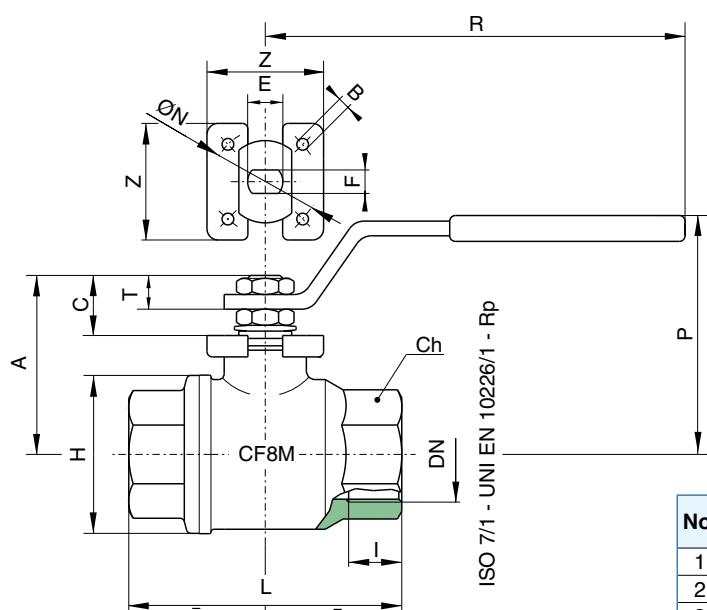
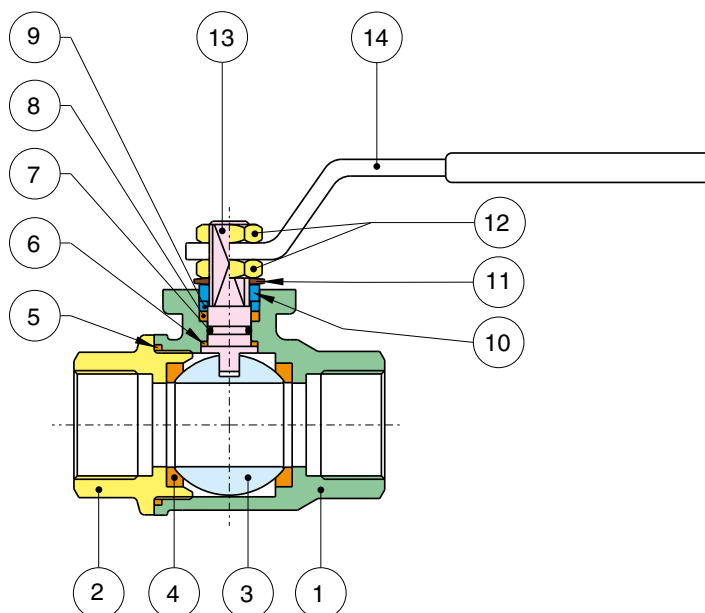


Stainless Steel Ball Valves Two-Piece Design 700000



700000*: Full bore stainless steel AISI 316-CF8M ball valve. Female/Female threads.



Additional Options:

- 700001 - Female/Female NPT
- 700002 - Seats glass filled P.T.F.E.. 'O' ring Viton
- 700016 - For oxygen
- 700061 - Anti-static/Firesafe (ATEX)
- 700071 - Anti-static/Firesafe (ATEX) NPT

No.	Part Name	Material
1	Body	A351-CF8M
2	End Connection	A351-CF8M
3	Ball	A182-F316 / A351-CF8M
4	Ball Seat	P.T.F.E.
5	Seat	P.T.F.E.
6	Thrust Washer	P.T.F.E.
7	O-Ring	FKM (Viton®)
8	Stem Seat	P.T.F.E.
9	Packing Gland	INOX AISI 303 (1/8" - 2") - Carbon Steel (2"1/2 - 4")
10	End Stop	INOX AISI 430 (1/8" - 2") - Carbon Steel (2"1/2-4")
11	Spring Washer	Carbon Steel (2"1/2 - 3" - 4")
12	Nut	A182-F304 (1/8" - 2") - Carbon Steel (2"1/2 - 4")
13	Stem	A182 - F316
14	Handle	INOX AISI 430 (1/8" - 2") Carbon Steel (2"1/2-4")

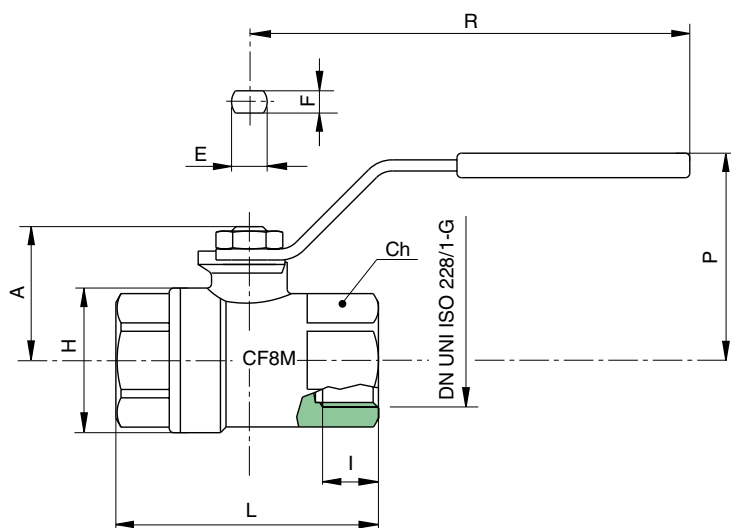
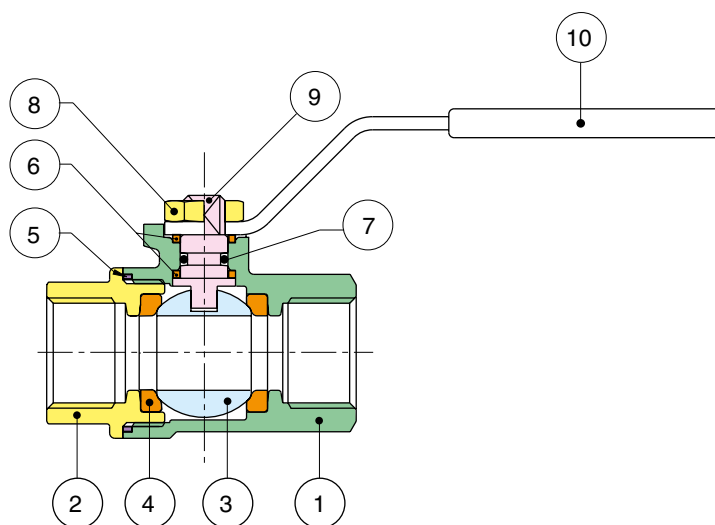
	Thread	DN	I	L	H	Ch	R	P	A	C	T	E	F	ØN	B	Z	Kv	PN	Kg
*01	1/8	6	7.7	55	30	ES.22	110	50	35	13.5	9	8	5	36	5.5	36	5	140	0.26
*02	1/4	8	11	55	30	ES.22	110	50	35	13.5	9	8	5	36	5.5	36	5.5	140	0.26
*03	3/8	10	11.4	55	30	ES.22	110	50	35	13.5	9	8	5	36	5.5	36	8.5	140	0.24
*04	1/2	15	15	66	36	ES.27	110	53	38	13.5	9	8	5	36	5.5	36	19.2	140	0.33
*05	3/4	20	16.3	79	45	ES.32	131	68	51	15	10	10	7	42	5.5	42	35.0	105	0.60
*06	1	25	19.1	93	54	OT.41	174	79	60	19.5	12.5	12	8	42	5.5	42	64.5	105	1.01
*07	1 1/4	32	21.4	100	64	OT.50	174	83	64.5	19.5	12.5	12	8	42	5.5	42	103.8	64	1.31
*08	1 1/2	40	21.4	110	80	OT.55	250	100	79	24	16.5	16	10	50	6.5	50	174.0	64	2.15
*10	2	50	25.7	131	95	OT.70	250	107	86	24	16.5	16	10	50	6.5	50	301.3	64	3.25
*12	2 1/2	65	30.2	159	122	OT.90	321	126	104	28.5	18.5	20	14	70	M8	64	545.7	25	6.81
*14	3	80	33.3	185	144	OT.105	321	137	114	28	18	20	14	70	M8	64	872.5	25	10.2
*18	4	100	39.3	222	177	OT.130	381	156	137	34.5	22	24	18	102	M10	92	1363.3	25	17.4

Temperature range: -20°C to +160°C. Vacuum: 10⁻³ torr.

Economy Stainless Steel Ball Valves Two-Piece Design 704000



704000*: Full bore stainless steel AISI 316-CF8M ball valve. Female/Female threads.



Additional Options:

- 700023 - Female/Female NPT



Also available in Carbon Steel
• 705000

No	Part Name	Material
1	Body	A351-CF8M
2	End Connection	A351-CF8M
3	Ball	A182-F316 / A351-CF8M
4	Ball Seat	P.T.F.E.
5	Seat	P.T.F.E.
6	Thrust Washer	P.T.F.E.
7	O-Ring	FKM (VITON®)
8	Nut	A182-F304
9	Stem	A182-F316
10	Handle	INOX AISI 430

	Thread	DN	A	H	L	R	Ch	I	E	F	P	Kv	PN	Kg
*02	1/4	8	28	30	53.5	110	ES.22	10	8	5	44	5.5	64	0.22
*03	3/8	10	28	30	53.5	110	ES.22	10	8	5	44	8.5	64	0.20
*04	1/2	15	30.5	32.5	60	110	ES.27	13	8	5	47	19.2	64	0.25
*05	3/4	20	37	40	70	131	ES.32	14	10	7	54	35.0	40	0.45
*06	1	25	41	49	79	131	OT.41	17	10	7	58	64.5	40	0.85
*07	1 1/4	32	50	62	91	174	OT.50	19	12	8	70	103.8	25	1.20
*08	1 1/2	40	57	75	103	174	OT.55	19.5	12	8	76	174.0	25	1.80
*10	2	50	66	95	124	174	OT.70	22.5	12	8	86	301.3	25	2.70

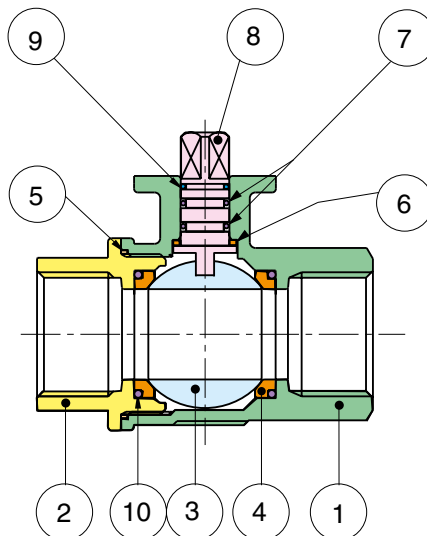
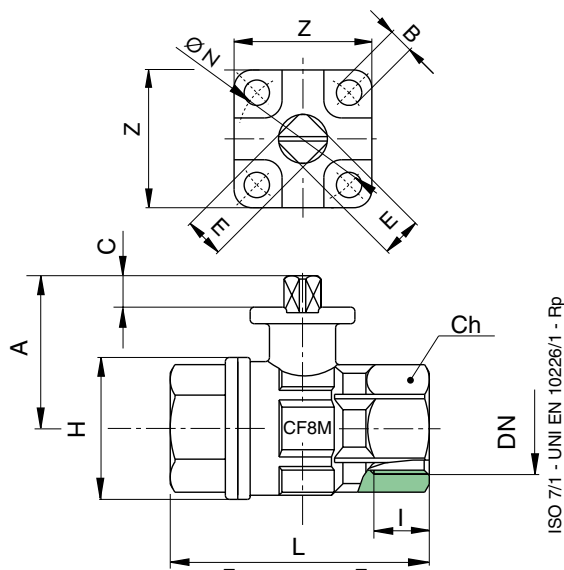
Temperature range: -20°C to +160°C. Vacuum: 10⁻³ torr.

Stainless Steel Ball Valves - with ISO 5211 Pad **703000**

ATEX EX



703000*: Full bore stainless steel AISI 316-CF8M ball valve. Female/Female threads. ISO 5211 pad direct. Antistatic Device.



Additional Options:



Available with spring return (dead mans) lever.



Available with Pneumatic Actuators



Available with Electric Actuators

• 700076 Female/Female NPT

No.	Part Name	Material
1	Body	A351-CF8M
2	End Connection	A351-CF8M
3	Ball	A182-F316 / A351-CF8M
4	Ball Seat	P.T.F.E.
5	Seat	P.T.F.E.
6	Thrust Washer	P.T.F.E.
7	O-Ring	FKM (VITON®)
8	Stem	A182-F316
9	Stem Seat	P.T.F.E.
10	O-Ring	FKM (VITON®)

	Thread	DN	I	L	H	Ch	A	C	E	ØN	B	Z	Kv	PN	Kg
*04	1/2	15	15	67	34.5	ES.27	41.5	9	9	36	6	38	19.2	64	0.30
*05	3/4	20	16.3	78	42	ES.32	43.5	9	9	36	6	38	35.0	64	0.40
*06	1	25	19.1	90	51.5	ES.41	53.5	9	9	36	6	38	64.5	64	0.70
*07	1 1/4	32	21.4	100	64.5	OT.50	57	9	9	36	6	38	103.8	64	1.04
*08	1 1/2	40	21.4	112	77	OT.55	74	11	11	50	7	50	174.0	64	1.68
*10	2	50	25.7	135	97	OT.70	83.3	11	11	50	7	50	301.3	64	2.95

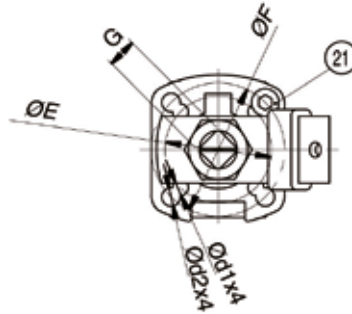
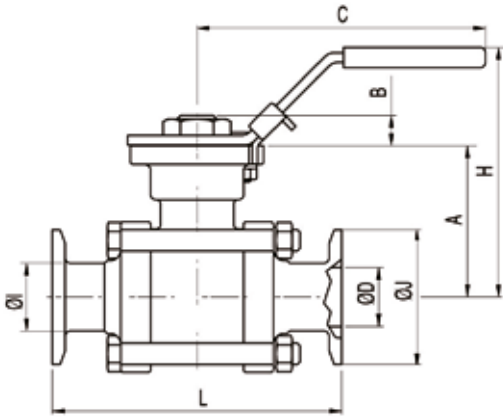
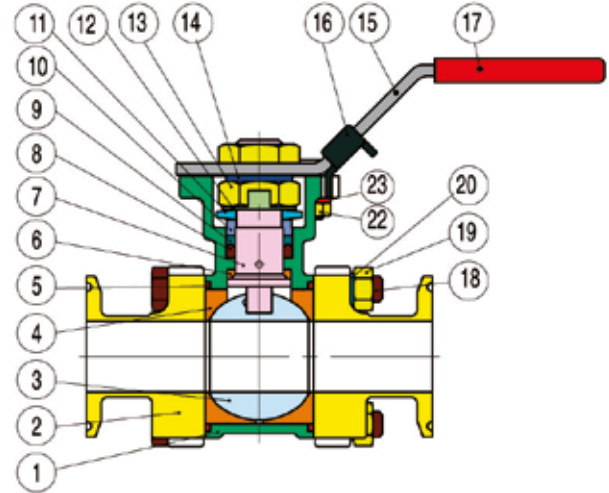
Temperature range: -20°C to +160°C.

