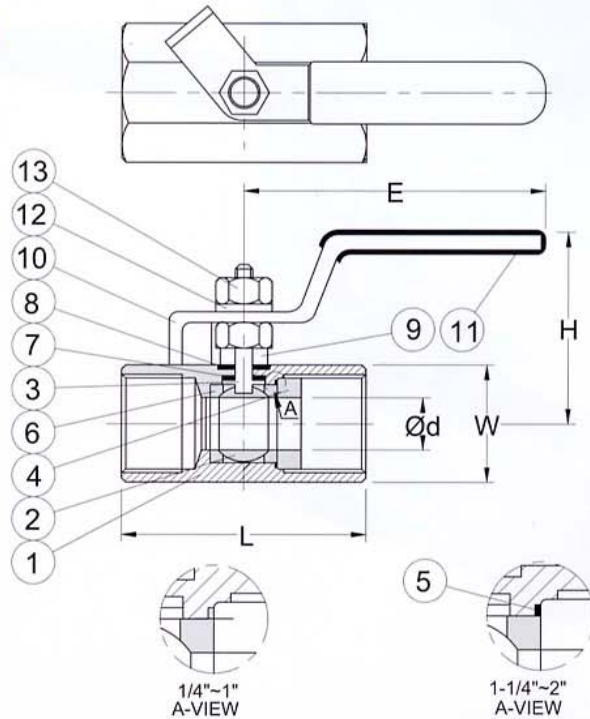
BAR STOCK / INVESTMENT CASTING STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

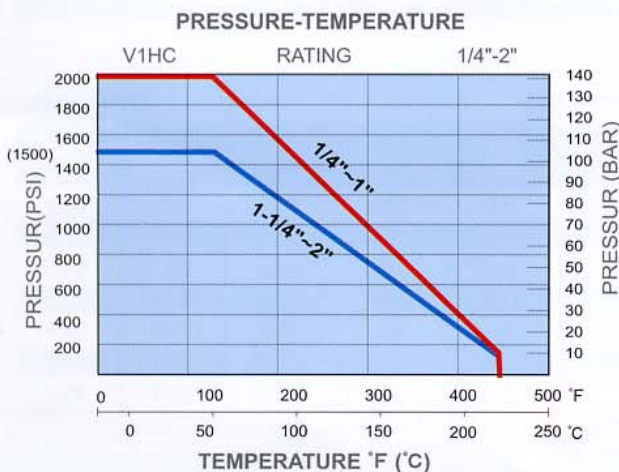
*2000 PSI (W.O.G.) / PN130

*OPTION:

Polished surface (Stainless steel only)

1000 PSI (W.O.G.) / PN63

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	PTFE	PTFE	PTFE
6	BALL SEAT	2	15% RPTFE	15% RPTFE	15% RPTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	1	PTFE	PTFE	PTFE
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



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	E	H	W
1/4"	5.0	41.3	61.0	29.5	21.0
3/8"	7.2	46.0	79.0	34.5	23.0
1/2"	9.2	57.2	108.0	56.0	29.0
3/4"	12.5	65.1	110.0	65.0	35.0
1"	15.0	76.2	122.0	68.0	41.0
1-1/4"	20.0	92.1	145.0	79.5	55.0
1-1/2"	24.5	98.4	148.0	84.0	57.0
2"	32.0	114.3	148.0	92.5	73.5

BT-V1M TYPE

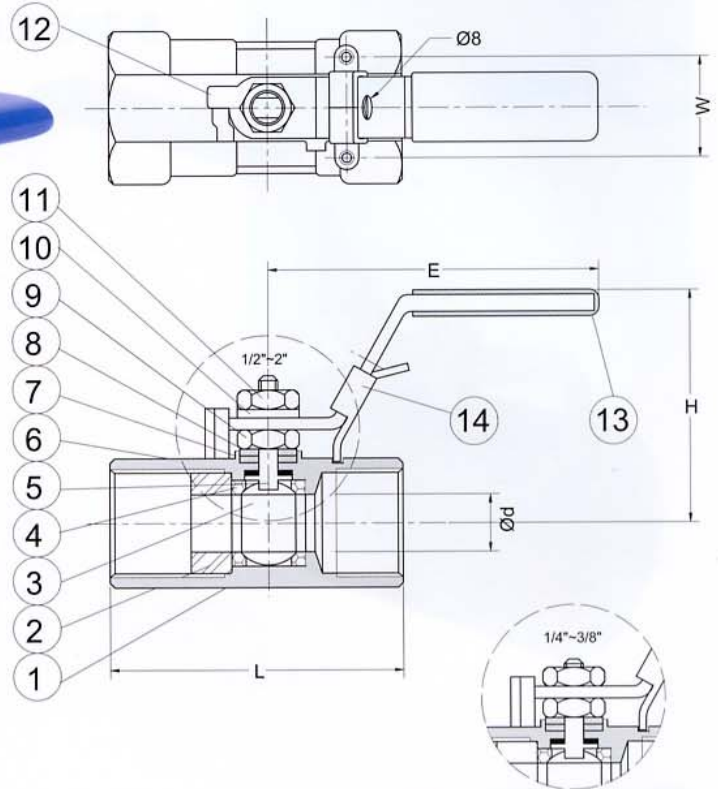
SIZE: 1/4"~2"
SCREWED END



STAINLESS STEEL

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

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



FEATURES:

*Pipe thread in accordance with ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

*Investment casting body and inscrewed

*2000PSI (W.O.G) / PN130

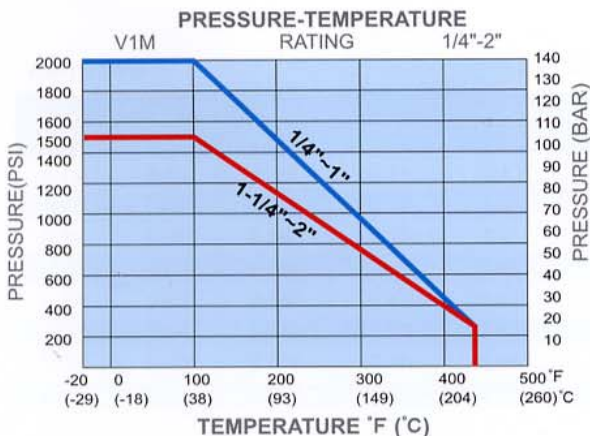
*Mounting pad

*OPTION:

Locking device

Drilled and tapped mounting pad

ITEM	PARTS	QTY	MATERIALS	
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8
2	INSERT	1	AISI 316	AISI 304
3	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8
4	SEAT	2	15% RPTFE	15% RPTFE
5	STEM	1	AISI 316	AISI 304
6	THRUST WASHER	1	PTFE	PTFE
7	STEM PACKING	1	PTFE	PTFE
8	GLAND WASHER	1	AISI 304	AISI 304
9	NUT	1	AISI 304	AISI 304
10	SPRING WASHER	1	AISI 304	AISI 304
11	NUT	1	AISI 304	AISI 304
12	HANDLE	1	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC
14	LOCKING DEVICE	1	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	H	E	W
1/4"-3/8"	9.2	58.5	46.9	102	28.5
1/2"	9.2	66	57.9	102	28.2
3/4"	12.5	70	60.9	98	28.2
1"	15.0	80	63.8	104.7	35.6
1-1/4"	20.0	95	70.3	101.9	35.6
1-1/2"	25.0	101	72.3	156.1	35.6
2"	32.0	114	78.3	155.1	35.6

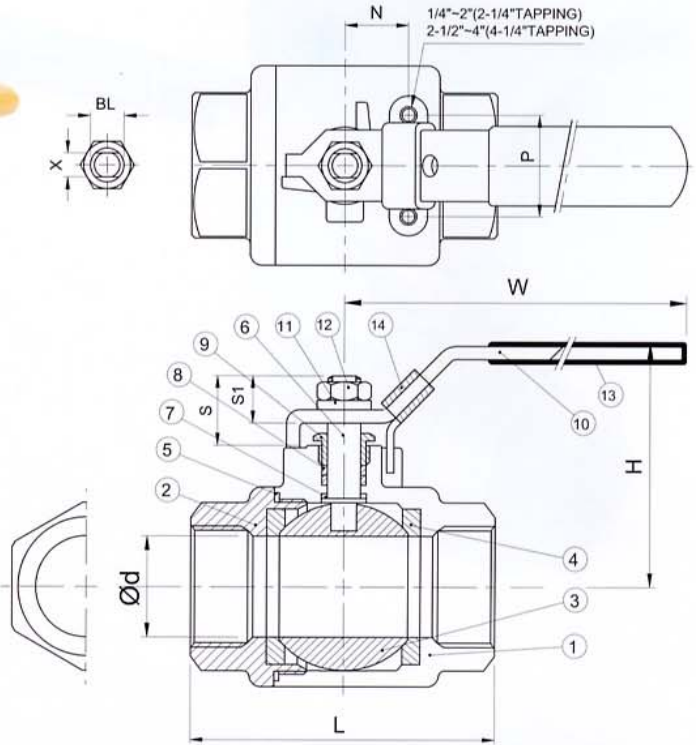
BT-V2 TYPE

SIZE: 1/4"~4"

SCREWED END



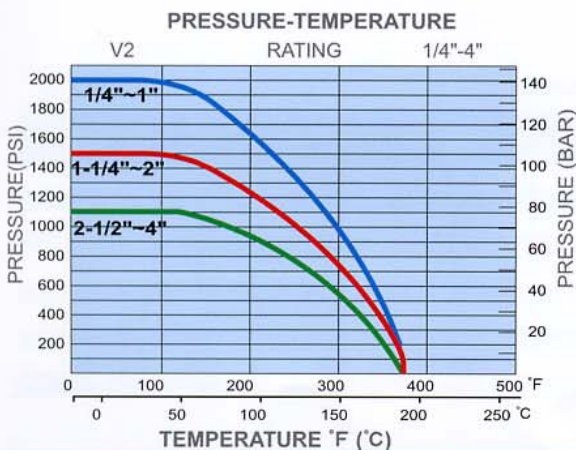
STAINLESS STEEL
AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)
AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)
CARBON STEEL
S-20C (EN10213 1.0619) (ASTM-A216-WCB)



FEATURES:

- *Pipe thread in accordance with ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228
- *With mounting pad
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (W.O.G.) / PN63
- 2000 PSI (W.O.G.) / PN130
- *OPTION:
 - Locking device
 - Drilled and tapped mounting pad
 - DIN standard M3 length

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	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	LOCKING DEVICE	1	AISI 304	AISI 304	AISI 304



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

BT-V23 TYPE

SIZE: 1/4"~3"
SCREWED END

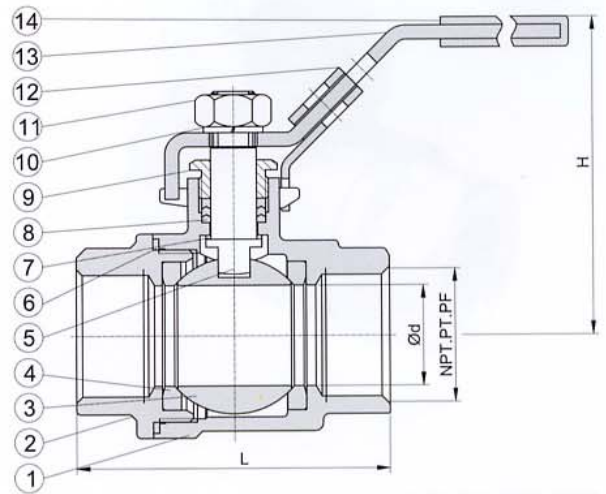
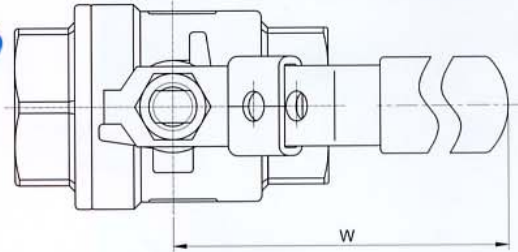
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

*Investment casting body and cap

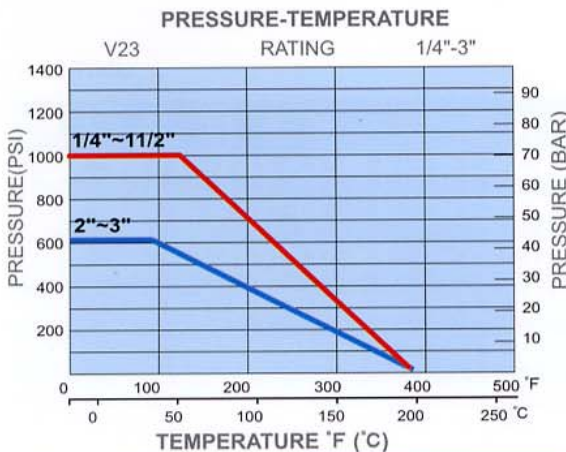
*1000 PSI (W.O.G.) / PN63

*OPTION:

Locking device

Drilled and tapped mounting pad

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	STEM	1	AISI 316	AISI 316	AISI 316
6	JOINT GASKET	1	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	PACKING	3	PTFE	PTFE	PTFE
9	GLAND NUT	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



DIMENSIONS

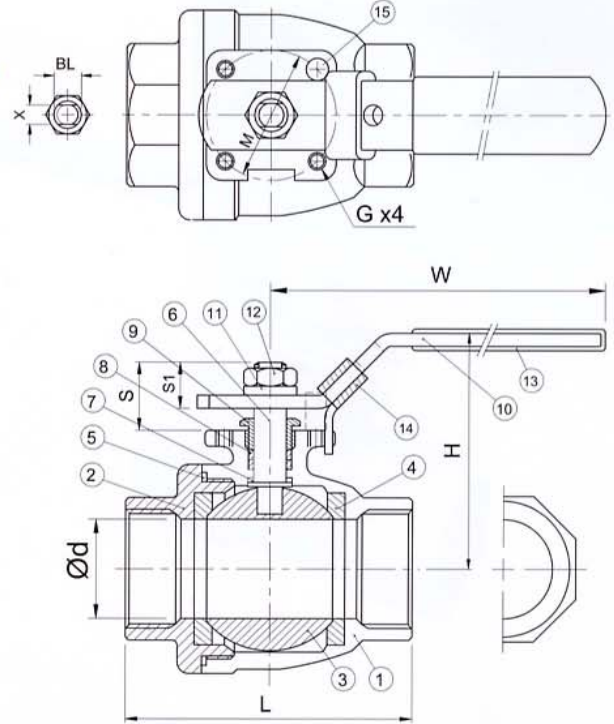
UNIT:mm

NOMINAL SIZE	Ød	L	H	W
1/4"	11.6	52	56	102
3/8"	12.7	52	56	102
1/2"	15	58	65	123
3/4"	20	67	68	123
1"	25	78	79	153
1 1/4"	32	90	84	153
1 1/2"	40	104	94	183
2"	50	126	100	183
2 1/2"	65	158	135	246
3"	80	186	145	246

BT-V24 TYPE

SIZE: 1/4"~3"

SCREWED END



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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*1000 PSI (W.O.G.) / PN63
800 PSI (W.O.G.) / PN55

*Blow-out proof stem

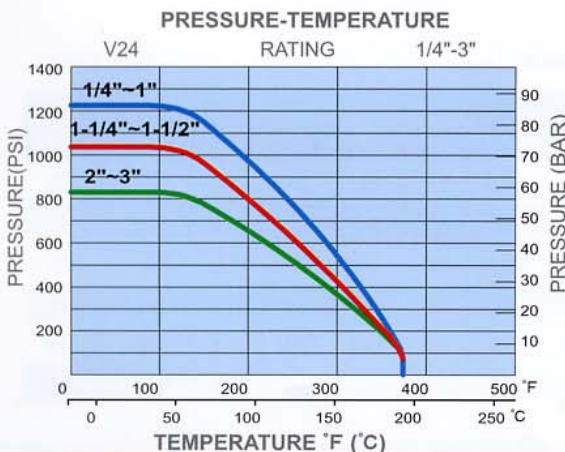
*Investment casting body and cap

*Mounting pad for ISO 5211

*OPTION:

Locking device

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	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	LOCKING DEVICE	1	AISI 304	AISI 304	AISI 304
15	STOP PIN	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	H	W	S	S1	X	BL	ISO 5211		Cv FACTOR	TORQUE Kgf-cm	KGS
									M	G			
1/4"	11.6	50	51	95	16.5	10.2	5	5/16"	36	M5	6.6	40	0.26
3/8"	12.7	50	51	95	16.5	10.2	5	5/16"	36	M5	7.9	40	0.26
1/2"	15	60	53	95	16.5	10.2	5	5/16"	36	M5	11.2	54	0.39
3/4"	20	70	60	110	20	13.5	6.5	3/8"	36	M5	21	78	0.57
1"	25.4	82	74	135	23.5	16	8	7/16"	42	M5	35	106	1.00
1-1/4"	32	95	80	135	23.5	16	8	7/16"	42	M5	57	150	1.44
1-1/2"	38	108	92	165	25.5	17	9	1/2"	50	M6	80	200	2.20
2"	50.8	134	101	165	25.5	17	9	1/2"	50	M6	150	280	3.65
2-1/2"	65	158	130	215	41	29.5	12	3/4"	70	M8	265	480	5.95
3"	80	185	142	215	41	29.5	12	3/4"	70	M8	415	750	9.72

BT-V25 TYPE

SIZE: 1/2"~2"

SCREWED END



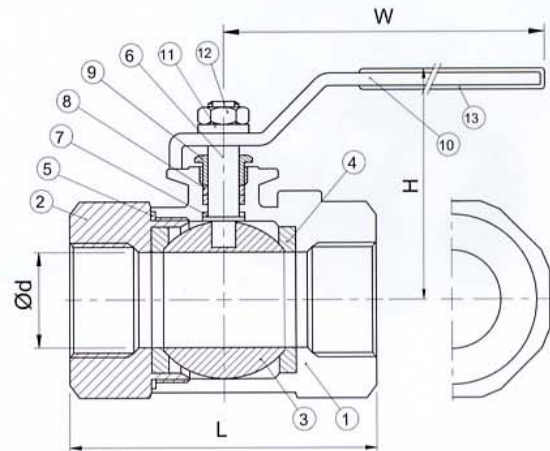
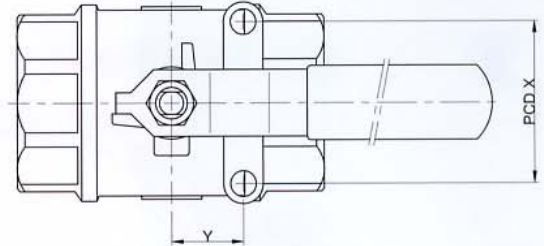
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

*Investment casting body and cap

*1/2"~1" : 2000 PSI (W.O.G.) / PN130

1-1/4"~2" : 1500 PSI (W.O.G.) / PN100

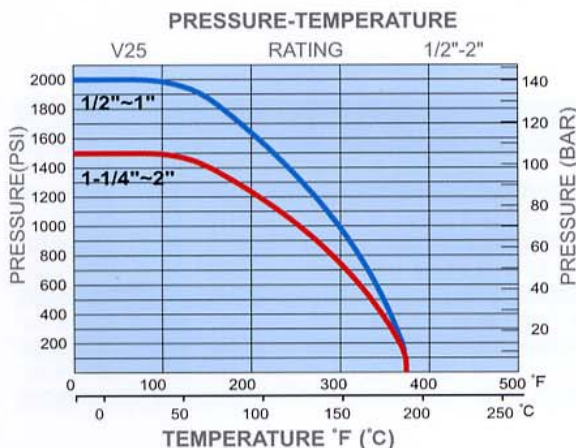
*With mounting pad

*OPTION:

Locking device

Drilled and tapped mounting pad

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	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



DIMENSIONS

UNIT:mm

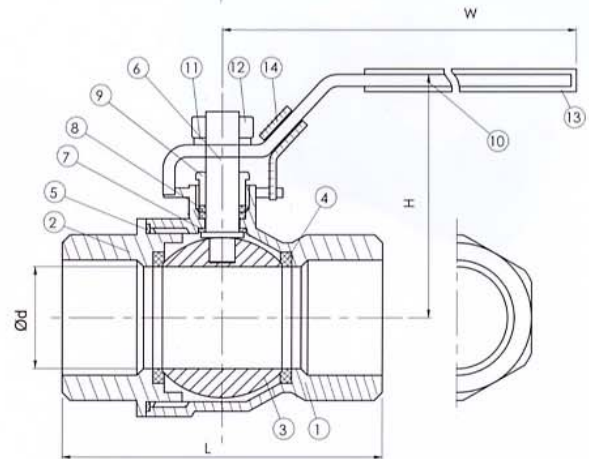
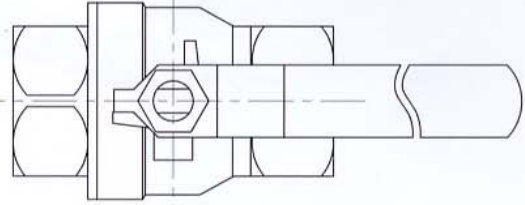
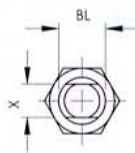
NOMINAL SIZE	Ød	L	H	W	X	Y	Cv FACTOR	TORQUE Kgf-cm
1/2"	10	59.5	51	93	25	12.5	10	40
3/4"	15	60	53	93	25	12.5	14	57
1"	20	82.5	59	110	25	21.0	26	78
1-1/4"	25	91	65	110	34	22.5	43	106
1-1/2"	32	99	77	135	38	23.5	70	150
2"	40	120	87	135	38	23.5	102	200

BT-V26 TYPE

SIZE: 1/4"~3"
SCREWED END



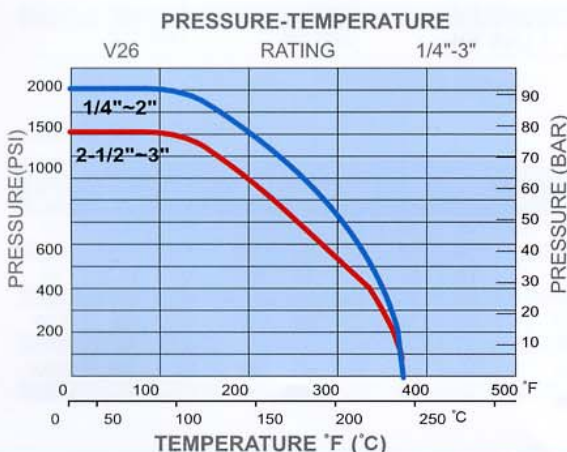
STAINLESS STEEL
AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)
AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)
CARBON STEEL
S-20C (EN10213 1.0619) (ASTM-A216-WCB)



FEATURES:

- *Pipe thread in accordance with ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228
- *Blow-out proof stem
- *Investment casting body and cap
- *1/4"~2": 2000 PSI (W.O.G.) / PN130
- 2-1/2"~3": 1500 PSI (W.O.G.) / PN100
- *OPTION:
 - Locking device
 - DIN standard M3 length
 - Spring handle

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	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
14	LOCKING 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	44.5	51	95	5	5/16"	6.6	40
3/8"	12.7	44.5	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

BT-V26HP TYPE

SIZE: 1/4"~2"

SCREWED END

HIGH PRESSURE 6000 PSI

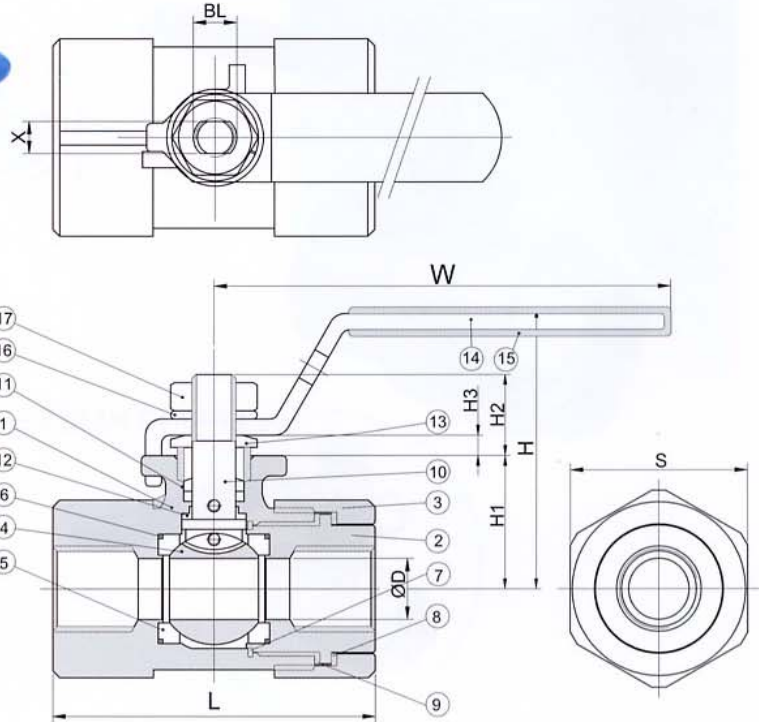
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

*Investment casting body and cap

***6000 PSI (W.O.G.) / PN414**

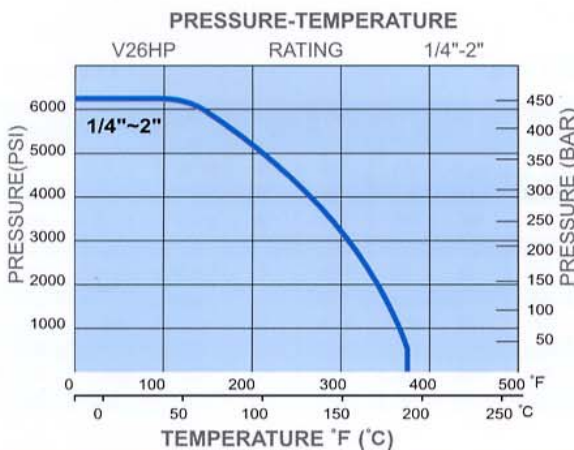
*Anti static device: 1/4"-1/2 x 1
3/4"-2" x 2

*OPTION:

Mounting pad ISO5211

Locking device (Mounting pad type only)

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	INSERT	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
3	SCREWED CAP	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
4	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8M	ASTM-A351-CF8M
5	BALL SEAT	2	1/4"-1":.25%R-PTFE 1-1/4"-2":PEEK	1/4"-1":.25%R-PTFE 1-1/4"-2":PEEK	1/4"-1":.25%R-PTFE 1-1/4"-2":PEEK
6	O-RING	2	VITON	VITON	VITON
7	SEAL	1	Graphite	Graphite	Graphite
8	GASKET 1	1	PTFE	PTFE	PTFE
9	GASKET 2	1	PTFE	PTFE	PTFE
10	STEM	1	AISI 316	AISI 316	AISI 316
11	STEM PACKING	2	PTFE	PTFE	PTFE
12	THRUST WASHER	1	PTFE	PTFE	PTFE
13	GLAND NUT	1	AISI 304	AISI 304	AISI 304
14	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
15	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
16	STEM WASHER	1	AISI 304	AISI 304	AISI 304
17	STEM NUT	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	ØD	W	L	H	H1	H2	H3	S	BL	X	Cv FACTOR	TORQUE Kgf-cm
1/4"	11.6	120	70	55	30	16	12	36	3/8"	6	6.6	45
3/8"	12.5	120	70	55	30	16	12	36	3/8"	6	7.9	45
1/2"	15	135	80	70	33	17	13	44	7/16"	8	11.2	50
3/4"	20	135	95	78	39	20	15	54	7/16"	8	21	80
1"	25	165	120	85	45	24	16	66	1/2"	9	35	100
1-1/4"	32	165	130	95	50	24	16	78	1/2"	9	57	130
1-1/2"	38	210	150	110	58	26	18	90	3/4"	12	80	200
2"	50	210	175	120	70	26	18	110	3/4"	12	150	300

BT-V27 TYPE

SIZE: 1/4"~2"

