



SERIES F502



Two-Piece Ball Valve Flange End

INTRODUCTION

TAWD Two-piece flanged ball valves are suitable for any application where the flow of liquids and gases needs to be controlled. Safety and stable quality are the keys to use.

Technical summary

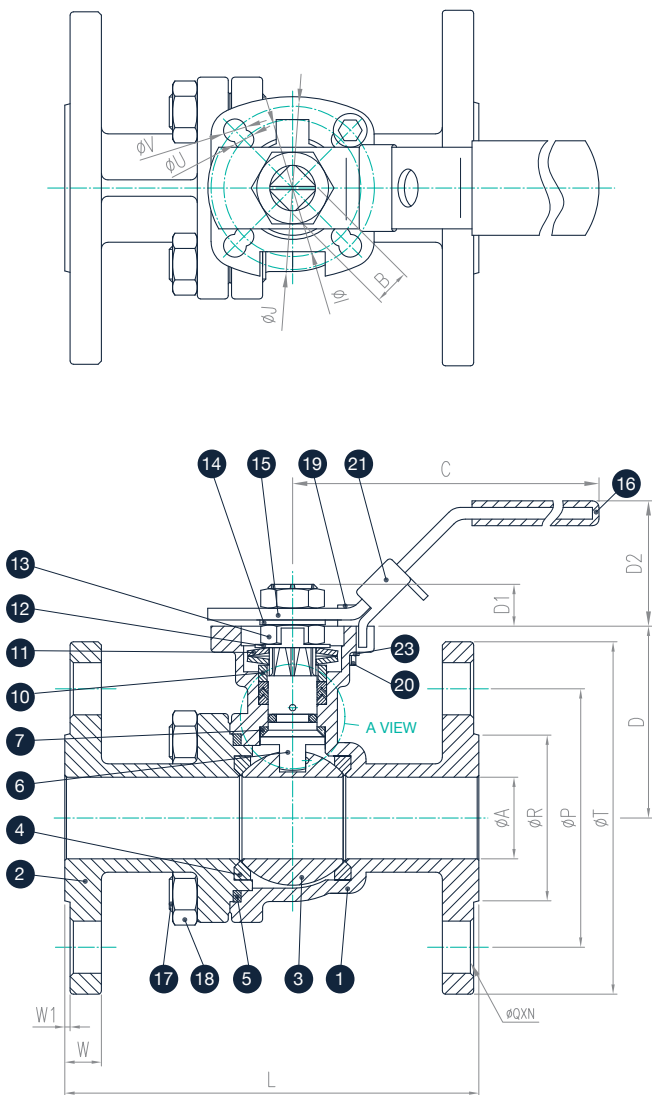
SIZE RANGE	1/2" ~12"
PRESSURE RATING	Class 150 / 300 / 600, PN16 / 40, JIS 10K
SEAT MATERIA	RTFE, TFM 1600, PEEK, CARBON FILLED PTFE, DELRIN, UHMWPE, etc.
BODY MATERIALL	CF8M(1.4408), WCB(1.0619), CF3M(1.4409), TITANIUM, DUPLEX SIS, etc.
OPERATION	PNEUMATIC or ELECTRIC ACTUATED

STANDARD OF COMPLIANCE

MATERIAL CERTIFICATION	EN 10204-3.1
DESIGN	ASME B16.34 EN 12516-1
FLANGED END CONNECTIONS	ASME B16.5 EN 1092-1 JIS B2220
PRESSURE TESTING	API 598 EN 12266-1
MOUNTING PAD	ISO 5211
FIRE SAFE	API 607 ISO 10497
MARKING	ISO 5209
CE APPROVAL	2014 / 68 / EU Module H
QUALITY ASSURANCE	ISO 9001

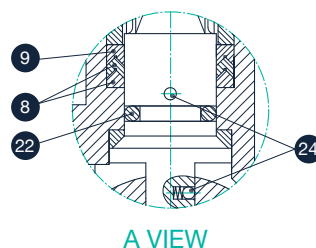
CONSTRUCTION-BILL OF MATERIAL

SERIES F502-10 ANSI CLASS 150 1/2" ~ 2-1/2"



NO.	Parts	Material	Qty
1	Body	CF8M / WCB	1
2	End cap	CF8M / WCB	1
3	Ball	SS316 / CF8M	1
4	Seat	CTFE/TFM1600	2
5	Joint Gasket	SS316 w/ Graphite	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	Graphite	&
9	Gland Packing	25% GLASS FIBER FILLED+PTFE	1
10	Gland Bush	SS316	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS316	1
13	Stem Nut	SS316	2
14	Stem Washer	SS316	1
15	Handle	SS316	1
16	Handle Cover	VINYL	1
17	Bolt	SS316	*
18	Bolt Nut	SS316	*
19	Stop Pin	SS316	1
20	Pin Nut	SS316	1
21	Locking Device	SS316	1
22	O-Ring	VITON	1
23	Washer	SS316	1
24	Anti-static Device	SS316	2

& 1/2"~ 1-1/4" (2pcs) · 1-1/2"~ 2-1/2" (3pcs)
1/2"~ 2" (4pcs of bolts and bolt nuts) · 2-1/2" (8pcs of bolts and bolt nuts)

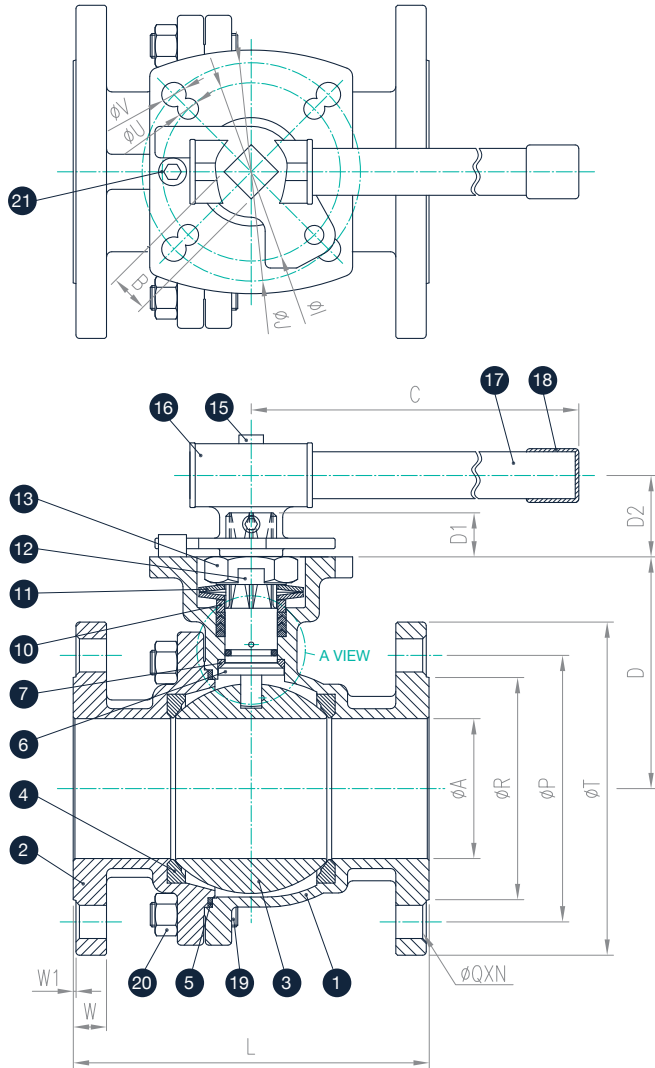


DIMENSIONS(mm)

SIZE	øA	B*	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
1/2"	15	11	165	46.7	9.9	36	42	50	108.3	4	60.6	16	35.1	88.9	11.2	1.6	6.5	7	FOR F04/F05
3/4"	20	11	165	51.2	9.9	36	42	50	117.3	4	69.9	16	42.9	98.6	11.2	1.6	6.5	7	FOR F04/F05
1"	25	11	165	58.8	10.3	36	42	50	127.1	4	79.2	16	50.8	108	11.2	1.6	6.5	7	FOR F04/F05
1-1/4"	32	14	215	72.6	12.9	49	50	70	139.7	4	88.9	16	63.5	117.3	12.7	1.6	7.5	9	FOR F05/F07
1-1/2"	38	17	262	89.1	19	58	70	102	165.1	4	98.6	16	73.2	127	14.3	1.6	10	12	FOR F07/F10
2"	50	17	262	96.6	19	58	70	102	178.3	4	120.7	19	91.9	152.4	15.9	1.6	10	12	FOR F07/F10
2-1/2"	65	17	262	116	19	58	70	102	190	4	139.7	19	104.6	177.8	17.6	1.6	10	12	FOR F07/F10

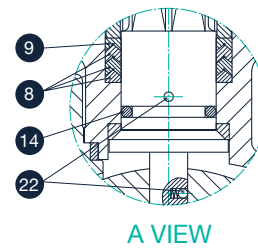
CONSTRUCTION-BILL OF MATERIAL

SERIES F502-10
ANSI CLASS 150
3" ~ 6"