Sanitary Ball Valves

771000



771000*: 3-piece Full Bore stainless steel ball valve with Tri-clamp end connections. Cavity filled P.T.F.E. seats with ISO actuator mounting pad.



No.	Part Name	Material
1	Body	CF3M
2	End Connection	CF3M
3	Ball	SS316L
4	Seat	P.T.F.E.
5	Joint Gasket	P.T.F.E.
6	Stem Seal	P.T.F.E.
7	Stem	SS316L
8	Gland Packing	P.T.F.E.
9	Gland Packing	P.T.F.E. + Glass
10	Gland Brush	SS304
11	Belleville Washer	SS301
12	Stop Washer	SS304
13	Stem Nut	SS304
14	Stem Washer	SS304
15	Handle	SS304
16	Locking Device	SS304
17	Handle Sleeve	Vinyl
18	Bolt	SS304
19	Bolt Nut	SS304
20	Bolt Washer	SS304
21	Stop Pin	SS304
22	Pin Nut	SS304
23	Washer	SS304

Additional Options:

Available with pneumatic actuators (double and single acting).
Stainless Steel Actuators



2 Way



3 Way

	Thread	A	B	D	ØD1	ØD2	J	G	ØI	H	L	ISO5211
*04	1/2	42.1	6.1	9.4	36	42	25.2	9	12.7	77	89.1	F03/F04
*05	3/4	48	6.5	15.75	36	42	25.2	9	19	83	101.6	F03/F04
*06	1	56.6	10.9	22.2	42	50	50.4	11	25.4	95	114.5	F04/F05
*08	1 1/2	77.5	13.9	34.9	50	70	50.5	14	38.1	127	140.1	F05/F07
*10	2	85.2	13.9	47.5	50	70	63.91	14	50.8	134	159	F05/F07
*12	2 1/2	108.7	16.8	60.3	70	102	77.4	17	63.5	166	174	F07/F10
*14	3	117.7	17.8	73	70	102	90.9	17	76.2	176	193.2	F07/F10
*18	4	132.55	16.8	97.4	70	102	118.9	17	101.6	190	226	F07/F10

Temperature range: -10°C to +180°C.

Stainless Steel Ball Valves Three-Piece Design

710000, 711000, 712000

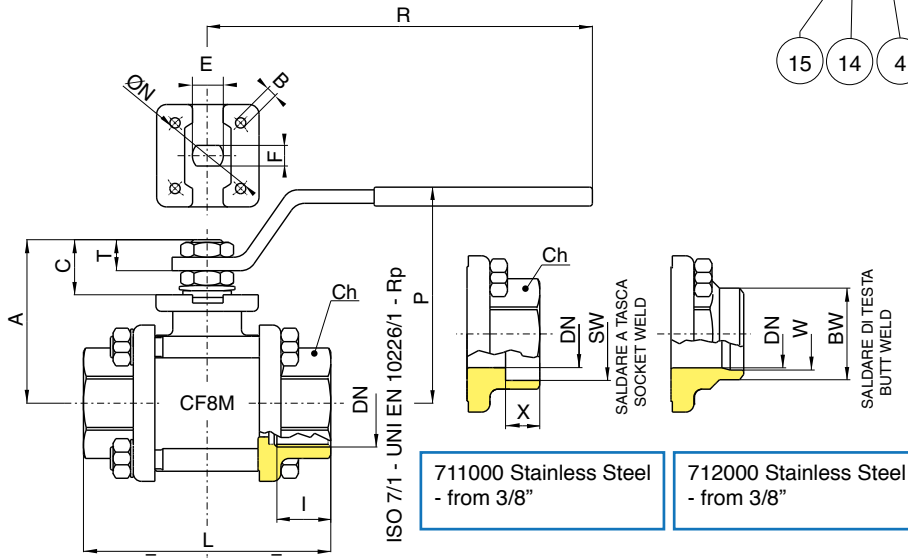
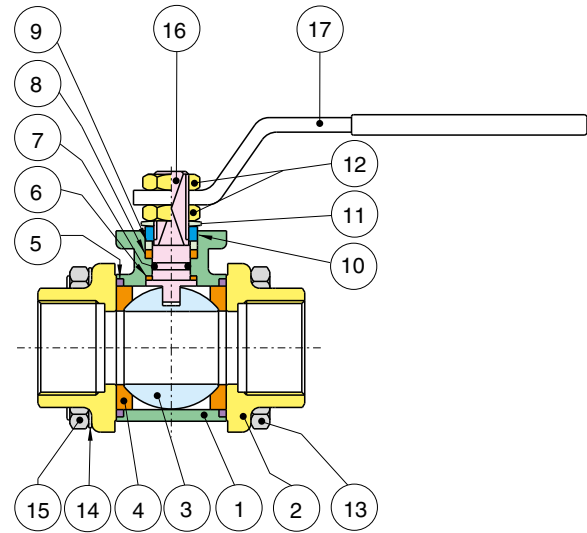


710000*: Female/Female.

711000*: Socket Weld.

712000*: Butt Weld.

Three piece, Stainless Steel full bore ball valve.



711000 Stainless Steel
- from 3/8"

712000 Stainless Steel
- from 3/8"

No	Part Name	Material
1	Body	A351-CF8M
2	End Connection	A351-CF8M
3	Ball	A182-F316 / A351-CF8M
4	Ball Seat	P.T.F.E.
5	Seat	P.T.F.E.
6	Thrust Washer	P.T.F.E.
7	O-Ring	FKM (VITON®)
8	Stem Seat	P.T.F.E.
9	Packing Gland	INOX AISI 303 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
10	End Stop	INOX AISI 430 (1/4" - 2") Carbon Steel (2"1/2-3" - 4")
11	Spring Washer	Carbon Steel (2"1/2 - 3" - 4")
12	Nut	A182-F304 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
13	Bolt	INOX AISI 304 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
14	Washer	INOX AISI 304 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
15	Nut	INOX AISI 304 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
16	Stem	A182 - F316
17	Handle	INOX AISI 430 (1/4" - 2") Carbon Steel (2"1/2-3"-4")

Additional Options:

See Special executions page 61 for details

- 710001 - Female/Female NPT B.1.20.1
- 710009 - Female/Female PTFE Cavity Filled Seat
- 710168 - Female/Female Gas Antistatic Device

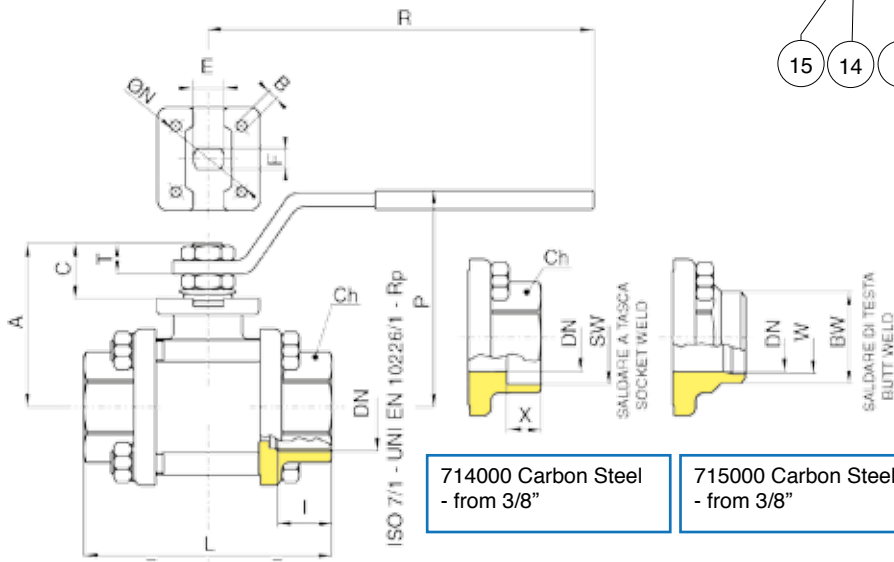
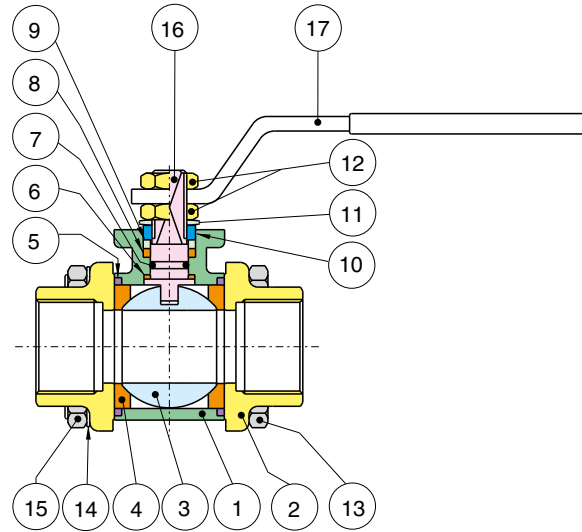
	Thread	DN	SW	X	BW	W	I	L	Ch	R	P	A	C	T	E	F	N	B	Kv	PN	Kg
*02	1/4	8	-	-	-	-	11	57	OT.22	110	50	35	13.5	9	8	5	-	-	5.5	64	0.28
*03	3/8	10	18.2	9.5	17.1	12.48	11.4	57	OT.22	110	50	35	13.5	9	8	5	-	-	8.5	64	0.27
*04	1/2	15	22.4	9.5	21.3	15.76	15	65	OT.27	131	64	47	15	10	10	7	36	6	19.2	64	0.50
*05	3/4	20	27.7	11.1	26.7	20.96	16.3	76	OT.32	131	68	52	16	10	10	7	42	5.5	35.0	40	0.70
*06	1	25	34.5	12.7	33.4	26.64	19.1	92	OT.41	174	79	60	19.5	12.5	12	8	42	6	64.5	40	1.20
*07	1 1/4	32	43.2	14.3	42.2	35.08	21.4	106	OT.50	174	83	64	19.5	12.5	12	8	42	5.5	103.8	25	1.70
*08	1 1/2	40	49.5	15.9	48.3	40.94	21.4	116	OT.55	250	100	79	24	16.5	16	10	50	6.5	174.0	25	2.50
*10	2	50	62	17.5	60.3	52.48	25.7	136	OT.70	250	107	86	24	16.5	16	10	50	6.5	301.3	25	3.90
*12	2 1/2	65	76.5	20	73	62.68	30.2	153	Ø90	321	126	103	28	18	20	14	70	M8	545.7	16	8.15
*14	3	80	89.5	20	88.9	77.92	33.3	180	Ø105	321	137	114	28	18	20	14	70	M8	872.5	16	12.80
*18	4	100	115	20	114.3	102.26	39.3	217	Ø130	381	156	137	34.5	22	24	18	102	M10	1363.3	16	21.50

Temperature range: -20°C to +160°C. Vacuum: 10⁻³ torr.

Carbon Steel Ball Valves Three-Piece Design 713000, 714000, 715000



713000*: Female/Female.
714000*: Socket Weld.
715000*: Butt Weld.
Three piece, Carbon Steel full bore ball valve.



714000 Carbon Steel
- from 3/8"

715000 Carbon Steel
- from 3/8"

Additional Options:

- See Special executions page 61 for details
- 710003 - Female/Female NPT B.1.20.1
- 710012 - Female/Female PTFE Cavity Filled Seat
- 710148 - Female/Female Gas Antistatic Device

No	Part Name	Material
1	Body	A216-WCB
2	End Connection	A216-WCB
3	Ball	A182-F304 / A351-CF8
4	Ball Seat	P.T.F.E.
5	Seat	P.T.F.E.
6	Thrust Washer	P.T.F.E.
7	O-Ring	FKM (VITON®)
8	Stem Seat	P.T.F.E.
9	Packing Gland	Carbon Steel
10	End Stop	INOX AISI 430 (1/4" - 2") Carbon Steel (2"1/2-3"-4")
11	Spring Washer	Carbon Steel (2"1/2 - 3" - 4")
12	Nut	Carbon Steel
13	Bolt	Carbon Steel (1/4"-2") - (2"1/2- 4")
14	Washer	Carbon Steel (1/4"-2") - (2"1/2- 4")
15	Nut	Carbon Steel (1/4"-2") - (2"1/2- 4")
16	Stem	A182-F304
17	Handle	Carbon Steel

	Thread	DN	SW	X	BW	W	I	L	Ch	R	P	A	C	T	E	F	N	B	Kv	PN	Kg
*02	1/4	8	-	-	-	-	11	57	OT.22	110	50	35	13.5	9	8	5	-	-	5.5	64	0.28
*03	3/8	10	18.2	9.5	17.1	12.48	11.4	57	OT.22	110	50	35	13.5	9	8	5	-	-	8.5	64	0.27
*04	1/2	15	22.4	9.5	21.3	15.76	15	65	OT.27	131	64	47	15	10	10	7	36	6	19.2	64	0.50
*05	3/4	20	27.7	11.1	26.7	20.96	16.3	76	OT.32	131	68	52	16	10	10	7	42	5.5	35.0	40	0.70
*06	1	25	34.5	12.7	33.4	26.64	19.1	92	OT.41	174	79	60	19.5	12.5	12	8	42	6	64.5	40	1.20
*07	1 1/4	32	43.2	14.3	42.2	35.08	21.4	106	OT.50	174	83	64	19.5	12.5	12	8	42	5.5	103.8	25	1.70
*08	1 1/2	40	49.5	15.9	48.3	40.94	21.4	116	OT.55	250	100	79	24	16.5	16	10	50	6.5	174.0	25	2.50
*10	2	50	62	17.5	60.3	52.48	25.7	136	OT.70	250	107	86	24	16.5	16	10	50	6.5	301.3	25	3.90
*12	2 1/2	65	76.5	20	73	62.68	30.2	153	Ø90	321	126	103	28	18	20	14	70	M8	545.7	16	8.15
*14	3	80	89.5	20	88.9	77.92	33.3	180	Ø105	321	137	114	28	18	20	14	70	M8	872.5	16	12.80
*18	4	100	115	20	114.3	102.26	39.3	217	Ø130	381	156	137	34.5	22	24	18	102	M10	1363.3	16	21.50

Temperature range: -20°C to +160°C. Vacuum: 10⁻³ torr.