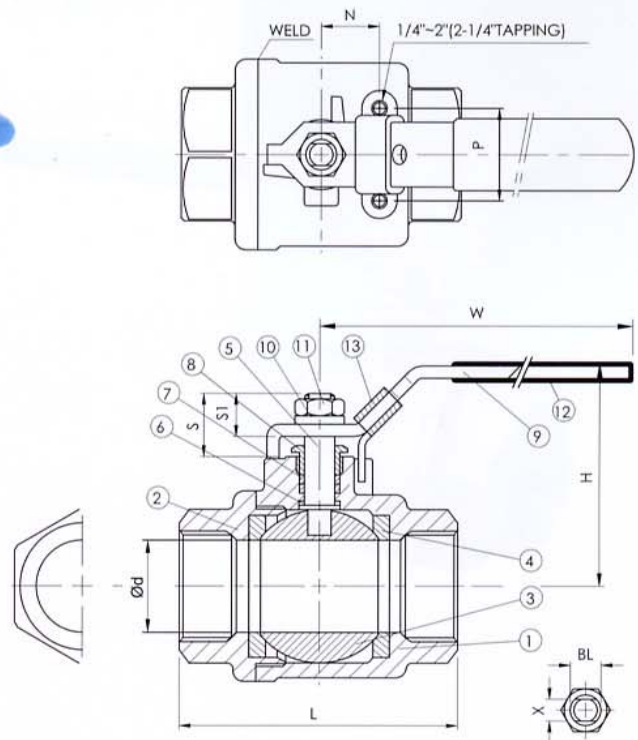
SCREWED END



STAINLESS STEEL

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

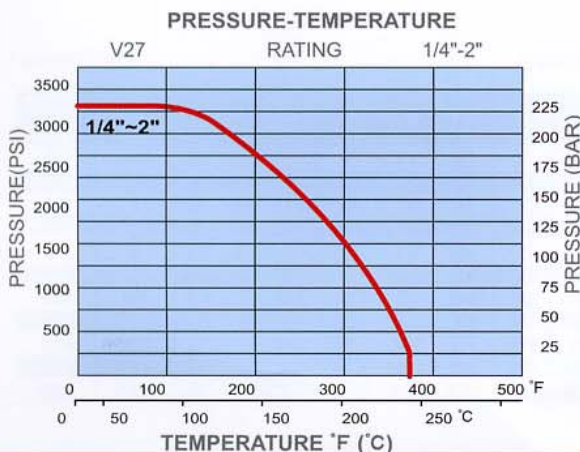
AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)



FEATURES:

- *Welding between cap and body
- *Pipe thread in accordance with ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228
- *Blow-out proof stem
- *3000 PSI (W.O.G.) / PN200
- *With mounting pad
- *OPTION:
 - Locking device
 - Drilled and tapped mounting pad

ITEM	PARTS	QTY	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	PTFE 1-1/2"~2-POM	PTFE 1-1/2"~2-POM
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 WASHER	2	AISI 304	AISI 304
11	STEM NUT	1	AISI 304	AISI 304
12	HANDLE SLEEVE	1	PLASTIC	PLASTIC
13	LOCKING DEVICE	1	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	H	W	S	S1	X	BL	N	P	Cv FACTOR	TORQUE Kgf-cm	KG
1/4"	11.6	60.5	53	95	16.5	10.2	5	5/16"	12.5	28.5	6.6	46	0.36
3/8"	12.7	60.5	53	95	16.5	10.2	5	5/16"	12.5	28.5	7.9	46	0.36
1/2"	15	62.5	53	95	16.5	10.2	5	3/8"	12.5	28.5	11.2	54	0.37
3/4"	20	77	60	110	20	13.5	6.5	3/8"	21	34.8	21	78	0.67
1"	25.4	90	74	135	23.5	16	8	7/16"	22.5	34.8	35	106	1.17
1-1/2"	38	118	92	165	25.5	17	9	1/2"	23.5	38.1	80	200	2.60
2"	50.8	138	101	165	25.5	17	9	1/2"	34	38.1	150	280	4.27

BT-V28 TYPE

SIZE: 1/4"~4"

SCREWED END



ECONOMIC TYPE

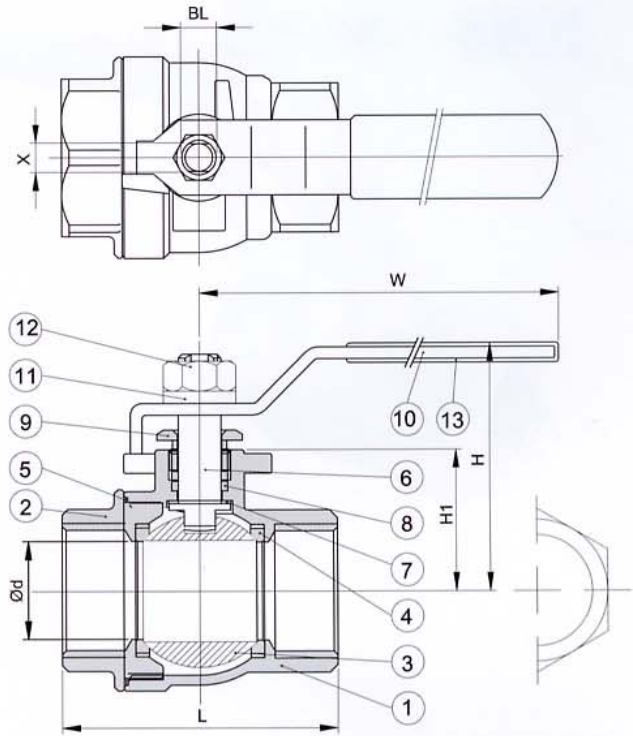
STAINLESS STEEL

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

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

CARBON STEEL

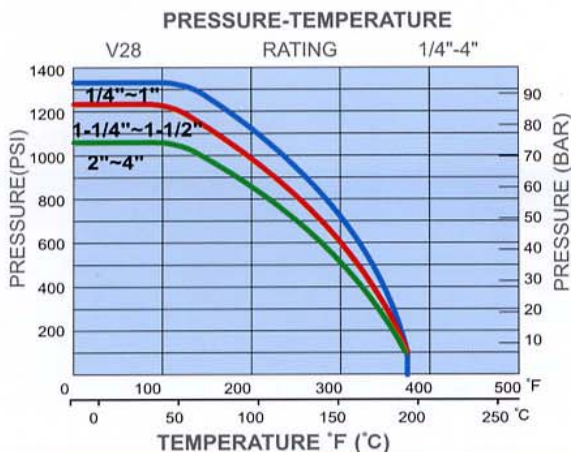
S-20C (EN10213 1.0619) (ASTM-A216-WCB)



FEATURES:

- *Pipe thread in accordance with ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (W.O.G.) / PN63
- *OPTION:
Locking device

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 304	AISI 316 / 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 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



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	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

BT-V2MH TYPE

SIZE: 1/4"~3"
SCREWED END

DIRECT MOUNTING PAD

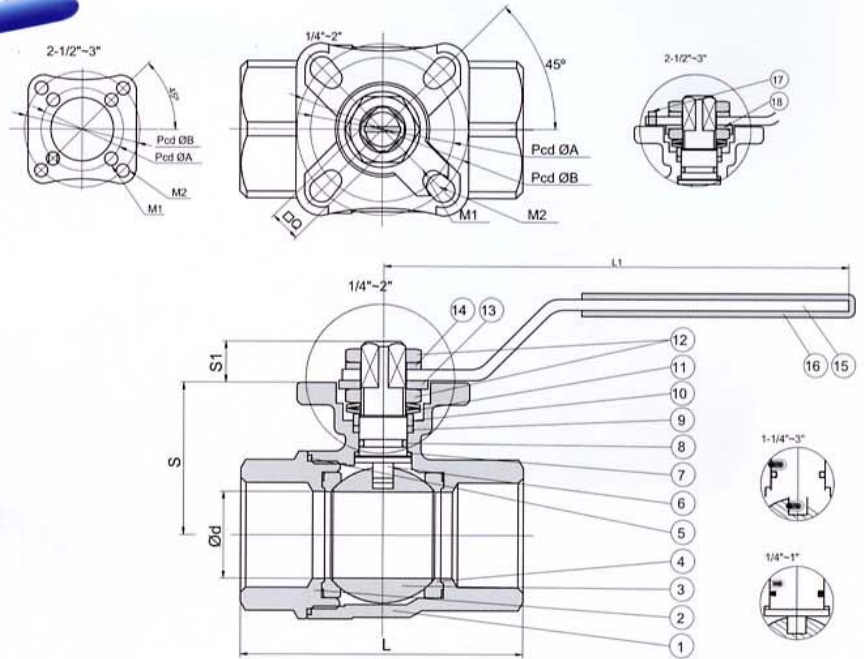
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

*Investment casting body and cap

*1000 PSI (W.O.G.) / PN63

*Direct mounting pad for ISO 5211

*OPTION:

C style clip without handle

DIN standard M3 length

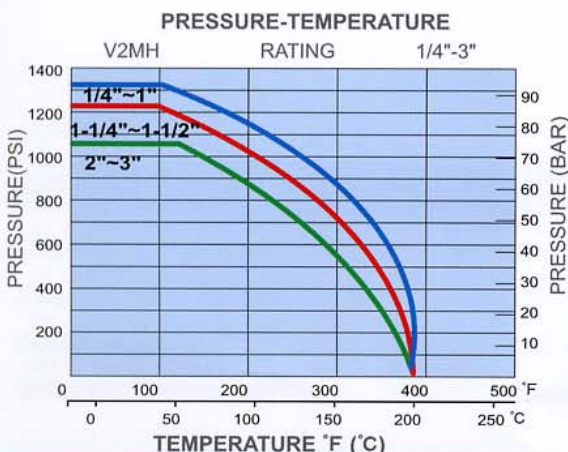
Locking device (Different mould)

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	15% R-PTFE	15% R-PTFE	15% R-PTFE
8	O-RING	1	VITON	VITON	VITON
9	STEM PACKING	1	15% R-PTFE	15% R-PTFE	15% R-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	1	AISI 304	AISI 304	AISI 304
18	LOCK WASHER	1	AISI 304	AISI 304	AISI 304

DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	ISO 5211					L	S	S1	L1	TORQUE Kgf-cm	Cv FACTOR	KG		
		Pcd øA	Pcd øB	M1	M2	∅Q									
1/4"	11	F03	36	-	-	Ø6.0	-	9.0	49.6	36	10	110	45	6.4	0.31
3/8"	12.7	F03	36	-	-	Ø6.0	-	9.0	49.6	36	10	110	45	7.9	0.31
1/2"	15	F04	42	-	-	Ø7.0	-	9.0	55	38	10	110	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	0.62
1"	25	F04	42	F05	50	R3.0	R3.5	11	82.5	44.4	12	136	110	35	0.78
1-1/4"	32	F05	50	F07	70	R3.5	R4.5	14	90.8	54	16.5	158	155	57	1.35
1-1/2"	40	F05	50	F07	70	R3.5	R4.5	14	103	59.5	16.5	203	220	85	1.91
2"	50	F05	50	F07	70	R3.5	R4.5	14	120	67	16.5	203	330	148	2.8
2-1/2"	65	F07	70	F10	102	Ø9.0	Ø11	17	155	101.5	24.5	322.5	400	265	6.98
3"	80	F07	70	F10	102	Ø9.0	Ø11	17	182	112.5	24.5	322.5	660	415	10.3



BT-V2NF TYPE

SIZE: 1/4"~2"
SCREWED END

FEMALE X MALE SCREWED END

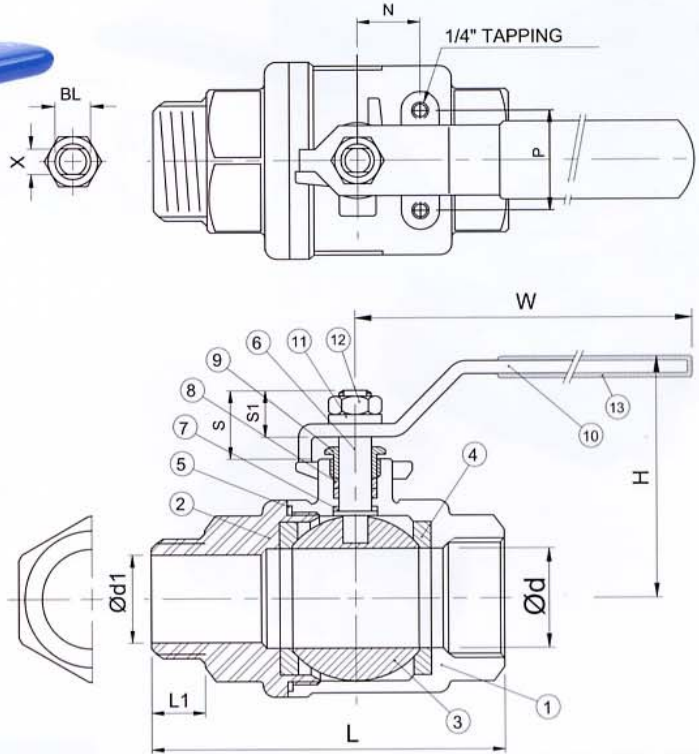
STAINLESS STEEL

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

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

CARBON STEEL

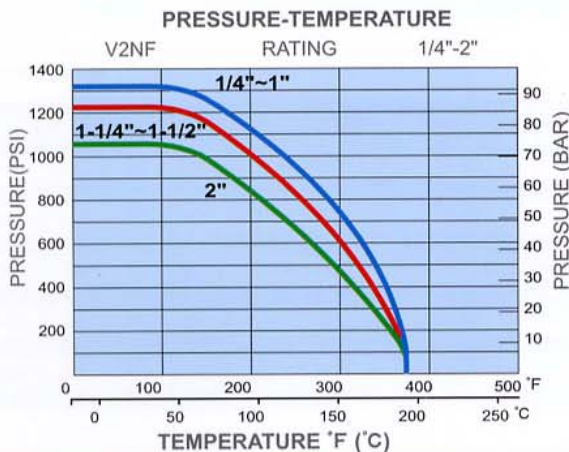
S-20C (EN10213 1.0619) (ASTM-A216-WCB)



FEATURES:

- *Pipe thread in accordance with ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228
- *With mounting pad
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (W.O.G.) / PN63
- *OPTION:
 - Locking device
 - Drilled and tapped mounting pad

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	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



DIMENSIONS

UNIT:mm

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

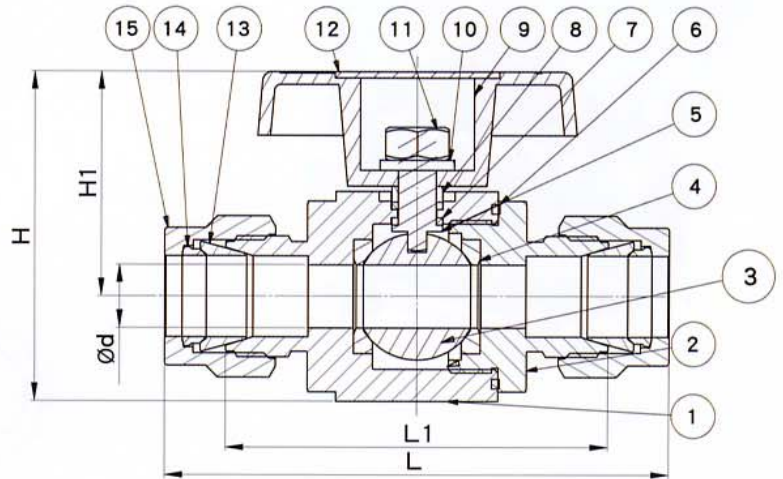
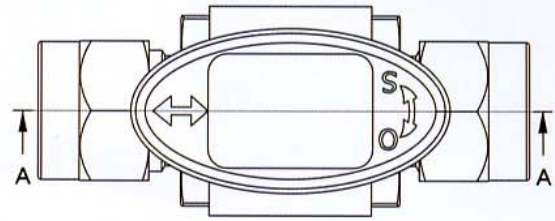
BT-V2SC TYPE

SIZE: 1/4"~1/2"
SCREWED END



ULTRA PURITY SEMICONDUCTOR USE STAINLESS STEEL

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



PRODUCT STANDARDS:

Technical indicators:

Working pressure: $\leq 10 \text{ kg/cm}^2$

Durability test: ≥ 5000 cycles

Inboard leaking rate: $\leq 1 \times 10^{-9} \text{ atm cc/sec}$

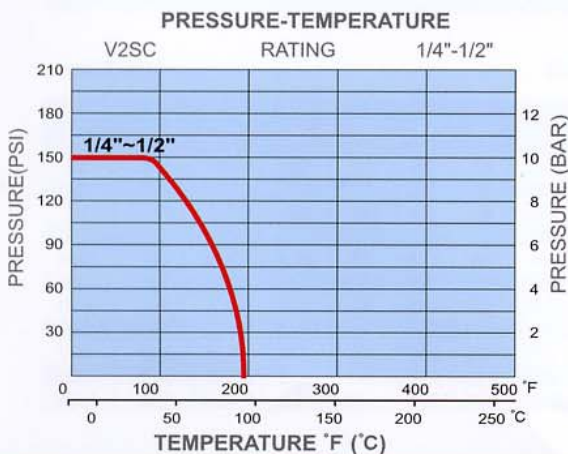
Internal leaking rate: $\leq 1 \times 10^{-9} \text{ atm cc/sec}$

Outboard leaking rate: $\leq 1 \times 10^{-9} \text{ atm cc/sec}$

PERFORMANCE DEMAND:

The leaking rate of developed products meets the SEMI F1 standards under the technical indicators circumstances mentioned above.

ITEM	PARTS	QTY	MATERIALS
1	BODY	1	ASTM-A351-CF8M
2	INSERT	1	ASTM-A351-CF8M
3	BALL	1	ASTM-A351-CF8M
4	SEAT	2	TFM 1600
5	STEM	1	AISI 304
6	JOINT GASKET	1	TFM 1600
7	THRUST WASHER	2	TFM 1600
8	STOP PLOT	1	AISI 304
9	HANDLE	1	A6061 T6
10	WASHER	1	AISI 304
11	STEM NUT	1	AISI 304
12	NAME PLATE	1	A6061 T6
13	FRONT FERRULE FF	2	AISI 304
14	BACK FERRULE	2	AISI 304
15	NUT	2	AISI 304



DIMENSIONS

UNIT:mm

SIZE	Ød	H	H1	L	L1
1/4"	5	36.3	25.3	62.7	48
3/8"	10	51.8	35.4	78	55
1/2"	7.5	45.8	32.4	70	60.4

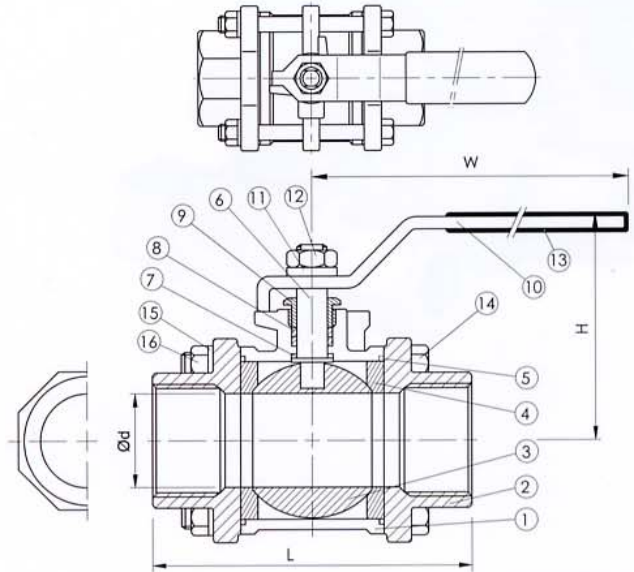
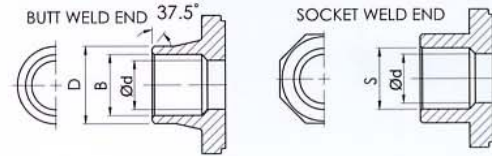
BT-V31 TYPE

SIZE: 1/4"~4"

SCREWED END
BUTT WELD END
SOCKET WELD END



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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Lug body

*Blow-out proof stem

*Investment casting body and cap

*1000 PSI (W.O.G.) / PN63

*OPTION:

Locking device

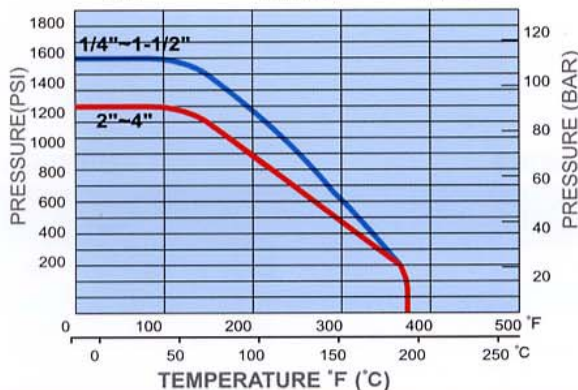
DIN standard M3 length(Different mould)

Reduced port (Different mould)

ITEM	PARTS	QTY	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	BOLT	1	AISI 304	AISI 304	AISI 304
15	SPRING WASHER	1/4"~2-1/2": 4 3"~4": 6	AISI 304	AISI 304	AISI 304
16	HEX NUT	1	AISI 304	AISI 304	AISI 304

PRESSURE-TEMPERATURE

V31 RATING 1/4"-4"



DIMENSIONS

UNIT:mm

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

BT-V32 TYPE

SIZE: 1/4"~4"

SCREWED END
BUTT WELD END
SOCKET WELD END



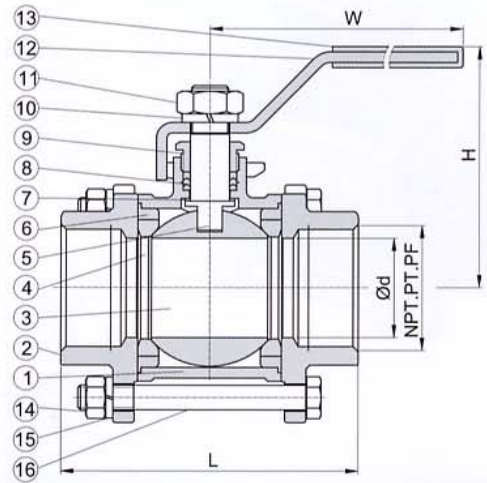
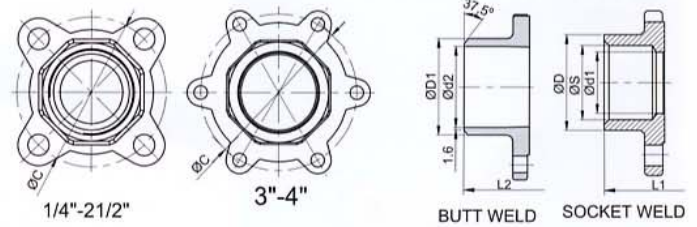
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Lug body

*Blow-out proof stem

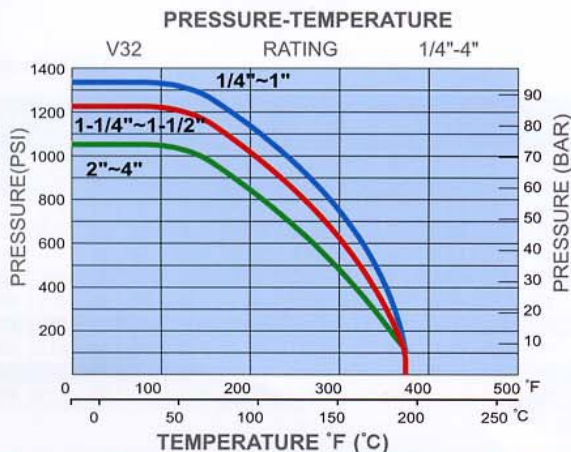
*Investment casting body and cap

*1000 PSI (W.O.G.) / PN63

*OPTION:

Locking device

ITEM	PARTS	QTY	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	STEM	1	AISI 316	AISI 304	AISI 304
6	JOINT GASKET	2	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	3	PTFE	PTFE	PTFE
9	GLAND NUT	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	HANDLE	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	HEX NUT		AISI 304	AISI 304	AISI 304
15	BOLT WASHER	1/4"-2 1/2": 4 3"-4": 6	AISI 304	AISI 304	AISI 304
16	BOLT		AISI 304	AISI 304	AISI 304



DIMENSIONS

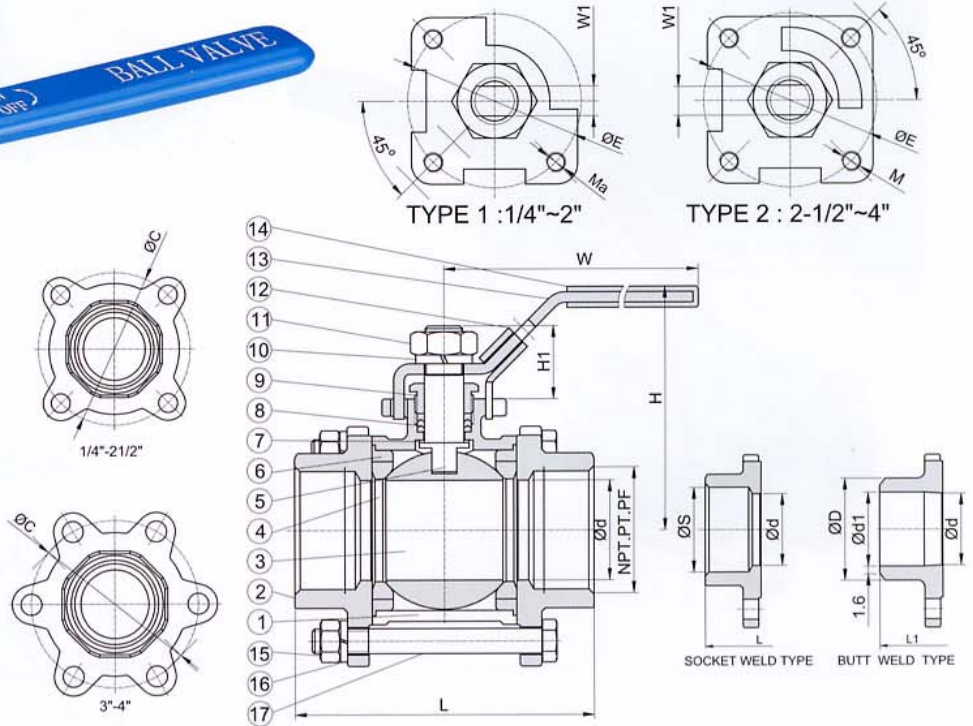
UNIT:mm

NOMINAL SIZE	Ød	Ød1	Ød2	ØD	ØD1	ØS	L	L1	L2	H	W	ØC
1/4"	11.6	11.6	11.6	22.6	17	14.1	58	58	70	54	102	37.5
3/8"	12.7	12.7	12.7	22.6	17	17.6	58	58	70	54	102	37.5
1/2"	15	15	16	27.3	21.3	21.7	63	63	75	62	123	45.5
3/4"	20	20	20	33.1	26.7	27.1	73	73	90	66	123	52.5
1"	25	25	25	39.8	33.6	33.8	85	85	100	77	153	57.5
1-1/4"	32	32	33.8	48.6	42.4	42.6	96	96	110	80	153	71.5
1-1/2"	38	38	39.5	55.1	48	48.7	114	114	125	91	183	79
2"	50	50	50.8	68.1	60.5	61.1	134	134	150	98	183	97
2-1/2"	65	65	62.7	85.9	76.1	76.9	180	180	190	138	246	124.5
3"	80	80	77.9	100.8	88.9	89.8	200	200	220	149	246	149
4"	100	100	100	127.5	114.2	115.4	228	228	270	175	246	180.6

BT-V33 TYPE

SIZE: 1/4"~4"

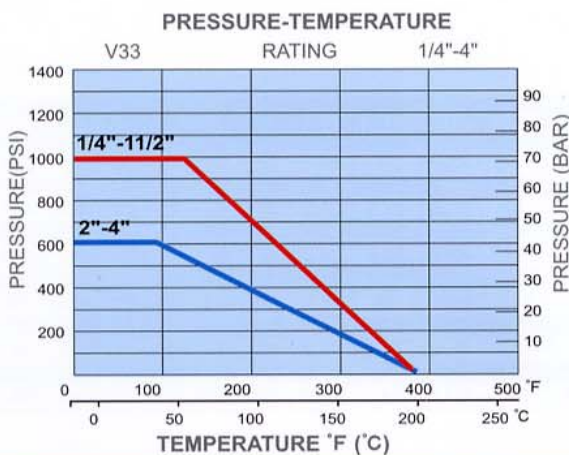
SCREWED END
BUTT WELD END
SOCKET WELD END



FEATURES:

- *Pipe thread in accordance with ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (W.O.G.) / PN63
- *Mounting pad for ISO 5211
- *OPTION:
Locking device

ITEM	PARTS	QTY	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	BALL SEAT	2	PTFE	PTFE	PTFE
5	STEM	1	AISI 316	AISI 316	AISI 316
6	JOINT GASKET	2	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	3	PTFE	PTFE	PTFE
9	GLAND NUT	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		AISI 304	AISI 304	AISI 304
16	BOLT WASHER	1/4"-2-1/2":4 3"-4":6	AISI 304	AISI 304	AISI 304
17	BOLT		AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	Ød1	L	L1	ØD	H	W	ØC	ØS	ISO 5211	ØE	H1	W1	Ma
1/4"	11.6	10.0	58	70	17.0	56	102	40.5	14.1	F03	36	15	5.0	M5
3/8"	12.7	12.5	58	70	17.0	56	102	40.5	17.6	F03	36	15	5.0	M5
1/2"	15	16.0	63	75	21.3	65	123	47.0	21.7	F03	36	16	6.5	M5
3/4"	20	20.0	73	90	26.7	67	123	53.5	27.1	F03	36	16	6.5	M5
1"	25	25.0	85	100	33.6	79	153	59.6	33.8	F04	42	21	8.0	M5
1 1/4"	32	33.8	96	110	42.4	84	153	74.2	42.6	F04	42	21	8.0	M5
1 1/2"	38	39.5	114	125	48.0	92	183	84.0	48.7	F05	50	25	9.5	M6
2"	50	50.8	134	150	60.5	99	183	101.0	61.1	F05	50	29	9.5	M6
2 1/2"	65	62.7	180	190	76.1	136	246	132.0	76.9	F07	70	40	12.0	M8
3"	80	77.9	200	220	88.9	146	246	161.5	89.8	F07	70	48	12.0	M8
4"	100	100.0	228	270	114.2	168	503	191.0	115.5	F07	70	33	12.0	M8

BT-V3E TYPE

SIZE: 1/4"~4"

SCREWED END
BUTT WELD END
SOCKET WELD END



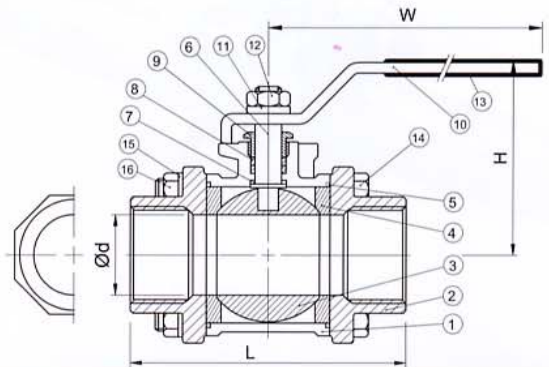
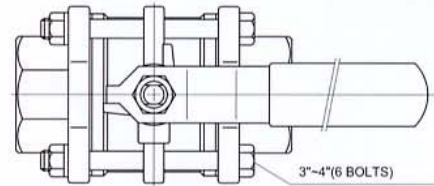
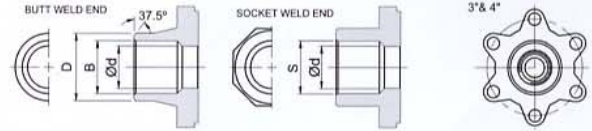
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Lug body

*Blow-out proof stem

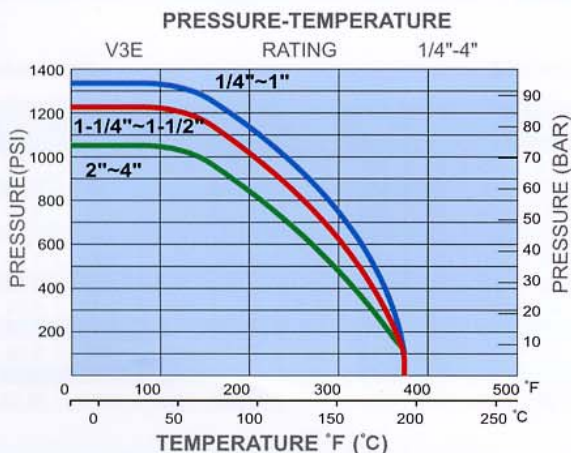
*Investment casting body and cap

*1000 PSI (W.O.G.) / PN63

*OPTION:

Locking device

ITEM	PARTS	QTY	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	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	BOLT		AISI 304	AISI 304	AISI 304
15	SPRING WASHER	1/4"~2-1/2": 4 3"~4": 6	AISI 304	AISI 304	AISI 304
16	HEX NUT		AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	H	W	B	D	S	Cv FACTOR	TORQUE Kgf-cm
1/4"	11.6	54	51	95	12	18	14.1	6.6	40
3/8"	12.7	54	51	95	12.52	18	17.6	7.9	40
1/2"	15	61.5	55	95	15.8	22	21.7	11.2	54
3/4"	20	71	58.5	110	20.93	28	27.1	21	74
1"	25	83.5	73	135	26.64	34	33.8	34	104
1-1/4"	32	97	78.5	135	35.05	44	42.6	57	135
1-1/2"	38	110.5	90.5	165	40.9	50	48.7	80	180
2"	50	129	99	165	52.5	61.5	61.1	148	250
2-1/2"	65	171.5	127	215	69	76	76.9	265	480
3"	80	200	136	215	82	90	89.8	415	750
4"	100	252	172	325	106	115	115.4	780	1100

BT-V3L TYPE

SIZE: 1/4"~4"

LONG BUTT WELD END



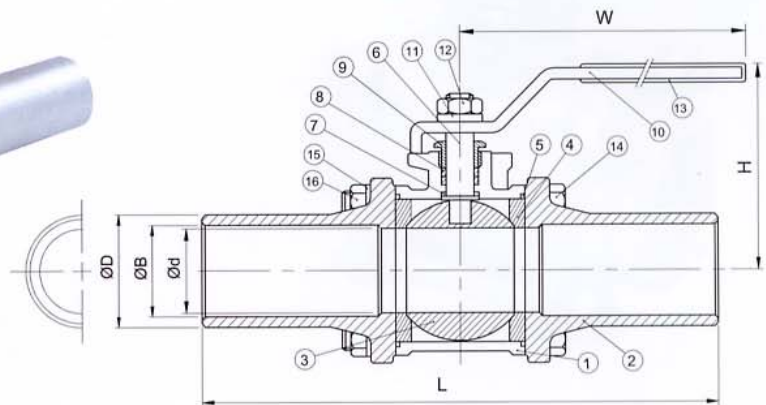
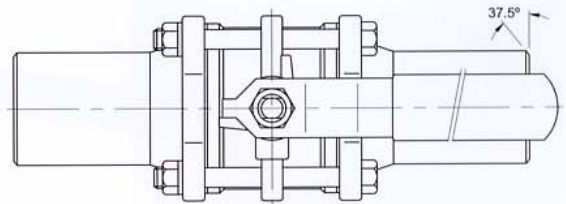
STAINLESS STEEL

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

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

CARBON STEEL

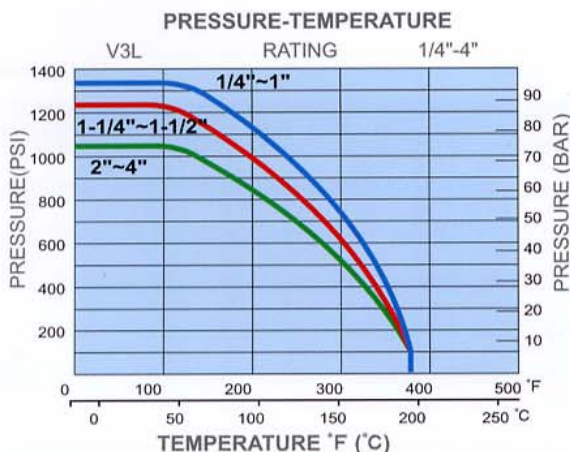
S-20C (EN10213 1.0619) (ASTM-A216-WCB)



FEATURES:

- *Long butt weld end
- *Lug body
- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (W.O.G.) / PN63
- *OPTION:
 - Locking device
 - End caps are stainless steel 316L (EN10213 1.4409)
 - Mounting pad for ISO 5211

ITEM	PARTS	QTY	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	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	BOLT	1/4"-2-1/2":4 3"-4":6	AISI 304	AISI 304	AISI 304
15	SPRING WASHER	1/4"-2":4 2-1/2":8	AISI 304	AISI 304	AISI 304
16	HEX NUT	3"-4":12	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	H	W	ØB	ØD	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	245	74	135	27	34.5	35	106	1.74
1-1/4"	32	225	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	1110	26.50

BT-V3MH TYPE

SIZE: 1/4"~6"

SCREWED END
BUTT WELD END
SOCKET WELD END



DIRECT MOUNTING PAD

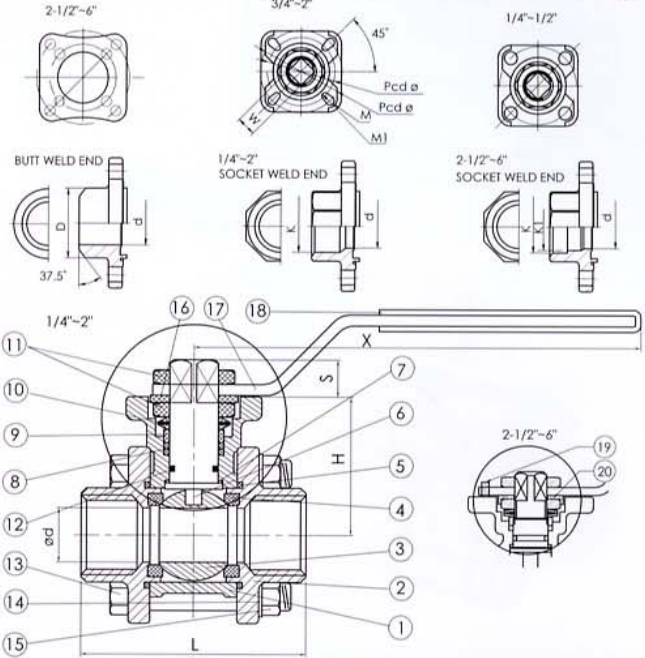
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Lug body

*Blow-out proof stem

*Investment casting body and cap

*1000 PSI (W.O.G.)/PN63

*Direct mounting pad for ISO 5211

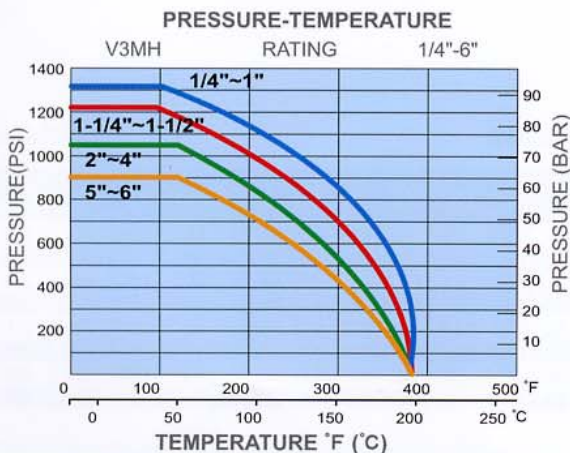
*OPTION:

C Style clip without handle

DIN standard M3 length(Different mould)

Locking device (Different mould)

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-2161-WCB
2	CAP	2	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-2161-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	1	AISI 304	AISI 304	AISI 304
14	SPRING WASHER	1/4"-2": 4	AISI 304	AISI 304	AISI 304
15	HEX NUT	2-1/2"-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	STOPPER	1	AISI 304	AISI 304	AISI 304
20	LOCK WASHER	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	ød	L	H	S	X	ISO-5211				Cv FACTOR	TORQUE Kgf-cm	D	d	K	K1	
						Pcd ø	W	M	M1							
1/4"	11.6	58	36	9.6	112	F03	ø36	9	R3.0	-	6.6	45	ø18.1	ø11.6	ø14.0	-
3/8"	12.8	58	36	9.6	112	F03	ø36	9	R3.0	-	7.9	45	ø18.1	ø12.7	ø17.6	-
1/2"	15	62	38	9.6	112	F03	ø36	9	R3.0	-	11.2	55	ø18.1	ø15	ø21.7	-
3/4"	20	77	41.7	11.6	138	F04	ø42	11	R3.5	R3.0	21	90	ø21.7	ø20	ø27.2	-
						F05	ø50									
1"	25	83	44.4	11.6	138	F04	ø42	11	R3.5	R3.0	34	110	ø34	ø25	ø33.9	-
						F05	ø50									
1-1/4"	32	94	52.8	11.2	205	F05	ø50	14	R4.5	R3.5	57	155	ø42.7	ø32	ø42.6	-
						F07	ø70									
1-1/2"	38	107	58.5	11.2	205	F05	ø50	14	R4.5	R3.5	80	220	ø48.6	ø40	ø48.7	-
						F07	ø70									
2"	50	120	66.0	11.2	205	F05	ø50	14	R4.5	R3.5	148	330	ø60.5	ø50	ø61.1	-
						F07	ø70									
2-1/2"	65	157	101.5	18.5	330	F07	ø70	17	R5.5	ø9.0	265	400	ø76.3	ø65	ø73.8	ø70.9
						F10	ø102									
3"	80	182	112.5	18.5	330	F07	ø70	17	R5.5	ø9.0	415	660	ø93	ø80	ø89.8	ø82.5
						F10	ø102									
4"	100	213.6	127.0	18.5	330	F07	ø70	17	R5.5	ø9.0	780	900	ø114	ø100	ø115.4	ø108
						F10	ø102									
5"	125	283	158.5	47.0	500	F10	ø102	27	R7.0	ø12	1040	1200	ø139.8	ø125	ø134.7	ø127.2
						F12	ø125									
6"	150	342	175	47.0	500	F10	ø102	27	R7.0	ø12	1200	1500	ø165.2	ø150	ø161.5	ø154
						F12	ø125									

BT-V3W TYPE

SIZE: 1/4"~2"

SCREWED END
BUTT WELD END
SOCKET WELD END



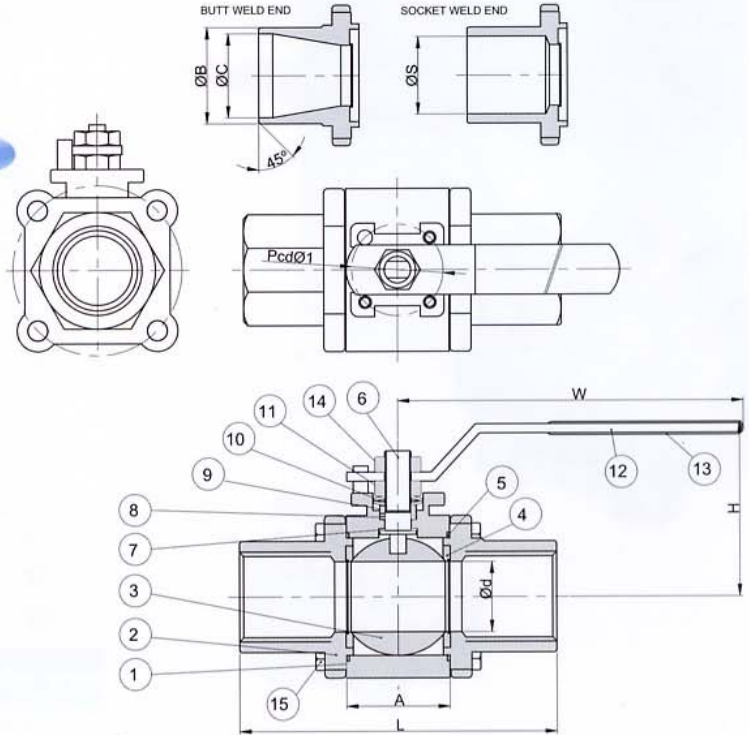
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

*Investment casting body and cap

*1/4~1": 3000 PSI (W.O.G.) / PN200

1-1/4~2": 2000 PSI (W.O.G.) / PN130

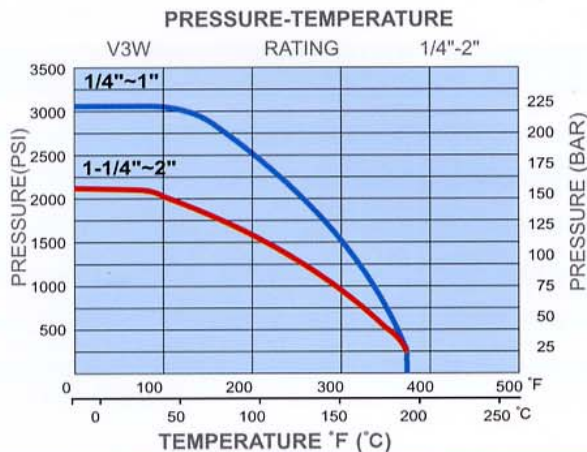
*Encapsulated body

*Direct mounting pad for ISO 5211

*OPTION:

Locking device

ITEM	PARTS	QTY	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	STEM BUSHING	1	AISI 304	AISI 304	AISI 304
10	BELLEVILLE WASHER	2	AISI 304	AISI 304	AISI 304
11	STEM NUT	1	AISI 304	AISI 304	AISI 304
12	HANDLE	1	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	VITON	VITON	VITON
14	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
15	BODY BOLT	8	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	A	ØB	ØC	ØS	H	L	PcdØ1	W	Cv FACTOR	TORQUE Kgf-cm
1/4"	8	20.8	18	12	14.1	49	66.2	36	116	40	4.5
3/8"	11.5	20.8	18	14	17.6	49	66.2	36	116	40	6.6
1/2"	12.7	20.8	22	17.1	21.7	49	66.2	36	116	40	7.9
3/4"	15	24.8	27	22.5	27.2	53	71.5	36	116	60	11.2
1"	20	32	33.5	28	33.9	63	96.8	42	150	78	21
1-1/4"	25.4	41.4	42	33.5	42.6	67	108.4	42	150	110	34
1-1/2"	32	48.5	48	43	48.7	77	116.5	50	181	155	57
2"	38	56.5	60	53	61.1	85	128.5	50	181	220	80

BT-V3WM TYPE

SIZE: 1/4"~2"

SCREWED END
BUTT WELD END
SOCKET WELD END



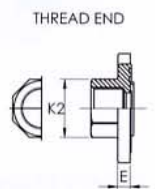
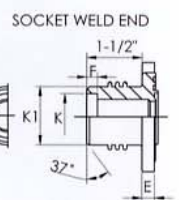
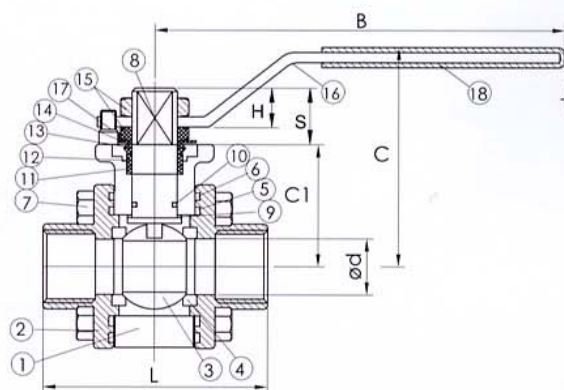
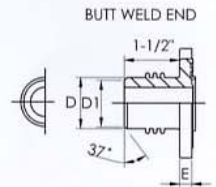
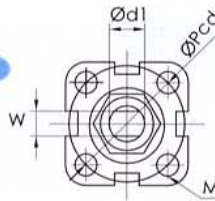
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228
- *Blow-out proof stem
- *Investment casting body and cap
- *1/4~1": 3000 PSI (W.O.G.) / PN200
1-1/4~2": 2000 PSI (W.O.G.) / PN130
- *Encapsulated body
- *Mounting pad for ISO 5211
- *Heat diffusion: Socket & Butt weld
- *Fire-safe design
- *OPTION:

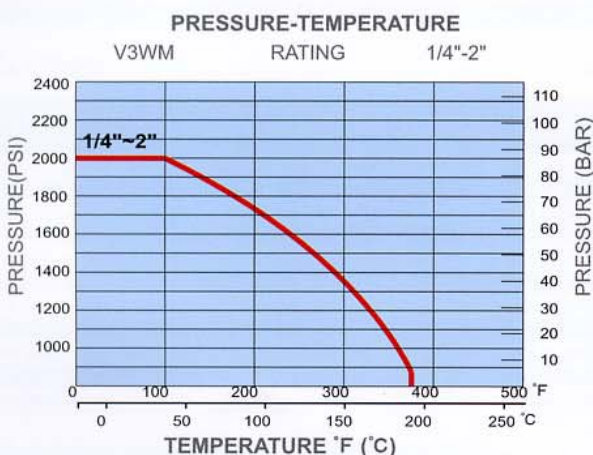
Locking device

Reduced port

API 607 fire safe approved

Material Alloy-20

ITEM	PARTS	QTY	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	PEEK	PEEK	PEEK
5	JOINT GASKET	2	TFM	TFM	TFM
6	JOINT GASKET	2	GRAPHITE	GRAPHITE	GRAPHITE
7	BOLT	8	AISI 316	AISI 316	AISI 316
8	STEM	1	ASTM 17-4PH	AISI 304	AISI 304
9	THRUST WASHER	1	GRAPHITE	GRAPHITE	GRAPHITE
10	O-RING	1	VITON	VITON	VITON
11	STEM PACKING	2	TFM	TFM	TFM
12	HIGH WASHER	1	AISI 304	AISI 304	AISI 304
13	BELLEVILLE 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	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	H	S	ØPcd	Ød1	W	M	D	D1	K	K1	K2	F	E	B	C	C1	L		
																		TH	BW	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	118	178	220	220

BT-V3WMH TYPE

SIZE: 1/4"~4"

SCREWED END
BUTT WELD END
SOCKET WELD END



DIRECT MOUNTING PAD

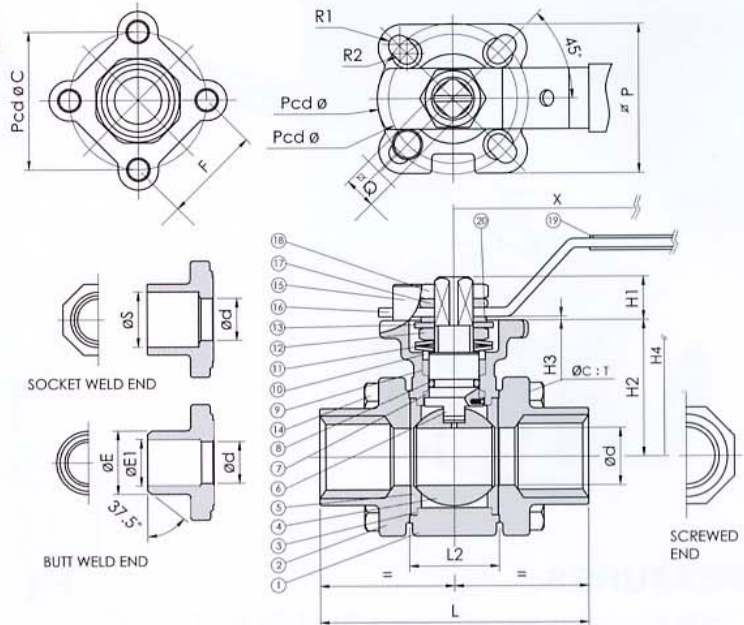
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228
- *Blow-out proof stem
- *Investment casting body and cap
- *1/4~1": 3000 PSI (W.O.G.) / PN200
1-1/4~2": 2000 PSI (W.O.G.) / PN130
- *Encapsulated body
- *Direct mounting pad for ISO 5211
- *OPTION:

Locking device

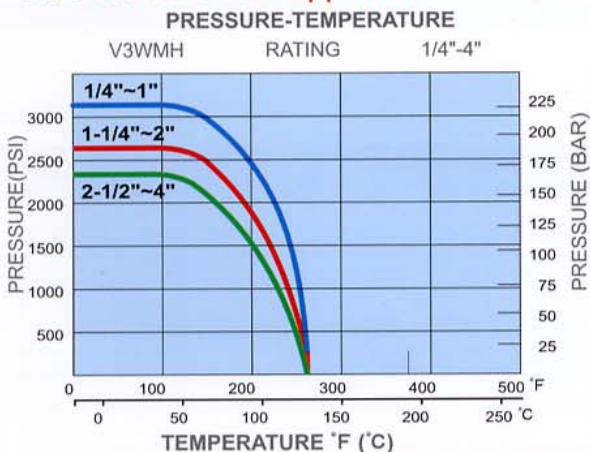
Reduced port

Without handle

DIN standard M3 length

API 607 Fire-safe approved

ITEM	PARTS	QTY	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	PTFE	PTFE	PTFE
4	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8M	ASTM-A351-CF8M
5	BALL SEAT	2	POM	POM	POM
6	STEM	1	AISI 316	AISI 316	AISI 316
7	THRUST WASHER	1	25% CARBON	25% CARBON	25% CARBON
8	O-RING	1	VITON	VITON	VITON
9	STEM PACKING	2	PTFE	PTFE	PTFE
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	BOLT	8	AISI 304	AISI 304	AISI 304
15	STOPPER	1	AISI 304	AISI 304	AISI 304
16	HANDLE	1	AISI 304	AISI 304	AISI 304
17	SPRING WASHER	1	AISI 304	AISI 304	AISI 304
18	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
19	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
20	SQUARE WASHER	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	TH	SW	BW	L1	H1	H2	H3	H4	ISO-5211										TORQUE Kgf-cm				
											PCD Ø	z	Q	R1	R2	ØE	ØE1	ØS	z	P		ØC	T	PCD ØC	F
1/4"	11	65	65	70	22.7	10	34				58	F03/ø36	9.0	ø6.0	...	18	12	14.1	37.5	6.5	M6	40	28.2	112	68
3/8"	12.7	65	65	70	22.7	10	34				58	F03/ø36	9.0	ø6.0	...	18	14	17.6	37.5	6.5	M6	40	28.2	112	68
1/2"	16	75	75	75	24	12	38				62	F03/ø36	9.0	R3	R3	22	17.1	21.7	41.5	6.5	M6	44	31.1	112	68
3/4"	20	80	80	80	28	12	43				66	F04/ø42	11	R3	R3	27.5	22.5	27.1	41.5	8.4	M8	53.4	37.8	125	105
1"	25	90	90	100	34	12	50				75	F04/ø42	11	R3	R3.5	33.5	28	33.8	50.4	8.4	M8	65	46	138	196
1-1/4"	32	110	110	110	44	12	55				80	F04/ø42	11	R3	R3.5	44	33.5	44	50.4	10.6	M10	77	54.4	138	266
1-1/2"	38	120	120	125	53	16	65				95	F05/ø50	14	R3.5	R4.5	50	43	50	66.5	10.6	M10	93	65.8	170	363
2"	50	140	140	150	65	16	75				104	F05/ø50	14	R3.5	R4.5	61.5	53	61.5	66.5	10.6	M10	122	86.3	170	500
2-1/2"	65	185	185	185	74.6	36	103				153	F07/ø70	17	R5.5	R4.5	76	69	76.9	90	10.6	M12	140	121.3	325	700
3"	80	205	205	205	87	36	113				163	F07/ø70	17	R5.5	R4.5	92	82	89.8	90	10.6	M12	160	139	325	900
4"	100	240	240	240	112.5	36	150				185	F10/ø102	22	R5.5	R6.5	115	106	115.4	113	16.6	5/8"	210	181.9	350	1200