NO.	Parts	Material	Qty
1	Body	CF8M / WCB	1
2	End cap	CF8M / WCB	1
3	Ball	CF8M	1
4	Seat	CTFE/TFM1600	2
5	Joint Gasket	SS316 w/ Graphite	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	GRAPHITE	3
9	Gland Packing	25% GLASS FIBER FILLED+PTFE	1
10	Gland Bush	SS316	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS316	1
13	Stem Nut	SS316	1
14	O-Ring	VITON	1
15	Handle Screw	SS316	2
16	Handle-A	SS316	1
17	Handle-B	SS316	1
18	Handle Cover	VINYL	1
19	Bolt	SS316	*
20	Bolt Nut	SS316	*
21	Stop Pin	SS316	1
22	Anti-static Device	SS316	2

3"~ 5" (8pcs of bolts and bolt nuts) · 6" (10pcs of bolts and bolt nuts)
3"~ 4"(Handle-B material is SS304) · 5"~ 6"(Handle-B material is CARBON)

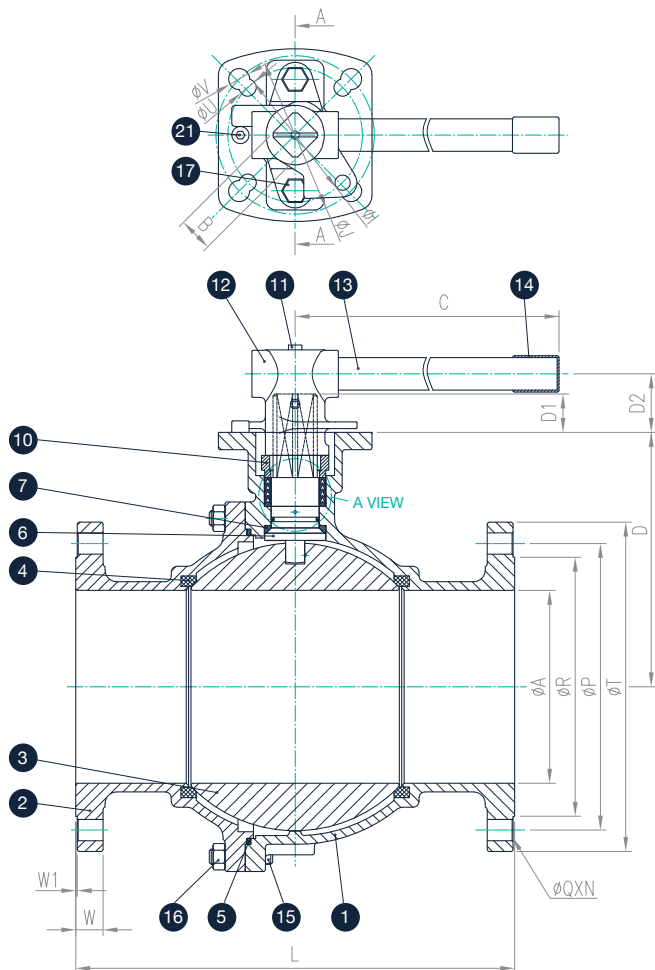


DIMENSIONS(mm)

SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
3"	80	22	365	132.5	23	46.2	102	125	203.5	4	152.4	19	127	190.5	19	1.6	12	14	FOR F10/F12
4"	100	22	365	157	23	46.2	102	125	228.6	8	190.5	19	157.2	228.6	23.9	1.6	12	14	FOR F10/F12
5"	125	27	705	192.7	28.5	66.5	125	140	355.6	8	215.9	22.2	185.7	254	23.9	1.6	14	18	FOR F12/F14
6"	150	27	705	210.2	28.5	66.5	125	140	393.7	8	241.3	22.2	215.9	279.4	25.4	1.6	14	18	FOR F12/F14

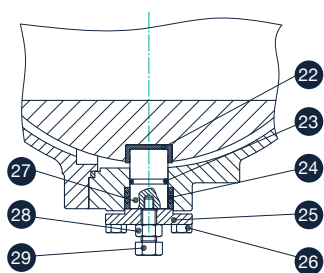
CONSTRUCTION-BILL OF MATERIAL

SERIES F502-10
ANSI CLASS 150
8" ~ 12"

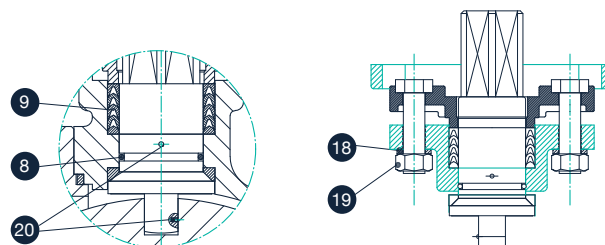


NO.	Parts	Material	Qty
1	Body	CF8M / WCB	1
2	End cap	CF8M / WCB	1
3	Ball	SS316 / CF8M	1
4	Seat	RTFE	2
5	Joint Gasket	PTFE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	O-Ring	VITON	1
9	Gland Packing	PTFE	1 set
10	Gland	CF8	1
11	Handle Screw	SS304	2
12	Handle-A	WCB	1
13	Handle-B	CARBON	1
14	Handle Cover	VINYL	1
15	Bolt	B8	*
16	Bolt Nut	8	*
17	Gland Blot	B8	2
18	Blot Washer	SS304	2
19	Bolt Nut	8	2
20	Anti-static Device	SS316	2
21	Stop Pin	SS304	1
22	Trunnion Bearing	STFE	1
23	O-Ring	VITON	1
24	Gland Packing	25% GLASS FIBER FILED+PTFE	1set
25	Support Gland	SS304	1
26	Gland Blot	B8	4
27	Support Pin	SS316	1
28	Set Nut	SS304	1
29	Tuning Screw	SS304	1

NO. 22-29 for 10"~12"
8" (12pcs of bolts and bolt nuts) · 10" (16pcs of bolts and bolt nuts)
12" (24pcs of bolts and bolt nuts) · 10"~12"(Gear Operator)



10" ~ 12"



A VIEW

A-A VIEW

DIMENSIONS(mm)

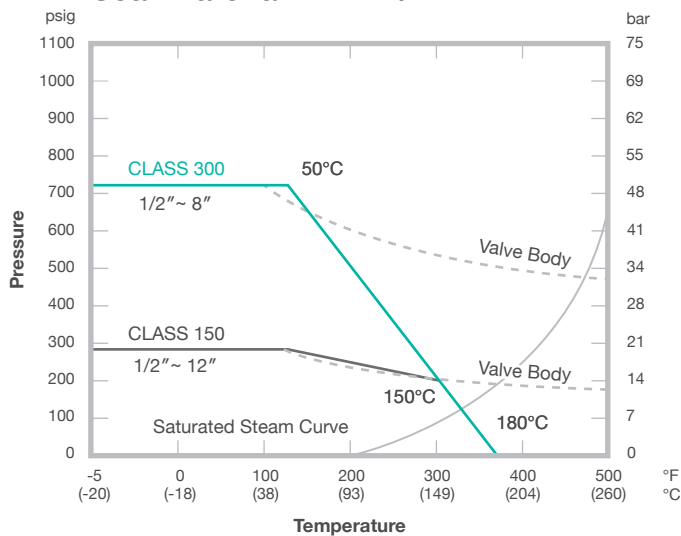
SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
8"	201	36	955	265	40	61	140	165	457.2	8	298.5	22.2	269.7	343	28.5	1.6	18	22	FOR F14/F16
10"	252	46	-	300	45	-	-	165	533.4	12	362	25.4	324	406.4	30.3	1.6	-	22	FOR F16
12"	303	46	-	340	45	-	-	165	609.6	12	431.8	25.4	381	482.6	31.8	1.6	-	22	FOR F16

TECHNICAL DATA | Breakaway torque / Cv and Kv values / Weight

SERIES F502-10 Size	Breakaway torque		Cv values	Kv values (M ³ /h)	Weight (Kg)
	Torque (N.m)	Torque (lbs.in)			
1/2"	9	80	15	13	1.91
3/4"	13	115	40	34	2.26
1"	16	142	70	60	3.08
1-1/4"	22	195	110	94	4.34
1-1/2"	31	275	250	213	6.82
2"	38	337	430	366	9.48
2-1/2"	55	487	700	595	14.28
3"	94	833	1100	935	20.29
4"	101	895	2000	1700	31.93
5"	221	1958	3700	3145	67.35
6"	234	2073	5400	4590	77.61
8"	819	7256	9800	8330	129.65
10"	1365	12094	16400	13940	200.6
12"	2730	24188	23800	20230	338