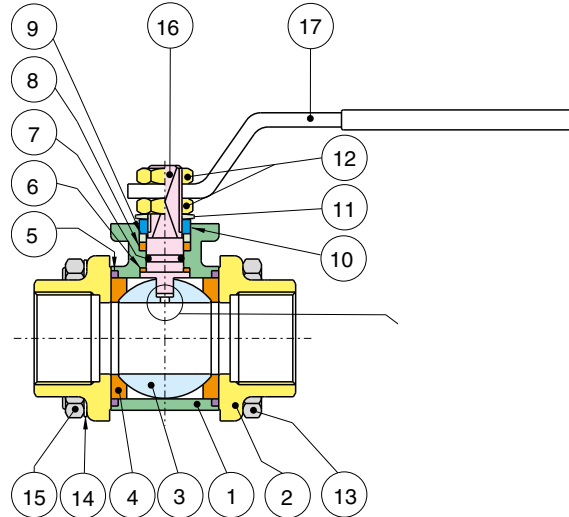
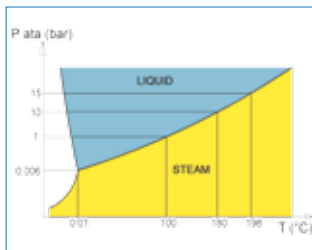
Stainless Steel Ball Valves Three-Piece Design – For Steam 710060, 710061, 710062



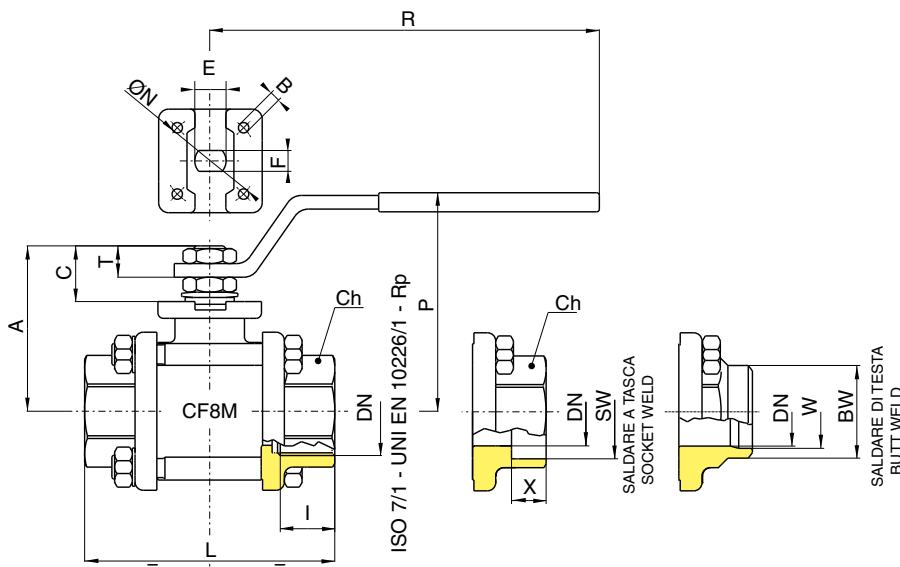
Stem Pressure In Bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Stem Temperature In C°	100	120	133	143	152	158	165	170	175	180	184	188	191	195	198

MAXIMUM WORKING PRESSURE WITH STEAM 15 bar

710060*: Female/Female.
710061*: Socket Weld.
710062*: Butt Weld.
 Three piece, Stainless Steel full bore ball valve - For Steam.



No	Part Name	Material
1	Body	A351-CF8M
2	End Connection	A351-CF8M
3	Ball	A182-F316 / A351-CF8M
4	Ball Seat	P.T.F.E. + Carbogرافite
5	Seat	FKM (VITON®)
6	Thrust Washer	P.T.F.E. + Carbogرافite
7	O-Ring	FKM (VITON®)
8	Stem Seat	P.T.F.E. + Carbogرافite
9	Packing Gland	INOX AISI 303 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
10	End Stop	INOX AISI 430 (1/4" - 2") Carbon Steel (2"1/2-3" - 4")
11	Spring Washer	Carbon Steel (2"1/2 - 3" - 4")
12	Nut	A182-F304 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
13	Bolt	INOX AISI 304 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
14	Washer	INOX AISI 304 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
15	Nut	INOX AISI 304 (1/4" - 2") Carbon Steel (2"1/2 - 3" - 4")
16	Stem	A182 - F316
17	Handle	INOX AISI 430 (1/4" - 2") Carbon Steel (2"1/2-3"-4")



	Thread	DN	SW	X	BW	W	I	L	Ch	R	P	A	C	T	E	F	N	B	Kv	PN	Kg
*02	1/4	8	-	-	-	-	11	57	OT.22	110	50	35	13.5	9	8	5	-	-	5.5	64	0.28
*03	3/8	10	18.2	9.5	17.1	12.48	11.4	57	OT.22	110	50	35	13.5	9	8	5	-	-	8.5	64	0.27
*04	1/2	15	22.4	9.5	21.3	15.76	15	65	OT.27	131	64	47	15	10	10	7	36	6	19.2	64	0.50
*05	3/4	20	27.7	11.1	26.7	20.96	16.3	76	OT.32	131	68	52	16	10	10	7	42	5.5	35.0	40	0.70
*06	1	25	34.5	12.7	33.4	26.64	19.1	92	OT.41	174	79	60	19.5	12.5	12	8	42	6	64.5	40	1.20
*07	1 1/4	32	43.2	14.3	42.2	35.08	21.4	106	OT.50	174	83	64	19.5	12.5	12	8	42	5.5	103.8	25	1.70
*08	1 1/2	40	49.5	15.9	48.3	40.94	21.4	116	OT.55	250	100	79	24	16.5	16	10	50	6.5	174.0	25	2.50
*10	2	50	62	17.5	60.3	52.48	25.7	136	OT.70	250	107	86	24	16.5	16	10	50	6.5	301.3	25	3.90
*12	2 1/2	65	76.5	20	73	62.68	30.2	153	Ø90	321	126	103	28	18	20	14	70	M8	545.7	16	8.15
*14	3	80	89.5	20	88.9	77.92	33.3	180	Ø105	321	137	114	28	18	20	14	70	M8	872.5	16	12.80
*18	4	100	115	20	114.3	102.26	39.3	217	Ø130	381	156	137	34.5	22	24	18	102	M10	1363.3	16	21.50

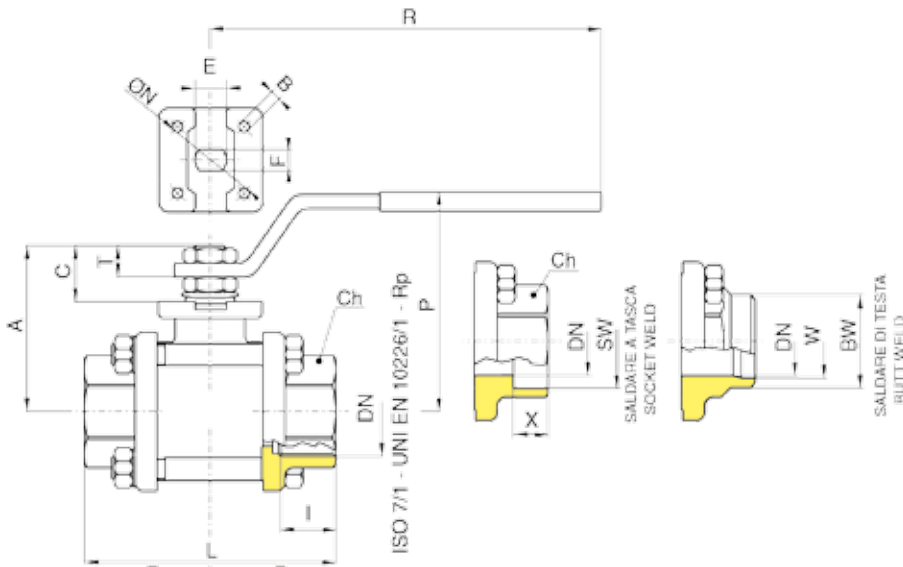
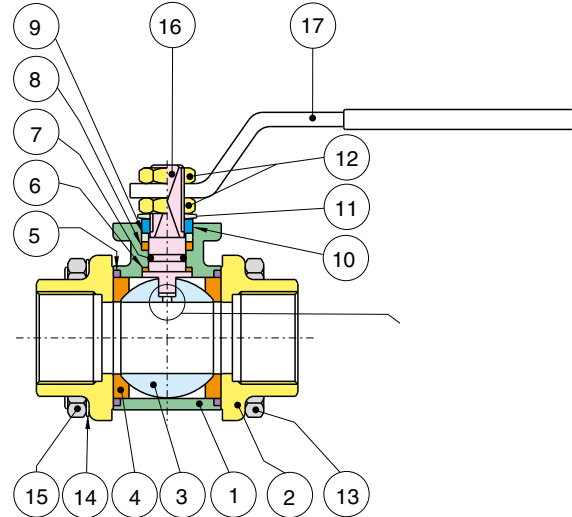
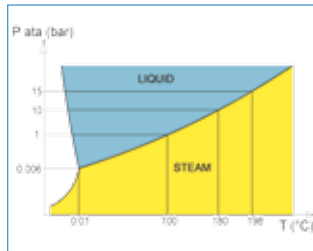
Carbon Steel Ball Valves Three-Piece Design – For Steam 710063, 710064, 710065



Stem Pressure In Bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Stem Temperature In C°	100	120	133	143	152	158	165	170	175	180	184	188	191	195	198

MAXIMUM WORKING PRESSURE WITH STEAM 15 bar

710063*: Female/Female.
710064*: Socket Weld.
710065*: Butt Weld.
Three piece, Carbon Steel full bore ball valve - For Steam



No	Part Name	Material
1	Body	ASTM - WCB
2	End Connection	ASTM-A105 - WCB
3	Ball	A182-F304 / A351-CF8
4	Ball Seat	P.T.F.E. + Carbogرافite
5	Seat	FKM (VITON®)
6	Thrust Washer	P.T.F.E. + Carbogرافite
7	O-Ring	FKM (VITON®)
8	Stem Seat	P.T.F.E. + Carbogرافite
9	Packing Gland	Carbon Steel
10	End Stop	INOX AISI 430 (1/4" - 2") Carbon Steel (2"1/2-3"-4")
11	Spring Washer	Carbon Steel (2"1/2 - 3" - 4")
12	Nut	Carbon Steel
13	Bolt	Carbon Steel (1/4"-2") - (2"1/2- 4")
14	Washer	Carbon Steel (1/4"-2") - (2"1/2- 4")
15	Nut	Carbon Steel (1/4"-2") - (2"1/2- 4")
16	Stem	A182-F304
17	Handle	Carbon Steel

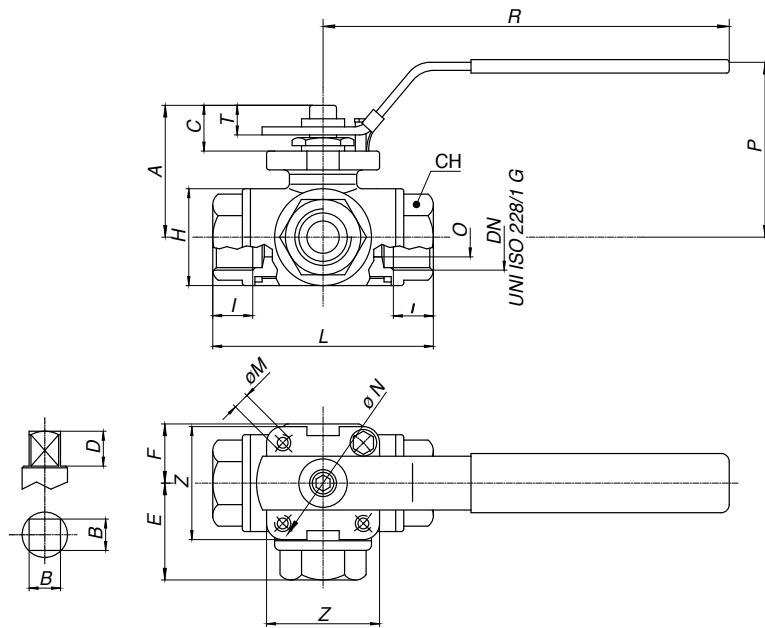
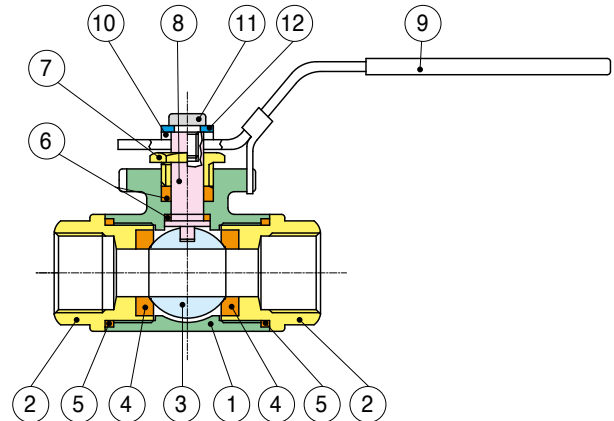
	Thread	DN	SW	X	BW	W	I	L	Ch	R	P	A	C	T	E	F	N	B	Kv	PN	Kg
*02	1/4	8	-	-	-	-	11	57	OT.22	110	50	35	13.5	9	8	5	-	-	5.5	64	0.28
*03	3/8	10	18.2	9.5	17.1	12.48	11.4	57	OT.22	110	50	35	13.5	9	8	5	-	-	8.5	64	0.27
*04	1/2	15	22.4	9.5	21.3	15.76	15	65	OT.27	131	64	47	15	10	10	7	36	6	19.2	64	0.50
*05	3/4	20	27.7	11.1	26.7	20.96	16.3	76	OT.32	131	68	52	16	10	10	7	42	5.5	35.0	40	0.70
*06	1	25	34.5	12.7	33.4	26.64	19.1	92	OT.41	174	79	60	19.5	12.5	12	8	42	6	64.5	40	1.20
*07	1 1/4	32	43.2	14.3	42.2	35.08	21.4	106	OT.50	174	83	64	19.5	12.5	12	8	42	5.5	103.8	25	1.70
*08	1 1/2	40	49.5	15.9	48.3	40.94	21.4	116	OT.55	250	100	79	24	16.5	16	10	50	6.5	174.0	25	2.50
*10	2	50	62	17.5	60.3	52.48	25.7	136	OT.70	250	107	86	24	16.5	16	10	50	6.5	301.3	25	3.90
*12	2 1/2	65	76.5	20	73	62.68	30.2	153	Ø90	321	126	103	28	18	20	14	70	M8	545.7	16	8.15
*14	3	80	89.5	20	88.9	77.92	33.3	180	Ø105	321	137	114	28	18	20	14	70	M8	872.5	16	12.80
*18	4	100	115	20	114.3	102.26	39.3	217	Ø130	381	156	137	34.5	22	24	18	102	M10	1363.3	16	21.50