BT-V3SAN_{TYPE}

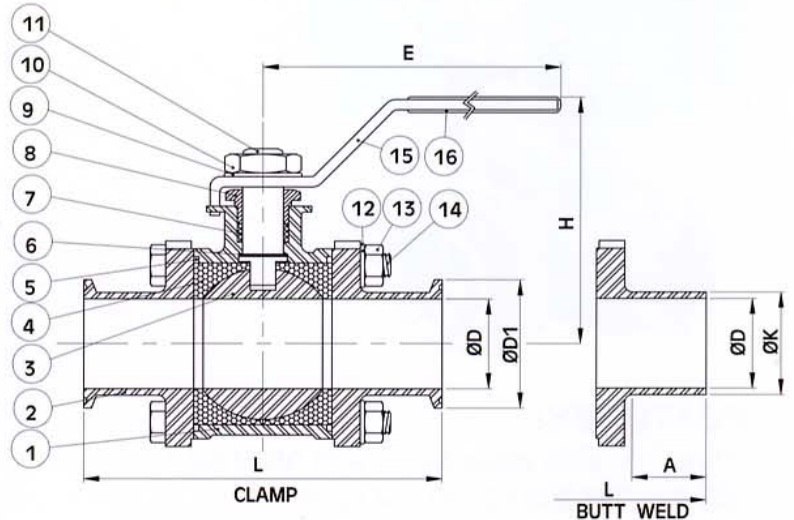
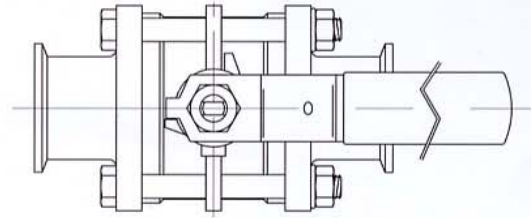
SIZE: 1/2"~4"

CLAMP END
WELD END

SANITARY USE

STAINLESS STEEL AISI-316

(EN10213 1.4408) (ASTM-A351-CF8M)

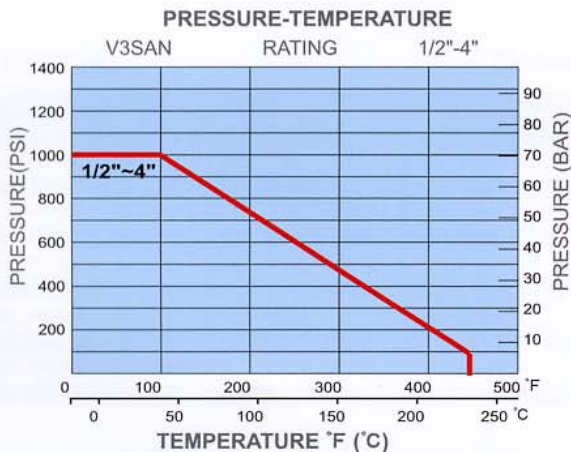


FEATURES:

- *Blow-out proof stem
- *Investment casting body and cap
- *1000 PSI (W.O.G.) / PN63
- *Lug body
- *Clamp end, Weld end : 3A standard
- *OPTION:

- Locking device
- Cavity filled seats
- Mounting pad for ISO 5211
- Direct mounting pad for ISO 5211
- Polished surface (Different mould)

ITEM	PARTS	QTY	MATERIALS
1	BODY	1	AISI 316
2	CAP	2	AISI 316
3	BALL	1	AISI 316
4	BALL SEAT	2	PTFE(RTFE)
5	JOINT GASKET	2	PTFE
6	THRUST WASHER	1	PTFE
7	STEM PACKING	1	PTFE
8	GLAND NUT	1	AISI 304
9	SPRING WASHER	1	AISI 304
10	HANDLE NUT	1	AISI 304
11	STEM	1	AISI 316
12	BOLT WASHER	4	1/2~2": 4 2-1/3": 8 4": 12
13	NUT	4	AISI 304
14	BOLT	4	AISI 304
15	HANDLE	1	AISI 304
16	HANDLE SLEEVE	1	PLASTIC



DIMENSIONS

UNIT:mm

NOMINAL SIZE	ØD	ØD1	ØK	A	L	H	E	TORQUE kgf-cm
1/2"	9.5	25.4	12.7	18	89	61	106	46.1
3/4"	15.9	25.4	19.1	21	101	64	106	73.8
1"	22.2	50.4	25.4	25	114	68	130	149.8
1-1/2"	35	50.4	38.2	28	140	95	193	224.7
2"	47.6	63.6	50.8	25	156	100	193	288.1
2-1/2"	60.2	77.5	63.4	35	197	140	263	461.0
3"	73	90.8	76.2	43	229	155	263	691.5
4"	97.4	118.5	101.6	37	241	180	285	1383.1

BT-V21 TYPE

SIZE: 1/4"~3"
SCREWED END

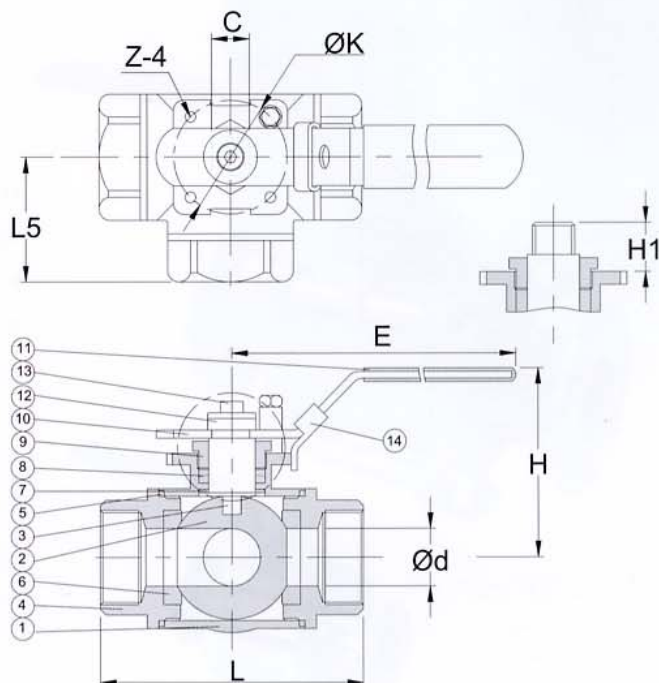
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

*1000 PSI (W.O.G.) / PN63

*Investment casting body and cap

*L port, T port

*OPTION:

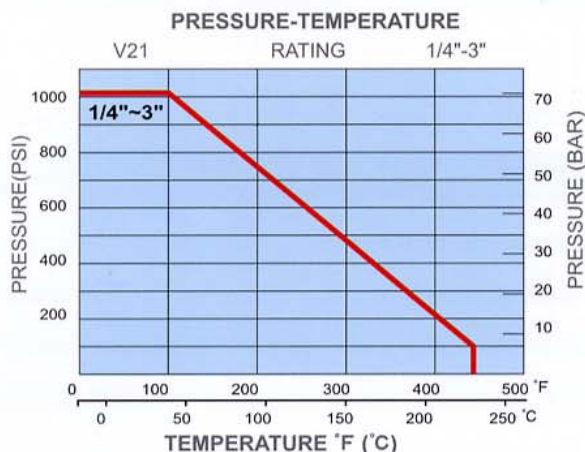
Locking device

Anti-static device

Without mounting pad

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

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	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
14	LOCKING DEVICE	1	AISI 304	AISI 304	AISI 304



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

BT-V21MH TYPE

SIZE: 1/4"~2"
SCREWED END



DIRECT MOUNTING PAD

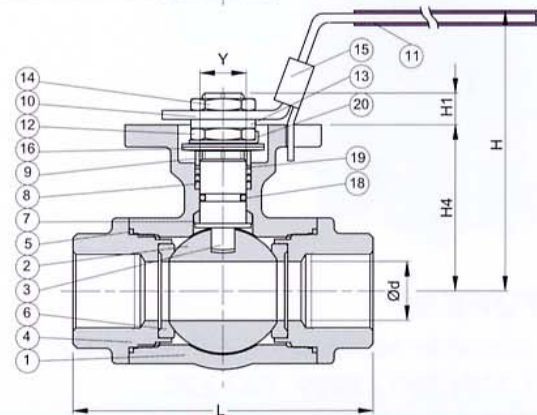
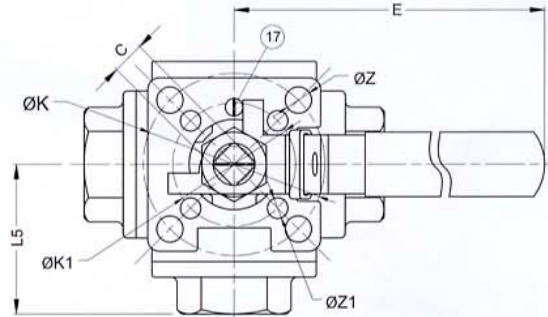
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Blow-out proof stem

*1000 PSI (W.O.G.) / PN63

*Investment casting body and cap

*Anti-static device

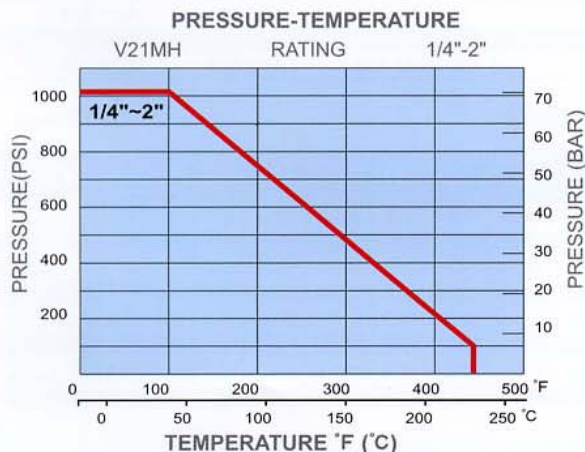
*L port, T port

*OPTION:

- Locking device
- Full port

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

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	CAP	3	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
5	BODY SEAL	1	RTFE	RTFE	RTFE
6	BALL SEAT	3	RTFE	RTFE	RTFE
7	THRUST WASHER	1	RTFE	RTFE	RTFE
8	STEM PACKING	1	RTFE	RTFE	RTFE
9	GLAND BUSH	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE WASHER	1	AISI 304	AISI 304	AISI 304
14	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
15	LOCKING DEVICE	1	AISI 304	AISI 304	AISI 304
16	BELLEVEILLE WASHER	2	AISI 304-CSP	AISI 304-CSP	AISI 304-CSP
17	STOP WASHER	1	AISI 304	AISI 304	AISI 304
18	O-RING	1	VITON	VITON	VITON
19	PACKING FOLLOWER	1	PTFE+25%GF	PTFE+25%GF	PTFE+25%GF
20	STOP PIN	1	AISI 304	AISI 304	AISI 304



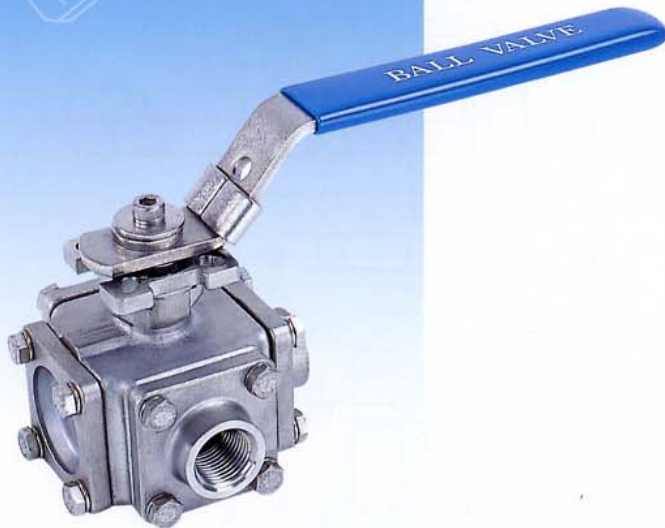
DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	L5	E	H	H1	H4	C	Y	ØK	ØK1	ØZ	ØZ1
1/4"	11.0	75.7	37.3	112.0	77.5	9.0	38.2	9.0	12.0	42.0	F-04	-	6.0
3/8"	11.0	75.7	37.3	112.0	77.5	9.0	38.2	9.0	12.0	42.0	F-04	-	6.0
1/2"	12.7	75.7	37.3	112.0	77.5	9.0	38.2	9.0	12.0	42.0	F-04	-	6.0
3/4"	16.0	86.6	44.7	112.0	82	9.0	45.2	9.0	12.0	42.0	F-04	-	6.0
1"	20.0	102.4	51.4	136.5	93.7	11.0	56.5	11.0	15.8	50.0	F-05	-	7.1
1-1/4"	25.0	118.2	57.7	188.0	101.1	11.0	61.9	11.0	15.8	50.0	F-05	-	7.1
1-1/2"	32.0	125.8	62.7	197.5	120.3	14.3	78.3	14.0	20.8	70.0	F-07	50.0	9.2
2"	38.1	149	74.6	197.5	129.9	14.0	87.4	14.0	20.8	70.0	F-07	50.0	9.2

BT-V4W TYPE

SIZE: 1/2"~3"
SCREWED END



DIRECT MOUNTING PAD

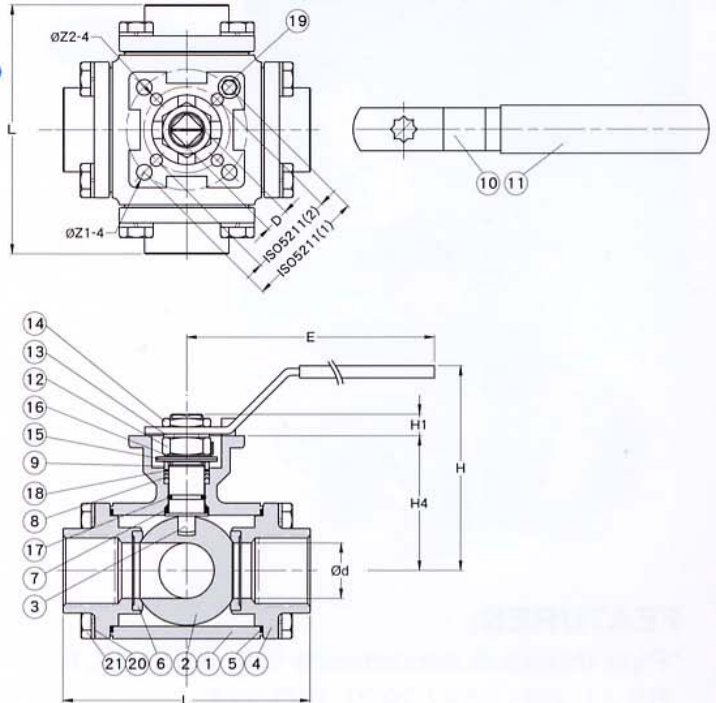
STAINLESS STEEL

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 ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

*Anti-static device

*Blow-out proof stem

*Direct mounting pad for ISO 5211

*1000 PSI (W.O.G.) / PN63

*Investment casting body and cap

*L port, T port, X port

*OPTION:

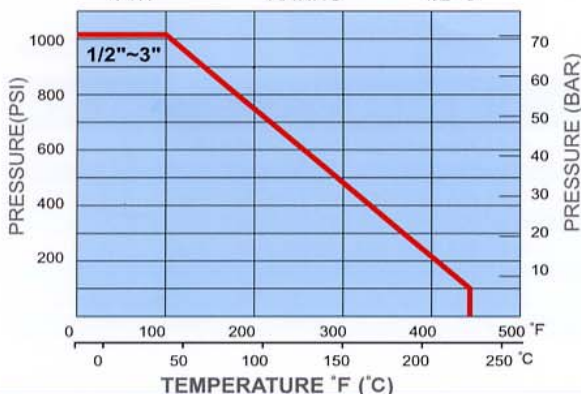
Locking device

3-Way ball valve

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

PRESSURE-TEMPERATURE

V4W RATING 1/2"-3"



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	4	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
5	BODY SEAL	4	PTFE	PTFE	PTFE
6	BALL SEAT	4	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	1	PTFE	PTFE	PTFE
9	GLAND UNT	1	AISI 304	AISI 304	AISI 304
10	HANDLE	1	AISI 304	AISI 304	AISI 304
11	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
12	STEM NUT	1	AISI 304	AISI 304	AISI 304
13	HANDLE WASHER	1	AISI 304	AISI 304	AISI 304
14	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
15	BELLEVILLE WASHER	2	AISI 410	AISI 410	AISI 410
16	STOP WASHER	1	AISI 304	AISI 304	AISI 304
17	O-RING	1	VITON	VITON	VITON
18	PACKING FOLLOWER	1	PTFE+25%GF	PTFE+25%GF	PTFE+25%GF
19	STOPPER	1	AISI 304	AISI 304	AISI 304
20	BOLT WASHER	16	AISI 304	AISI 304	AISI 304
21	BOLT	16	AISI 304	AISI 304	AISI 304

DIMENSIONS

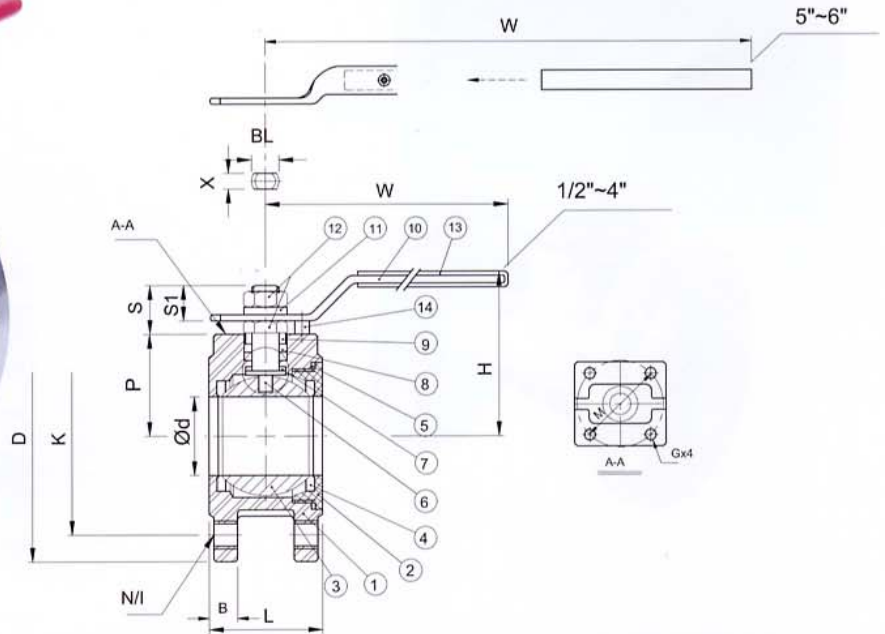
UNIT:mm

NOMINAL SIZE	Ød	L	E	H1	H	H4	D	ØZ1	ØZ2	ISO5211
1/2"	16.0	96.0	186.5	9.0	89.0	47.8	9.0	6.0	-	42 F04
3/4"	20.0	107.0	218.0	11.0	89.0	58.2	9.0	7.0	-	50 F05
1"	25.0	126.0	218.0	11.5	102.0	64.0	9.0	7.0	-	50 F05
1-1/4"	32.0	133.0	235.0	15.2	118.5	79.0	14.0	9.0	7.0	50 F05 F70
1-1/2"	38.0	151.0	235.0	14.3	127.0	88.5	14.0	9.0	7.0	50 F05 F07
2"	50.0	166.0	252.0	17.8	139.0	105.8	17.0	11.0	9.0	70 F07 F10
2-1/2"	65.0	175.0	252.0	17.5	165.7	117.3	17.0	11.0	9.0	70 F07 F10
3"	80.0	207.2	252.0	17.5	170.0	128.0	17.0	11.0	9.0	70 F07 F10

BT-F11
 PN16
 PN40
 TYPE
 SIZE: 1/2"~6"
 FLANGED END



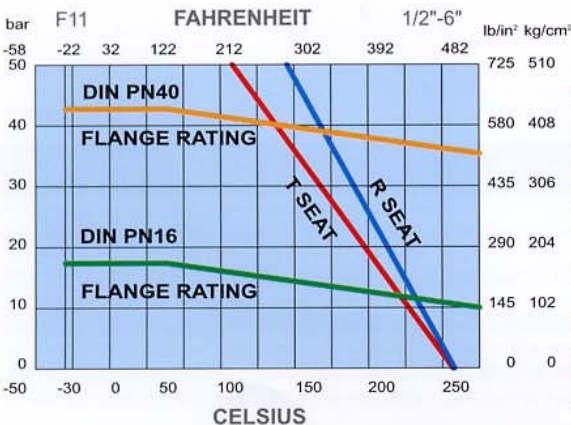
WAFFER TYPE
STAINLESS STEEL
 AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)
 AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)
CARBON STEEL
 S-20C (EN10213 1.0619) (ASTM-A216-WCB)



FEATURES:

- *Flange:PN16 / PN40
- *Mounting pad for ISO 5211
- *Investment casting body and flange
- *Anti-static device, fire safe design
- *Blow-out proof stem, lever operated
- *Solid ball
- *OPTION:
 ANSI Class 150 LBS (1/2"-2")
 Direct mounting pad ISO 5211(Different mould)

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	INSERT	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	HIGH WASHER	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	2	AISI 304	AISI 304	AISI 304
13	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
14	STOPPER PIN	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	PN16				PN40				P	S	S1	X	BL	ISO 5211 G	H	W	Cv	TORQUE	
		D	K	N/I	B	D	K	N/I	B											
15	15	40	95	65	4-M12x1.75	14	95	65	4-M12x1.75	16	34.5	17	10.5	6.5	10	F03	63	125	10	58
20	20	44	105	75	4-M12x1.75	14	105	75	4-M12x1.75	18	38.5	17.0	10.5	6.5	10	F03	68	125	25	80
25	25	53	115	85	4-M12x1.75	14.5	115	85	4-M12x1.75	18	44.6	24.0	16.5	8.7	14	F04	81	160	35	108
32	32	58.4	135	100	4-M16x2.0	15	135	100	4-M16x2.0	18	51	24.0	16.5	8.7	14	F04	87	160	46	150
40	40	62	145	110	4-M16x2.0	16.5	145	110	4-M16x2.0	18	55	29.0	21	10	16	F05	98	200	80	200
50	50	72	155	125	4-M16x2.0	17.5	155	125	4-M16x2.0	20	63	29	21	10	16	F05	105	200	110	300
65	65	94	185	145	4-M16x2.0	18	185	145	4-M16x2.0	22	73.5	36	26	12	20	F07	121	250	310	515
80	76	118	200	160	8-M16x2.0	19.5	200	160	8-M16x2.0	24	94	36	26	12	20	F07	153	285	350	810
100	96	140	220	180	8-M16x2.0	19.5	235	190	8-M16x2.0	24	105.5	36	26	12	20	F07	164	338	720	1130
125	118	163	250	210	8-M16x2.0	21.5	-	-	-	-	117.5	57	40	17	27	F10	188	405	1200	1500
150	138	182	285	240	8-M20x2.5	22	-	-	-	-	130	57	40	17	27	F10	198	460	1580	1800

BT-F12 150LBS TYPE

SIZE: 1/2"~6"
FLANGED END



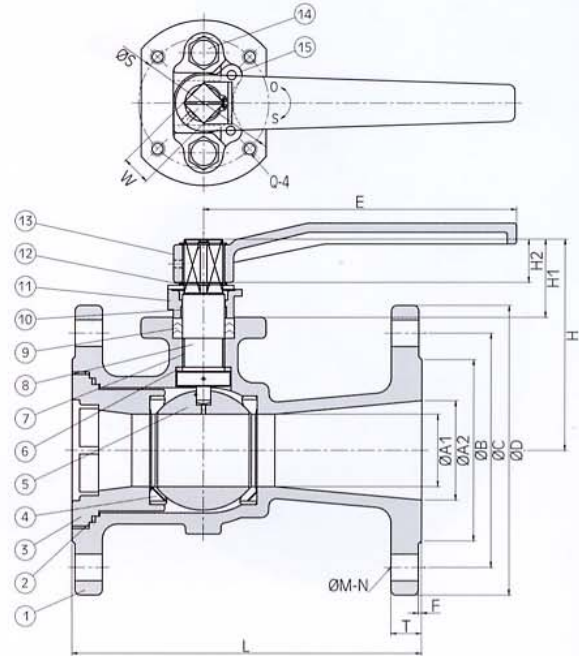
STAINLESS STEEL

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

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

CARBON STEEL

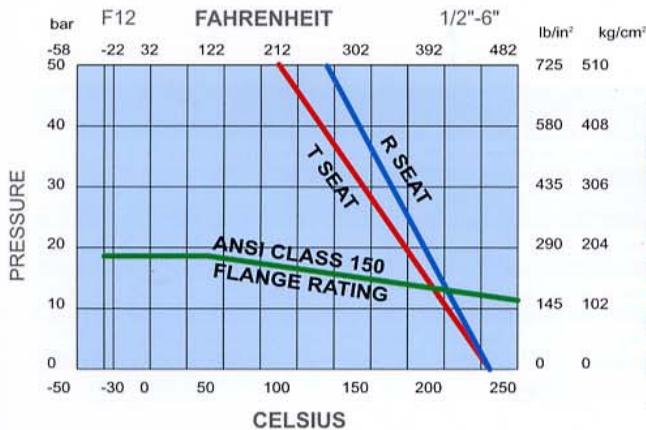
S-20C (EN10213 1.0619) (ASTM-A216-WCB)



FEATURES:

- *Flange:ANSI B16.5 class 150
- *Face to face: ANSI B16.10
- *Mounting pad for ISO 5211
- *Investment casting body and flange
- *Anti-static device, fire safe design
- *Blow-out proof stem, lever operated
- *Solid ball
- *OPTION:
 - Locking device
 - Fixed handle(Different mould)
 - ANSI 300 LBS (Different mould)

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
2	BODY SEAL	1	PTFE	PTFE	PTFE
3	INSERT	1	ASTM-A351-CF8M	ASTM-A351-CF8	ASTM-A216-WCB
4	BALL SEAT	2	15% R-PTFE	15% R-PTFE	15% R-PTFE
5	BALL	1	ASTM-A351-CF8M	ASTM-A351-CF8M	ASTM-A351-CF8M
6	THRUST WASHER	1	PTFE	PTFE	PTFE
7	STEM BUSHING	1	PTFE	PTFE	PTFE
8	STEM	1	AISI 316	AISI 316	AISI 316
9	STEM PACKING	1/2"-2-1/2": 3 3"-6": 4	PTFE	PTFE	PTFE
10	GLAND BEARING	1	PTFE	PTFE	PTFE
11	GLAND	1	ASTM-A351-CF8	ASTM-A351-CF8	ASTM-A351-CF8
12	SNAP RING	2	AISI 304	AISI 304	AISI 304
13	HANDLE	1	FCD45	FCD45	FCD45
14	BOLT	2	AISI 304	AISI 304	AISI 304
15	STOP PLATE	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

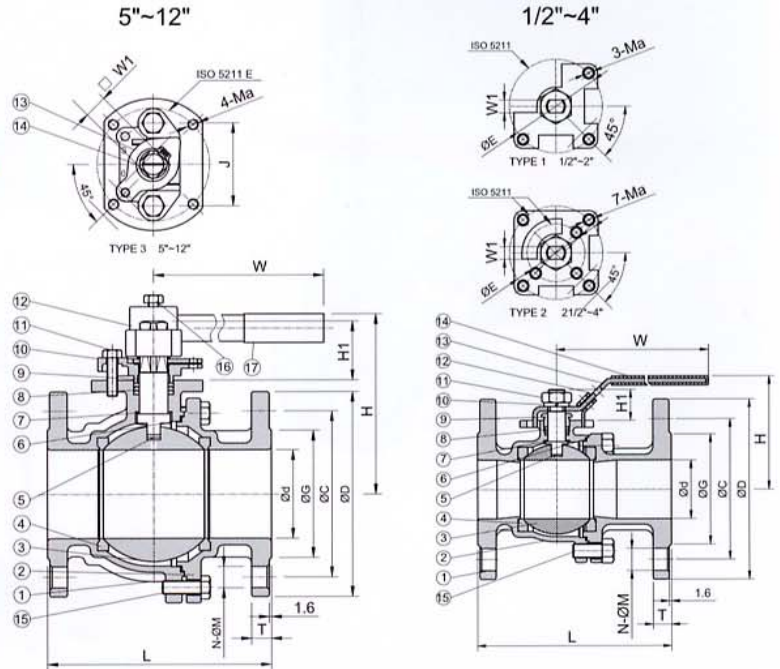
NOMINAL SIZE	ØA1	ØA2	ØB	ØC	ØD	E	F	H	H1	H2	L	W	ØS	T	Q	ØM-N
1/2"	12.5	15.0	35.1	60.5	88.9	130.0	1.6	45.0	17.5	8.5	108.0	9.0	36.0	11.2	1/4"-20	Ø15.7-4
3/4"	16.0	20.0	42.9	69.9	98.6	130.0	1.6	47.2	17.5	8.5	117.0	9.0	36.0	11.2	1/4"-20	Ø15.7-4
1"	20.0	25.0	50.8	72.2	108.0	130.8	1.6	80.5	22.5	12.5	127.0	11.0	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	152.4	190.5	328.5	1.6	169.4	58.4	31.5	203.0	22.0	102.0	19.1	5/16"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	5/16"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	5/16"13	Ø22.4-8