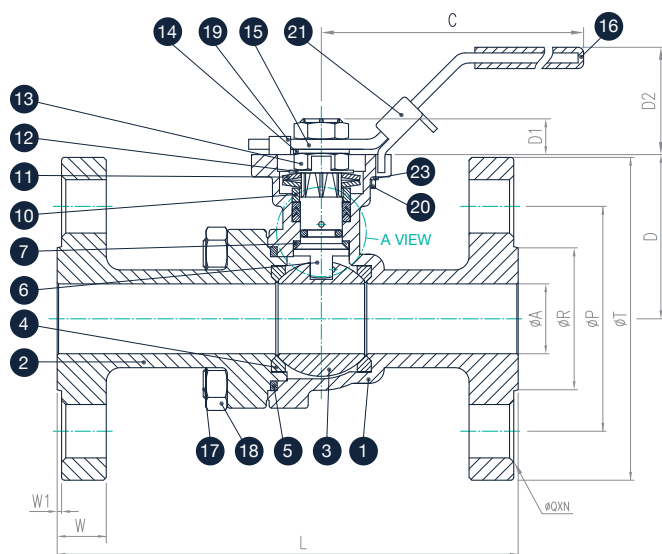
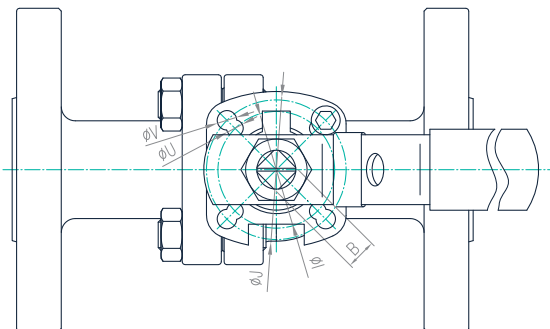
TECHNICAL DATA | Pressure- Temperature diagram | 1/2" ~ 12"

Seat material : PTFE / RTFE



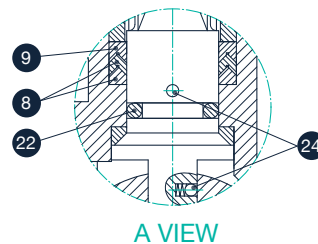
CONSTRUCTION-BILL OF MATERIAL

SERIES F502-20 ANSI CLASS 300 1/2" ~ 2-1/2"



NO.	Parts	Material	Qty
1	Body	CF8M / WCB	1
2	End cap	CF8M / WCB	1
3	Ball	SS316 / CF8M	1
4	Seat	RTFE	2
5	Joint Gasket	PTFE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	PTFE	&
9	Gland Packing	25% GLASS FIBER FILED+PTFE	1
10	Gland Bush	SS304	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS304	1
13	Stem Nut	SS304	2
14	Stem Washer	SS304	1
15	Handle	SS304	1
16	Handle Cover	VINYL	1
17	Bolt	B8	*
18	Bolt Nut	8	*
19	Stop Pin	SS304	1
20	Pin Nut	SS304	1
21	Locking Device	SS304	1
22	O-Ring	VITON	1
23	Washer	SS304	1
24	Anti-static Device	SS316	2

& 1/2"~ 1" (2pcs) , 1-1/2"~ 2-1/2" (3pcs)
1/2"~ 2" (4pcs of bolts and bolt nuts) , 2-1/2" (8pcs of bolts and bolt nuts)

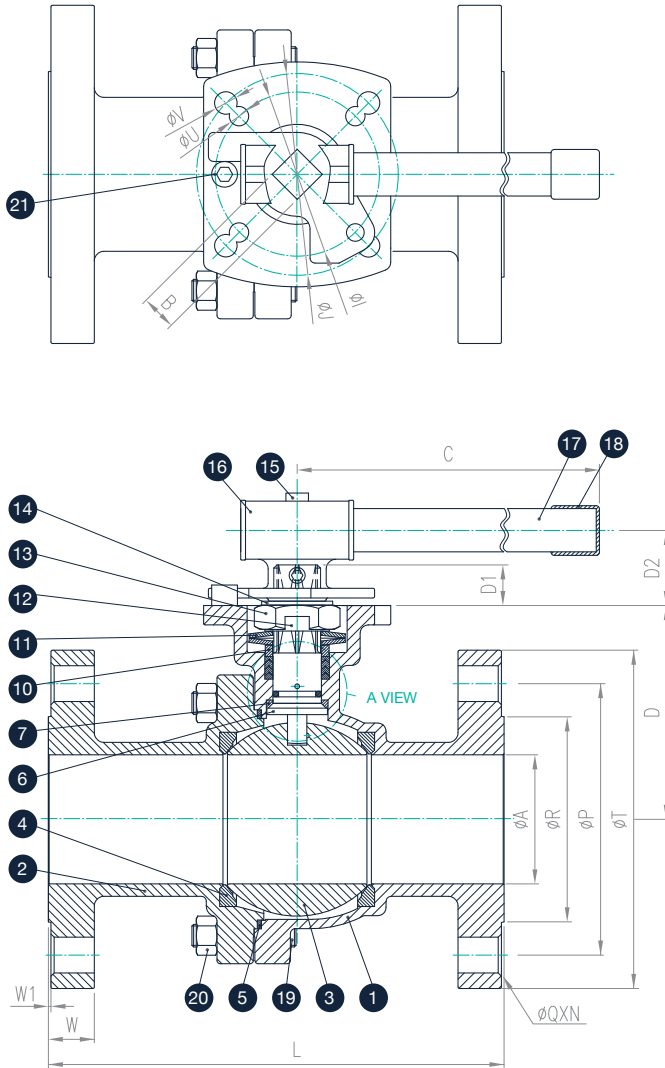


DIMENSIONS(mm)

SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
1/2"	15	11	165	48.7	9.9	36	42	50	139.7	4	66.5	16	35.1	95.3	14.3	1.6	6.5	7	FOR F04/F05
3/4"	20	11	165	63.5	10.3	36	42	50	152.4	4	52.6	19	42.9	117.3	15.8	1.6	6.5	7	FOR F04/F05
1"	25	11	165	63.5	10.3	36	42	50	165.1	4	88.9	19	50.8	124	17.6	1.6	6.5	7	FOR F04/F05
1-1/2"	38	17	262	89.1	19	58	70	102	190.5	4	114.3	22.2	73.2	155.4	20.6	1.6	10	12	FOR F07/F10
2"	50	17	262	96.6	19	58	70	102	215.9	8	127	19	91.9	165.1	22.4	1.6	10	12	FOR F07/F10
2-1/2"	65	17	262	116	19	58	70	102	241.3	8	149.4	22.2	104.6	190.5	25.4	1.6	10	12	FOR F07/F10

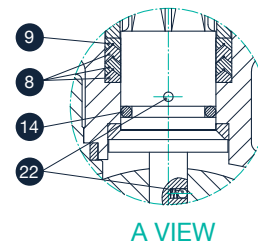
CONSTRUCTION-BILL OF MATERIAL

SERIES F502-20
ANSI CLASS 300
3" ~ 6"



NO.	Parts	Material	Qty
1	Body	CF8M / WCB	1
2	End cap	CF8M / WCB	1
3	Ball	SS316 / CF8M	1
4	Seat	RTFE	2
5	Joint Gasket	PTFE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	PTFE	&
9	Gland Packing	25% GLASS FIBER FILED+PTFE	1
10	Gland Bush	SS304	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS304	1
13	Stem Nut	SS304	2
14	O-Ring	VITON	1
15	Handle Screw	SS304	1
16	Handle-A	SS304	1
17	Handle-B	SS304 / CARBON	1
18	Handle Cover	VINYL	1
19	Bolt	B8	*
20	Bolt Nut	8	*
21	Stop Pin	SS304	1
22	Anti-static Device	SS316	1

& 1/2" ~ 1-1/4" (2pcs) · 1-1/2" ~ 2-1/2" (3pcs)
1/2" ~ 2" (4pcs of bolts and bolt nuts) · 2-1/2" (8pcs of bolts and bolt nuts)

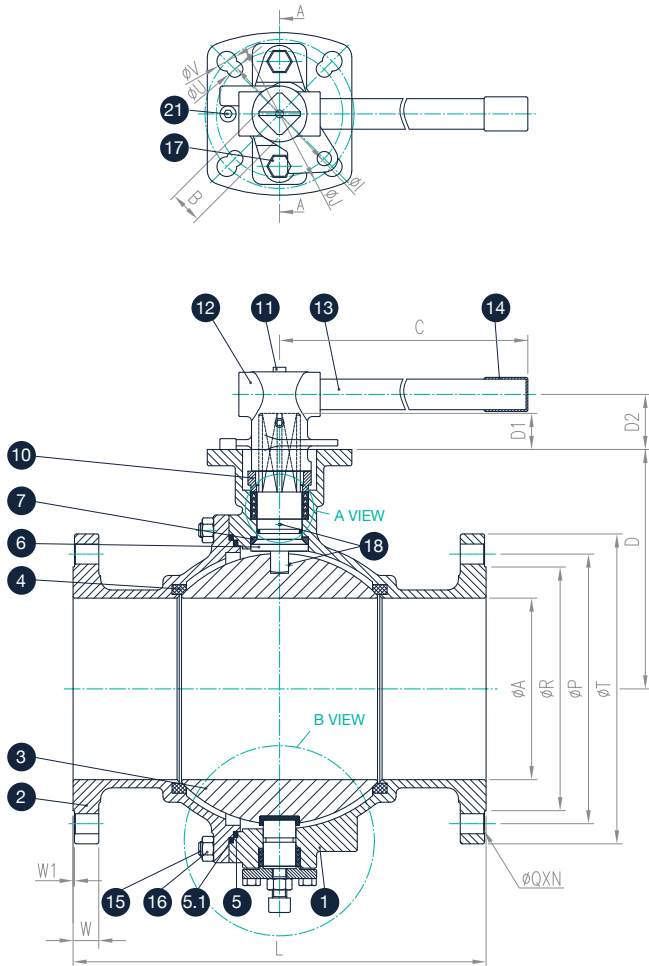


DIMENSIONS(mm)