Stainless Steel Ball Valves Reduced Bore Three-Way 772000 (T), 775000 (L)



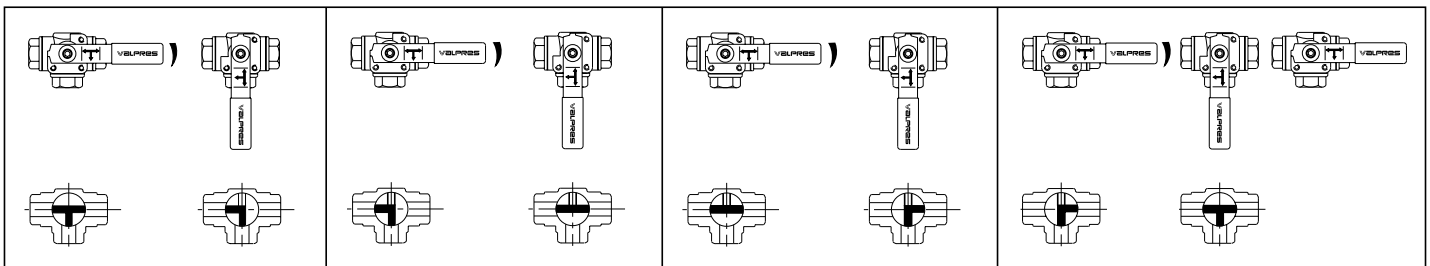
772000* (T-port), **775000*** (L-port):

Three way reduced bore, in stainless steel AISI 316-
CF8M ball valve, four seat design, female threads.



No.	Part Name	Material
1	Body	A351 - CF8M
2	End Connection	A351 - CF8M
3	Ball	A182 - F316
4	Ball Seat	P.T.F.E.
5	Seat	P.T.F.E.
5	Seat	P.T.F.E.
7	Stem Retaining Nut	A182-F304
8	Stem	A182-F316
9	Handle	A182-F304
10	Handel Washer	A182-F304
11	Screw	A182-F304
12	Washer	A182-F304

Flow Path Variations



	Thread	DN	O	A	C	T	H	L	R	Ch	I	E	F	P	ØM	ØN	Z	D	B	Kv	PN	Kg
*02	1/4	8	11	46	19	12.5	32.5	69.4	133.4	27	16	34.6	20.2	60.7	M5	42-F04	42	5	9	5	63	0.6
*03	3/8	10	11	46	19	12.5	32.5	69.4	133.4	27	16	34.6	20.2	60.7	M5	42-F04	42	5	9	5	63	0.6
*04	1/2	15	12.5	50	19	14.5	32.5	75.7	133.4	26.4	16	37.3	22.5	64.1	M5	42-F04	42	5	9	7	63	0.66
*05	3/4	20	16	60	23	16	42	86.6	178.5	33	18	44.7	28.3	82.4	M6	50-F05	50	7	11	12	63	1.19
*06	1	25	20	68.6	28	20.5	49.6	102.4	178.5	39	21	51.4	32	86.1	M6	50-F05	50	11.5	11	19	63	1.7
*07	1 1/4	32	25	77.3	31	23.5	56	118.2	210	53	21	57.7	37.4	91.4	M6	50-F05	50	15.5	11	30	63	2.51
*08	1 1/2	40	32	87.5	33	24	68	125.8	208	60	22	62.7	42	102.7	M8	70-F07	70	15.5	11	51	63	3.57
*10	2	50	38	97	33.5	24	79.5	149	230	72	25.5	74.6	51.3	112	M8	70-F07	70	15.5	14	76	63	5.73

Temperature range: -20°C to +160°C. Vacuum: 10⁻³ torr.

“Wafer” Ball Valves

– PN16

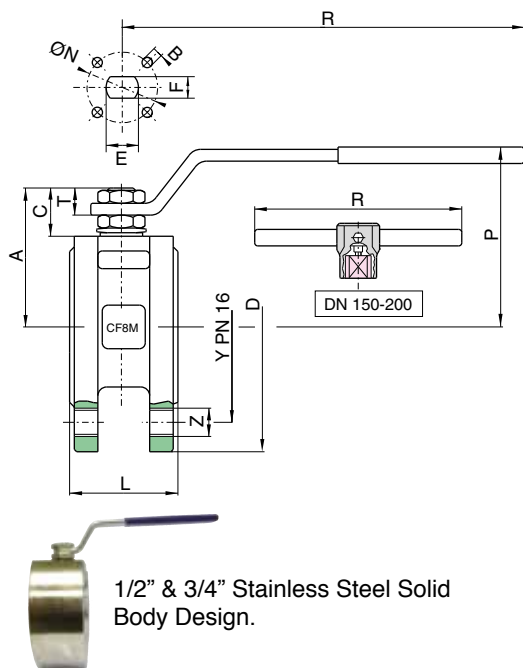
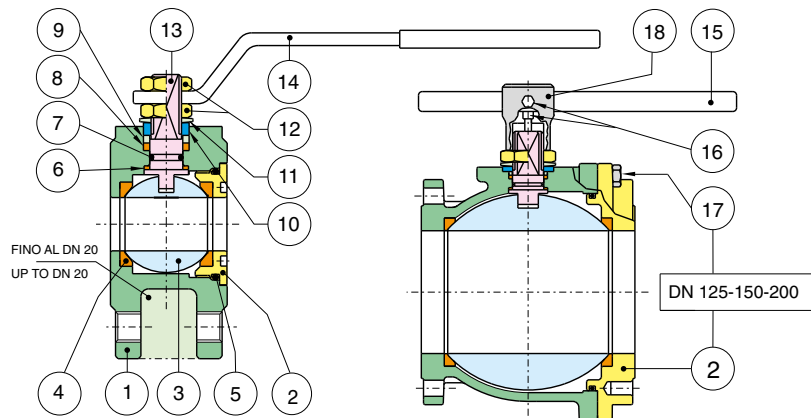
721000, 722000

STAINLESS STEEL CARBON STEEL



721000*: Wafer Pattern, full bore flanged ball valve
PN16 AISI 316 CF8M

722000*: Wafer Pattern, full bore flanged ball valve
PN16 Carbon Steel ASTM A105



No.	Part Name	Material	Material
		721000	722000
1	Body	A351-CF8M / A182-F316	ASTM A105 / A216-WCB
2	End Connection	A351-CF8M / A182-F316	ASTM A105 / A216-WCB
3	Ball	A351-CF8M / A182-F316	A351-CF8 / A182-F304
4	Ball Seat	P.T.F.E.	P.T.F.E.
5	O-Ring	FKM (VITON®)	FKM (VITON®)
6	Thrust Washer	P.T.F.E.	P.T.F.E.
7	O-Ring	FKM (VITON®)	FKM (VITON®)
8	Stem Seat	P.T.F.E.	P.T.F.E.
9	Packing Gland	Carbon Steel	Carbon Steel
10	End Stop	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65 - DN150)	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65 - DN150)
11	Spring Washer	Carbon Steel	Carbon Steel
12	Nut	Carbon Steel	Carbon Steel
13	Stem	A182-F316	A182-F304
14	Handle	Carbon Steel	Carbon Steel
15	Handle Dn 150-200	Carbon Steel	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel
17	Screw	Carbon Steel	Carbon Steel
18	Body Handle Dn150-200	EN-GJL-250	EN-GJL-250

Additional Options:

- See Special executions page 61 - 62 for details

For 721000

- 720002 - A182-F316/A351-CF8M Integral Seat PN16
- 720184 - A182-F316/A351-CF8M Fire Safe PN16
- 720245 - A182-F316/A351-CF8M Integral Seat PN16
Antistatic Device

For 722000

- 720010 - ASTM - A105 Integral Seat PN16
- 720185 - ASTM - A105 Fire Safe PN16

	Thread	DN	D	Y	Z	L	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg (721000)	Kg (722000)
*04	1/2	15	90	65	4 X M12	35	131	65	47	15.5	9	10	7	32	4 X M5	19.2	16	1.30	1.30
*05	3/4	20	100	75	4 X M12	40	131	69	51.5	15.5	9	10	7	32	4 X M5	35.0	16	1.90	1.90
*06	1	25	115	85	4 X M12	46	174	80	61	17	11	12	8	42	4 X M5	64.5	16	2.20	2.70
*07	1 1/4	32	140	100	4 X M16	54	174	84	64.5	15	11	12	8	42	4 X M5	103.8	16	3.30	4.20
*08	1 1/2	40	150	110	4 X M16	63.5	250	102	78	24.5	13	16	10	50	4 X M6	174.0	16	4.20	5.90
*10	2	50	165	125	4 X M16	82	250	111	87	25	13	16	10	50	4 X M6	301.3	16	6.10	8.70
*12	2 1/2	65	185	145	4 X M16	103	321	128	104.5	25	18	20	14	70	4 X M8	545.7	16	10.00	15.50
*14	3	80	200	160	8 X M16	122	321	138	115	28.5	18	20	14	70	4 X M8	872.5	16	13.50	20.50
*18	4	100	220	180	8 X M16	152	381	156	137	34.5	22	24	18	102	4 X M10	1363.3	16	20.90	34.20
*19	5	125	250	210	8 X M16	196	381	178	159	34	22	24	18	102	4 X M10	2360.3	16	37.50	52.50
*20	6	150	285	240	8 X M20	232	700	266	201.5	51.5	30	42	30	125	4 X M12	3671.1	16	61.50	61.80
*21	8	200	340	295	12 x Ø22	400	700	332	288	68	28	42	30	125	4 X M12	6816.6	16	104.00	104.00

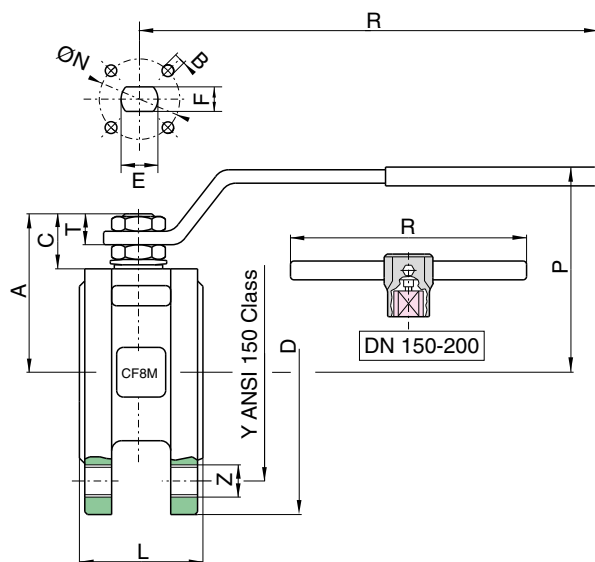
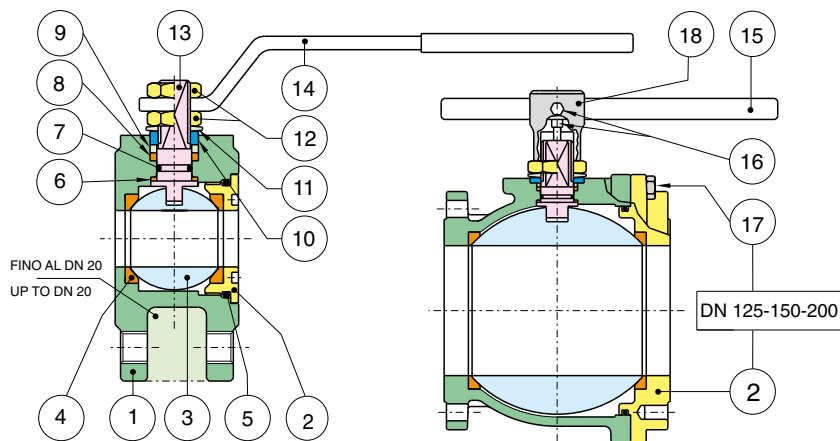
Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

“Wafer” Ball Valves – ANSI 150 720006, 720009 STAINLESS STEEL CARBON STEEL



720006*: Wafer Pattern, full bore flanged ball valve
ANSI 150 Stainless Steel

720009*: Wafer Pattern, full bore flanged ball valve
ANSI 150 Carbon Steel



No.	Part Name	Material	Material
		720006	720009
1	Body	A351-CF8M / A182-F316	ASTM A105 / A216-WCB
2	End Connection	A351-CF8M / A182-F316	ASTM A105 / A216-WCB
3	Ball	A351-CF8M / A182-F316	A351-CF8 / A182-F304
4	Ball Seat	P.T.F.E.	P.T.F.E.
5	O-Ring	FKM (VITON®)	FKM (VITON®)
6	Thrust Washer	P.T.F.E.	P.T.F.E.
7	Ring	FKM (VITON®)	FKM (VITON®)
8	Stem Seat	P.T.F.E.	P.T.F.E.
9	Packing Gland	Carbon Steel	Carbon Steel
10	End Stop	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65 - DN150)	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65 - DN150)
11	Spring Washer	Carbon Steel	Carbon Steel
12	Nut	Carbon Steel	Carbon Steel
13	Stem	A182-F316	A182 - F304
14	Handle	Carbon Steel	Carbon Steel
15	Handle Dn 150-200	PALANCA DN 150-200	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel
17	Screw	Carbon Steel	Carbon Steel
18	Body Handle Dn 150-200	EN-GJL-250	EN-GJL-250

Additional Options:

- See Special executions page 61 - 62 for details

For 720006

- 720191 - A182-F316/A351-CF8M ANSI 150 Metric Fire Safe

For 720009

- 720233 - ASTM - A105 ANSI 150 Metric Fire Safe

	Thread	DN	D	Y	Z	L	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg (720006)	Kg (720009)
*04	1/2	15	90	61	4 X M14	35	131	65	47	15.5	9	10	7	32	4 X M5	19.2	20	1.30	1.30
*05	3/4	20	100	70	4 X M14	40	131	69	51.5	15.5	9	10	7	32	4 X M5	35.0	20	1.80	1.80
*06	1	25	110	80	4 X M14	46	174	80	61	17	11	12	8	42	4 X M5	64.5	20	2.20	2.70
*07	1 1/4	32	118	89	4 X M14	54	174	84	64.5	15	11	12	8	42	4 X M5	103.8	20	3.30	4.30
*08	1 1/2	40	127	99	4 X M14	63.5	250	102	78	24.5	13	16	10	50	4 X M6	174.0	20	3.30	5.10
*10	2	50	150	121	4 X M16	82	250	111	87	25	13	16	10	50	4 X M6	301.3	20	5.50	8.80
*12	2 1/2	65	175	140	4 X M16	103	321	128	104.5	25	18	20	14	70	4 X M8	545.7	20	9.60	15.60
*14	3	80	190	153	4 X M16	122	321	138	115	28.5	18	20	14	70	4 X M8	872.5	20	12.80	20.80
*18	4	100	220	191	8 X M16	152	381	156	137	34.5	22	24	18	102	4 X M10	1363.3	20	21.10	34.20
*19	5	125	250	216	8 X M20	196	381	178	159	34	22	24	18	102	4 X M10	2360.3	20	37.50	52.50
*20	6	150	280	242	8 X M20	232	700	266	201.5	51.5	30	42	30	125	4 X M12	3671.1	20	46.10	61.50
*21	8	200	345	298.5	8 X Ø22	457	700	332	288	68	28	42	30	125	4 X M12	6816.6	20	124.00	124.00

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

AS 1

NEW

"Wafer" Ball Valves – PN40



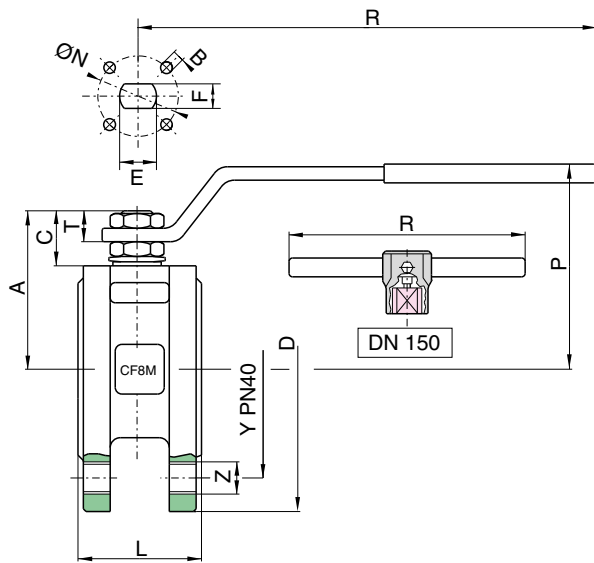
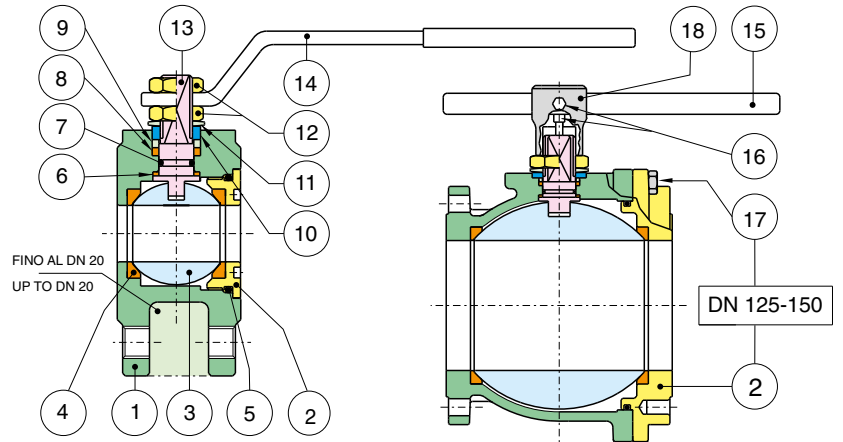
720078, 720008

STAINLESS STEEL CARBON STEEL



720078*: Stainless Steel, Wafer pattern full bore ball valve flanged PN40.

720008*: Carbon Steel, Wafer pattern full bore ball valve flanged PN40.



No	Part Name	Material	
		720078	720008
1	Body	A351-CF8M / A182-F316	ASTM A105 / A216-WCB
2	End Connection	A351-CF8M / A182-F316	ASTM A105 / A216-WCB
3	Ball	A351-CF8M / A182-F316	A351-CF8/ A182-F304
4	Ball Seat	P.T.F.E.+GLASS	P.T.F.E.+GLASS
5	O-Ring	FKM (Viton®)	FKM (Viton®)
6	Thrust Washer	P.T.F.E.	P.T.F.E.
7	O-Ring	FKM (Viton®)	FKM (Viton®)
8	Stem Seat	P.T.F.E.	P.T.F.E.
9	Packing Gland	Carbon Steel	Carbon Steel
10	End Stop	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65 - DN150)	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65 - DN150)
11	Spring Washer	Carbon Steel	Carbon Steel
12	Nut	Carbon Steel	Carbon Steel
13	Stem	A182-F316	A182 - F304
14	Handle	Carbon Steel	Carbon Steel
15	Handle Dn 150	Carbon Steel	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel
17	Screw	Carbon Steel	Carbon Steel
18	Body Handle Dn 150-200	EN-GJL-250	EN-GJL-250

	Thread	DN	D	Y	Z	L	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg (720078)	Kg (720008)
*04	1/2	15	90	65	4 X M12	35	131	65	47	15.5	9	10	7	32	4 X M5	19.2	40	1.3	1.30
*05	3/4	20	100	75	4 X M12	40	131	69	51.5	15.5	9	10	7	32	4 X M5	35.0	40	1.8	1.80
*06	1	25	115	85	4 X M12	46	174	80	61	19.5	11	12	8	42	4 X M5	64.5	40	2.2	2.70
*07	1 1/4	32	140	100	4 X M16	54	174	84	64.5	16.5	11	12	8	42	4 X M5	103.8	40	3.3	4.30
*08	1 1/2	40	150	110	4 X M16	63.5	250	102	78	24.5	13	16	10	50	4 X M6	174.0	40	3.3	5.10
*10	2	50	165	125	4 X M16	82	250	111	87	25	13	16	10	50	4 X M6	301.3	40	5.5	8.80
*12	2 1/2	65	185	145	8 X M16	103	321	128	104.5	25	18	20	14	70	4 X M8	545.7	40	9.6	15.60
*14	3	80	200	160	8 X M16	122	321	138	115	28.5	18	20	14	70	4 X M8	872.5	40	12.8	20.80
*18	4	100	220	190	8 X M20	152	381	156	137	34.5	22	24	18	102	4 X M10	1363.3	40	21.1	39.30
*19	5	125	270	220	8 X M24	196	381	178	159	34	22	24	18	102	4 X M10	2360.3	40	56.5	53.60
*20	6	150	300	250	8 X M24	232	700	266	201.5	51.5	30	42	30	125	4 X M12	3671.1	40	68.5	68.5
*21	8	200	320	320	12 x Ø29	400	700	348	290	68	40	42	30	125	4 x M12	6816.6	40	143.00	143.00

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

"Wafer" Ball Valves – ANSI 300



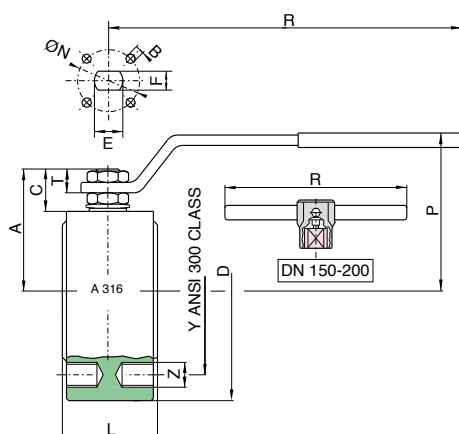
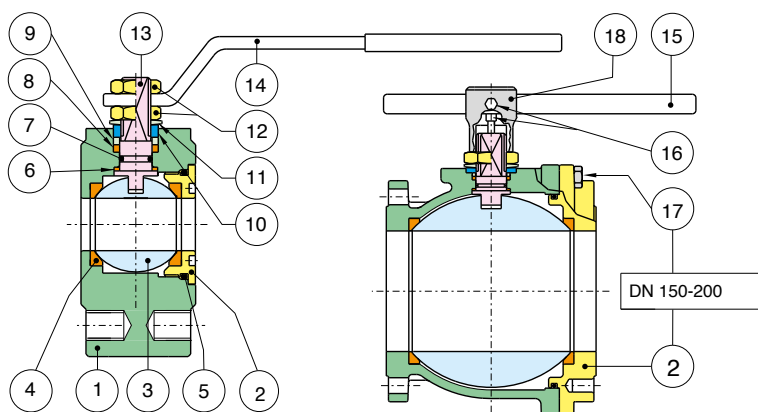
720212, 720232

STAINLESS STEEL CARBON STEEL



720212*: Stainless Steel, Wafer pattern full bore ball valve flanged ANSI 300 metric.

720232*: Carbon Steel, Wafer pattern full bore ball valve flanged ANSI 300 metric.



No.	Part Name	Material	
		720212	720232
1	Body	A182-F316	ASTMA105
2	End Connection	A182-F316	ASTMA105
3	Ball	A182-F316	A182-F304
4	Ball Seat	P.T.F.E.+GLASS	P.T.F.E.+GLASS
5	O-Ring	FKM (VITON®)	FKM (VITON®)
6	Thrust Washer	P.T.F.E.	P.T.F.E.
7	O-Ring	FKM (VITON®)	FKM (VITON®)
8	Stem Seat	P.T.F.E.	P.T.F.E.
9	Packing Gland	Carbon Steel	Carbon Steel
10	End Stop	INOX AISI 430 (DN15 - DN50) CARBON STEEL DN65 - DN200)	INOX AISI 430 (DN15 - DN50) CARBON STEEL DN65 - DN200)
11	Spring Washer	Carbon Steel	Carbon Steel
12	Nut	Carbon Steel	Carbon Steel
13	Stem	A182-F316	A182 - F304
14	Handle	Carbon Steel	Carbon Steel
15	Handle Dn 150-200	Carbon Steel	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel
17	Screw	Carbon Steel	Carbon Steel
18	Body Handle Dn 150-200	EN-GJL-250	EN-GJL-250

	Thread	DN	D	Y	Z	L	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg (720212)	Kg (720232)
*04	1/2	15	95	66.5	4 x M14	35	131	65	47	11.5	8.5	10	7	32	4 X M5	19.2	50	1.40	1.40
*05	3/4	20	120	82.5	4 x M16	40	131	69	51.5	9.5	8.5	10	7	32	4 X M5	35.0	50	2.50	2.50
*06	1	25	120	89	4 x M16	46	174	80	61	13	11.5	12	8	42	4 X M5	64.5	50	3.10	3.10
*07	1 1/4	32	130	98.5	4 x M16	54	174	84	64.5	16.5	11.5	12	8	42	4 X M5	103.8	50	4.20	4.20
*08	1 1/2	40	150	114.5	4 x M20	63.5	250	102	78	20.5	12	16	10	50	4 XM6	174.0	50	6.70	6.70
*10	2	50	165	127	8 X M16	82	250	111	87	16	12	16	10	50	4 XM6	301.3	50	10.40	10.40
*12	2 1/2	65	190	149	8 X M20	103	321	128	104.5	18.5	17	20	14	70	4 X M8	545.7	50	17.70	17.70
*14	3	80	210	168.5	8 X M20	122	321	138	115	21	18	20	14	70	4 X M8	872.5	50	24.80	24.80
*18	4	100	254	200	8 X M20	152	381	156	137	23.5	21	24	18	102	4 X M10	1363.3	50	45.30	45.30
*20	6	150	320	270	12 X M20	232	700	266	201.5	51.5	30	42	30	125	4 X M12	3671.1	50	101.00	101.00
21	8	200	380	330	12 X M24	317	700	310	245	51.5	30	42	30	125	4 X M12	6816.6	50	122.00	-

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

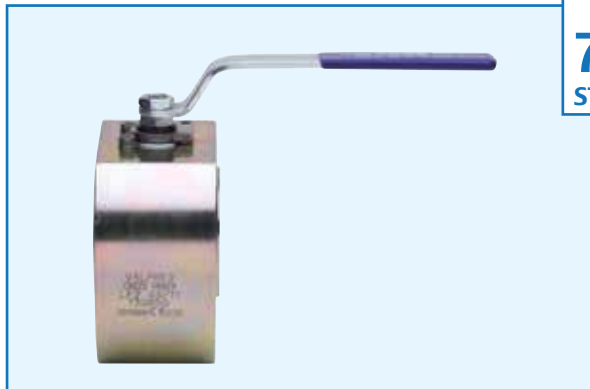
NEW

“Wafer” Ball Valves – PN63



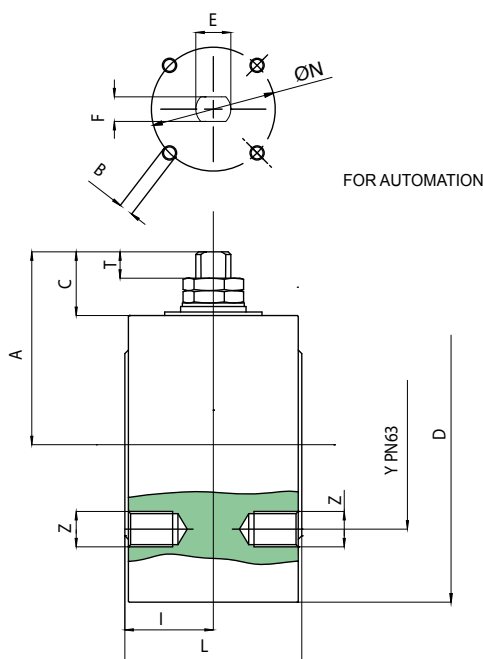
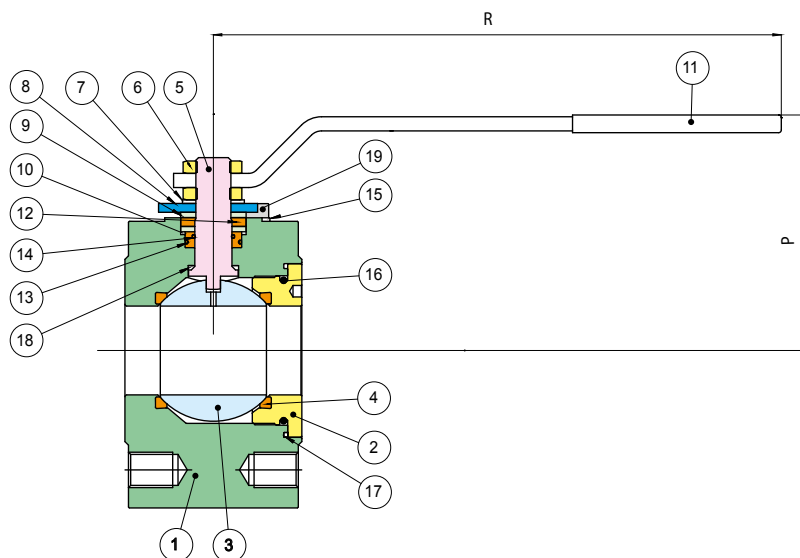
720700, 720650

STAINLESS STEEL CARBON STEEL



720700*: Stainless Steel, Wafer pattern full bore ball valve flanged PN63 with Antistatic Device.