BT-F211 150LBS TYPE

SIZE: 1/2"~12"
FLANGED END



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)

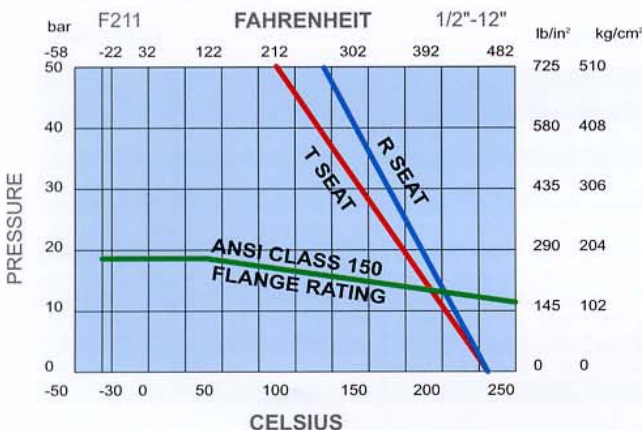


FEATURES:

- *Flange: ANSI B16.5 class 150
- *Face to face : ANSI B16.10
- *Anti-static device, fire safe design
- *Investment casting body
- *Blow-out proof stem, lever operated
- *Mounting pad for ISO 5211
- *5"~12" : Round handle
- *OPTION:
- Solid ball, Hollow ball, Welding ball
- Wrench handle
- Locking device

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	CF8M	CF8	WCB
2	CAP	1	CF8M	CF8	WCB
3	BALL	1	CF8M	CF8	CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	STEM	1	AISI 316	AISI 304	AISI 304
6	JOINT GASKET	1	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	PACKING	3	PTFE	PTFE	PTFE
9	STEM PACKING	1	PTFE	PTFE	PTFE
10	GLAND	1	CF8	CF8	CF8
11	GLAND BOLT	2	AISI 304	AISI 304	AISI 304
12	HANDLE	1	WCB	WCB	WCB
13	STOPPER	1	AISI 304	AISI 304	AISI 304
14	SNAP RING	1	AISI 304	AISI 304	AISI 304
15	BOLT	5"-6" 8"-10" 12"-16"	AISI 304	AISI 304	AISI 304
16	HANDLE BOLT	1	AISI 304	AISI 304	AISI 304
17	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	CF8M	CF8	WCB
2	CAP	1	CF8M	CF8	WCB
3	BALL	1	CF8M	CF8	CF8
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	STEM	1	AISI 316	AISI 304	AISI 304
6	JOINT GASKET	1	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	3	PTFE	PTFE	PTFE
9	GLAND NUT	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	BOLT	1/2"-2" 2-1/2"-3" 4"-8"	AISI 304	AISI 304	AISI 304

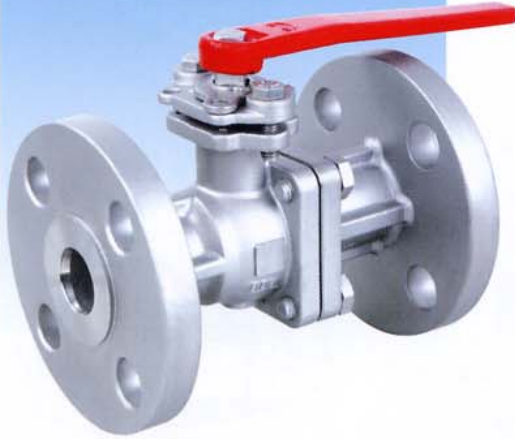


DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	ØD	ØC	ØG	T	N-ØM	L	H	H1	W	W1	J	ISO 5211	ØE	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	185	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"	125	254	216.0	186	23.9	8-Ø22	356	224	63.0	750	24	89	F12	125	M12
6"	150	279	241.5	216	25.4	8-Ø22	394	247	59.0	750	24	89	F12	125	M12
8"	200	343	298.5	270	28.6	8-Ø22	457	305	74.0	1000	32	100	F12	125	M12
10"	250	406	362.0	324	30.2	12-Ø25	533	327	98.0	1000	32	100	F14	140	M16
12"	300	483	432.0	381	31.8	12-Ø25	610	355	91.0	1000	32	100	F14	140	M16

BT-F211 300LBS
TYPE
SIZE: 1/2"~10"
FLANGED END



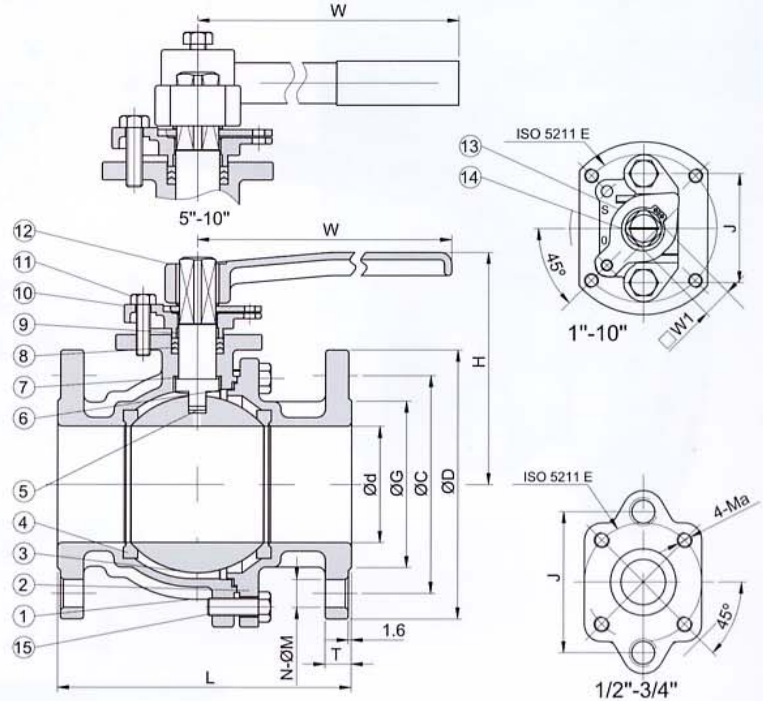
STAINLESS STEEL

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)

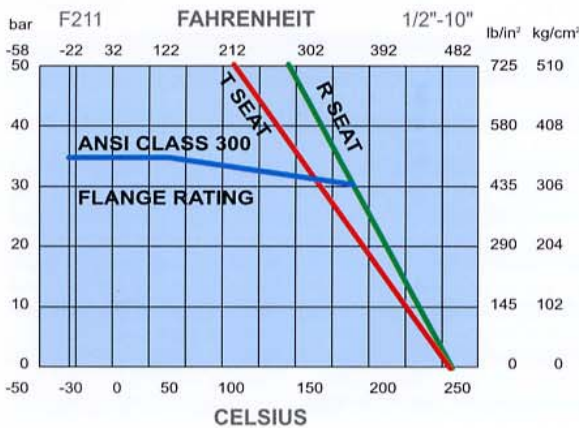


FEATURES:

- *Flange: ANSI B16.5 class 300
- *Face to face: ANSI B16.10
- *Anti-static device, fire safe design
- *Investment casting body and flange
- *Blow-out proof stem, lever operated
- *Solid ball
- *Mounting pad for ISO 5211
- *OPTION:

- Locking device
- Fixed handle

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	STEM	1	AISI 316	AISI 304	AISI 304
6	JOINT GASKET	1	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	PACKING	3	PTFE	PTFE	PTFE
9	STEM PACKING	1	PTFE	PTFE	PTFE
10	GLAND	1	ASTM-A351-CF8	ASTM-A351-CF8	ASTM-A351-CF8
11	GLAND BOLT	2	AISI 304	AISI 304	B7
12	HANDLE	1	ASTM-A216-WCB	ASTM-A216-WCB	ASTM-A216-WCB
13	STOPPER	1	AISI 304	AISI 304	AISI 304
14	SNAP RING	1	AISI 304	AISI 304	AISI 304
15	BOLT	1/2"-2":4 2 1/2":6 3"-6":8 8":12 10":16	AISI 304	AISI 304	B7



DIMENSIONS

UNIT:mm

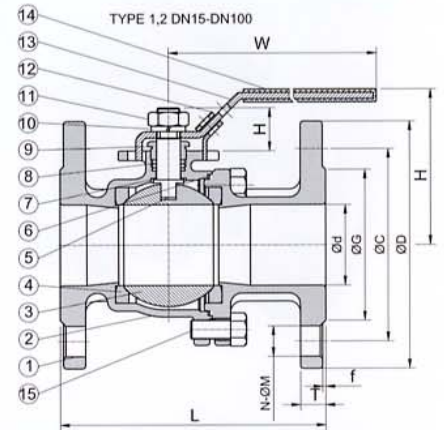
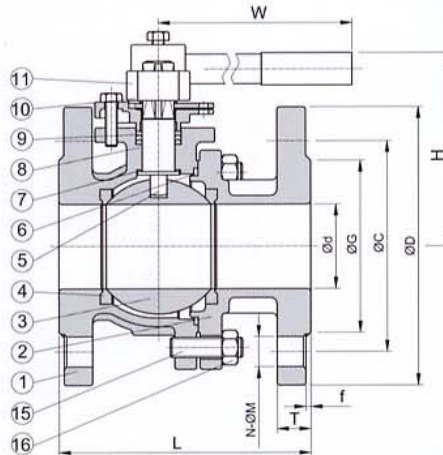
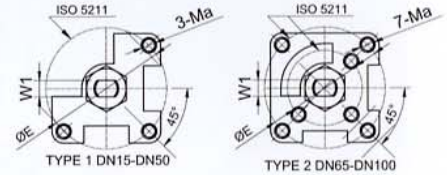
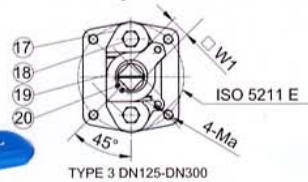
NOMINAL SIZE	Ød	ØD	ØC	ØG	T	N-ØM	L	H	W	W1	J	ISO 5211	E	Ma
1/2"	15	95	66.5	35	14.3	4-Ø16	140	72	160	12	50	F04	42	M5
3/4"	20	117	82.5	43	15.9	4-Ø19	152	74	160	12	50	F04	42	M5
1"	25	124	89.0	51	17.5	4-Ø19	165	82	160	12	50	F04	42	M5
1-1/2"	40	156	114.5	73	20.7	4-Ø22	190	104	186	17	62	F07	70	M8
2"	50	165	127.0	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"	95	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

BT-F211 PN16 TYPE

SIZE: 1/2"~12"
FLANGED END



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)

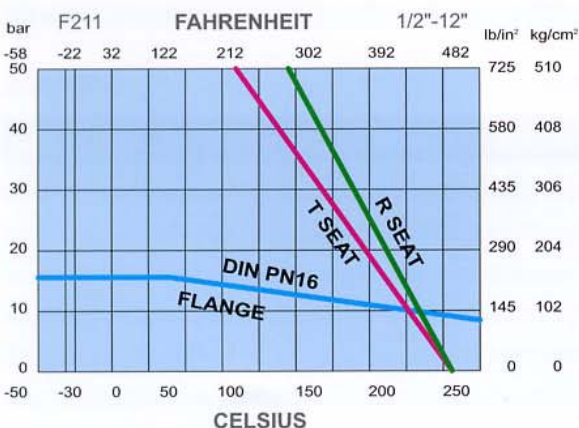


FEATURES:

- *Flange: DIN 2633 PN16
- *Face to face: DIN 3202 F1 / F4 / F5
- *Anti-static device, fire safe design
- *Investment casting body and flange
- *Blow-out proof stem, lever operated
- *Mounting pad for ISO 5211
- *5"~12" : Round handle
- *OPTION:

- Solid ball, Hollow ball, Welding ball
- Fixed handle
- Locking device

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	1.4408	1.4308	1.4619
2	CAP	1	1.4408	1.4308	1.4619
3	BALL	1	1.4408	1.4308	1.4308
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	STEM	1	AISI 316	AISI 304	AISI 304
6	JOINT GASKET	1	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	3	PTFE	PTFE	PTFE
9	GLAND NUT	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	BOLT	1/2"-2":4 2-1/2"-3":6 4"-6":8 8":12 10"-12":16	AISI 304	AISI 304	AISI 304
16	NUT		AISI 304	AISI 304	AISI 304
17	GLAND	1	1.4308	1.4308	1.4308
18	GLAND BOLT	2	AISI 304	AISI 304	AISI 304
19	STOPPER	1	AISI 304	AISI 304	AISI 304
20	SNAP RING	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	ØD	ØC	ØG	f	T	N-OM	L	H	W	W1	ISO 5211	E	Ma
15	15	95	65	45	2	16	4-Ø14	115	76	153	8.0	F04	42	M5
20	20	105	75	58	2	18	4-Ø14	120	78	153	8	F04	42	M5
25	25	115	85	68	2	18	4-Ø14	125	92	188	9.5	F05	50	M6
32	32	140	100	78	2	18	4-Ø18	130	95	188	9.5	F05	50	M6
40	40	150	110	88	3	18	4-Ø18	140	126	255	12	F07	70	M8
50	50	165	125	102	3	20	4-Ø18	150	132	255	12	F07	70	M8
65	65	185	145	122	3	18	4-Ø18	170	166	288	16	F10	102	M10
80	80	200	160	138	3	20	8-Ø18	180	176	288	16	F10	102	M10
100	100	220	180	158	3	20	8-Ø18	190	190	388	16	F10	102	M10
125	125	250	210	188	3	22	8-Ø18	325	224	750	24	F12	125	M12
150	150	285	240	212	3	22	8-Ø18	350	247	750	24	F12	125	M12
200	200	340	295	268	3	24	12-Ø22	400	305	1000	32	F12	125	M12
250	250	405	355	320	3	26	12-Ø26	450	327	1000	32	F14	140	M16
300	300	460	410	378	4	28	16-Ø26	500	355	1000	32	F14	140	M16

BT-F211 PN40 TYPE

SIZE: 1/2"~8"
FLANGED END



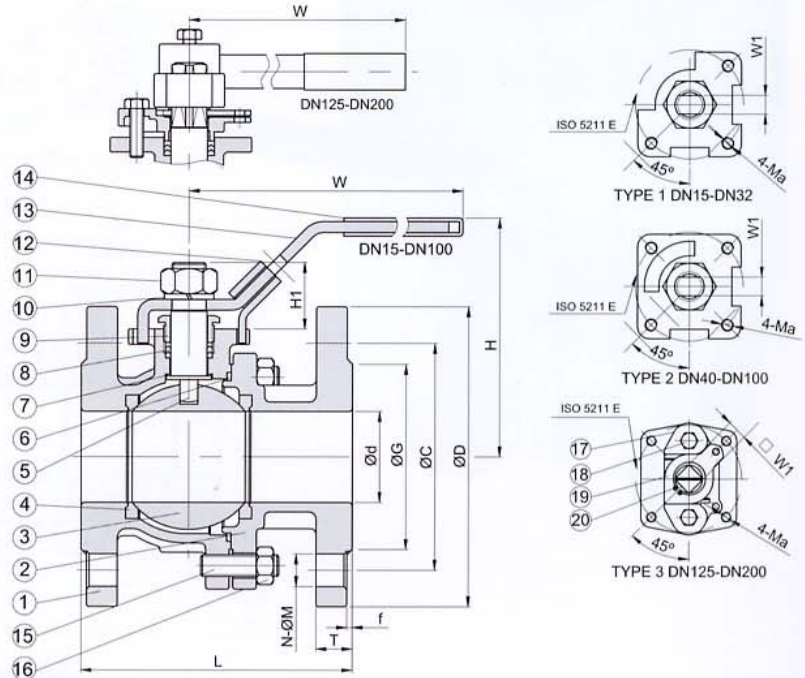
STAINLESS STEEL

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)



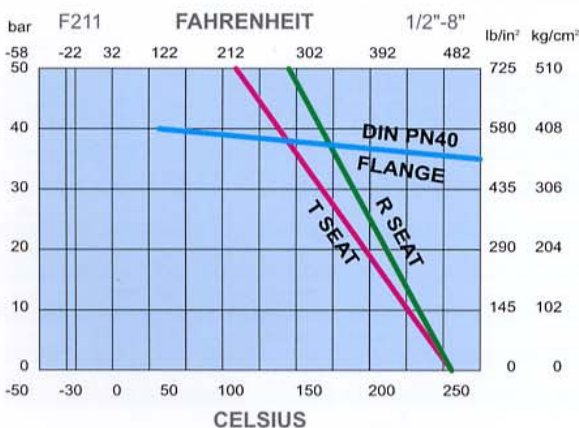
FEATURES:

- *Flange: DIN 2635 PN40
- *Face to face: DIN 3202 F4 / F5
- *Anti-static device, fire safe design
- *Investment casting body and flange
- *Blow-out proof stem, lever operated
- *Mounting pad for ISO 5211
- *DN125 - DN200 : Round handle

*OPTION:

- Fixed handle
- Locking device

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	1.4408	1.4308	1.0619
2	CAP	1	1.4408	1.4308	1.0619
3	BALL	1	1.4408	1.4308	1.4308
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	STEM	1	AISI 316	AISI 304	AISI 304
6	JOINT GASKET	1	PTFE	PTFE	PTFE
7	THRUST WASHER	1	PTFE	PTFE	PTFE
8	STEM PACKING	3	PTFE	PTFE	PTFE
9	GLAND NUT	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	BOLT	1/2"-2":4 2-1/2"-3":6 4"-6":8 8":12	AISI 304	AISI 304	B7
16	NUT		AISI 304	AISI 304	2H
17	GLAND	1	1.4308	1.4308	1.4308
18	GLAND BOLT	2	AISI 304	AISI 304	B7
19	STOPPER	1	AISI 304	AISI 304	AISI 304
20	SNAP RING	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	ØD	ØC	ØG	f	T	N-ØM	L	H	H1	W	W1	ISO 5211	E	Ma
15	15	95	65	45	2	16	4-Ø14	115	76	20	153	8.0	F04	42	M5
20	20	105	75	58	2	18	4-Ø14	120	78	20	153	8	F04	42	M5
25	25	115	85	68	2	18	4-Ø14	125	92	23.5	188	9.5	F05	50	M6
32	32	140	100	78	2	18	4-Ø18	130	95	23.5	188	9.5	F05	50	M6
40	40	150	110	88	3	18	4-Ø18	140	126	37.5	255	12	F07	70	M8
50	50	165	125	102	3	20	4-Ø18	150	132	37.5	255	12	F07	70	M8
65	65	185	145	122	3	22	4-Ø18	170	166	47	288	16	F10	102	M10
80	80	200	160	138	3	24	8-Ø18	180	176	47	288	16	F10	102	M10
100	100	235	190	162	3	24	8-Ø22	190	190	47	388	16	F10	102	M10
125	125	270	220	188	3	26	8-Ø26	325	224	65	750	24	F12	125	M12
150	150	300	250	218	3	28	8-Ø26	350	247	61	750	24	F12	125	M12
200	200	375	320	285	3	34	12-Ø30	400	305	76	1000	32	F12	125	M12

PN16
PN40
BT-V2FMH TYPE
SIZE: 1/2"~6"
FLANGED END



DIRECT MOUNTING PAD

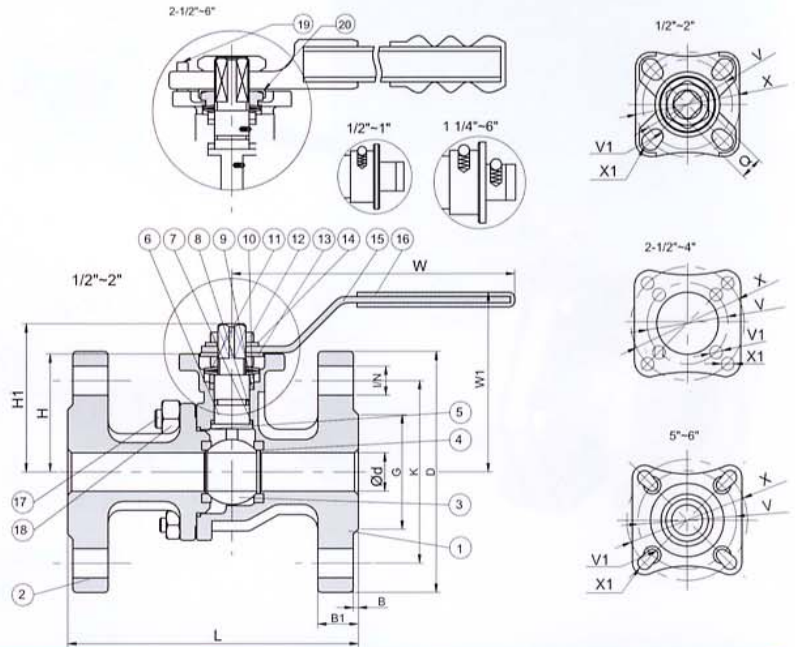
STAINLESS STEEL

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:

*Flange: DIN 2633 PN16 / DIN 2635 PN40

*Face to face: DIN 3202 F4

*Direct mounting pad for ISO 5211

*Anti-static device, fire safe design

*Investment casting body and flange

*Blow-out proof stem, lever operated

*Solid ball

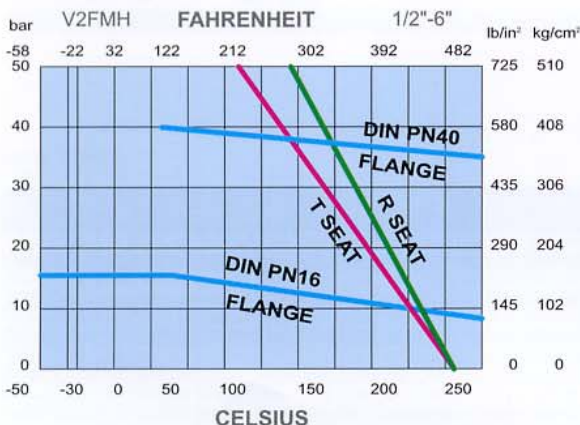
*OPTION:

API 607 fire safe approved

Locking device(Different mould)

Hollow ball(Different mould)

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+15%Graphite	PTFE+15%Graphite	PTFE+15%Graphite
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	STUD BOLT	1/2"-2":4 2-1/2"-3":6 4"-6":8	AISI 304	AISI 304	AISI 304
18	NUT	1/2"-2":4 2-1/2"-3":6 4"-6":8	AISI 304	AISI 304	AISI 304
19	STOPPER	1	AISI 304	AISI 304	AISI 304
20	LOCK WASHER	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

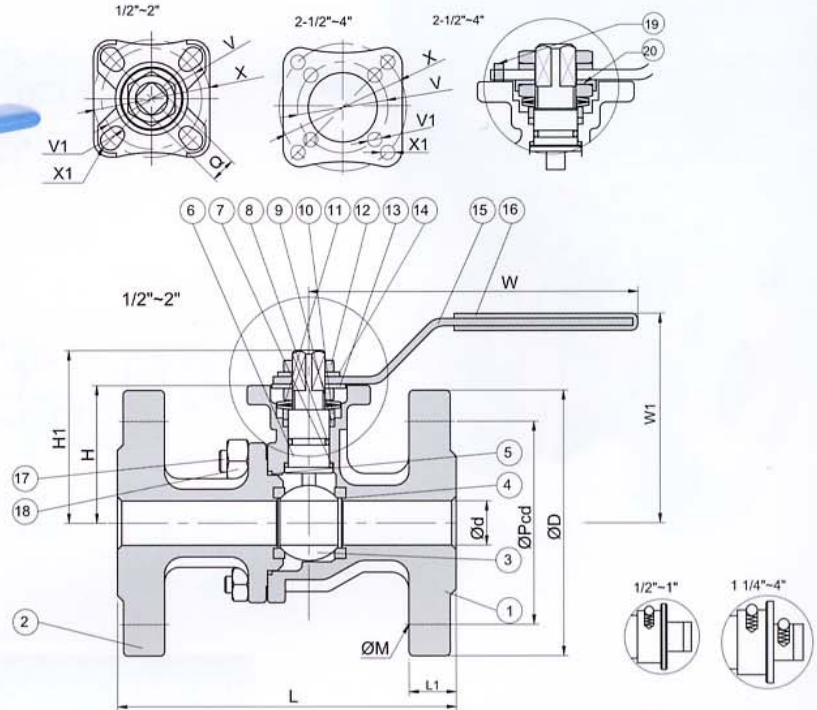
UNIT:mm

NOMINAL SIZE	Ød	PN16					PN40					L	H	H1	W	Q	V	V1	X	X1	W1	TORQUE Kgf-cm		
		G	K	D	B	B1	I/N	G	K	D	B												B1	I/N
1/2"	15	49	65	95	2	16	14	49	65	95	2	16	14	115	46.5	56	110	9.0	42	R3.0	-	-	89	4-5
3/4"	20	59	75	105	2	18	14	59	75	105	2	18	14	120	51.5	61	110	9.0	42	R3.0	50	R3.5	94	6-8
1"	25	69	85	115	2	18	14	69	85	115	2	18	14	125	57.5	67	136	11	42	R3.0	50	R3.5	95	8-10
1-1/4"	32	80.5	100	140	2	18	18	80.5	100	140	2	18	18	127.3	71.5	87	175	14	50	R3.5	70	R4.5	105.7	12-14
1-1/2"	40	89.5	110	150	3	18	18	89.5	110	150	3	18	18	140	76.5	92	203	14	50	R3.5	70	R4.5	110.7	18-20
2"	50	103.5	125	165	3	18	18	103.5	125	165	3	20	18	150	83.5	99	203	14	50	R3.5	70	R4.5	117.7	25-30
2-1/2"	65	123	145	185	3	18	18	123	145	185	3	22	18	170	118.5	137	277.5	17	70	9.0	102	11	155.5	32-36
3"	80	140	160	200	3	20	18	140	160	200	3	24	18	180	129.5	148	277.5	17	70	9.0	102	11	166.5	50-60
4"	100	160	180	220	3	20	18	160	180	235	3	24	22	190	145	163.5	377.5	17	70	9.0	102	11	182	85-95
5"	125	188	210	250	3	22	18	188	220	270	3	26	26	325	158.5	202.1	500	27	102	R6	125	R7	225	145-160
6"	150	212	240	285	3	22	22	212	250	300	3	26	26	350	175	221.3	600	27	102	R6	125	R7	240	170-185

150L
BT-V2FMH 300L
TYPE
SIZE: 1/2"~6"
FLANGED END



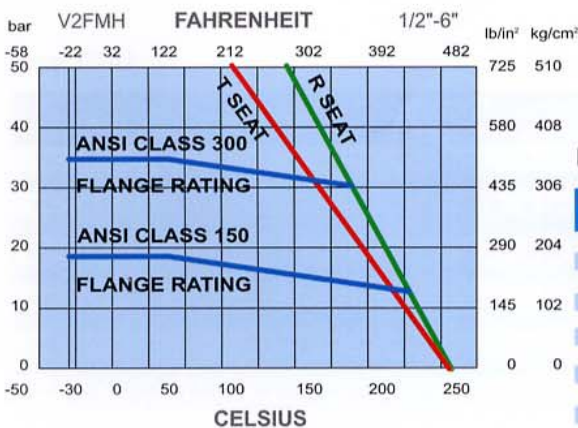
DIRECT MOUNTING PAD
STAINLESS STEEL
AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)
AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)
CARBON STEEL
S-20C (EN10213 1.0619) (ASTM-A216-WCB)



FEATURES:

- *Flange: ANSI B16.5 class 150
- *Face to face: ANSI B16.10
- *Anti-static device, fire safe design
- *Blow-out proof stem, lever operated
- *Solid ball
- *Direct mounting pad for ISO 5211
- *OPTION:
 Pressure ANSI class 300L
 Pressure JIS 10K & JIS 20K
 Locking Device(Different mould)
 Hollow ball(Different mould:150L)