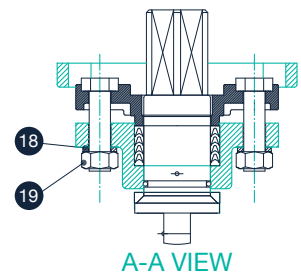
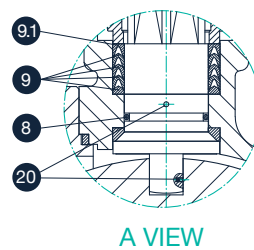
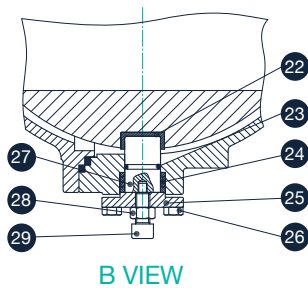
SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
3"	80	22	365	132.5	23	46.2	102	125	282.4	8	168.2	22.2	127	209.6	28.5	1.6	12	14	FOR F10/F12
4"	100	22	365	157	23	46.2	102	125	304.8	8	200.2	22.2	157.2	254	31.8	1.6	12	14	FOR F10/F12
6"	150	27	705	210.2	28.5	66.5	125	140	403.2	12	269.7	22.2	215.9	317.5	36.6	1.6	14	18	FOR F12/F14

CONSTRUCTION-BILL OF MATERIAL

**SERIES F502-20
ANSI CLASS 300
8"**



NO.	Parts	Material	Qty
1	Body	CF8M / WCB	1
2	End cap	CF8M / WCB	1
3	Ball	SS316 / CF8M	1
4	Seat	RTFE	2
5	Joint Gasket	PTFE	1
5.1	Joint Gasket	PTFE	1
6	Stem	17-4PH	1
7	Thrust Washer	RTFE	1
8	O-Ring	VITON	1
9	Gland Packing	PTFE	4
9.1	Gland Packing	25% GLASS FIBER FILED+PTFE	1
10	Gland	CF8	1
11	Handle Screw	SS304	2
12	Handle-A	WCB	1
13	Handle-B	CARBON	1
14	Handle Cover	VINYL	1
15	Bolt	B8	18
16	Bolt Nut	8	18
17	Gland Bolt	B8	2
18	Bolt Washer	SS304	2
19	Bolt Nut	8	2
20	Anti-static Device	SS316	2
21	Stop Pin	SS304	1
22	Trunnion Bearing	STFE	1
23	O-Ring	VITON	1
24	Gland Packing	25% GLASS FIBER FILED+PTFE	1set
25	Support Gland	SS304	1
26	Gland Blot	B8	4
27	Support Pin	SS316	1
28	Set Nut	8	1
29	Tuning Screw	B8	1



DIMENSIONS(mm)

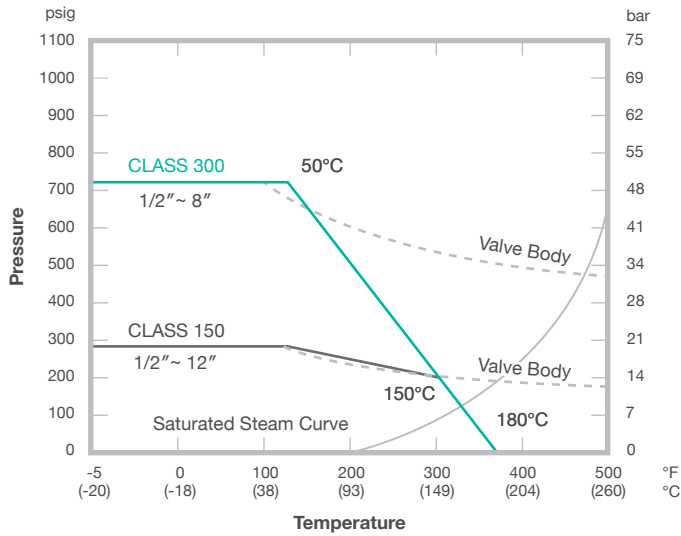
SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
8"	201	36	955	265	40	61	140	165	502	12	330.2	26	269.9	380	42.1	1.6	18	22	FOR F14/F16

TECHNICAL DATA | Breakaway torque / Cv and Kv values / Weight

SERIES F502-20 Size	Breakaway torque		Cv values	Kv values (M ³ /h)	Weight (Kg)
	Torque (N.m)	Torque (lbs.in)			
1/2"	10	889	15	12.75	2.3
3/4"	14	124	40	34	3.94
1"	17	151	70	59.5	5.07
1-1/4"	-	-	-	-	-
1-1/2"	35	310	250	212.5	10.2
2"	42	372	430	365.5	12.72
2-1/2"	60	532	700	595	19.72
3"	101	895	1100	935	28.61
4"	118	1045	2000	1700	45.14
5"	-	-	-	-	-
6"	257	2277	5400	4590	102.25
8"	819	7256	9800	8330	121.1

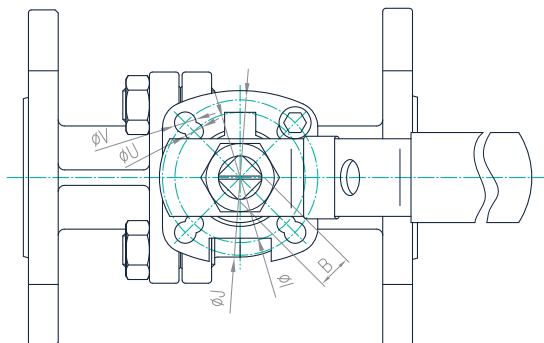
TECHNICAL DATA | Pressure- Temperature diagram | 1/2" ~ 8"

Seat material : PTFE / RTFE

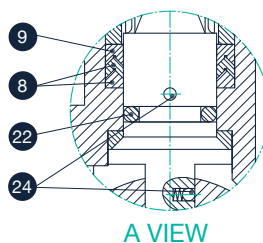
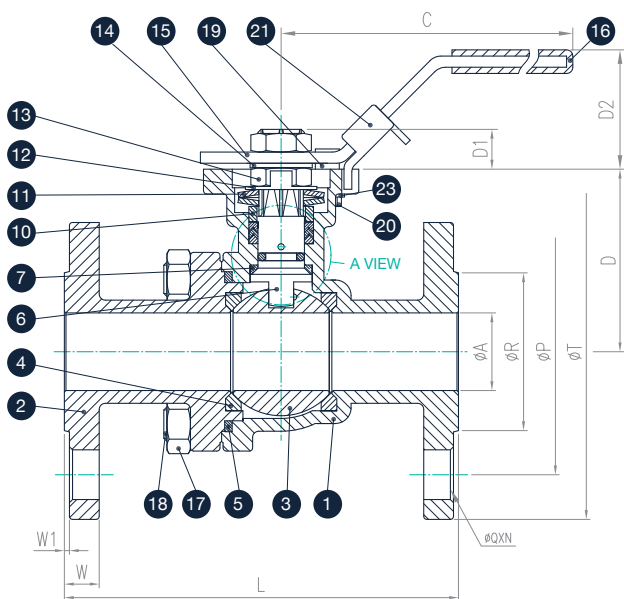


CONSTRUCTION-BILL OF MATERIAL

SERIES F502-40 / F502-60 PN 16 / PN 40 1/2" ~ 2-1/2"



NO.	Parts	Material	Qty
1	Body	1.4408 / 1.0619	1
2	End cap	1.4408 / 1.0619	1
3	Ball	SS316 / 1.4408	1
4	Seat	CTFE/TFM1600	2
5	Joint Gasket	SS316 w/ GRAPHITE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	GRAPHITE	&
9	Gland Packing	25% GLASS FIBER FILLED+PTFE	1
10	Gland Bush	SS316	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS316	1
13	Stem Nut	SS316	2
14	Stem Washer	SS316	1
15	Handle	SS316	1
16	Handle Cover	VINYL	1
17	Bolt	SS316	*
18	Bolt Nut	SS316	*
19	Stop Pin	SS316	1
20	Pin Nut	SS316	1
21	Locking Device	SS316	1
22	O-Ring	VITON	1
23	Washer	SS316	1
24	Anti-static Device	SS316	2



F502-60
& 1/2" ~ 1-1/4" (2pcs) * 1-1/2" ~ 2-1/2" (3pcs)
1/2" ~ 2" (4pcs of bolts and bolt nuts)
2-1/2" (8pcs of bolts and bolt nuts)