720650*: Carbon Steel, Wafer pattern full bore ball valve flanged PN63 with Antistatic Device.



No	Part Name	Material	
		720700	720650
1	Body	A182-F316	A350 - LF2
2	End Connection	A182-F316	A350 - LF2
3	Ball	A351-CF8M/ A182-F316	A351-CF8/ A182-F304
4	Ball Seat	P.T.F.E. + glass	P.T.F.E. + glass
5	Stem	A182 - F316	A182 - F316
6	Nut	Stainless Steel	Carbon Steel
7	Spring Washer	Stainless Steel	Carbon Steel
8	90° Stop	Stainless Steel	Carbon Steel
9	Packing Gland	A182 - F316	A182 - F316
10	Stem Seat	P.T.F.E.	P.T.F.E.
11	Handle	Carbon Steel	Carbon Steel
12	Stem Seat	Graphoil	Graphoil
13	O-Ring	FKM (Viton®)	FKM (Viton®)
14	O-Ring	FKM (Viton®)	FKM (Viton®)
15	Thrust Washer	Stainless Steel	Stainless Steel
16	O-Ring	FKM (Viton®)	FKM (Viton®)
17	Body Seat	P.T.F.E.	P.T.F.E.
18	Thrust Washer	P.T.F.E.	P.T.F.E.
19	Screw	Stainless Steel	Stainless Steel

	Thread	DN	D	Y	Z	I	L	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg
*04	1/2	15	105	75	4XM12	26	55	131	71	52.5	17.5	7.5	M10	7	42-F04	M5	19.2	63	3.0
*05	3/4	20	130	90	4XM16	29	60	174	88	67.5	23.1	9.1	M12	8	42-F04	M5	35.0	63	5.0
*06	1	25	140	100	4XM16	26.5	65	174	92	72.5	24	10	M12	8	42-F04	M5	64.5	63	6.2
*07	1 1/4	32	155	110	4XM20	38	75	251	110	87	32.5	12.5	M16	10	50-F05	M6	103.8	63	9.2
*08	1 1/2	40	170	125	4XM20	42.5	85	251	118	93	30	10.5	M16	10	50-F05	M6	174.0	63	12.8
*10	2	50	180	135	4XM20	50	100	321	133	109	36	15	M20	14	70-F07	M8	301.3	63	16.8
*12	2 1/2	65	205	160	8XM20	62.5	125	321	156	133	37.5	16.4	M20	14	70-F07	M8	545.7	63	27.8
*14	3	80	215	170	8XM20	75	150	381	155	132	39	17	M24	18	70-F07	M8	872.5	63	35.3
*18	4	100	255	200	8XM24	88	175	381	185	165	44	19.5	M24	18	102-F10	M10	1363.3	63	59

Temperature range: -20°C to +160°C. Vacuum: 10⁻³ torr.

NEW

"Wafer" Ball Valves – PN16, Fire Safe – For Steam

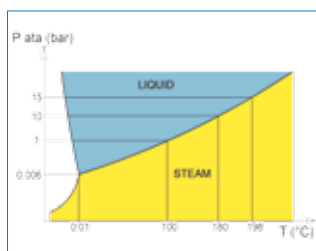
720301, 720302

STAINLESS STEEL CARBON STEEL



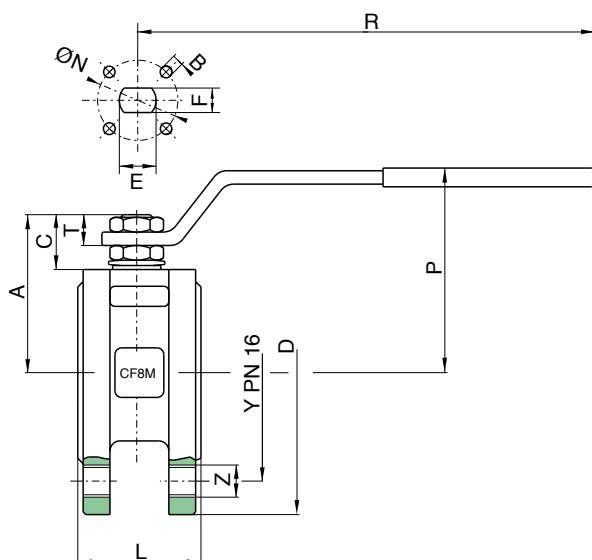
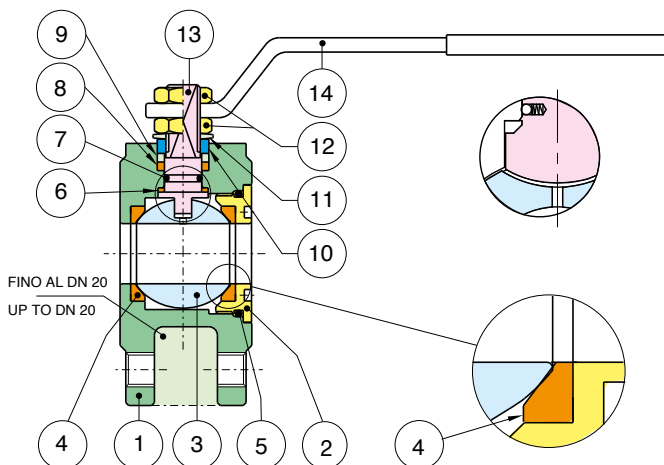
720301*: Stainless Steel, Wafer pattern full bore ball valve flanged PN16, fire safe with Antistatic Device.

720302*: Carbon Steel, Wafer pattern full bore ball valve flanged PN16, fire safe with Antistatic Device.



Stem Pressure In Bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Stem Temperature In C°	100	120	133	143	152	158	165	170	175	180	184	188	191	195	198

MAXIMUM WORKING PRESSURE WITH STEAM 15 bar



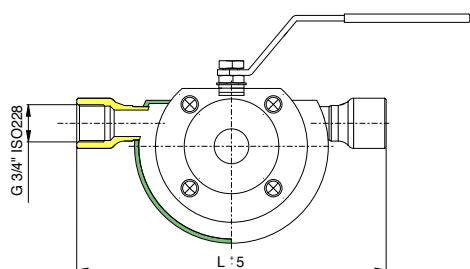
No	Part Name	Material	
		720301	720302
1	Body	A351-CF8M / A182-F316	ASTM A105
2	End Connection	A351-CF8M / A182-F316	ASTM A105
3	Ball	A351-CF8M / A182-F316	A351-CF8/ A182-F304
4	Ball Seat	P.T.F.E.+Carbogرافite	P.T.F.E.+Carbogرافite
5	O-Ring	FKM (Viton®)	FKM (Viton®)
6	Thrust Washer	P.T.F.E.+Carbogرافite	P.T.F.E.+Carbogرافite
7	O-Ring	FKM (Viton®)	FKM (Viton®)
8	Stem Seat	P.T.F.E.+Carbogرافite	P.T.F.E.+Carbogرافite
9	Packing Gland	Carbon Steel	CARBON STEEL
10	End Stop	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65-DN100)	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65 - DN100)
11	Spring Washer	Carbon Steel	Carbon Steel
12	Nut	Carbon Steel	Carbon Steel
13	Stem	A182-F316	A182 - F316
14	Handle	Carbon Steel	Carbon Steel

	Thread	DN	D	Y	Z	L	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg (720301)	Kg (720302)
*04	1/2	15	90	65	4 X M12	35	131	65	47	15.5	9	10	7	32	4 X M5	19.2	16	1.30	1.30
*05	3/4	20	100	75	4 X M12	40	131	69	51.5	15.5	9	10	7	32	4 X M5	35.0	16	1.90	1.90
*06	1	25	115	85	4 X M12	46	174	80	61	17	11	12	8	42	4 X M5	64.5	16	2.20	2.70
*07	1 1/4	32	140	100	4 X M16	54	174	84	64.5	15	11	12	8	42	4 X M5	103.8	16	3.30	4.20
*08	1 1/2	40	150	110	4 X M16	63.5	250	102	78	24.5	13	16	10	50	4 X M6	174.0	16	4.20	5.90
*10	2	50	165	125	4 X M16	82	250	111	87	25	13	16	10	50	4 X M6	301.3	16	6.10	8.70
*12	2 1/2	65	185	145	4 X M16	103	321	128	104.5	25	18	20	14	70	4 X M8	545.7	16	10.00	15.50
*14	3	80	200	160	8 X M16	122	321	138	115	28.5	18	20	14	70	4 X M8	872.5	16	13.50	20.50
*18	4	100	220	180	8 X M16	152	381	156	137	34.5	22	24	18	102	4 X M10	1363.3	16	20.90	34.20

Wafer Ball Valves with Heating Jacket (Screwed)



Flanged ball valve, with jacket in Stainless Steel or Carbon Steel, full bore, sizes DN15 to DN150.

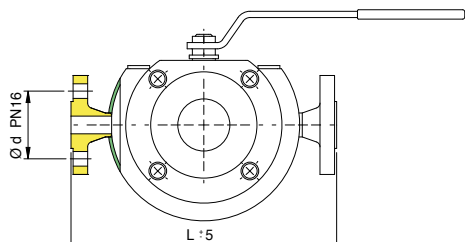


Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Ø d	3/4" ISO228									1" ISO228		
Carbon Steel	225	235	225	240	250	260	275	290	300	320	360	-
Stainless Steel	225	235	225	240	250	260	270	270	270	305	340	-

Wafer ball Valves with Heating Jacket (Flanged)



Flanged ball valve, with jacket in Stainless Steel or Carbon Steel, full bore, sizes DN15 to DN150.

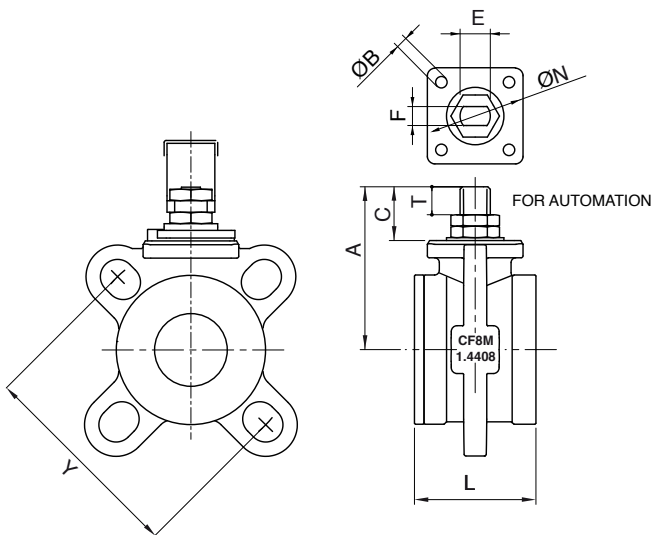
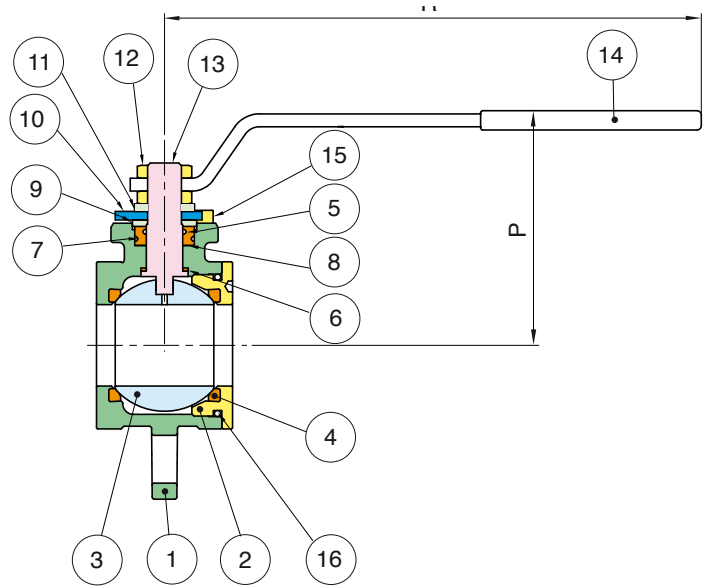


Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Ø d	DN15									DN 25		
Carbon Steel	200	210	210	230	240	255	275	290	320	380	415	-
Stainless Steel	200	210	210	230	240	255	260	275	300	380	415	-

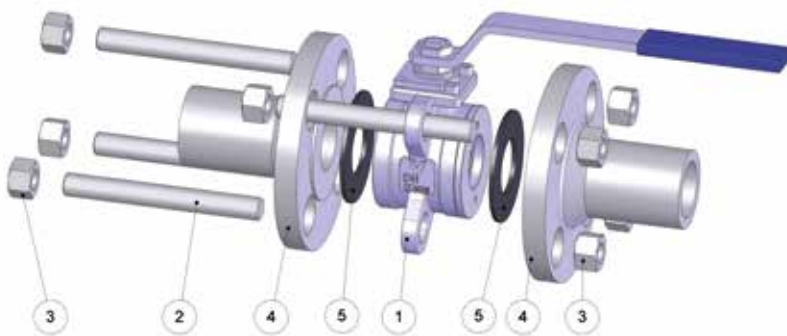
Stainless Steel “Wafer” Ball Valves – Economy 725000



725000*: Stainless Steel Wafer pattern full bore ball valve flanged to suit PN16 / ANSI 150 flanged with Antistatic Device.