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 304
7	THRUST WASHER	1	PTFE+15%Graphite	PTFE+15%Graphite	PTFE+15%Graphite
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	STUD BOLT	1/2"-2": 4 2-1/2"-3": 6 4": 8	AISI 304	AISI 304	AISI 304
18	NUT		AISI 304	AISI 304	AISI 304
19	STOPPER	1	AISI 304	AISI 304	AISI 304
20	LOCK WASHER	1	AISI 304	AISI 304	AISI 304

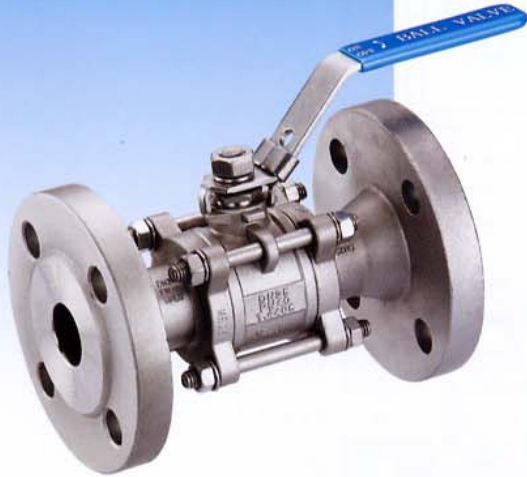


DIMENSIONS

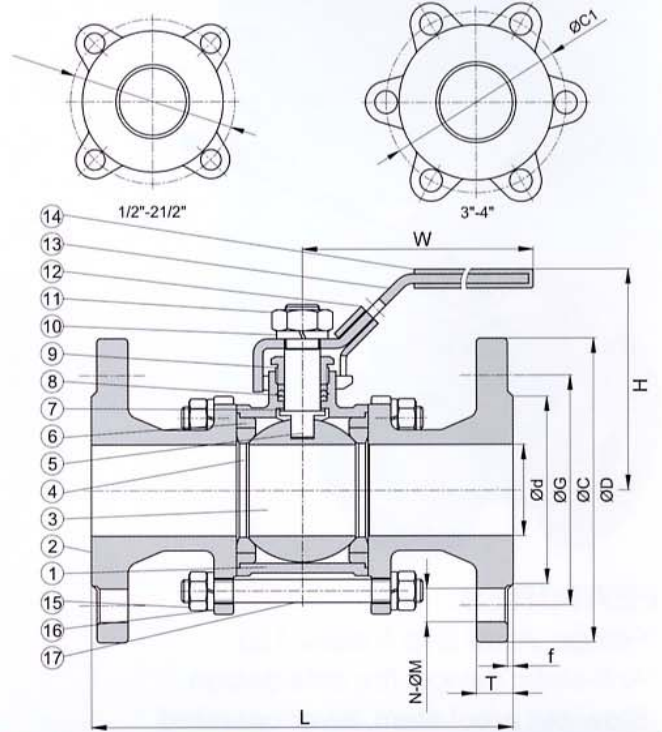
UNIT:mm

NOMINAL SIZE	Ød	ØD	ØPcd	L	L1	ØMxN	H	H1	W	Q	V	V1	X	X1	W1	TORQUE Nm					
1/2"	15	89	95	60.5	66.5	108	140	11.1	14.3	16x4	16x4	46.5	56	110	9.0	42	R3	-	-	89	4-5
3/4"	20	98	117	70	82.5	117	152	12.7	15.9	16x4	19x4	51.5	61	110	9.0	42	R3	50	R3.5	94	6-8
1"	25	108	124	79.5	89	127	165	14.3	17.5	16x4	19x4	57.5	67	136	11	42	R3	50	R3.5	95	8-10
1-1/2"	40	127	158	98.5	114.5	165	190	17.5	20.7	16x4	22x4	76.5	92	203	14	50	R3.5	70	R4.5	110.7	18-20
2"	50	152.4	165	120.5	127	178	216	19.1	22.3	19x4	19x8	83.5	99	203	14	50	R3.5	70	R4.5	117.7	25-30
2-1/2"	65	178	190	139.5	149	190	241	22.4	25.4	19x4	22x8	118.5	137	203	17	70	9.0	70	11	155.5	32-36
3"	80	190.5	210	152.5	168	203	283	23.9	28.6	19x4	22x8	129.5	148	277.5	17	70	9.0	102	11	166.5	50-60
4"	100	229	254	190.5	200	230	305	23.9	31.6	19x8	22x8	145	163.5	377.5	17	70	9.0	102	11	182	85-95
5"	125	250	280	210	235	356	381	23.9	35.1	22x8	22.4x8	158.5	202.1	500	27	102	R6	102	R7	225	145-160
6"	150	254	318	240	270	394	403	25.4	36.6	22x8	22.4x12	175	221.3	600	27	102	R6	102	R7	240	170-185

BT-F311
 PN16
 PN40
 TYPE
 SIZE: 1/2"~4"
 FLANGED END



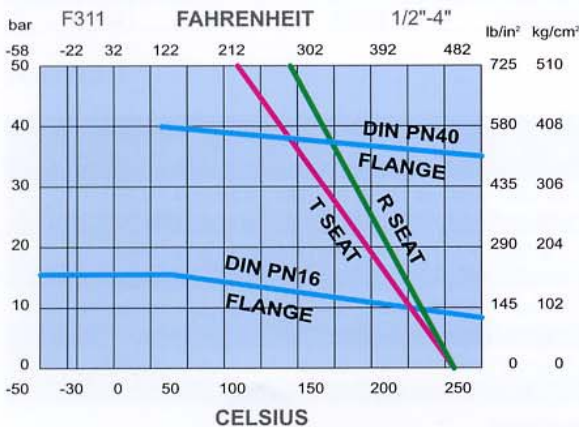
STAINLESS STEEL
 AISI-316 (EN10213 1.4408) (ASTM-A351-CF8M)
 AISI-304 (EN10213 1.4308) (ASTM-A351-CF8)
CARBON STEEL
 S-20C (EN10213 1.0619) (ASTM-A216-WCB)



FEATURES:

- *Face to face: DIN 3202-F1
- *Lug body
- *Blow-out proof stem
- *Investment casting body and flange
- *DN15~DN50: PN40
- DN65~DN100: PN16
- *OPTION:
- Locking Device
- Mounting pad for ISO 5211

ITEM	PARTS	QTY	MATERIALS		
1	BODY	1	1.4408	1.4308	1.0619
2	CAP	2	1.4408	1.4308	1.0619
3	BALL	1	1.4408	1.4308	1.4308
4	BALL SEAT	2	PTFE	PTFE	PTFE
5	STEM	1	AISI 316	AISI 316	AISI 316
6	JOINT GASKET	2	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	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	1/2"-2-1/2": 8	AISI 304	AISI 304	AISI 304
16	BOLT WASHER	3"-4": 12	AISI 304	AISI 304	AISI 304
17	JOINT BOLT	1/2"-2-1/2": 4 3"-4": 6	AISI 304	AISI 304	AISI 304



DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	ØD	ØC	ØG	f	T	N	ØM	C1	L	H	W
15	15	95	65	45	2	16	4	14	52.0	130	68	123
20	20	105	75	58	2	18	4	14	55.5	150	80	133
25	25	115	85	68	2	18	4	14	62.5	160	84	133
32	32	140	100	78	2	18	4	18	76.9	180	92	190
40	38	150	110	88	3	18	4	18	86.0	200	98	190
50	50	165	125	102	3	20	4	18	107	230	103	190
65	65	185	145	122	3	18	4	18	134	290	143	264
80	80	200	160	138	3	20	8	18	155	310	154	264
100	100	220	180	158	3	20	8	18	192	350	183	503

BT-FV21MH^{150L} TYPE

SIZE: 1/2"~6"

FLANGED END



DIRECT MOUNTING PAD

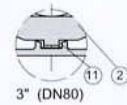
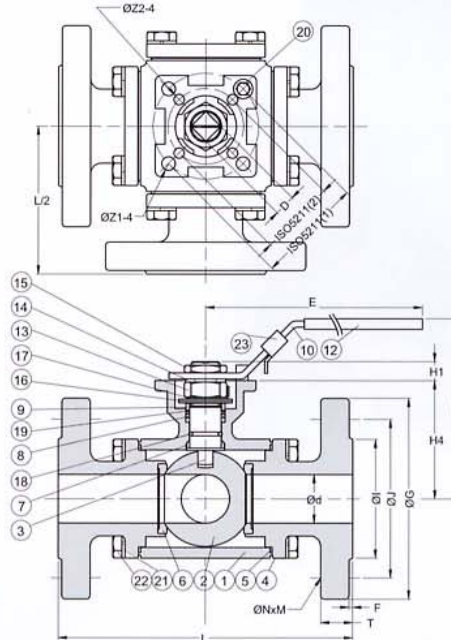
STAINLESS STEEL

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:

- *Flange: ANSI B16.5 class 150
- *Anti-static device, fire safe design
- *Blow-out proof stem, lever operated
- *Full port, solid ball
- *Investment casting body and flange cap
- *L port, T port
- *4"~6" : Round handle design
- *OPTION:

Locking device

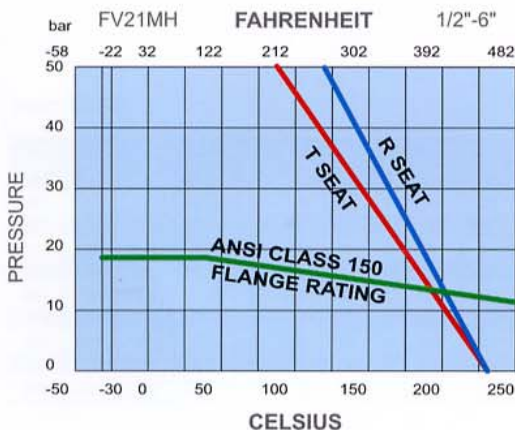
Face to face: Economic type (Different mould, 1/2~2")

Flange DIN PN16 Dimension

T handle (Different mould)

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

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	4	ASTM A351-CF8M	ASTM A351-CF8	ASTM A216-WCB
5	PORT SEAL	4	PTFE	PTFE	PTFE
6	BALL SEAT	4	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	BUSHING	1	PTFE	PTFE	PTFE
12	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
13	STEM NUT	1	AISI 304	AISI 304	AISI 304
14	HANDLE WASHER	1	AISI 304	AISI 304	AISI 304
15	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
16	BELLEVILLE WASHER	2	AISI 410	AISI 410	AISI 410
17	STOP WASHER	1	AISI 304	AISI 304	AISI 304
18	O-RING	1	VITON	VITON	VITON
19	PACKING FOLLOWER	1	PTFE+25%GF	PTFE+25%GF	PTFE+25%GF
20	STOP PIN	1	AISI 304	AISI 304	AISI 304
21	BOLT	16	AISI 304	AISI 304	AISI 304
22	BOLT WASHER	16	AISI 304	AISI 304	AISI 304
23	LOCKING DEVICE	1	AISI 304	AISI 304	AISI 304



lb/in² kg/cm²

DIMENSIONS

UNIT:mm

NOMINAL SIZE	Ød	L	E	H1	H	H4	D	ØG	ØJ	ØI	T	F	M	ØN	ØZ1	ØZ2	ISO 5211
1/2"	16.0	147.4	186.5	9.0	89.0	47.8	9.0	89.0	60.5	35.0	11.2	1.60	4	16	6.0	-	42 F04
3/4"	20.0	155.8	218.0	11.0	98.0	58.2	11.0	98.6	70.0	43.0	12.7	1.60	4	16	7.0	-	50 F05
1"	25.0	168.8	218.0	11.5	102.0	64.0	11.0	108.0	79.2	51.0	14.3	1.60	4	16	7.0	-	50 F05
1-1/4"	32.0	197.9	235.0	15.2	118.5	79.0	14.0	117.5	88.9	63.5	15.9	1.60	4	16	9.0	7.0	50 F05
1-1/2"	38.0	221.4	235.0	14.3	127.0	88.5	14.0	127.0	98.6	73.2	17.5	1.60	4	16	9.0	7.0	50 F05
2"	50.0	244.6	252.0	17.8	139.0	105.8	17.0	157.5	120.7	92.0	19.1	1.60	4	16	11.0	9.0	70 F07
2-1/2"	65.0	270.0	252.0	17.5	165.7	117.3	17.0	177.8	139.7	104.7	23.3	1.60	4	16	11.0	9.0	70 F07
3"	80.0	292.2	252.0	17.5	170.0	128	17.0	190.5	152.4	127.0	23.9	1.60	4	16	11.0	9.0	70 F07

4"~6" drawing will be offered on request.

BT-FV4WMH150L TYPE

SIZE: 1/2"~3"

FLANGED END



DIRECT MOUNTING PAD

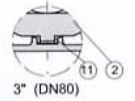
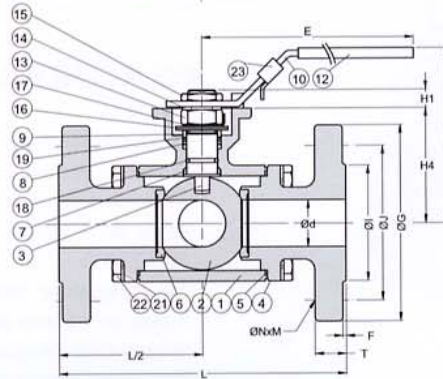
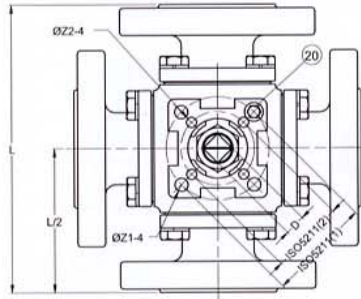
STAINLESS STEEL

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)

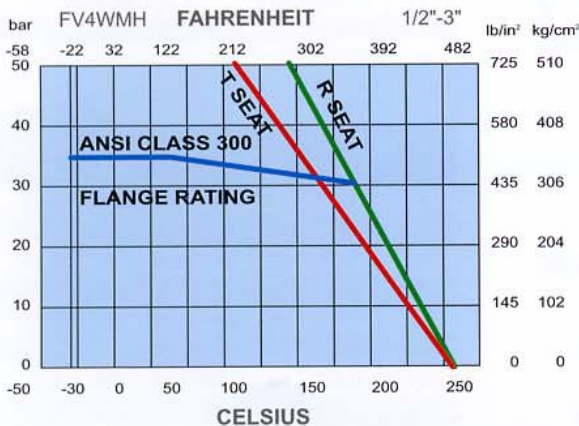


FEATURES:

- *Flange: ANSI B16.5 class 150
- *Anti-static device, fire safe design
- *Blow-out proof stem, lever operated
- *Full port, solid ball
- *Investment casting body and flange
- *L port, T port, X port
- *OPTION:
 - Locking device
 - Flange DIN PN16 Dimension
 - T handle (Different Mould)

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

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 316	AISI 316
4	END CAP	4	ASTM A351-CF8M	ASTM A351-CF8	ASTM A216-WCB
5	BODY SEAL	4	PTFE	PTFE	PTFE
6	BALL SEAT	4	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	BUSHING	1	PTFE	PTFE	PTFE
12	HANDLE SLEEVE	1	PLASTIC	PLASTIC	PLASTIC
13	STEM NUT	1	AISI 304	AISI 304	AISI 304
14	HANDLE WASHER	1	AISI 304	AISI 304	AISI 304
15	HANDLE NUT	1	AISI 304	AISI 304	AISI 304
16	BELLEVILLE WASHER	2	AISI 410	AISI 410	AISI 410
17	STOP WASHER	1	AISI 304	AISI 304	AISI 304
18	O-RING	1	VITON	VITON	VITON
19	PACKING FOLLOWER	1	PTFE+25%GF	PTFE+25%GF	PTFE+25%GF
20	STOP PIN	1	AISI 304	AISI 304	AISI 304
21	BOLT WASHER	16	AISI 304	AISI 304	AISI 304
22	BOLT	16	AISI 304	AISI 304	AISI 304
23	LOCKING DEVICE	1	AISI 304	AISI 304	AISI 304



DIMENSIONS

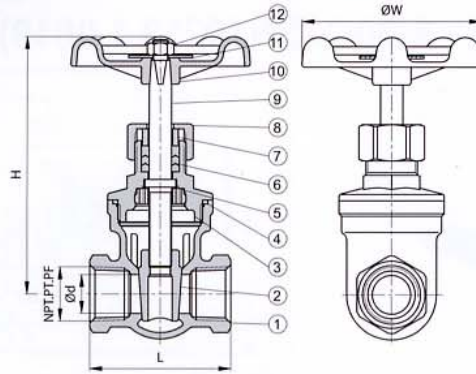
UNIT:mm

NOMINAL SIZE	Ød	L	E	H1	H	H4	D	ØG	ØJ	ØI	T	F	M	ØN	ØZ1	ØZ2	ISO 5211
1/2"	16.0	147.4	186.5	9.0	89.0	47.8	9.0	89.0	60.5	35.0	11.2	1.60	4	16	6.0	-	42 F04
3/4"	20.0	155.8	218.0	11.0	98.0	58.2	11.0	98.6	70	43.0	12.7	1.60	4	16	7.0	-	50 F05
1"	25.0	168.8	218.0	11.5	102.0	64.0	11.0	108.0	79.2	51.0	14.3	1.60	4	16	7.0	-	50 F05
1-1/4"	32.0	197.9	235.0	15.2	118.5	79.0	14.0	117.5	88.9	63.5	15.9	1.60	4	16	9.0	7.0	50 F05 F07
1-1/2"	38.0	221.4	235.0	14.3	127.0	88.5	14.0	127.0	98.6	73.2	17.5	1.60	4	16	9.0	7.0	50 F05 F07
2"	50.0	244.6	252.0	17.8	139.0	105.8	17.0	152.5	127.7	92.0	19.1	1.60	4	19	11.0	9.0	70 F07 F10
2-1/2"	65.0	270.0	252.0	17.5	165.7	117.3	17.0	177.8	139.7	104.7	23.3	1.60	4	19	11.0	9.0	70 F07 F10
3"	80.0	292.2	252.0	17.5	170.0	128.0	17.0	190.5	152.4	127.0	23.9	1.60	4	19	11.0	9.0	70 F07 F10

BT-GA

SIZE: 1/2"~3"

SCREWED END



FEATURES:

- *Full port
- *Pressure temperature rating
200 PSI/ W.O.G. 350°F S .P.
- *Threaded ends conform to
ANSI B2.1, BS 21, DIN 259 / 2999,
ISO 228
- *Stainless steel class 200,
inside screw and screwed bonnet,
wedge disc integral seat,
non-rising stem and handwheel

CLASS 200 GATE VALVE

ITEM	PARTS	MATERIALS
1	BODY	ASTM-A351-CF8M
2	DISC	ASTM-A351-CF8M
3	BONNET	ASTM-A351-CF8M
4	GASKET	PTFE
5	WHORL GASKET	AISI 304
6	PACKING	PTFE
7	GLAND	AISI 304
8	CAP NUT	ASTM-A351-CF8M
9	STEM	AISI 316
10	HANDLE	ALUMINUM
11	NAMEPLATE	ALUMINUM
12	NUT	AISI 304

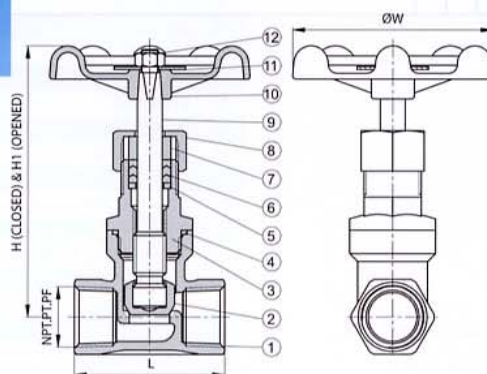
UNIT:mm

DN	SIZE		L	H	ØW	WEIGHT KG
	NPS	Ød				
15	1/2"	15	55	100	70	0.41
20	3/4"	20	60	107	70	0.52
25	1"	25	65	110	80	0.64
32	1 1/4"	32	75	130	80	0.98
40	1 1/2"	38	85	147	90	1.42
50	2"	50	95	170	100	2.10
65	2 1/2"	65	116	213	140	5.23
80	3"	80	130	239	140	7.06

BT-GL

SIZE: 1/4"~2"

SCREWED END



FEATURES:

- *Full port
- *Pressure temperature rating
200 PSI/ W.O.G. 350°F S .P.
- *Threaded ends conform to
ANSI B2.1, BS 21, DIN 259 / 2999,
ISO 228
- *Stainless steel class 200,
inside screw and screwed bonnet,
wedge disc integral seat,
non-rising stem and handwheel

CLASS 200 GLOBE VALVE

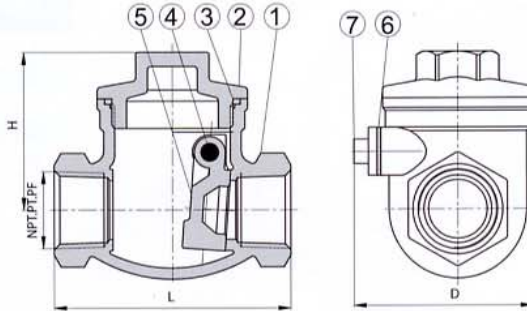
ITEM	PARTS	MATERIALS
1	BODY	ASTM-A351-CF8M
2	DISC	ASTM-A351-CF8M
3	BONNET	ASTM-A351-CF8M
4	GASKET	PTFE
5	WHORL GASKET	AISI 304
6	PACKING	PTFE
7	GLAND	AISI 304
8	CAP NUT	ASTM-A351-CF8M
9	STEM	AISI 316
10	HANDLE	ALUMINUM
11	NAMEPLATE	ALUMINUM
12	NUT	AISI 304

UNIT:mm

DN	SIZE		L	H	H1	ØW	WEIGHT KG
	NPS	Ød					
8	1/4"	52	95	106	70	0.34	
10	3/8"	52	95	106	70	0.32	
15	1/2"	52	95	106	70	0.34	
20	3/4"	66	100	114	80	0.45	
25	1"	76	110	127	80	0.66	
32	1 1/4"	86	130	150	90	0.98	
40	1 1/2"	94	130	154	100	1.27	
50	2"	118	139	170	100	2.03	

BT-CK

SIZE: 1/4"~3"
SCREWED END



FEATURES:

- *Full port
- *Investment casting body
- *Pressure temperature rating
200 PSI/ W.O.G. 350°F S.P.
- *Threaded ends conform to
ANSI B2.1, BS 21, DIN 259 / 2999,
ISO 228
- *Stainless steel class 200, screwed cap,
swing type disc, integral seat

CLASS 200 SWING CHECK VALVE

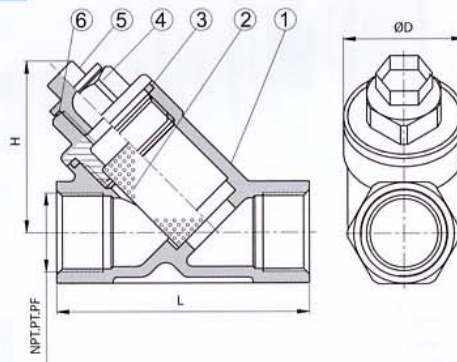
ITEM	PARTS	MATERIALS
1	BODY	ASTM-A351-CF8M
2	CAP	ASTM-A351-CF8M
3	GASKET	PTFE
4	PLUG	AISI 316
5	DISC	ASTM-A351-CF8M
6	GASKET	PTFE
7	STOPPER	AISI 304

UNIT:mm

SIZE		L	H	D	WEIGHT KG
DN	NPS				
8	1/4"	65	43	46.5	0.26
10	3/8"	65	43	46.5	0.23
15	1/2"	65	43	46.5	0.24
20	3/4"	80	53	51.5	0.36
25	1"	89	60	56.0	0.69
32	1 1/4"	105	66	64.0	0.86
40	1 1/2"	120	75	74.5	1.35
50	2"	139	80	84.0	2.37
65	2 1/2"	181	99	103.5	4.73
80	3"	200	104	152.0	7.26

BT-YS

SIZE: 1/4"~3"
SCREWED END



FEATURES:

- *Investment casting body
- *Max.pressure 800PSI
- *Maximum working temperature 230°C
- *Threaded ends conform to ANSI B2.1,
BS 21, DIN 259 / 2999, ISO 228

CLASS 800 Y-STRAINER

ITEM	PARTS	MATERIALS
1	BODY	ASTM-A351-CF8M
2	SCREEN	AISI 304
3	GASKET	PTFE
4	CAP	ASTM-A351-CF8M
5	STOPPER	ASTM-A351-CF8M
6	GASKET	PTFE

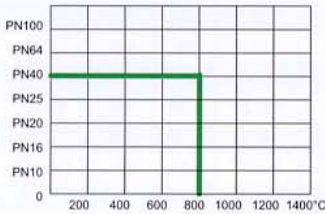
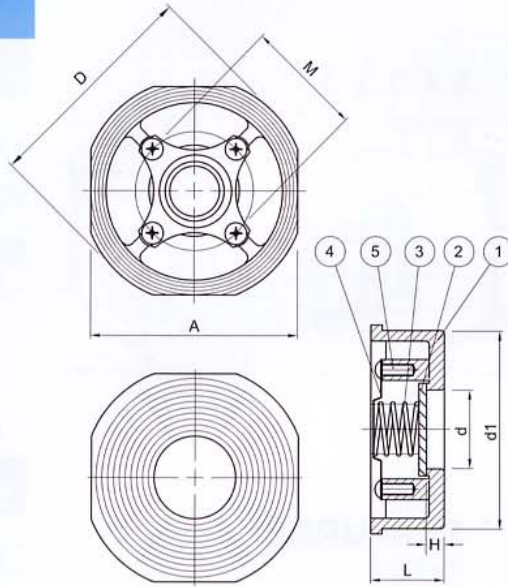
UNIT:mm

SIZE		L	H	ØD	WEIGHT KG
DN	NPS				
8	1/4"	65	45	31	0.26
10	3/8"	65	45	31	0.23
15	1/2"	65	45	31	0.24
20	3/4"	80	53	36	0.36
25	1"	90	68	45	0.69
32	1 1/4"	105	72	50	0.86
40	1 1/2"	120	80	59	1.35
50	2"	140	97	78	2.37
65	2 1/2"	170	112	95	4.73
80	3"	195	129	111	7.26

BT-WC

SIZE: 1/2"~4"

SCREWED END



FEATURES:

- *Investment casting body
- *PN40 rating
- *Trim in AISI 316

PN40 1-PC WAFER DISC CHECK VALVE

ITEM	PARTS	QTY	MATERIALS
1	BODY	1	ASTM-A351-CF8M
2	DISC	1	ASTM-A351-CF8M
3	SPRING	1	AISI 316
4	CAP	1	AISI 304
5	SCREW	4	AISI 304

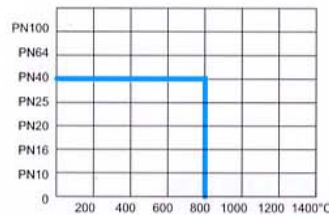
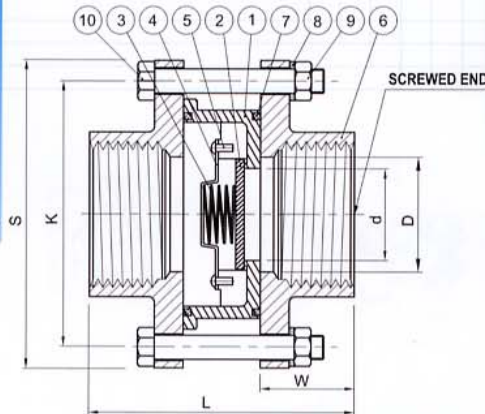
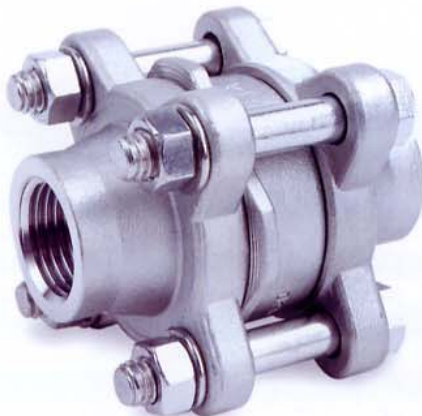
UNIT:mm