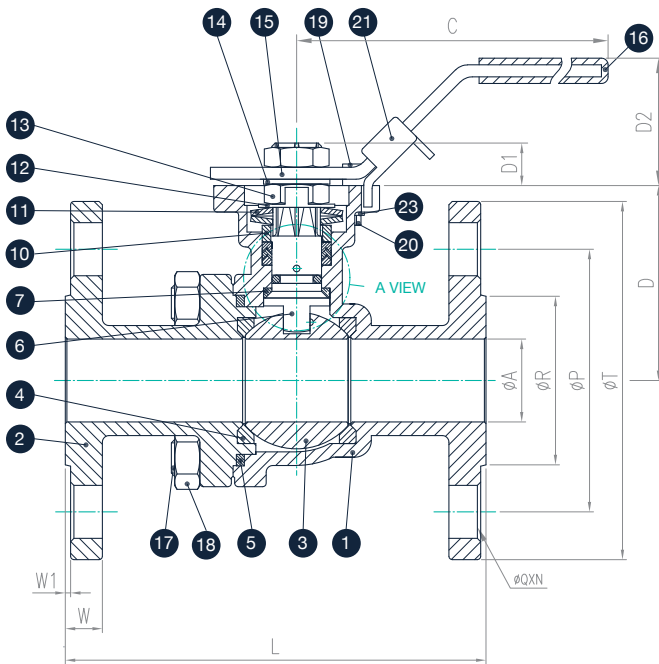
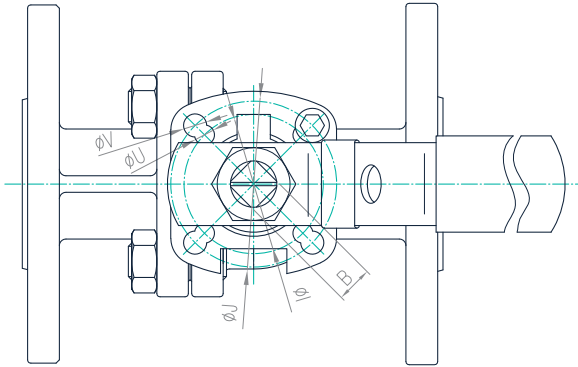
DIMENSIONS(mm)

F502-40 F502-60 SIZE	øA	B	C	D	D1	D2	øI	øJ	L		N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
									F4	F1										
1/2"	15	11	165	48.7	9.9	36	42	50	115	130	4	66	14	45	95	16	2	6	7	FOR F04/F05
3/4"	20	11	165	53.7	9.9	36	42	50	120	150	4	75	14	58	105	18	2	6	7	FOR F04/F05
1"	25	11	165	58.8	10.3	36	42	50	125	160	4	85	14	68	115	18	2	6	7	FOR F04/F05
1-1/4"	32	14	215	72.6	12.9	49	50	70	130	180	4	100	18	78	140	18	2	7.5	9	FOR F05/F07
1-1/2"	38	17	262	89.1	19	58	70	102	140	200	4	110	18	88	150	18	3	10	12	FOR F07/F10
2"	50	17	262	96.6	19	58	70	102	150	230	4	125	18	102	165	20	3	10	12	FOR F07/F10

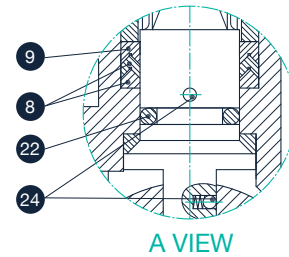
F502-60 SIZE	øA	B	C	D	D1	D2	øI	øJ	L		N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
									F4	F1										
2-1/2"	65	17	262	116	19	58	70	102	170	290	8	145	18	122	185	22	3	10	12	FOR F07/F10

CONSTRUCTION-BILL OF MATERIAL

SERIES F502-40 / F502-60
PN 16 / PN 40
2-1/2"



NO.	Parts	Material	Qty
1	Body	1.4408 / 1.0619	1
2	End cap	1.4408 / 1.0619	1
3	Ball	SS316 / 1.4408	1
4	Seat	CTFE/TFM1600	2
5	Joint Gasket	SS316 w/ GRAPHITE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	GRAPHITE	3
9	Gland Packing	25% GLASS FIBER FILLED+PTFE	1
10	Gland Bush	SS316	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS316	1
13	Stem Nut	SS316	2
14	Stem Washer	SS316	1
15	Handle	SS316	1
16	Handle Cover	VINYL	1
17	Bolt	SS316	6
18	Bolt Nut	SS316	6
19	Stop Pin	SS316	1
20	Pin Nut	SS316	1
21	Locking Device	SS316	1
22	O-Ring	VITON	1
23	Washer	SS316	1
24	Anti-static Device	SS316	2

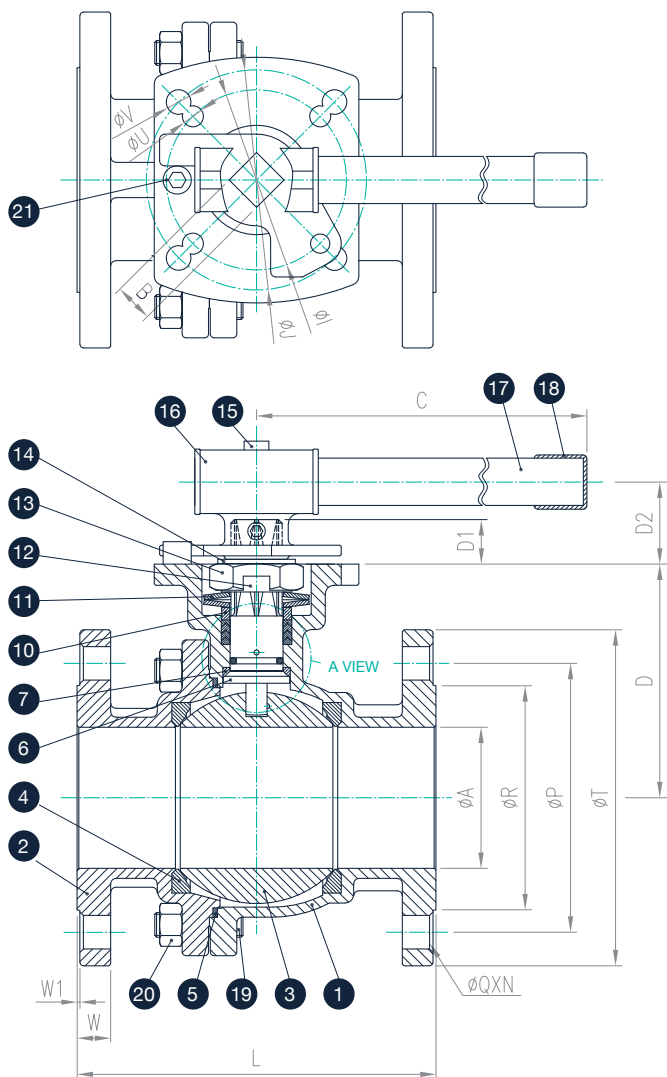


DIMENSIONS(mm)

F502-40 SIZE	ϕA	B	C	D	D1	D2	ϕI	ϕJ	L		N	ϕP	ϕQ	ϕR	ϕT	W	W1	ϕU	ϕV	ISO5211
									F4	F1										
2-1/2"	65	17	262	116	19	58	70	102	170	290	4	145	18	122	185	18	3	10	12	FOR F07/F10

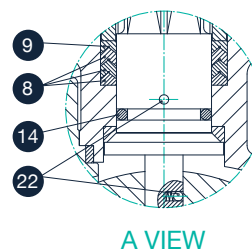
CONSTRUCTION-BILL OF MATERIAL

SERIES F502-40 / F502-60 PN 16 / PN 40 3" ~ 6"



NO.	Parts	Material	Qty
1	Body	1.4408 / 1.0619	1
2	End cap	1.4408 / 1.0619	1
3	Ball	SS316 / 1.4408	1
4	Seat	CTFE/TFM1600	2
5	Joint Gasket	SS316 w/ GRAPHITE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	GRAPHITE	3
9	Gland Packing	25% GLASS FIBER FILLED+PTFE	1
10	Gland Bush	SS316	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS316	1
13	Stem Nut	SS316	1
14	O-Ring	VITON	1
15	Handle Screw	SS316	2
16	Handle-A	SS316	1
17	Handle-B	SS316	1
18	Handle Cover	VINYL	1
19	Bolt	SS316	*
20	Bolt Nut	SS316	*
21	Stop Pin	SS316	1
22	Anti-static Device	SS316	2

3"~ 5" (8pcs of bolts and bolt nuts) 6" (10pcs of bolts and bolt nuts)
3"~ 4" (Handle-B material is SS304) 5"~ 6" (Handle-B material is carbon)



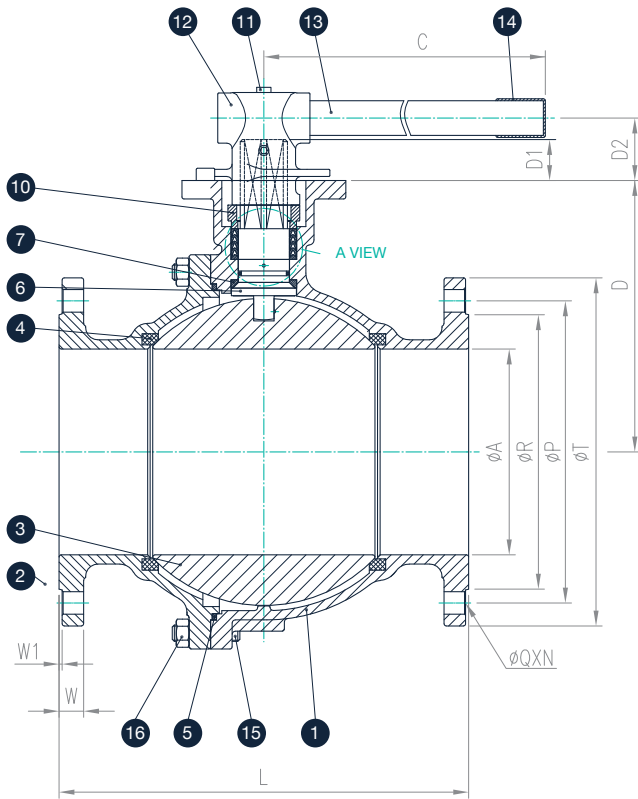
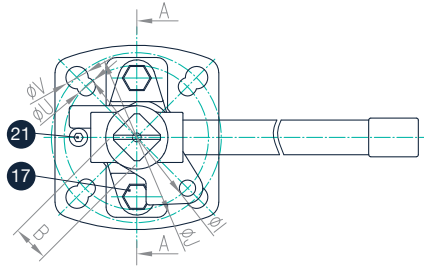
DIMENSIONS(mm)