No.	Part Name	Material
1	Body	A351 - CF8M
2	End Connection	A182 - F316
3	Ball	A182 - F316
4	Ball Seat	P.T.F.E.
5	O-Ring	FKM (Viton®)
6	Thrust Washer	P.T.F.E.
7	Ring	FKM (Viton®)
8	Stem Seat	P.T.F.E.
9	Packing Gland	A182 - F316
10	End Stop	Carbon Steel
11	Spring Washer	Carbon Steel
12	Nut	Carbon Steel
13	Stem	A182 - F316
14	Handle	Carbon Steel
15	Screw	Carbon Steel
16	O-Ring	FKM (Viton®)



Pos.	Part Name
1	Ball Valve
2	Screw
3	Nut
4	End Connection
5	Tightening Seal

	Thread	DN	Y	L	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg
*06	1	25	PN10 - PN16 - PN40 - ANSI150	46	174	91	71.5	23	9	M12	8	42	M5	64.5	40	1.30
*07	1 1/4	32	PN10 - PN16 - PN40 - ANSI150	54	174	95	75	23	9	M12	8	42	M5	103.8	40	1.65
*08	1 1/2	40	PN10 - PN16 - PN40 - ANSI150	63.5	250	110	85	28	12.5	M16	10	50	M6	174.0	40	2.15
*10	2	50	PN10 - PN16 - PN40 - ANSI150	82	250	119	93.5	28	12.5	M16	10	50	M6	301.3	40	3.75
*12	2 1/2	65	PN10 - PN16 - ANSI150	103	321	145	121.5	33.5	16	M20	14	70	M8	545.7	20	7.35
*14	3	80	PN10 - PN16 - ANSI150	122	321	154	131	33.5	16	M20	14	70	M8	872.5	20	10.30
*18	4	100	PN10 - PN16 - ANSI150	152	321	167	144	33.5	16	M20	14	70	M8	1363.3	20	16.00

Temperature range: -20°C to +160°C. Vacuum: 10⁻³ torr.

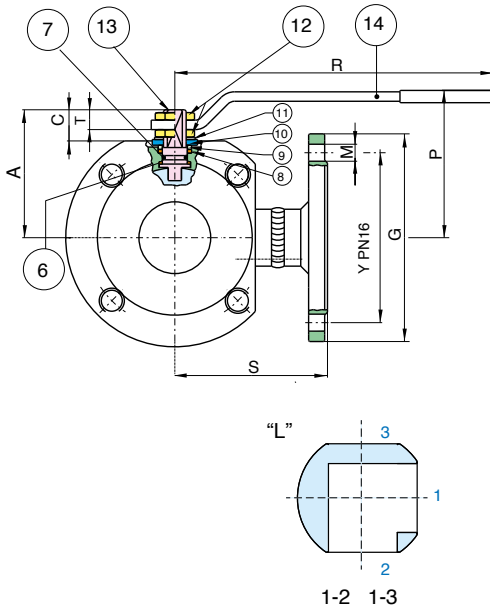
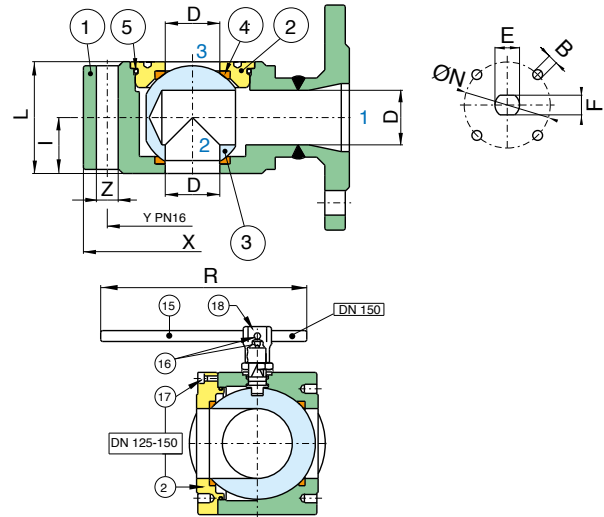
Three-Way 'L' Port "Wafer" Ball Valves Flanged PN16

776007, 776000

STAINLESS STEEL CARBON STEEL



776007* Stainless Steel, **776000*** Carbon Steel: Three way flanged PN16 diverter ball valve, "L" port, with two seats, reduced port.



No.	Part Name	Material	
		776000	776007
1	Body	ASTM A105	A182-F316
2	End Connection	ASTM A105	A182-F316
3	Ball	A351-CF8M/A182-F316	A351-CF8M/A182-F304
4	Ball Seat	P.T.F.E.	P.T.F.E.
5	O-Ring	FKM (Viton®)	FKM (Viton®)
6	Thrust Washer	P.T.F.E.	P.T.F.E.
7	O-Ring	FKM (Viton®)	FKM (Viton®)
8	Stem Seal	P.T.F.E.	P.T.F.E.
9	Packing Gland	Carbon Steel	Carbon Steel
10	End Stop	INOX AISI 430 DN 15- DN 5 Carbon Steel DN 65 - DN 100	INOX AISI 430 DN 15- DN 5 Carbon Steel DN 65 - DN 100
11	Spring Washer	Carbon Steel	Carbon Steel
12	Nut	Carbon Steel	Carbon Steel
13	Stem	A182-F304	A182-F316
14	Handle	Carbon Steel	Carbon Steel
15	Handle Dn 150	Carbon Steel	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel
17	Screw	Carbon Steel	Carbon Steel
18	Body Handle Dn150	EN-GJL 250	EN-GJL 250

Additional Options:

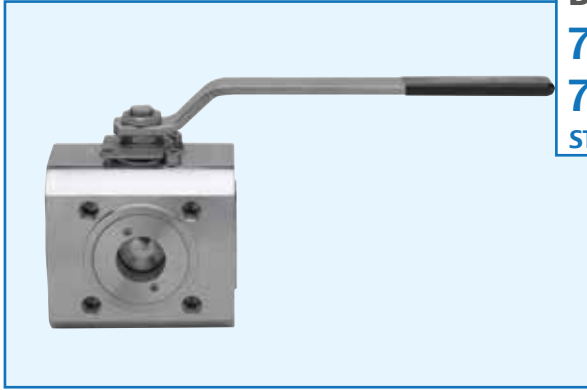
- 776003 - AISI 316 ANSI 150 'L' Port
- 776005 - A105 Carbon Steel ANSI 150 'L' Port

	Thread	DN	X	Y	Z	I	L	R	P	A	C	T	G	M	D	S	E	F	ØN	B	Kv(L)	PN	Kg
*04	1/2	15	89	65	4 X M12	20	40	131.5	64.5	47	15.5	9	95	4 X Ø14	10	76	10	7	32	4 X M5	2.8	16	2.23
*05	3/4	20	99	75	4 X M12	20	40	131.5	67	49.5	13.5	9	105	4 X Ø14	15	82	10	7	32	4 X M5	5.2	16	2.86
*06	1	25	109	85	4 X M12	23	46	174.5	79	59	18	12.5	115	4 X Ø14	20	86	12	8	42	4 X M5	9.2	16	3.89
*07	1 1/4	32	130	100	4 X M16	29	58	250.5	84	64	15.5	11.5	140	4 X Ø18	25	105	12	8	42	4 X M5	14.4	16	6.21
*08	1 1/2	40	140	110	4 X M16	35.5	71	250.5	102.5	78	24.5	13	150	4 X Ø18	32	110	16	10	50	4 X M6	25.9	16	8.50
*10	2	50	160	125	4 X M16	41	82	321.5	109	85	25	13.5	165	4 X Ø18	40	115	16	10	50	4 X M6	40.4	16	12.27
*12	2 1/2	65	180	145	4 X M16	53	106	321.5	128	104.5	28	18	185	4 X Ø18	50.2	125	20	14	70	4 X M8	63.2	16	19.10
*14	3	80	200	160	8 X M16	61	122	381.5	136.5	113	28	18	200	8 X Ø18	64	150	20	14	70	4 X M8	115.8	16	24.34
*18	4	100	220	180	8 X M16	76	152	381.5	155.5	136	34.5	22	220	8 X Ø18	76	159	24	18	102	4 X M10	163.2	16	38.45
*19	5	125	250	210	8 X M16	98	196	381.5	178.5	159	34.5	22	250	8 X Ø18	100	190	24	18	102	4 X M10	282.6	16	63.00
*20	6	150	306	240	8 X M20	116	242	700	252	201	59	29	285	8 X Ø22	125	210	42	30	125	4 X M12	441.6	16	108.00

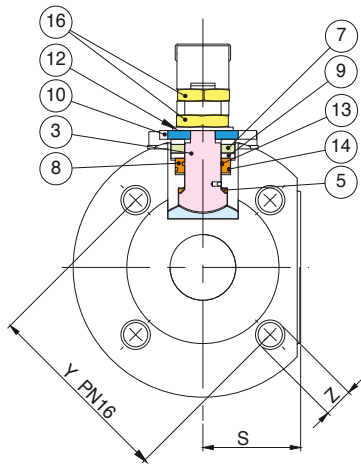
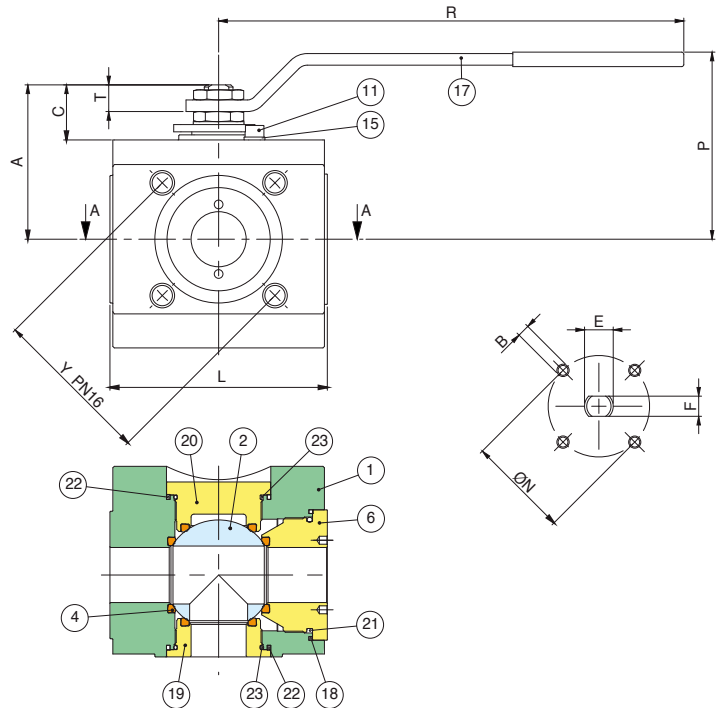
Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

Three-Way 'L' and 'T' Port Ball Valves

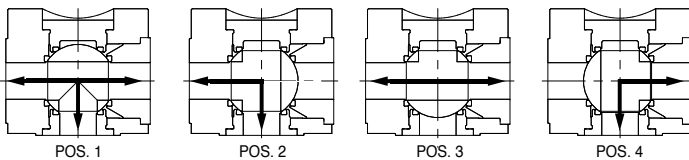
776401 (L), 776601 (L)
776400 (T), 776600 (T)
STAINLESS STEEL CARBON STEEL



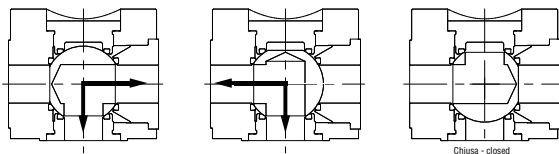
776401* (L-port), **776400*** (T-port) Stainless Steel,
776601* (L-port), **776600*** (T-port) Carbon Steel:
 Three way flanged PN16,
 "L" and "T" port, with four seats,
 full bore Antistatic Device.



"T": Operating Draft



"L": Operating Draft



No.	Part Name	Material	
		776401 776400	776601 776600
1	Body	A182-F316	ASTM A105
2	Ball	A182-F316 / A351-CF8M	A182-F316 / A351-CF8M
3	Stem	A182-F316	A182-F304
4	Ball Seat	P.T.F.E.	P.T.F.E.
5	Thrust Washer	P.T.F.E.	P.T.F.E.
6	End Connection	A182-F316	ASTM A105
7	Stem Seat	Graphoil	Graphoil
8	Stem Seat	P.T.F.E.	P.T.F.E.
9	Packing Gland	A182-F316	Carbon Steel
10	End Stop	A182-F316	Carbon Steel
11	Screw	Stainless Steel	Carbon Steel
12	Spring Washer	A182-F304	Carbon Steel
13	O-Ring	FKM (Viton®)	FKM (Viton®)
14	O-Ring	FKM (Viton®)	FKM (Viton®)
15	Washer	Stainless Steel	Stainless Steel
16	Nut	Stainless Steel	Carbon Steel
17	Handle	A182-F316	Carbon Steel
18	Body Seat	P.T.F.E.	P.T.F.E.
19	Stem Retaining Nut	A182-F316L	ASTM A105
20	Stem Retaining Nut	A182-F316L	ASTM A105
21	O-Ring	FKM (Viton®)	FKM (Viton®)
22	Body Seat	P.T.F.E.	P.T.F.E.
23	O-Ring	FKM (Viton®)	FKM (Viton®)

	Thread	DN	Y	Z	L	S	R	P	A	C	T	E	F	ØN	B	Kv(L)	PN	Kg
*04	1/2	15	65	4xM12	99	35	131.5	73	55	20	10	M10	7	42	4xM5	7.6	16	3.7
*05	3/4	20	75	4xM12	108	40	174	90	72	28	13	M12	8	50	4xM6	12.2	16	5.5
*06	1	25	85	4xM12	115	41.5	174	95	76	27	12	M12	8	50	4xM6	21.1	16	7
*07	1 1/4	32	100	4xM16	140	52.5	250	116	92	31	13	M16	10	50	4xM6	34.6	16	12.5
*08	1 1/2	40	110	4xM16	150	56.5	321	129	107	38	18.5	M20	14	70	4xM8	48.8	16	16.5
*10	2	50	125	4xM16	167	62	321	137	115	38	18.5	M20	14	70	4xM8	85.1	16	22.5
*12	2 1/2	65	145	4xM16	185	85	321	150	131	41	22.5	M20	14	70	4xM8	138.4	16	37
*14	3	80	160	8xM16	216	127	381	171	147	40	18	M24	18	102	4xM10	220.1	16	60
*18	4	100	180	8xM16	244	150	381	192	169	39	18	M24	18	102	4xM10	381.1	16	95