DN	SIZE	d	d1	A	D	L	M	H	WEIGHT KG
15	1/2"	15	43	45	53	16.5	27.7	4.4	0.12
20	3/4"	20	53	55	63	19.5	34.2	4.8	0.20
25	1"	25.4	63	65	73	22	39.4	5.4	0.30
32	1-1/4"	30	75	78	84	28	43.7	6.0	0.40
40	1-1/2"	38	86	88	94	32	54.0	6.6	0.60
50	2"	47	96	98	107	40	63.5	7.1	0.80
65	2-2/2"	62.5	115	118	123	46	82.8	7.8	1.50
80	3"	77	130	134	144	50	98.8	8.4	1.90
100	4"	96	151	154	164	60	119.8	9.0	3.30

BT-V3WC

SIZE: 1/2"~4"

SCREWED END
BUTT WELD END
SOCKET WELD END



FEATURES:

- *Investment casting body & caps
- *PN40 rating
- *3-PC design

PN40 3-PC WAFER DISC CHECK VALVE

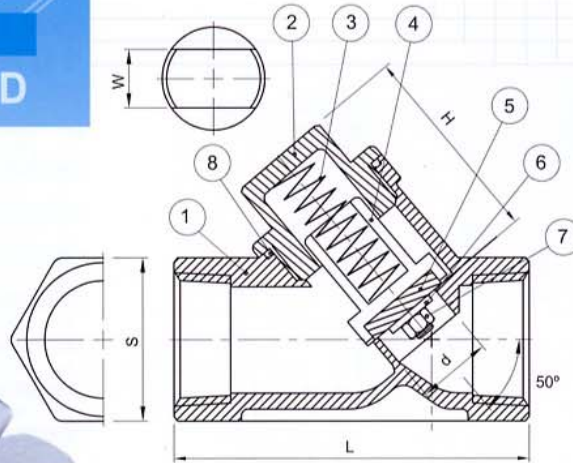
ITEM	PARTS	QTY	MATERIALS
1	BT-WC BODY	1	ASTM-A351-CF8M
2	DISC	1	ASTM-A351-CF8M
3	SPRING	1	ASTM-A351-CF8M
4	SPRING CAP	1	ASTM-A351-CF8M
5	SCREW	4	AISI 304
6	CAP	2	ASTM-A351-CF8M
7	JOINT GASKET	2	PTFE
8	SPRING WASHER	4	AISI 304
9	HEX NUT	4	AISI 304
10	BOLT	4	AISI 304

UNIT:mm

DN	SIZE	D	d	L	W	K	S	KGS
15	1/2"	15	15	67.5	25.4	55	71	0.65
20	3/4"	20	15	67.5	25.4	55	71	0.57
25	1"	25.4	20	75	27.8	63.5	80	0.77
32	1-1/4"	32	25	82.5	30	77	95.5	1.19
40	1-1/2"	38	30	98	35.3	87	106	1.64
50	2"	50.8	38	109	38.5	109	128	2.31
65	2-1/2"	65	62.5	140	47	136	163	5.06
80	3"	80	77	154	52.5	164	193	7.83
100	4"	100	96	195	68	206	241	15.74

BT-PC

SIZE: 1/4"~2"
SCREWED END



FEATURES:

- *Investment casting body & cap
- *PN40 rating
- *Maximum working temperature 230°C
- *The end-to-end length conforms to DIN 3202 part 4 M8 series (PN40)
- *Threaded ends conform to ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

PN40 PISTON CHECK VALVE

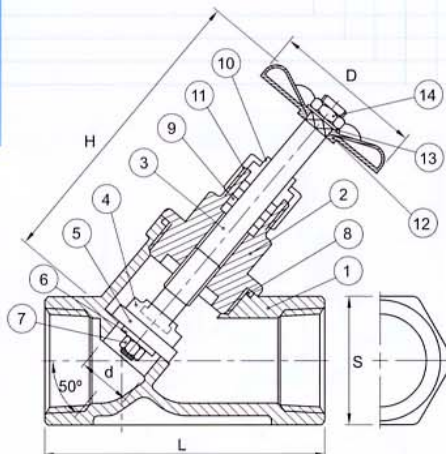
ITEM	PARTS	MATERIALS
1	BODY	ASTM-A351-CF8M
2	CAP	ASTM-A351-CF8M
3	SPRING	AISI 316
4	DISC	AISI 316
5	SEAT	PTFE
6	WASHER	AISI 304
7	NUT	AISI 304
8	JOINT GASKET	PTFE

UNIT:mm

SIZE	d	L	S	H	W
1/4"	11.6	65.5	27	38	24
3/8"	12.5	65.5	27	38	24
1/2"	12.5	65.5	27	36	24
3/4"	18	75.5	32	44	30
1"	23.5	90.5	41	57	35
1-1/4"	31.4	111	50	64	40
1-1/2"	35.7	121	55.5	76	45
2"	45.5	151	70	87	55

BT-SO

SIZE: 1/2"~2"
SCREWED END



FEATURES:

- *Investment casting body
- *PN40 rating
- *Maximum working temperature 230°C
- *The end-to-end length conforms to DIN 3202 part 4 M8 series (PN40)
- *Threaded ends conform to ANSI B2.1, BS 21, DIN 259 / 2999, ISO 228

PN40 SHUT-OFF VALVE

ITEM	PARTS	MATERIALS
1	BODY	ASTM-A351-CF8M
2	BONNET	ASTM-A351-CF8M
3	STEM	AISI 316
4	DISC	AISI 316
5	SEAT	PTFE
6	WASHER	AISI 304
7	NUT	AISI 304
8	JOINT GASKET	PTFE
9	STEM PACKING	PTFE
10	GLAND NUT	AISI 304
11	PACKING NUT	AISI 304
12	HANDWHEEL	MALLEABLE IRON
13	WASHER	AISI 304
14	NUT	AISI 304

UNIT:mm

SIZE	d	L	S	H	D
1/4"	11.6	65.5	27	97	62
3/8"	12.5	65.5	27	97	62
1/2"	12.5	65.5	27	97	62
3/4"	18	75.5	32	110	62
1"	23.5	90.5	41	117	83
1-1/4"	31.4	111	50	138	83
1-1/2"	35.7	121	55.5	150	114
2"	45.5	151	70	168	114

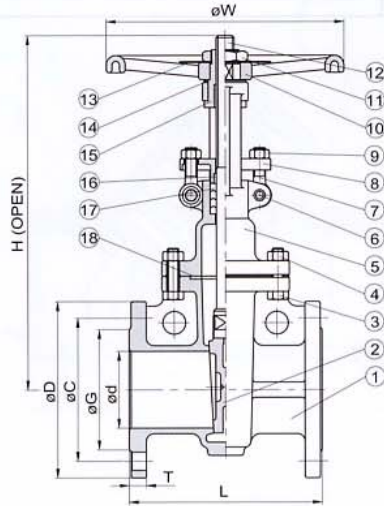
BT-FGA

SIZE: 1/2"~12"
FLANGED END



TEST PRESSURE

SHELL(BY HYDRAULIC)	450 PSI 32kg/cm ²
SEAT	BY HYDRAULIC 315PSI 22kg/cm ²
	PNEUMATIC 80PSI 6kg/cm ²



APPLICATIONS:

- *FACE TO FACE DIMENSIONS:
JIS B2002 / ANSI B16.10
- *END FLANGE DIMENSIONS:
JIS B2239 / ANSI B16.5
- *DESIGN: ANSI B16.34
- *TESTING: API598
- *OPTION: JIS 20K / ANSI 300 LBS
DIN PN16

GATE VALVE 10K/150LBS

ITEM	PARTS	MATERIALS	
		10K	150LBS
1	BODY	SCS 14/CF8M	SCS 13/CF8
2	DISC	SCS 14/CF8M	SCS 13/CF8
3	BONNET BOLT	AISI 304	
4	BONNET NUT	AISI 304	
5	BONNET	SCS 14/CF8M	SCS 13/CF8
6	HINGE PIN	AISI 304	
7	EYE BOLT	AISI 304	
8	GLAND	SCS 13/CF8	
9	EYE NUT	AISI 304	
10	HAND WHEEL	FCD	
11	NUT	BRONZE(OR DUCTILENI-RESIST)	
12	STEM	AISI 316	AISI 304
13	NAME PLATE	AISI 304	
14	SPRING	BRONZE(OR DUCTILENI-RESIST)	
15	YOKE SLEEVE	BRONZE(OR DUCTILENI-RESIST)	
16	GLAND PACKING	PTFE	
17	PACKING	PTFE	
18	GASKET	PTFE(OR NO ASBESTOS)	

UNIT:mm

SIZE	Ød	L	H	ØW	ØD		ØC		ØG		T	
					10K	150	10K	150	10K	150	10K	150
1/2"	15	108	183	120	95	89	70	60.5	51	35	12	11.1
3/4"	20	117	190	120	100	98	75	70	56	43	14	11.1
1"	25	127	210	120	125	108	90	79.5	67	51	14	11.1
1 1/4"	32	140	270	200	135	117	100	89	76	64	16	12.7
1 1/2"	40	165	270	200	140	127	105	98.5	81	73	16	14.3
2"	50	178	320	200	155	152	120	120.5	96	92	16	15.9
2 1/2"	65	190	375	200	175	178	140	139.5	116	105	18	17.5
3"	80	203	445	250	185	190	150	152.5	126	127	18	19.1
4"	100	229	523	250	210	229	175	190.5	151	157	18	23.9
5"	125	254	606	300	250	254	210	216	182	186	20	23.9
6"	150	267	710	300	280	279	240	241.5	212	216	22	25.4
8"	200	292	910	350	330	343	290	298.5	262	270	22	28.6
10"	250	330	1117	400	400	406	355	362	324	324	24	30.2
12"	300	356	1324	400	445	483	400	432	368	381	24	31.8

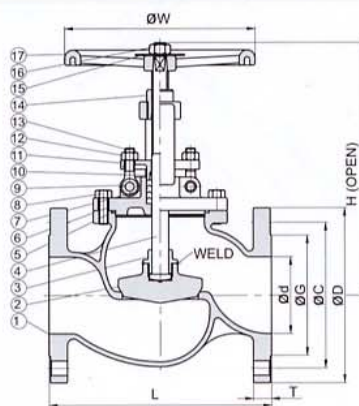
BT-FGL

SIZE: 1/2"~12"
FLANGED END



TEST PRESSURE

SHELL(BY HYDRAULIC)	450 PSI 32kg/cm ²
SEAT	BY HYDRAULIC 315PSI 22kg/cm ²
	PNEUMATIC 80PSI 6kg/cm ²



APPLICATIONS:

- *FACE TO FACE DIMENSIONS:
JIS B2002 / ANSI B16.10
- *END FLANGE DIMENSIONS:
JIS B2239 / ANSI B16.5
- *DESIGN: ANSI B16.34
- *TESTING: API598
- *OPTION: JIS 20K / ANSI 300 LBS
DIN PN16

GLOBE VALVE 10K/150LBS

ITEM	PARTS	MATERIALS	
		10K	150LBS
1	BODY	SCS 14/CF8M	SCS 13/CF8
2	DISC	SCS 14/CF8M	SCS 13/CF8
3	DISC COVER	SCS 14/CF8M	SCS 13/CF8
4	STEM	AISI 316	AISI 304
5	GASKET	SCS 14/CF8M	
6	BONNET	SCS 14/CF8M	SCS 13/CF8
7	GLAND PACKING	PTFE	
8	BONNET BOLT	AISI 304	
9	HINGE PIN	AISI 304	
10	SLEEVE	PTFE	
11	GLAND	SCS 13/CF8	
12	NUT	AISI 304	
13	EYE BOLT	AISI 304	
14	YOKE SLEEVE	BRONZE	
15	NAME PLATE	AISI 304	
16	NUT	AISI 304	
17	HAND WHEEL	FCD400	

UNIT:mm

SIZE	Ød	L	H	ØW	ØD		ØC		ØG		T	
					10K	150	10K	150	10K	150	10K	150
1/2"	15	108	168	140	95	89	70	60.5	51	35	12	11.1
3/4"	20	117	168	140	100	98	75	70	56	43	14	11.1
1"	25	127	173	140	125	108	90	79.5	67	51	14	11.1
1 1/4"	32	140	190	160	135	117	100	89	76	64	16	12.7
1 1/2"	40	165	200	160	140	127	105	98.5	81	73	16	14.3
2"	50	203	230	200	155	152	120	120.5	96	92	16	15.9
2 1/2"	65	216	243	200	175	178	140	139.5	116	105	18	17.5
3"	80	241	286	250	185	190	150	152.5	126	127	18	19.1
4"	100	292	325	250	210	229	175	190.5	151	157	18	23.9
5"	125	356	380	300	250	254	210	216	182	186	20	23.9
6"	150	406	445	350	280	279	240	241.5	212	216	22	25.4
8"	200	495	545	350	330	343	290	298.5	262	270	22	28.6
10"	250	622	650	400	400	406	355	362	324	324	24	30.2
12"	300	698	736	400	445	483	400	432	368	381	24	31.8

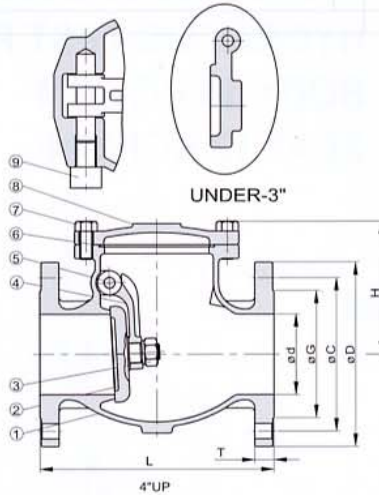
BT-FCK

SIZE: 1/2"~12"
FLANGED END



TEST PRESSURE

SHELL (BY HYDRAULIC)	450 PSI 32kg/cm ²
DISC	BY HYDRAULIC 315PSI 22kg/cm ²
	PNEUMATIC 80PSI 6kg/cm ²



APPLICATIONS:

- *FACE TO FACE DIMENSIONS:
JIS B2002 / ANSI B16.10
- *END FLANGE DIMENSIONS:
JIS B2239 / ANSI B16.5
- *DESIGN: ANSI B16.34
- *TESTING: API598
- *OPTION: JIS 20K / ANSI 300 LBS
DIN PN16

SWING CHECK VALVE 10K/150LBS

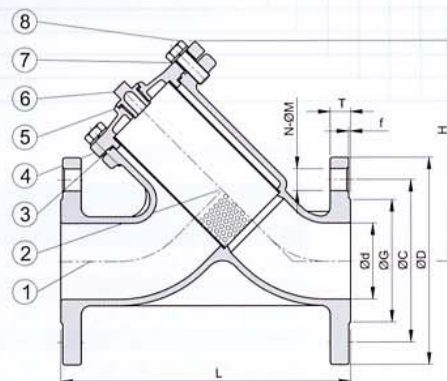
ITEM	PARTS	MATERIALS	
1	BODY	SCS 14/CF8M	SCS 13/CF8
2	DISC	SCS 14/CF8M	SCS 13/CF8
3	NUT	AISI 304	
4	ARM HINGE	SCS 14/CF8M	SCS 13/CF8
5	HINGE PIN	AISI 316	AISI 304
6	GASKET	PTFE (OR NO ASBESOTOS)	
7	BOLT	AISI 304	
8	BONNET	SCS14/CF8M	SCS13/CF8
9	BOLT	AISI 304	

UNIT:mm

SIZE	Ød	L	H	ØD		ØC		ØG		T		
				10K	150	10K	150	10K	150	10K	150	
1/2"	15	15	112	65	95	89	70	60.5	52	35	12	11.1
3/4"	20	20	125	70	100	98	75	70	58	43	14	11.1
1"	25	25	135	75	125	108	90	79.5	70	51	14	11.1
1-1/2"	40	40	165	107	140	127	105	98.5	85	73	16	14.3
2"	50	50	203	120	155	152	120	120.5	100	92	16	15.9
2-1/2"	65	65	216	135	175	178	140	139.5	120	105	18	17.5
3"	80	80	241	147	185	190	150	152.5	130	127	18	19.1
4"	100	100	292	169	210	229	175	190.5	155	157	18	23.9
5"	125	125	330	190	250	254	210	216	185	186	20	23.9
6"	150	150	356	213	280	279	240	241.5	215	216	22	25.4
8"	200	200	495	253	330	343	290	298.5	265	270	22	28.6
10"	250	250	622	279	400	406	355	362	325	324	24	30.2
12"	300	300	698	312	445	483	400	432	370	381	24	31.8

BT-FYS

SIZE: 1/2"~12"
FLANGED END



SCREEN SPECIFICATION

SIZE	PERFORATION
1/2"-11/4"	1.5MM
11/2"-10"	2MM

APPLICATIONS:

- *FACE TO FACE DIMENSIONS:
JIS B2002 / ANSI B16.10
- *END FLANGE DIMENSIONS:
JIS B2239 / ANSI B16.5
- *DESIGN: ANSI B16.34
- *TESTING: API598
- *OPTION: JIS 20K / ANSI 300 LBS
DIN PN16

Y-STRAINER 10K/150LBS

ITEM	PARTS	MATERIALS		
1	BODY	CF8M	CF8	WCB
2	SCREEN	AISI 304	AISI 304	AISI 304
3	GASKET	PTFE	PTFE	PTFE
4	BONNET	CF8M	CF8	WCB
5	GASKET	PTFE	PTFE	PTFE
6	STOPPER	CF8M	CF8M	CF8M
7	SPRING WASHERS	AISI 304	AISI 304	AISI 304
8	BONNET BOLT	AISI 304	AISI 304	B7

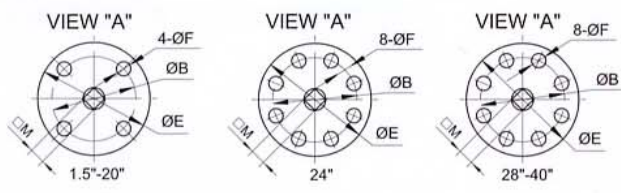
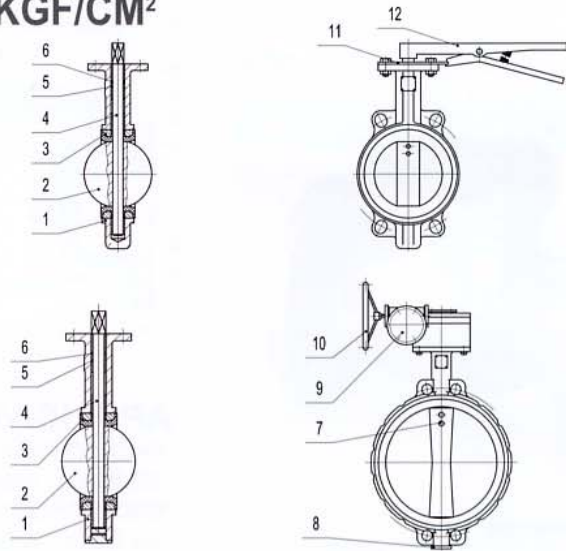
UNIT:mm

SIZE	Ød	L	H	ØD		ØC		ØG		f	T	N-ØM				
				10K	150	10K	150	10K	150			10K	150			
1/2"	15	15	120	85	95	89	70	60.5	51	35	1	1.6	12	12.1	4-Ø15	4-Ø16
3/4"	20	20	140	87	100	98	75	70.0	56	43	1	1.6	14	12.1	4-Ø15	4-Ø16
1"	25	25	150	114	125	108	90	79.5	67	51	1	1.6	14	12.1	4-Ø19	4-Ø16
11/2"	40	40	190	135	140	127	105	98.5	81	73	2	1.6	16	14.3	4-Ø19	4-Ø16
2"	50	50	210	155	155	152	120	120.5	96	92	2	1.6	16	15.9	4-Ø19	4-Ø19
21/2"	65	65	250	189	175	178	140	139.5	116	105	2	1.6	18	17.5	4-Ø19	4-Ø19
3"	80	80	280	200	185	190	150	152.5	126	127	2	1.6	18	19.1	8-Ø19	4-Ø19
4"	100	100	340	232	210	229	175	190.5	151	157	2	1.6	18	23.9	8-Ø19	8-Ø19
5"	125	125	380	274	250	254	210	216.0	182	186	2	1.6	20	23.9	8-Ø23	8-Ø22
6"	150	150	420	326	280	279	240	241.5	212	216	2	1.6	22	25.4	8-Ø23	8-Ø22
8"	200	200	500	397	330	343	290	298.5	262	270	2	1.6	22	28.6	12-Ø23	8-Ø22
10"	250	250	730	512	400	406	355	362.0	324	324	2	1.6	24	30.2	12-Ø25	12-Ø25
12"	300	300	850	562	445	483	400	432.0	368	381	3	1.6	24	31.8	16-Ø25	12-Ø25

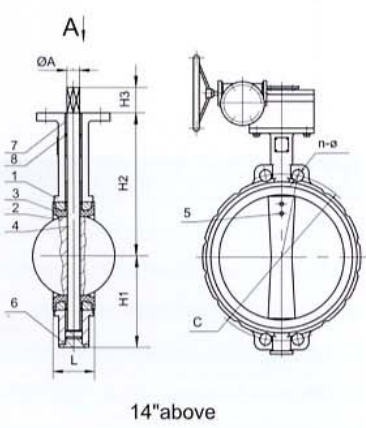
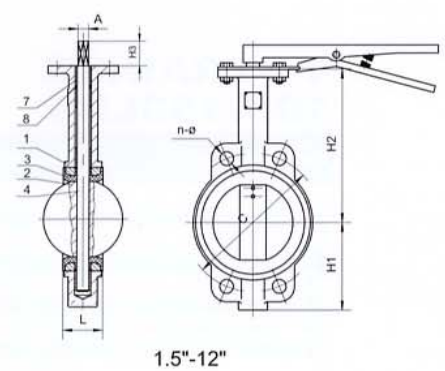
BT-BFY WAFER TYPE

SIZE: DN40~DN1200

MATERIAL: C.I. / D.I. / WCB / SS304 / SS316
RATING: DIN PN16 / ANSI 150 / JIS 10K
HYDRAULIC TEST PRESSURE:
BODY 16 KGF/CM²
SEAT 12 KGF/CM²



ITEM	PARTS	MATERIALS
1	BODY	CI / DI / WCB / SS304 / SS316
2	DISC	DI / SS304 / SS316 / AL-BZ
3	SEAT	EPDM / NBR / PTFE / VITON
4	STEM	SS416 / SS420 / SS304 / SS316
5	BUSHING	PTFE
6	O-RING	EPDM / NBR / VITON
7	PIN	SS316 / SS416
8	END COVER	CI / DI / WCB / SS304 / SS316
9	GEAR BOX	CI / DI
10	HANDWHEEL	CI
11	RATCHET PLATE	Q235 / SS304
12	LEVER HANDLE	KTH350-10 / SS304



DIMENSIONS

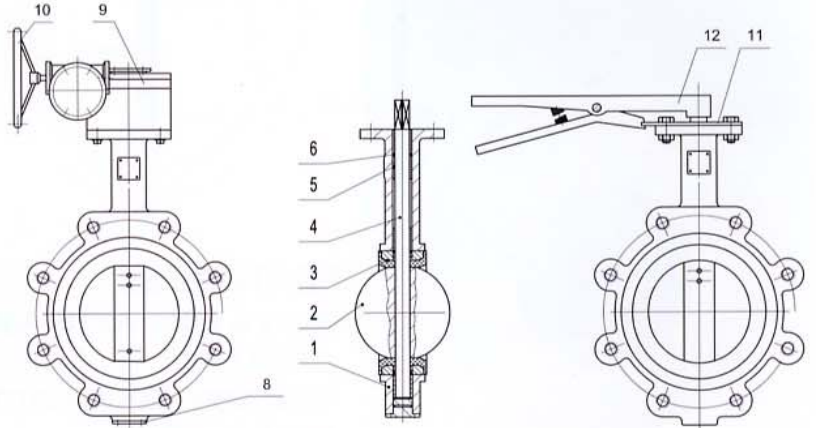
UNIT:mm

DN	H1	H2	H3	L	ØA	ØE	ØB	ØF	ØM	DIN PN10		DIN PN16		ANSI B16.1		JIS 10K	
										ØC	n-Ø	ØC	n-Ø	ØC	n-Ø	ØC	n-Ø
DN40	70	110	32	35	12.7	92	70	9	9	110	4-Ø18	110	4-Ø18	98.5	4-Ø16	95	4-Ø15
DN50	76	162	32	45	12.7	92	70	9	9	125	4-Ø18	125	4-Ø18	120.65	4-Ø19	120	4-Ø19
DN65	89	175	32	48	12.7	92	70	9	9	145	4-Ø18	145	4-Ø18	139.7	4-Ø19	140	4-Ø19
DN80	95	181	32	49	12.7	92	70	9	9	160	4-Ø18	160	8-Ø18	152.4	4-Ø19	150	4-Ø19
DN100	114	200	32	55	15.8	92	70	9	11	180	8-Ø18	180	8-Ø18	190.5	8-Ø19	175	8-Ø19
DN125	127	213	32	58	19.05	92	70	9	14	210	8-Ø18	210	8-Ø18	215.9	8-Ø22	210	8-Ø22
DN150	140	225	32	59	19.05	92	70	9	14	240	8-Ø23	240	8-Ø23	241.3	8-Ø22	240	8-Ø22
DN200	177	260	36	64	22.2	125	102	11	17	295	8-Ø23	295	12-Ø23	298.45	8-Ø22	290	8-Ø22
DN250	203	292	36	70	28.6	125	102	11	22	350	12-Ø23	355	12-Ø27	361.95	12-Ø25	355	12-Ø25
DN300	242	337	36	80	31.8	150	125	13	22	400	12-Ø23	410	12-Ø27	431.8	12-Ø25	400	16-Ø25
DN350	267	368	45	80	31.8	150	125	13	22	460	16-Ø23	460	16-Ø27	476.25	12-Ø29		
DN400	298	400	51	90	33.3	210	165	22	22	515	16-Ø27	525	16-Ø30	539.75	16-Ø29		
DN450	318	422	51	109	38	210	165	22	27	565	20-Ø27	585	20-Ø30	577.85	16-Ø32		
DN500	349	479	64	135	41.15	210	165	22	27	620	20-Ø27	650	20-Ø33	635	20-Ø32		
DN600	410	562	70	156	50.65	300	254	18	36	725	20-Ø30	770	20-Ø36	749.3	20-Ø35		
DN700	520	624	72	169	55	300	254	18	40	840	24-Ø30	840	24-Ø36	-	-		
DN750	516	624	72	175	55	300	254	18	40	-	-	-	-	914.5	4-1 1/4"-6		
DN800	591	672	83	195	55	300	254	18	40	950	24-Ø33	950	24-Ø39	977.9	4-1 1/2"-6		
DN900	611	768	77	211	74.25	300	254	18	53	1050	28-Ø33	1050	28-Ø39	1086	4-1 1/2"-6		
DN1000	665	823	85	229	84.2	300	254	18	60	1160	28-Ø36	1170	28-Ø42	-	-		
DN1200	955	880	206	249	92	350	298	22	60	1380	32-Ø39	-	-	1422.5	44-Ø41		

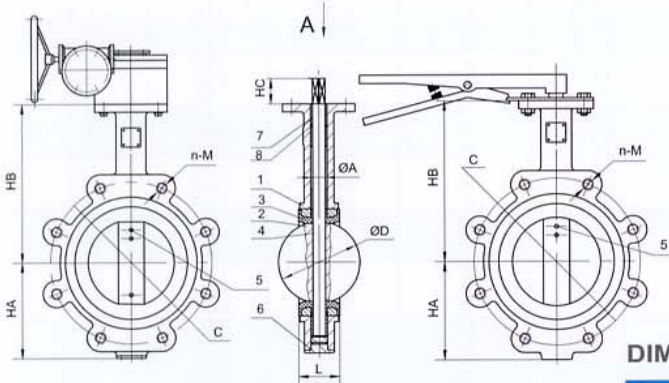
BT-BFY LUG TYPE

SIZE: DN40~DN1000

MATERIAL: C.I. / D.I. / WCB / SS304 / SS316
RATING: DIN PN16 / AISI 150
HYDRAULIC TEST PRESSURE:
BODY 16 KGF/CM²
SEAT 12 KGF/CM²