F502-40 SIZE	øA	B	C	D	D1	D2	øI	øJ	L			N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
									F4	F5	F1										
3"	80	22	365	132.5	23	46.2	102	125	180	-	310	8	160	18	138	200	20	3	12	14	FOR F10/F12
4"	100	22	365	157	23	46.2	102	125	190	-	350	8	180	18	158	220	20	3	12	14	FOR F10/F12
5"	125	27	705	192.7	28.5	66.5	125	140	-	325	-	8	210	18	188	250	22	3	14	18	FOR F12/F14
6"	150	27	705	210.2	28.5	66.5	125	140	-	350	-	8	240	22	212	285	22	3	14	18	FOR F12/F14

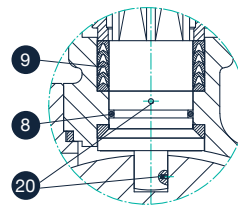
F502-60 SIZE	øA	B	C	D	D1	D2	øI	øJ	L			N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
									F4	F5	F1										
3"	80	22	365	132.5	23	46.2	102	125	180	-	310	8	160	18	138	200	24	3	12	14	FOR F10/F12
4"	100	22	365	157	23	46.2	102	125	190	-	350	8	190	22	162	235	24	3	12	14	FOR F10/F12
6"	150	27	705	210.2	28.5	66.5	125	140	-	350	-	8	250	26	218	300	28	3	14	18	FOR F12/F14

CONSTRUCTION-BILL OF MATERIAL

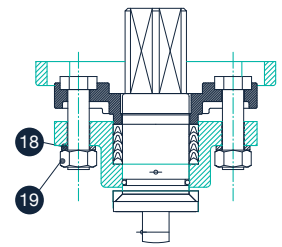
SERIES F502-40
PN 16
8"



NO.	Parts	Material	Qty
1	Body	1.4408 / 1.0619	1
2	End cap	1.4408 / 1.0619	1
3	Ball	SS316 / 1.4408	1
4	Seat	CTFE/TFM1600	2
5	Joint Gasket	SS316 w/ GRAPHITE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	O-Ring	VITON	1
9	Gland Packing	GRAPHITE	1set
10	Gland	CF8M	1
11	Handle Screw	SS316	2
12	Handle-A	SS316	1
13	Handle-B	SS316	1
14	Handle Cover	VINYL	1
15	Bolt	SS316	12
16	Bolt Nut	SS316	12
17	Gland Bolt	SS316	2
18	Bolt Washer	SS316	2
19	Bolt Nut	SS316	2
20	Anti-static Device	SS316	2
21	Stop Pin	SS316	1



A VIEW



A-A VIEW

DIMENSIONS(mm)

SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
8"	201	36	955	265	40	61	140	165	400	12	295	22	268	340	24	3	18	22	FOR F014/F16

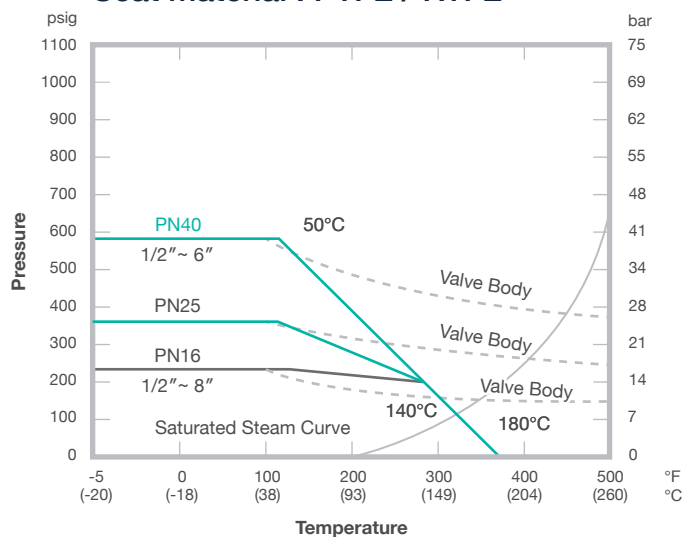
TECHNICAL DATA | Breakaway torque / Cv and Kv values / Weight

SERIES F502-40	Breakaway torque		Cv values	Kv values (M ³ /h)	Weight (Kg)
	Size	Torque (N.m)			
1/2"	9	80	15	12.75	2.34
3/4"	13	115	40	34	3.05
1"	16	142	70	59.5	4
1-1/4"	22	195	110	93.5	5.72
1-1/2"	31	275	250	212.5	7.98
2"	38	337	430	365.5	10.52
2-1/2"	55	487	700	595	14.67
3"	94	833	1100	935	19.37
4"	101	895	2000	1700	27.26
5"	221	1958	3700	3145	53.56
6"	234	2073	5400	4590	69.38
8"	819	7256	9800	8330	93.79

SERIES F502-60	Breakaway torque		Cv values	Kv values (M ³ /h)	Weight (Kg)
	Size	Torque (N.m)			
1/2"	9	80	15	12.75	2.34
3/4"	13	115	40	34	3.05
1"	16	142	70	59.5	4
1-1/4"	22	195	110	93.5	5.72
1-1/2"	31	275	250	212.5	7.98
2"	38	337	430	365.5	10.52
2-1/2"	55	487	700	595	14.53
3"	94	833	1100	935	19.37
4"	101	895	2000	1700	28.13
5"	221	1958	3700	3145	53.56
6"	234	2073	5400	4590	70.72

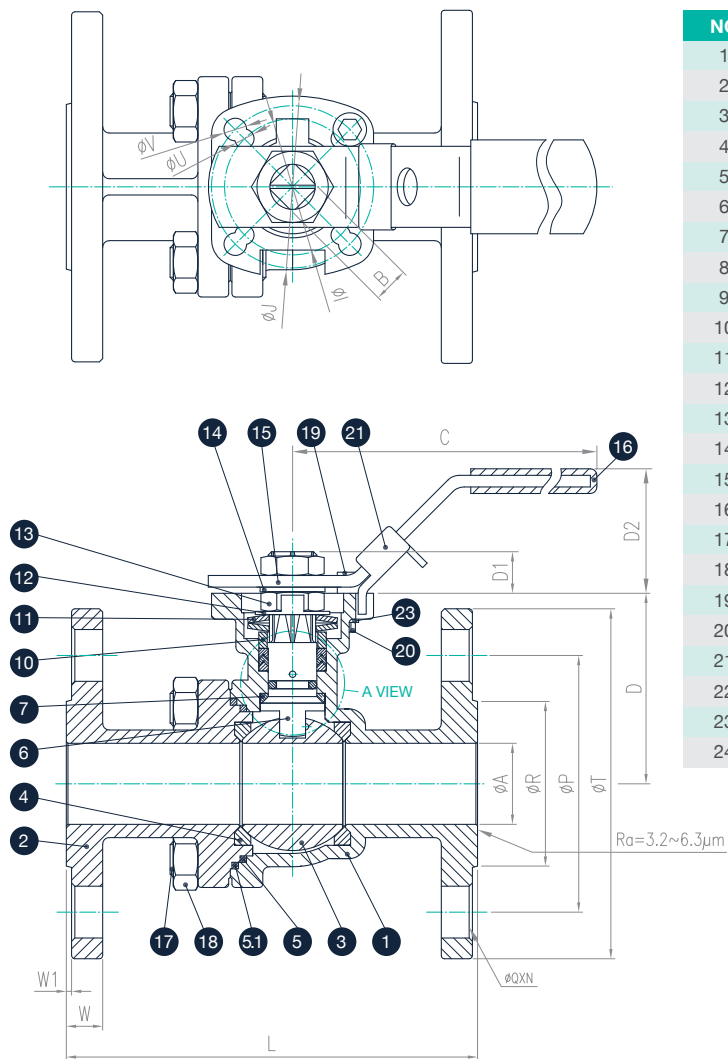
TECHNICAL DATA | Pressure- Temperature diagram | 1/2" ~ 8"

Seat material : PTFE / RTFE



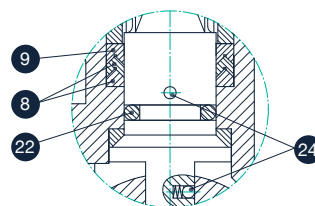
CONSTRUCTION-BILL OF MATERIAL

SERIES F502-70 JIS 10K 1/2" ~ 1"



NO.	Parts	Material	Qty
1	Body	SCS 14A / SCPH2	1
2	End cap	SCS 14A / SCPH2	1
3	Ball	SS316 / CF8M	1
4	Seat	RTFE	2
5	Joint Gasket	PTFE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	PTFE	&
9	Gland Packing	25% GLASS FIBER FILED+PTFE	1
10	Gland Bush	SS304	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS304	1
13	Stem Nut	SS304	2
14	Stem Washer	SS304	1
15	Handle	SS304	1
16	Handle Cover	VINYL	1
17	Bolt	SS304	4
18	Bolt Nut	SS304	4
19	Stop Pin	SS304	1
20	Pin Nut	SS304	1
21	Locking Device	SS304	1
22	O-Ring	VITON	1
23	Washer	SS304	1
24	Anti-static Device	SS316	2

& For 1/2"~1-1/4" (2pcs) , For 1-1/2"~2" (3pcs)
1/2"~2" (4pcs of bolts and bolt nuts)
2-1/2" (8pcs of bolts and bolt nuts)



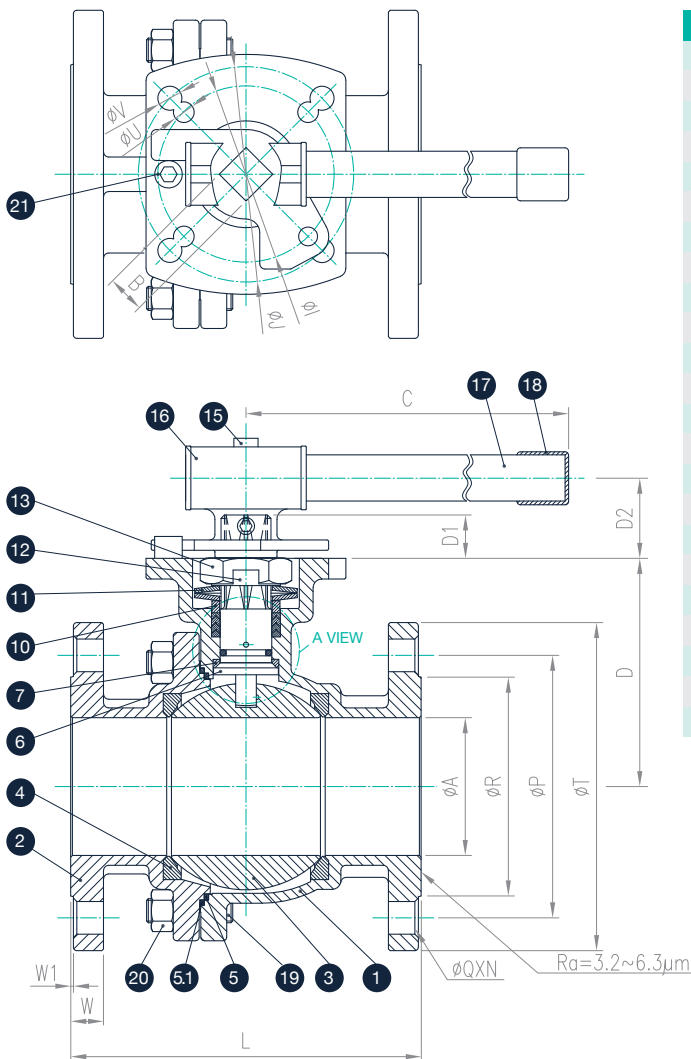
A VIEW

DIMENSIONS(mm)

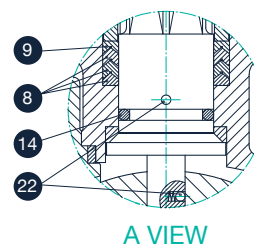
SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
1/2"	15	11	165	48.7	9.9	36	42	50	108	4	70	15	51	95	12	1	6.5	7	FOR F04/F05
3/4"	20	11	165	51.2	9.9	36	42	50	117	4	75	15	56	100	14	1	6.5	7	FOR F04/F05
1"	25	11	165	63.5	10.3	36	42	50	127	4	90	19	67	125	14	1	6.5	7	FOR F04/F05
1-1/4"	32	14	215	72.6	12.9	49	50	70	140	4	100	19	76	135	16	2	7.5	9	FOR F05/F07
1-1/2"	38	17	262	89.1	19	58	70	102	165	4	105	19	81	140	16	2	10	12	FOR F07/F10
2"	50	17	262	96.6	19	58	70	102	178	4	120	19	96	155	16	2	10	12	FOR F07/F10
2-1/2"	65	17	262	116	19	58	70	102	190	4	140	19	116	175	18	2	10	12	FOR F07/F10

CONSTRUCTION-BILL OF MATERIAL

SERIES F502-70
3" ~ 4"



NO.	Parts	Material	Qty
1	Body	SCS 14A / SCPH2	1
2	End cap	SCS 14A / SCPH2	1
3	Ball	SS316 / CF8M	1
4	Seat	RTFE	2
5	Joint Gasket	PTFE	1
5.1	Joint Gasket	PTFE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	PTFE	3
9	Gland Packing	25% GLASS FIBER FILED+PTFE	1
10	Gland Bush	SS304	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS304	1
13	Stem Nut	SS304	1
14	O-Ring	VITON	1
15	Handle Screw	SS304	2
16	Handle-A	SS304	1
17	Handle-B	SS304	1
18	Handle Cover	VINYL	1
19	Bolt	SS304	8
20	Bolt Nut	SS304	8
21	Stop Pin	SS304	1
22	Anti-static Device	SS316	2



DIMENSIONS(mm)

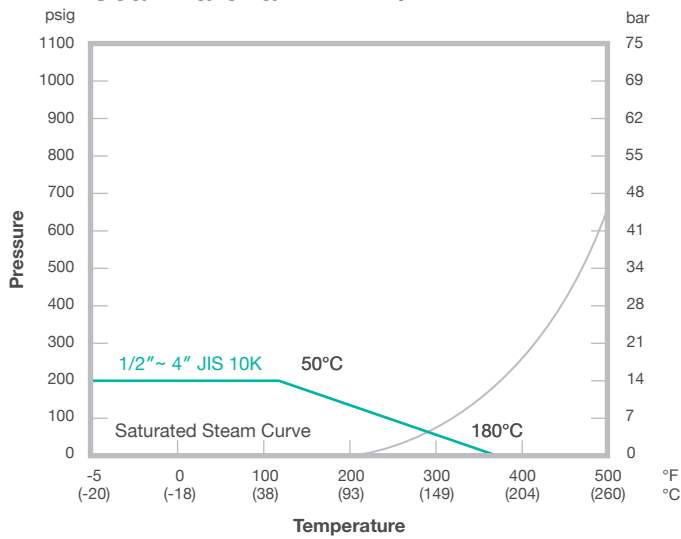
SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
3"	80	22	365	132.5	23	46.2	102	125	203	8	150	19	126	185	18	2	12	14	FOR F10/F12
4"	100	22	365	157	23	46.2	102	125	229	8	175	19	151	210	18	2	12	14	FOR F10/F12

TECHNICAL DATA | Breakaway torque / Cv and Kv values / Weight

SERIES F502-70 Size	Breakaway torque		Cv values	Kv values (M ³ /h)	Weight (Kg)
	Torque (N.m)	Torque (lbs.in)			
1/2"	9	80	15	12.75	2.21
3/4"	13	115	40	34	2.67
1"	16	142	70	59.5	4.02
1-1/4"	22	195	110	93.5	4.96
1-1/2"	31	275	250	212.5	7.5
2"	38	337	430	365.5	9.32
2-1/2"	55	487	700	595	14
3"	94	833	1100	935	18.3
4"	101	895	2000	1700	30.37

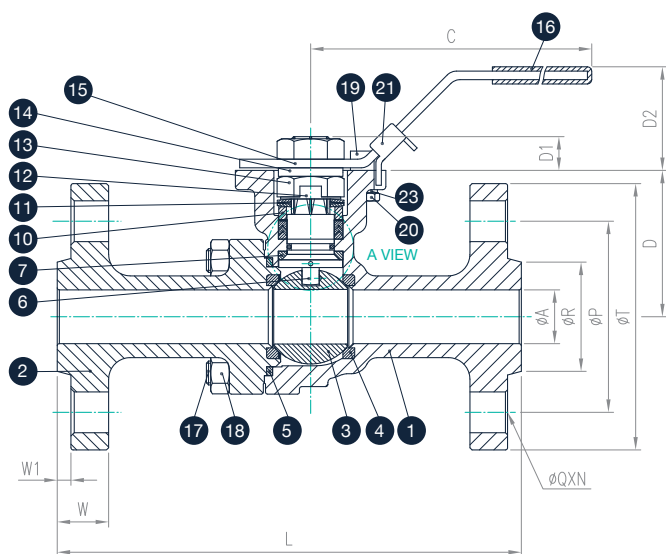
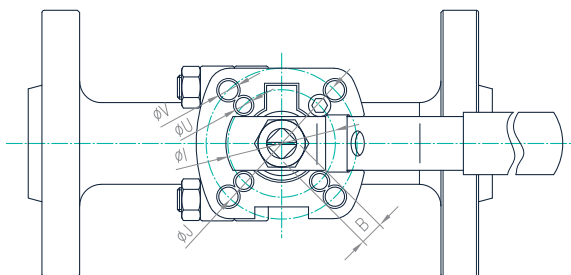
TECHNICAL DATA | Pressure- Temperature diagram | 1/2" ~ 4"