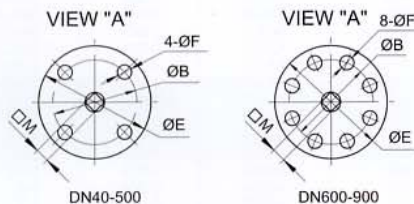
ITEM	PARTS	MATERIALS
1	BODY	CI / DI / WCB / SS304 / SS316
2	DISC	DI / SS304 / SS316 / AL-BZ
3	SEAT	EPDM / NBR / PTFE / VITON
4	STEM	SS416 / SS420 / SS304 / SS316
5	BUSHING	PTFE
6	O-RING	EPDM / NBR / VITON
7	PIN	SS316 / SS416
8	END COVER	CI / DI / WCB / SS304 / SS316
9	GEAR BOX	CI / DI
10	HANDWHEEL	CI
11	RATCHET PLATE	Q235 / SS304
12	LEVER HANDLE	KTH350-10 / SS304



DIMENSIONS

UNIT:mm

DN	HA	HB	HC	L	ØD	DIN PN10 / PN16		ANSI B16.1		ØA	□M	ØE	ØB	ØF
						ØC	n-M	ØC	n-M					
DN40	70	110	32	35	42.4	110	4-M16	98.5	4-1/2"-13	12.7	9 ^{-0.03} _{-0.1}	92	70	9
DN50	76	162	32	45	52.9	125	4-M16	120.5	4-5/8"-11	12.7	9 ^{-0.03} _{-0.1}	92	70	9
DN65	80	175	32	48	64.6	145	4-M16	139.5	4-5/8"-11	12.7	9 ^{-0.03} _{-0.1}	92	70	9
DN80	95	181	32	49	79.04	160	4-M16/8-M16	152.5	4-5/8"-11	12.7	9 ^{-0.03} _{-0.1}	92	70	9
DN100	114	200	32	55	104.4	180	8-M16	190.5	8-5/8"-11	15.8	11 ^{-0.03} _{-0.1}	92	70	9
DN125	127	213	32	58	129.5	210	8-M16	216	8-3/4"-10	19.05	14 ^{-0.03} _{-0.1}	92	70	9
DN150	140	225	32	59	155.8	240	8-M20	241.5	8-3/4"-10	19.05	14 ^{-0.03} _{-0.1}	92	70	9
DN200	173	260	36	64	202.7	295	8-M20/12-M20	298.5	8-3/4"-10	22.2	17 ^{-0.03} _{-0.1}	125	102	11
DN250	203	292	36	70	250.7	350/355	12-M20/12-M24	362	12-7/8"-9	28.6	22 ^{-0.03} _{-0.1}	125	102	11
DN300	237	337	36	80	301.9	400/410	12-M20/12-M24	432	12-7/8"-9	31.8	22 ^{-0.03} _{-0.1}	150	125	13
DN350	279	368	45	80	333.3	460/470	16-M20/16-M24	476	12-1"-8	31.8	22 ^{-0.03} _{-0.1}	150	125	13
DN400	304	400	51	90	389.6	515/525	16-M24/16-M27	539.5	16-1"-8	33.3	22 ^{-0.03} _{-0.1}	210	165	22
DN450	362	422	51	109	439.9	565/585	20-M24/20-M27	578	16-1 1/8"-7	38	27 ^{-0.03} _{-0.1}	210	165	22
DN500	368	479	64	135	491.6	620/650	20-M24/20-M30	635	20-1 1/8"-7	41.15	27 ^{-0.03} _{-0.1}	210	165	22
DN600	444	562	70	156	592.3	725/770	20-M27/20-M33	749.5	20-1 1/4"-7	50.65	36 ^{-0.03} _{-0.1}	300	254	18
DN700	520	630	70	156	694.1	840	24-M27/24-M33	-	-	63.35	40 ^{-0.03} _{-0.1}	300	254	18
DN750	621	648	72	169	744.2	-	-	914.5	28-1 1/4"-7	63.35	40 ^{-0.03} _{-0.1}	300	254	18
DN800	590	690	72	169	794.2	950	24-M30/24-M36	-	-	63.35	40 ^{-0.03} _{-0.1}	300	254	18
DN900	623	768	77	211	863.4	1050	28-M30/28-M36	1086	32-1 1/2"-6	74.25	53 ^{-0.03} _{-0.104}	300	254	18
DN1000	670	850	77	211	963.4	1160/1170	28-M33/28-M39	-	-	84.2	60 ^{-0.03} _{-0.104}	300	254	18

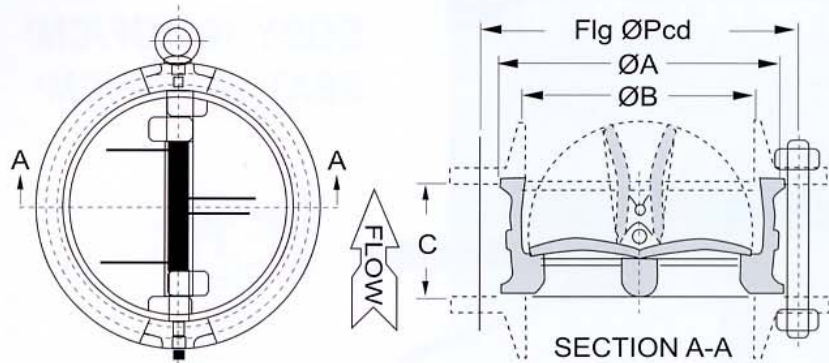


BT-DWCK_{TYPE}

SIZE: DN40~DN600



DUAL PLATE WAFER STYLE CHECK VALVE DIN PN 6 / 10 / 16 / 25 / 40



FEATURES:

*Body & Plate: ASTM-A351
CF8M/CF8
*Seat: NBR / EPDM / VITON/
Metal to metal

*Design: API-594
*Face to face: API-594 / API-6D
*Inspection: API-598 / ASME-B16.34
*Suit flanged for: ISO-7005-1

DIMENSIONS

UNIT:mm

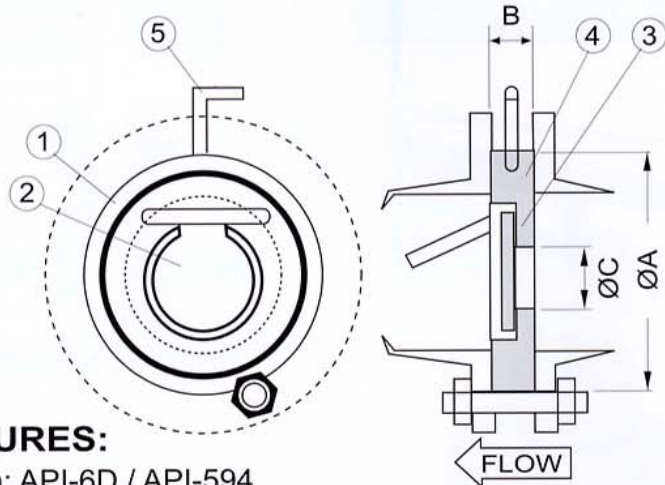
SIZE	END FACING	PRESSURE RATING	ØA	ØB	C	DIA. OF BOLT CIRCLE	STUD SELECTION	STUD SELECTION	STRD LENGTH	WEIGHT (KGS)
DN40	RF	PN6	86	60	43	100.0	4	M12	110	1.5
	RF	PN10-16-25-40	92		43	110.0	4	M16	115	1.5
DN50	RF	PN6	96	60	60	110.0	4	M12	135	2.5
	RF	PN10-16-25-40	105		60	125.0	4	M16	140	2.5
DN65	RF	PN6	115	73	67	130.0	4	M12	140	2.7
	RF	PN10/16	124		67	145.0	8	M16	150	2.7
	RF	PN25/40	124		67	145.0	8	M16	155	2.7
	RF	PN6	132		73	150.0	4	M16	145	4.5
DN80	RF	PN10/16	137	89	73	160.0	8	M16	155	4.5
	RF	PN25/40	137		73	160.0	8	M16	165	4.5
DN100	RF	PN6	146	114	73	170.0	4	M16	150	8.0
	RF	PN10/16	156		73	180.0	8	M16	160	8.0
DN125	RF	PN25/40	168	141	73	190.0	8	M20	165	8.5
	RF	PN6	181		86	200.0	8	M16	160	10.0
DN150	RF	PN10/16	187	168	86	210.0	8	M16	165	10.0
	RF	PN25/40	194		86	220.0	8	M24	180	13.0
	RF	PN6	207		98	225.0	8	M16	175	13.0
	RF	PN10/16	217		98	240.0	8	M20	180	13.0
DN200	RF	PN25/40	224	219	98	250.0	8	M24	200	23.0
	RF	PN6	257		127	280.0	8	M16	210	28.0
	RF	PN10	267		127	295.0	8	M20	180	28.0
	RF	PN16	267		127	295.0	12	M20	215	28.0
DN250	RF	PN25	276	274	127	310.0	12	M24	235	28.0
	RF	PN40	290		127	320.0	12	M27	270	36.0
	RF	PN6	317		146	335.0	12	M16	230	45.0
	RF	PN10	330		146	350.0	12	M20	235	45.0
DN300	RF	PN16	330	324	146	355.0	12	M24	235	45.0
	RF	PN25	340		146	370.0	12	M27	260	45.0
	RF	PN40	353		146	385.0	12	M30	305	60.0
	RF	PN6	367		181	395.0	12	M20	275	68.0
DN350	RF	PN10	375	356	181	400.0	12	M20	280	68.0
	RF	PN16	375		181	410.0	12	M24	280	68.0
	RF	PN25	400		181	430.0	16	M27	300	68.0
	RF	PN40	417		181	540.0	16	M30	355	86.0
DN400	RF	PN6	438	406	184	445.0	12	M20	285	95.0
	RF	PN10	438		184	460.0	16	M20	290	95.0
	RF	PN16	438		184	470.0	16	M24	290	95.0
	RF	PN25	457		184	490.0	16	M30	300	95.0
DN450	RF	PN40	474	457	222	510.0	16	M33	400	170.0
	RF	PN6	470		191	495.0	16	M24	285	132.0
	RF	PN10	483		191	515.0	16	M27	295	132.0
	RF	PN16	495		191	525.0	16	M33	305	132.0
DN500	RF	PN25	507	508	191	550.0	16	M33	325	132.0
	RF	PN40	546		232	585.0	16	M36	425	208.0
	RF	PN6	528		203	550.0	16	M20	310	147.0
	RF	PN10	538		203	565.0	20	M24	325	147.0
DN600	RF	PN16	545	610	203	585.0	20	M27	325	147.0
	RF	PN25	565		203	600.0	20	M33	325	147.0
	RF	PN40	571		264	610.0	20	M36	460	296.0
	RF	PN6	578		219	600.0	20	M20	335	202.0
DN600	RF	PN10	592	610	219	620.0	20	M24	350	202.0
	RF	PN16	617		219	650.0	20	M30	350	202.0
	RF	PN25	625		219	660.0	20	M33	380	202.0
	RF	PN40	625		292	670.0	20	M39	495	366.0
DN600	RF	PN6	679	610	222	705.0	20	M24	345	265.0
	RF	PN10	695		222	725.0	20	M27	360	265.0
	RF	PN16	731		222	770.0	20	M33	360	265.0
	RF	PN25	731		222	770.0	20	M36	395	265.0
	RF/R-77	PN40	747		318	795.0	20	M45	550	529.0

BT-WCK TYPE

SIZE: 2"~8"



FL-HOOK TYPE CHECK VALVE ANSI 150 / JIS 10K / DIN PN16



FEATURES:

- *Design: API-6D / API-594
- *Face to face: API-6D / API-594
- *Inspection: API-598 / ASME-B16.34
- *Suit flanged for:
ASME B16.5-150LB / JIS B2238-10K RF / ISO-7005-1

DIMENSIONS

UNIT:mm

SIZE	SERIES	VALVES			WEIGHT (KGS)
		ØA	B	ØC	
2"	10K	104	19	27	1.2
	150LBS	105	19	27	1.2
	PN16	109	19	27	1.3
2-1/2"	10K	124	19	38	1.6
	150LBS	124	19	38	1.6
	PN16	129	19	38	1.6
3"	10K	134	19	46	1.8
	150LBS	137	19	46	1.9
	PN16	144	19	46	2.1
4"	10K	159	19	69	2.5
	150LBS	175	19	69	2.7
	PN16	164	19	69	2.9
5"	10K	190	21	90	3.7
	150LBS	197	21	90	4.0
	PN16	194	21	90	3.9
6"	10K	220	24	110	5.5
	150LBS	222	24	110	5.7
	PN16	220	24	110	5.5
8"	10K	270	29	140	11.0
	150LBS	279	29	140	11.5
	PN16	275	29	140	11.3

PARTS LIST

ITEM NO	PART NAME	STANDARD MATERIAL		
1	BODY	A351 CF8M	A351 CF8	S25*1
2	DISC	A351 CF8M	A351 CF8	A351 CF8
3	CLAPPER	FPM	FPM	NBR
	SEAL	PTFE	PTFE	FPM
4	BODY	FPM	FPM	NBR
	SEAL	PTFE	PTFE	FPM
5	L-BOLT	G3101 SS41	G3101 SS41	G3101 SS41

FLUID SPECIFICATION

FIG	STEEL STAINLESS STEEL SEAL	WS3-N S3S3-N NBR	WS3-N S3S3-N FPM	WS3-T S3S3-T PTFE(SEAL ONLY)
	FLUID	AIR,OIL WATER & OTHERS	AIR,OIL WATER & OTHERS	AIR,OIL STEAM & OTHERS
	WORKING PRESSURE (MAX)(KGF/CM ²)	14	12	12
	FLUID TEMP(MAX) (°C)	18	150	200

*Chromium Plated

FLOW COEFFICIENT:(Cv)

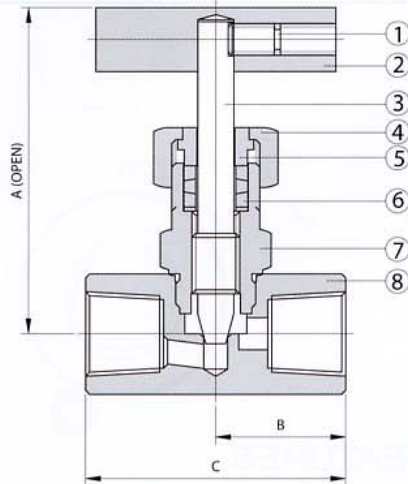
SIZE	2"	2-1/2"	3"	4"	5"	6"	8"
Cv	42	73	107	329	646	747.0	1338

*The flow coefficient (Cv) is the flow of water in US gallos / min. passing through a valve with a resulting pressure loss of 1 psi

BT-ND

SIZE: 1/8"~1"

SCREWED END



FEATURES:

- *Investment Casting body
- *Screwed-in bonnet
- *Rising stem
- *T handle operation
- *Connecting threads: ANSI B2.1 / BS21 / DIN
- *Working pressure: 6000PSI
- *OPTION: 10000PSI
(Forged casting body)

NEEDLE VALVE

AISI 316

6000PSI

ITEM	PARTS	ITEM	MATERIALS
1	SET SCREW	1	AISI 304
2	HANDLE	1	AISI 410
3	STEM	1	AISI 316
4	GLAND NUT	1	AISI 304
5	GLAND	1	AISI 304
6	PACKING	1 SET	TEFLON
7	BONNET	1	ASTM-A351-CF8M
8	BODY	1	ASTM-A351-CF8M

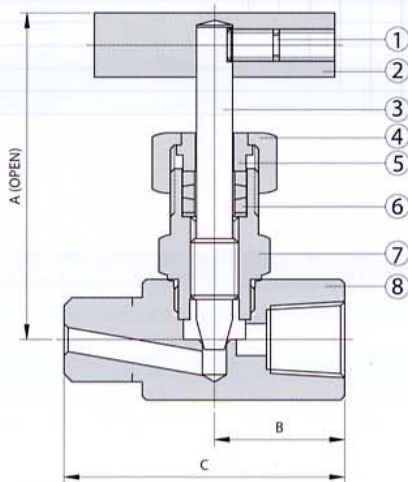
UNIT:mm

SIZE	A	B	C	KG
1/8"	75	29	58	0.35
1/4"	75	29	58	0.35
3/8"	75	29	58	0.35
1/2"	87	32.5	65	0.56
3/4"	90	35	70	0.7
1"	103	40	80	1.3

BT-ND

SIZE: 1/4"~1"

MALE / FEMALE



FEATURES:

- *Investment Casting body
- *Screwed-in bonnet
- *Rising stem
- *T handle operation
- *Connecting threads: ANSI B2.1 / BS21 / DIN
- *Working pressure: 6000PSI
- *OPTION: 10000PSI
(Forged casting body)

NEEDLE VALVE

AISI 316

6000PSI

ITEM	PARTS	ITEM	MATERIALS
1	SET SCREW	1	AISI 304
2	HANDLE	1	AISI 410
3	STEM	1	AISI 316
4	GLAND NUT	1	AISI 304
5	GLAND	1	AISI 304
6	PACKING	1 SET	TEFLON
7	BONNET	1	ASTM-A351-CF8M
8	BODY	1	ASTM-A351-CF8M

UNIT:mm

SIZE	A	B	C
1/4"	75	29	60
3/8"	75	29	60
1/2"	87	32.5	70
3/4"	90	35	75
1"	103	40	85

SANITARY FITTINGS

VARIETIES OF SANITARY / HYGIENIC PRODUCTS,
FULL MACHINED, HIGH POLISHED
APPLYING ON: FOOD, PHARMACEUTICAL,
IC VACUUM INDUSTRY

Standard Unions, Ferrules, Clamps and Fittings

Material:
AISI 304, AISI 316, AISI 316L

Ends:
3A, BS, AS, NZS, SMS, DIN, RJT,
CIP, IDF.. , etc.

Surface:
180, 220, 420 and mirror or
electric polished finished



SANITARY BUTTERFLY VALVES

Butterfly Valves

Material: AISI 304, AISI 316, AISI 316L

Ends: BS, SMS, DIN 3A weld, Male/Male end,
and Clamp end

Disc: Out from full machined, high polished.
Ra less 0.6 um. 9.5mm and 8x12mm,
12x12mm head for USA and Europe
required. Electric polished and PTFE
coating is option. .

Handle: Different Nylon re-force and Stainless
Steel handle Gripper, Pull, Press type.
From 2 positions to 12 positions for
your options.

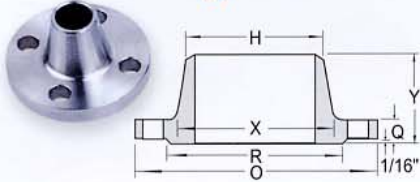


FORGED & CASTING FLANGES

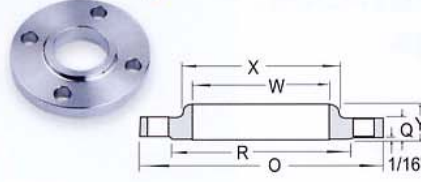
SIZE: 1/2"~24"

STAINLESS STEEL / CARBON STEEL FLANGES
150LBS / 300LBS / PN16 / PN40
ANSI, BS, DIN, JIS, UNI STANDARDS
MATERIAL: AISI 304, 304L, 316, 316L, WCB, A105

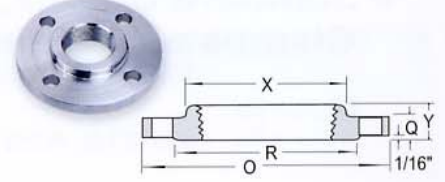
Welding Neck



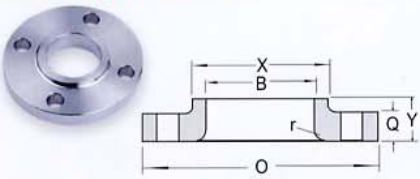
Slip-On



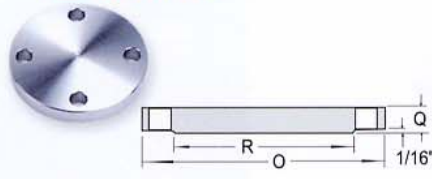
Threaded



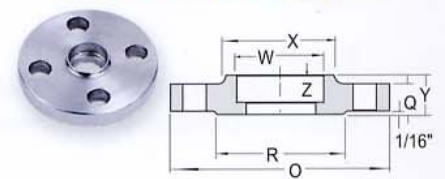
Lap Joint



Blind



Socket Type



DIMENSIONS

UNIT:mm

Nominal Pipe size	OD of Flange O	Thickness of Flange Q	Diameter of Raised Face R	Diameter of Hub at base X	Length Thru Hub			Diameter of Bore		Dia of Hub at Bevel H	Radius of Fillet r	Depth of Socket Z
					Welding Neck Y	Slip-On, Threaded, Socket Y	Lap Joint Y	Slip-On, Socket W	Lap Joint B			
1/2"	88.90	11.20	35.00	30.20	47.80	15.70	15.70	22.40	22.90	21.30	3.00	9.60
3/4"	98.60	12.70	42.90	38.10	52.30	15.70	15.70	27.70	28.20	26.70	3.00	11.10
1"	108.00	14.20	50.80	49.30	55.60	17.50	17.50	34.50	35.10	33.50	3.00	12.70
1-1/4"	117.30	15.70	63.50	58.70	57.15	20.60	20.60	43.20	43.70	42.20	4.80	14.20
1-1/2"	127.00	17.50	73.15	65.00	62.00	22.40	22.40	49.50	50.00	48.30	6.40	15.70
2"	152.40	19.10	91.90	77.70	63.50	25.40	25.40	62.00	62.50	60.45	7.90	17.50
2-1/2"	177.80	22.40	104.60	90.40	69.85	28.40	28.40	74.70	75.40	73.15	7.90	19.00
3"	190.50	23.90	127.00	108.00	69.85	30.20	30.20	90.70	91.40	88.90	9.70	20.60
3-1/2"	215.90	23.90	139.70	122.20	71.40	31.75	31.75	103.40	104.10	101.60	9.70	-
4"	228.60	23.90	157.20	134.90	76.20	33.30	33.30	116.10	116.80	114.30	11.20	-
5"	254.00	23.90	185.70	163.60	88.90	36.60	36.60	143.80	144.50	141.20	11.20	-
6"	279.40	25.40	215.90	192.00	88.90	39.60	39.60	170.70	171.50	168.40	12.70	-
8"	342.90	28.40	269.70	246.10	101.60	44.50	44.50	221.50	222.30	219.20	12.70	-
10"	406.40	30.20	323.80	304.80	101.60	49.30	49.30	276.30	277.40	273.00	12.70	-
12"	482.60	31.75	381.00	365.30	114.30	55.60	55.60	327.10	328.20	323.80	12.70	-
14"	533.40	35.10	412.70	400.10	127.00	57.15	79.25	359.10	360.20	355.60	12.70	-
16"	596.90	36.60	469.90	475.20	127.00	63.50	87.40	410.50	411.20	406.40	12.70	-
18"	665.00	39.60	533.40	505.00	139.70	68.30	96.80	461.80	462.30	457.20	12.70	-
20"	698.50	42.90	584.20	558.80	144.50	73.15	103.10	513.10	514.40	508.00	12.70	-
24"	812.80	47.80	692.10	663.40	152.40	82.60	111.30	616.00	616.00	609.60	12.70	-

DIMENSIONS

UNIT:mm

Nominal Pipe size	Drilling				Approximate Weight in kgs				
	Diameter of Bolt Circle	Number of Bolts	Diameter of Bolts (inch)	Diameter of holes	Welding Neck	Slip-On, Threaded	Lap Joint	Blind	Socket type
1/2"	60.45	4	1/2"	15.70	0.48	0.39	0.38	0.42	0.42
3/4"	69.85	4	1/2"	15.70	0.71	0.56	0.55	0.61	0.59
1"	79.25	4	1/2"	15.70	1.01	0.78	0.76	0.86	0.81
1-1/4"	88.90	4	1/2"	15.70	1.33	1.03	1.01	1.17	1.07
1-1/2"	98.60	4	1/2"	15.70	1.72	1.32	1.30	1.53	1.36
2"	120.70	4	5/8"	19.10	2.58	2.06	2.03	2.42	2.10
2-1/2"	139.70	4	5/8"	19.10	4.11	3.28	3.25	3.94	3.33
3"	152.40	4	5/8"	19.10	4.92	3.85	3.81	4.93	3.90
3-1/2"	177.80	8	5/8"	19.10	6.08	4.81	4.76	6.17	-
4"	190.50	8	5/8"	19.10	6.84	5.30	5.25	7.00	-
5"	215.90	8	3/4"	22.40	8.56	6.07	6.02	8.63	-
6"	241.30	8	3/4"	22.40	10.60	7.45	7.40	11.30	-
8"	298.50	8	3/4"	22.40	17.60	12.10	12.10	19.60	-
10"	362.00	12	7/8"	25.40	24.00	16.50	16.40	28.80	-
12"	431.80	12	7/8"	25.40	36.50	26.20	26.10	43.20	-
14"	476.30	12	1"	28.40	48.40	34.60	34.50	58.10	-
16"	539.80	16	1"	28.40	60.60	44.80	44.60	76.00	-
18"	577.90	16	1-1/8"	31.75	68.30	48.90	48.70	93.70	-
20"	635.00	20	1-1/8"	31.75	84.50	61.90	61.60	122.00	-
24"	749.30	20	1-1/4"	35.10	115.00	86.90	86.60	185.00	-

150LBS INVESTMENT CASTING FITTINGS

BT-FITTINGS

SIZE: 1/8"~4"
SCREWED END

ASTM-A351-CF8M, ASTM-A351-CF8
THREAD IN ACCORDANCE WITH ANSI B2.1,
BS21, DIN 259 / 2999.



UNION CONICAL
JOINT M/BW



UNION CONICAL
JOINT M/M



SOCKET BANDED



REDUCING SOCKET
(RED. SOCKET BANDED)



TEE



CROSS



ROUND CAP



HEXAGON BUSHING



NIPPLE CLOSED



BARREL NIPPLE
(RUNNING NIPPLE)



WELDING NIPPLE



REDUCING
HEX. NIPPLE



HOSE NIPPLE



UNION CONICAL
JOINT F/M



UNION CONICAL
JOINT F/BW



HEXAGON
NIPPLE



UNION CONICAL
JOINT F/F



UNION FLAT
JOINT BW/BW



COUPLING O.D.
MACHINED
(SOCKET)



HALF COUPLING
O.D. MACHINED



HEX. HEAD CAP



HEX. NUT
(LOCK NUT)



ELBOW 90°



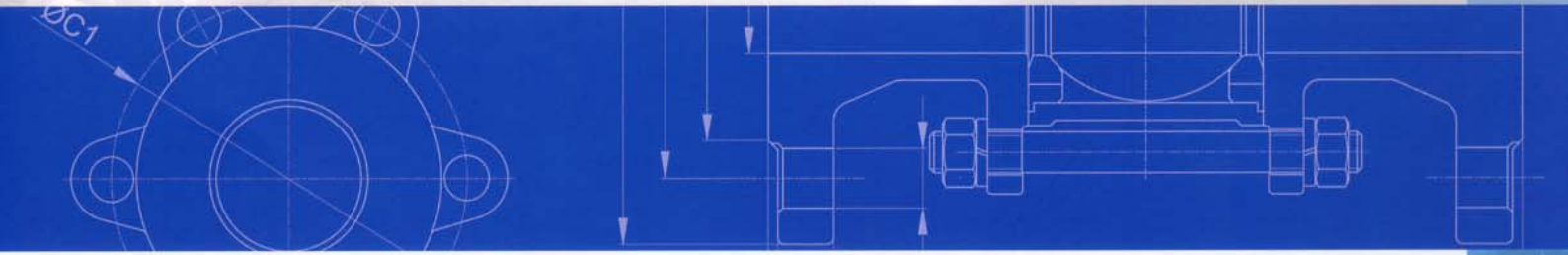
ELBOW 45°



HEXAGON PLUG



STREET ELBOW



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