Seat material : PTFE / RTFE

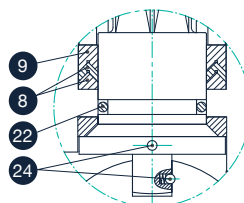


CONSTRUCTION-BILL OF MATERIAL

SERIES F502-80 ANSI CLASS 600 1/2" ~ 1"



NO.	Parts	Material	Qty
1	Body	CF8M / WCB	1
2	End cap	CF8M / WCB	1
3	Ball	SS316 / CF8M	1
4	Seat	RTFE	2
5	Joint Gasket	PTFE	1
6	Stem	SS316	1
7	Thrust Washer	RTFE	1
8	Gland Packing	PTFE	2
9	Gland Packing	25% GLASS FIBER FILED+PTFE	1
10	Gland Bush	SS304	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS304	1
13	Stem Nut	SS304	2
14	Stem Washer	SS304	1
15	Handle	SS304	1
16	Handle Cover	VINYL	1
17	Bolt	B8	4
18	Bolt Nut	8	4
19	Stop Pin	SS304	1
20	Pin Nut	SS304	1
21	Locking Device	SS304	1
22	O-Ring	VITON	1
23	Washer	SS304	1
24	Anti-static Device	SS316	2



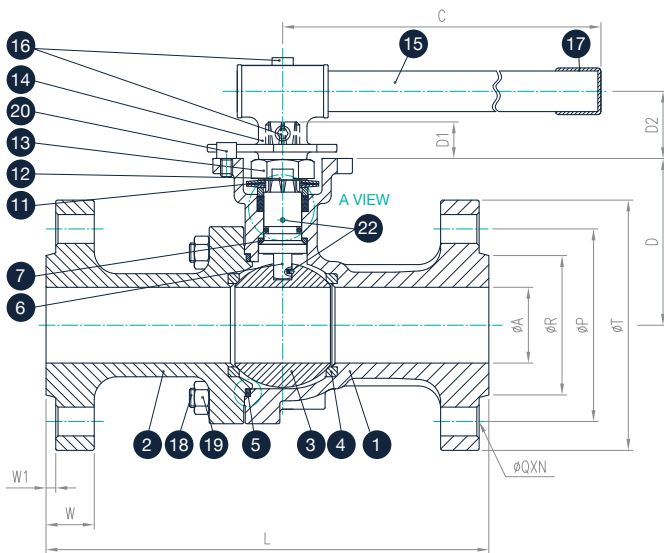
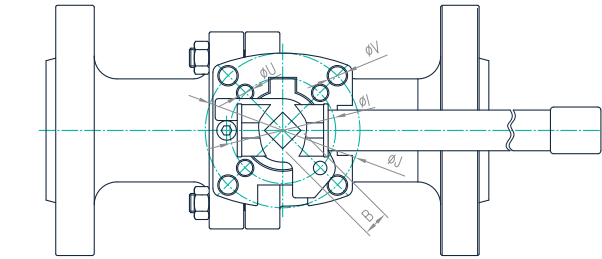
A VIEW

DIMENSIONS(mm)

SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
1/2"	15	11	213	48.7	9.9	48	42	50	165	4	66.5	16	35.1	95.3	20.6	6.4	6.5	7	FOR F04/F05
3/4"	20	11	213	63.5	10.3	48	42	50	190.3	4	82.6	19	42.9	117.3	22.1	6.4	6.5	7	FOR F04/F05
1"	25	14	263.5	68.1	13.9	49	50	70	215.9	4	88.9	19	50.8	124	23.9	6.4	7.5	9	FOR F05/F07

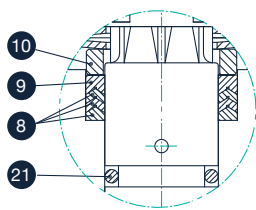
CONSTRUCTION-BILL OF MATERIAL

SERIES F502-80 ANSI CLASS 600 1-1/2" ~ 2"

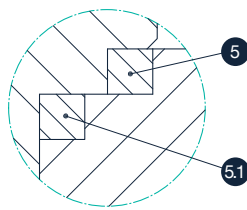


NO.	Parts	Material	Qty
1	Body	CF8M / WCB	1
2	End cap	CF8M / WCB	1
3	Ball	SS316 / CF8M	1
4	Seat	RTFE	2
5	Joint Gasket	PTFE	1
5.1	Joint Gasket	PTFE	1
6	Stem	SS316	1
7	Thrust Washer	PTFE	1
8	Gland Packing	PTFE	3
9	Gland Packing	25% GLASS FIBER FILED+PTFE	1
10	Gland Bush	SS304	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS304	1
13	Stem Nut	SS304	1
14	Handle-A	SS304	1
15	Handle-B	SS304	1
16	Handle Screw	SS304	2
17	Handle Cover	VINYL	1
18	Bolt	B8	*
19	Bolt Nut	8	*
20	Stop Pin	SS304	1
21	O-Ring	VITON	1
22	Anti-static Device	SS316	2

1-1/2" (4pcs) · 2" (8pcs)



A VIEW



FOR 2"

DIMENSIONS(mm)

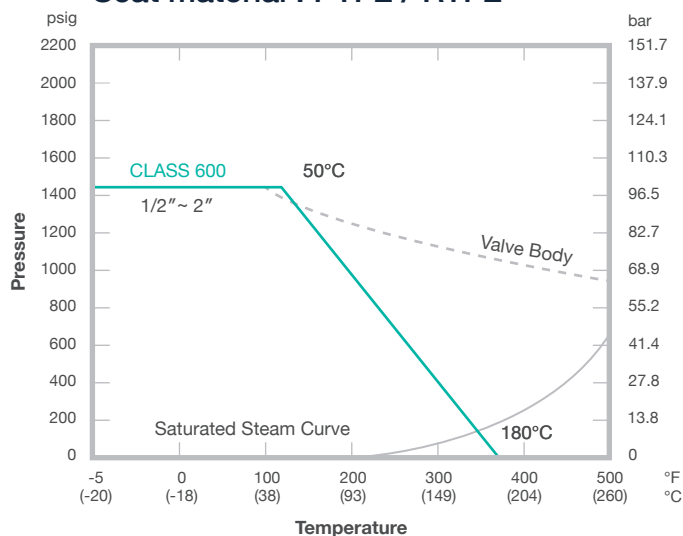
SIZE	øA	B	C	D	D1	D2	øI	øJ	L	N	øP	øQ	øR	øT	W	W1	øU	øV	ISO5211
1-1/2"	38	17	370	89.1	19	44.3	70	102	241.3	4	114.3	22.2	73.2	155.4	28.7	6.4	10	12	FOR F07/F10
2"	50	17	370	110	19	44.3	70	102	292.1	8	127	19	91.9	165.1	39	6.4	10	12	FOR F07/F10

TECHNICAL DATA | Breakaway torque / Cv and Kv values / Weight

SERIES F502-80 Size	Breakaway torque		Cv values	Kv values (M ³ /h)	Weight (Kg)
	Torque (N.m)	Torque (lbs.in)			
1/2"	8	71	15	12.75	2.87
3/4"	10	89	40	34	4.64
1"	22	195	70	59.5	6.3
1-1/4"	-	-	-	-	-
1-1/2"	39	346	250	212.5	12.63
2"	46	408	430	365.5	18.97

TECHNICAL DATA | Pressure- Temperature diagram | 1/2" ~ 2"

Seat material : PTFE / RTFE



OPTIONAL ACCESSORIES

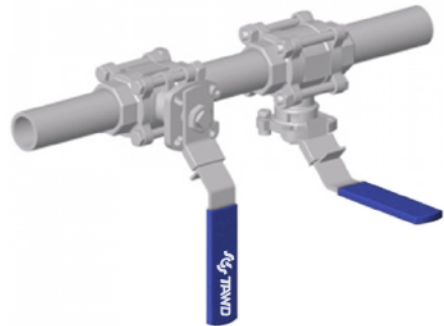
Handle options



Oval handle

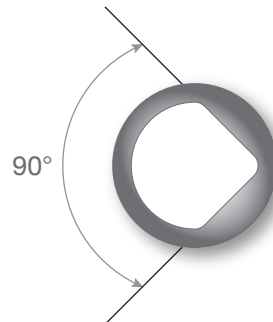
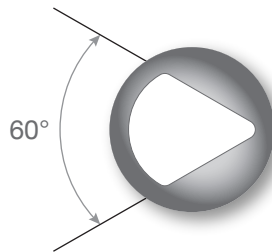
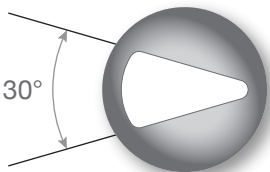


Economical stem extension



Spring return sliding lock

V Port ball



TSM





Transworld Steel Enterprise Co., Ltd.

Tel +886 4 2271 6107 **Fax** +886 4 2271 6127

Address No. 34, Gongye 14th Rd., Dali Dist.,
Taichung City, 412038, Taiwan (R.O.C.)



Established in 1992
TAWD has dedicated over 30 years to
manufacturing premium ball valves

➔ DISTRIBUTOR NORWAY | ✉ post@jsc.no | 🏠 www.jsc.no