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

Three-Way 'L' and 'T' Port Ball Valves – Flanged PN16

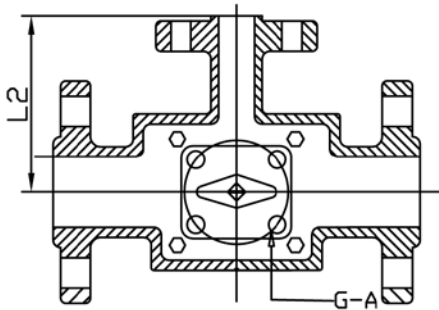
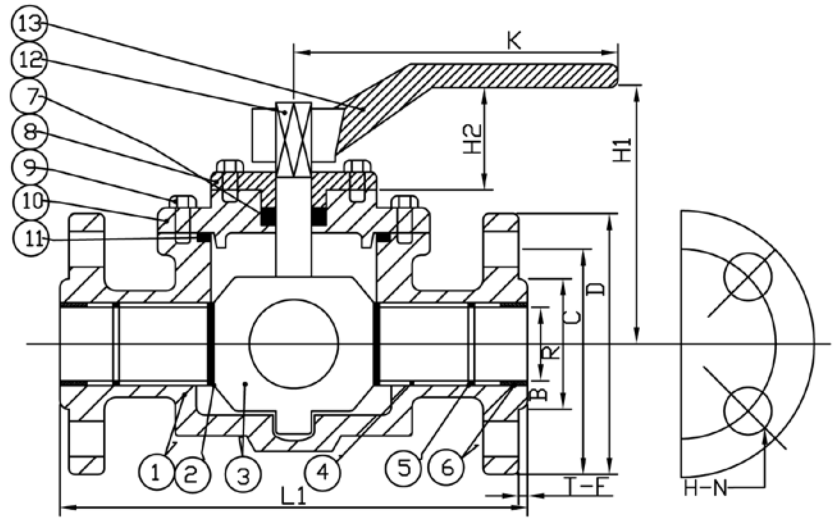
BF3S T, BF3S L, BF3C T, BF3C L

STAINLESS STEEL

CAST IRON



BF3S T* (T Port), **BF3S L*** (L Port) Stainless Steel
BF3C T* (T Port), **BF3C L*** (L Port) Cast Iron:
 3 Way Full Bore Ball Valve Flanged DIN PN16



Additional Options:
 Stainless Steel - Direct Mount



Carbon Steel

No.	Part Name	Material	
		Stainless Steel	Cast Iron
		BF3S T BF3S L	BF3C T BF3C L
1	Body	ASTM A351 CF8M	Cast Iron
2	Ball Seat	Teflon	Teflon
3	Ball with Stem	CF8M	CF8
4	Seat Ring Holder	CF8M	Cast Iron
5	O-Ring		
6	Retainer	CF8M	Cast Iron
7	Stem Packing	Teflon	Teflon
8	Gland Flanged	CF8M	Cast Iron
9	Gland Bolt	SUS304	SS41
10	Top Cover	CF8M	Cast Iron
11	Joint Gasket	Teflon	Teflon
12	Stem	CF8M	CF8
13	Handle	Cast Iron	Cast Iron

Size	DN	L1	L2	B	D	T	R	F	C	H	N	H1	H2	K		A	G	PN	Kg
*1	25	180	90.0	24	115	16	68	1	85	14	4	103	30	75	12.0	M6	50	16	9.5
*1 1/2	40	200	100.0	39	150	16	88	2	110	18	4	133	50	235	16.0	M8	70	16	13.0
*2	50	220	110.0	49	165	18	102	2	125	18	4	136	50	235	16.0	M10	70	16	17.0
*2 1/2	65	250	125.0	63	185	18	122	2	145	18	4	146	53	340	19.5	M10	102	16	27.0
*3	80	260	130.0	74	200	20	138	2	160	18	8	156	53	340	19.5	M10	102	16	29.0
*4	100	340	170.0	100	220	20	158	2	180	18	8	172	50	340	19.5	M10	102	16	45.0
*6	150	455	227.5	150	285	22	212	2	240	22	8	236	72	510	25.0	M12	125	16	103.0

Temperature range: -20°C to +180°C.

Cast Iron Ball Valves - Flanged PN16

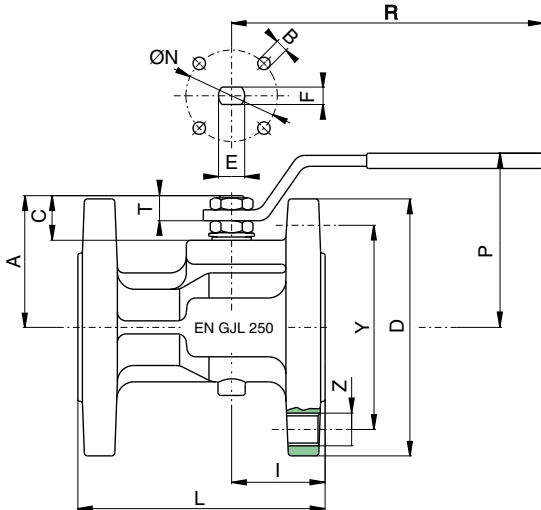
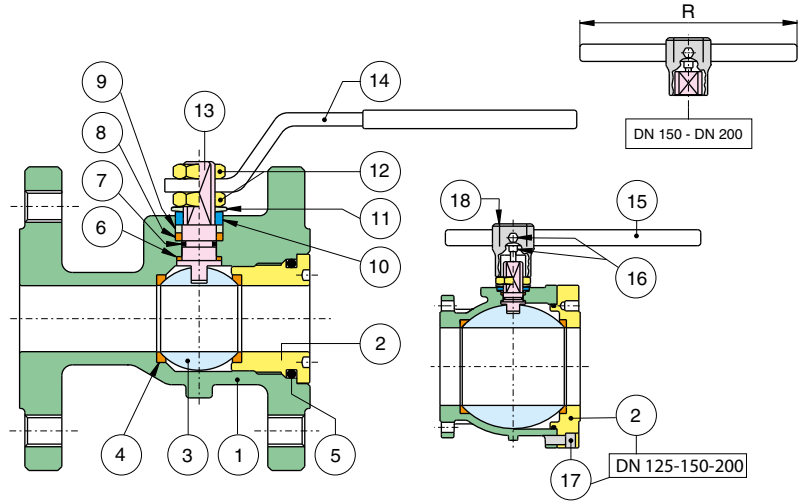
730000, 730003

BRASS BALL

AISI 304 BALL



730000* Cast Iron with brass ball, **730003*** Cast Iron with stainless steel ball: Full bore flanged ball valve, PN16 in cast iron, according to EN 558 basic series 14 (DN 200 basic series 27)



No.	Part Name	Material	
		730000	730003
1	Body	EN-GJL-250	EN-GJL-250
2	End Connection	ASTM A105	ASTM A105
3	Ball	CW 617 UNI EN 12165	A351-CF8
4	Ball Seat	P.T.F.E.	P.T.F.E.
5	O-Ring	NBR	NBR
6	Thrust Washer	P.T.F.E.	P.T.F.E.
7	O-Ring	NBR	NBR
8	Stem Seat	P.T.F.E.	P.T.F.E.
9	Packing Gland	Carbon Steel	Carbon Steel
10	End Stop	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65 - DN200)	INOX AISI 430 (DN15 - DN50) Carbon Steel (DN65 - DN200)
11	Spring Washer	Carbon Steel	Carbon Steel
12	Nut	Carbon Steel	Carbon Steel
13	Stem	A182 - F304	A182 - F304
14	Handle	Carbon Steel	Carbon Steel
15	Handle DN 150-200	Carbon Steel	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel
17	Screw	Carbon Steel	Carbon Steel
18	Body Handle DN 150-200	EN-GJL-250	EN-GJL-250

	Thread	DN	D	Y	Z	I	L	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg
*06	1	25	115	85	4 X M12	44.5	125	174	79	59	19.5	11.5	12	8	-	-	64.5	16	3.10
*07	1 1/4	32	140	100	4 X M16	51.5	130	174	85	64	18	10	12	8	-	-	103.8	16	4.80
*08	1 1/2	40	150	110	4 X M16	49	140	250	103	78	24	13	16	10	-	-	174.0	16	6.10
*10	2	50	165	125	4 X M16	52	150	250	110	85	24	13	16	10	-	-	301.3	16	7.80
*12	2 1/2	65	185	145	4 X M16	65	170	321	126	103	28	18	20	14	-	-	545.7	16	11.4
*14	3	80	200	160	8 X M16	66	180	321	137	114	28	18	20	14	70	M8	872.5	16	14.10
*18	4	100	220	180	8 X M16	89	190	381	158	137	32.5	20.5	24	18	102	M10	1363.3	16	20.00
*19	5	125	250	210	8 X M16	100	200	381	180	159	32	20.5	24	18	102	M10	2360.3	16	30.40
*20	6	150	285	240	8 X M20	105	210	700	265	201.5	51.5	30	42	30	125	M12	3671.1	16	44.50
*21	8	200	340	295	12 X Ø22	200	400	700	308	244	52	30	42	30	125	M12	6816.6	16	103.00

Temperature range: -10°C to +120°C. Vacuum: 10⁻³ torr.

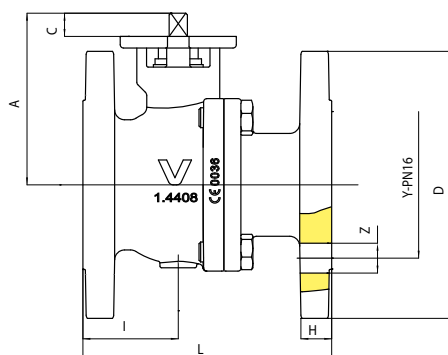
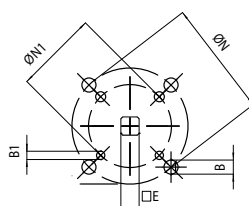
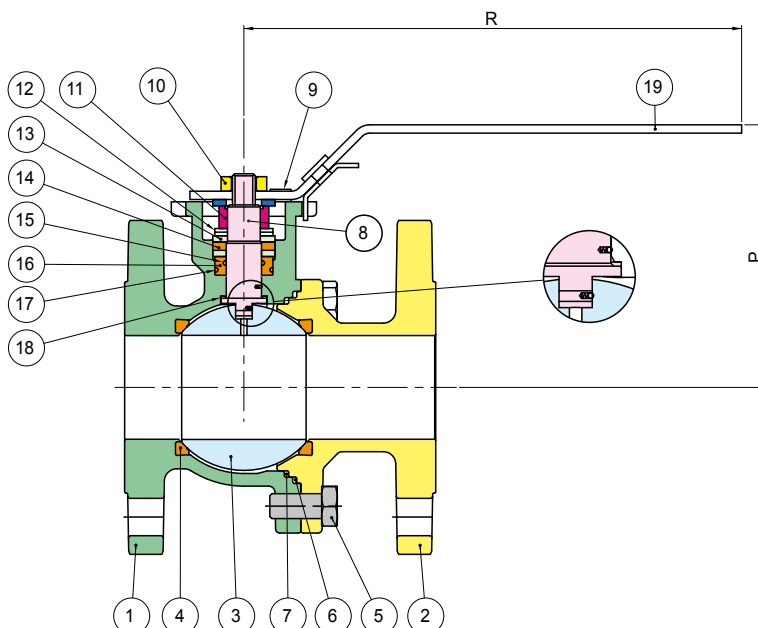
'Split Body' Ball Valves – Direct Mount – PN16/40

765000, 765001

STAINLESS STEEL CARBON STEEL



765000* Stainless Steel AISI316 - CF8M ball valve,
765001* Carbon Steel WCB ball valve: Flanged PN16 stainless steel AISI316 - CF8M and carbon steel WCB ball valve, full bore, with ISO 5211 pad direct mount, EN558 basic series 27 face to face dimension, Fire Safe, Antistatic Device.



Additional Options:



Fitted with Pneumatic Actuator



Fitted with Electric Actuator

No.	Part Name	Material	
		765000	765001
1	Body	EN10213-4 1.4408	EN 10213-2 1.0619
2	End Connection	EN10213-4 1.4408	EN 10213-2 1.0619
3	Ball	A182-F316 / A351-CF8M	A182-F304 / A351-CF8
4	Ball Seat	P.T.F.E.	P.T.F.E.
5	Screw	Stainless Steel	Carbon Steel
6	Body Seat	Graphoil	Graphoil
7	Body Seat	P.T.F.E.	P.T.F.E.
8	Stern	A182-F316	A182-F304
9	Screw	Stainless Steel	Carbon Steel
10	Nut	Stainless Steel	Carbon Steel
11	Nut	Stainless Steel	Carbon Steel
12	Spring Washer	Stainless Steel	Carbon Steel
13	Bush	A182-F316	A182-F316
14	Stem Seat	Graphoil	Graphoil
15	O-Ring	FKM (Viton®)	FKM (Viton®)
16	Stem Seat	P.T.F.E.	P.T.F.E.
17	O-Ring	FKM (Viton®)	FKM (Viton®)
18	Thrust Washer	P.T.F.E.	P.T.F.E.
19	Handle	Stainless Steel	Stainless Steel

	Thread	DN	D	Y	Z	H	I	L	P	R	A	C	E	ØN	B	ØN1	B1	Kv	PN	Kg
*04	1/2	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*05	3/4	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*06	1	25	115	85	4X14	18	53	125	94	161	69	11	9	50-F05	7	-	-	64.5	40	3.7
*07	1 1/4	32	140	100	4X18	18	55	130	108	161	82	11	9	50-F05	7	-	-	103.8	40	5
*08	1 1/2	40	150	110	4X18	18	52	140	119	241	94	14	11	70-F07	8.5	50-F05	M6	174.0	40	6.7
*10	2	50	165	125	4X18	18	57.5	150	128	241	103	13.5	11	70-F07	8.5	50-F05	M6	301.3	40	9.3
*12	2 1/2	65	185	145	4X18	18	63	170	154	321	128.5	17.5	14	70-F07	8.5	-	-	545.7	16	13.2
*14	3	80	200	160	8X18	20	75.5	180	163	321	137.5	17.5	14	102-F10	11	70-F07	M10	872.5	16	17.2
*18	4	100	220	180	8X18	20	80	190	177	380	153.5	19	17	102-F10	11	70-F07	M10	1363.3	16	23.4

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

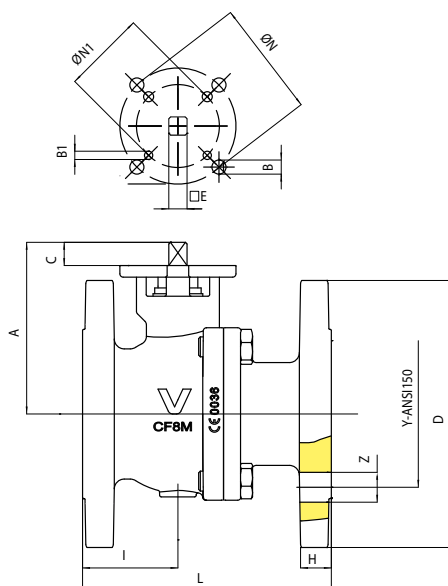
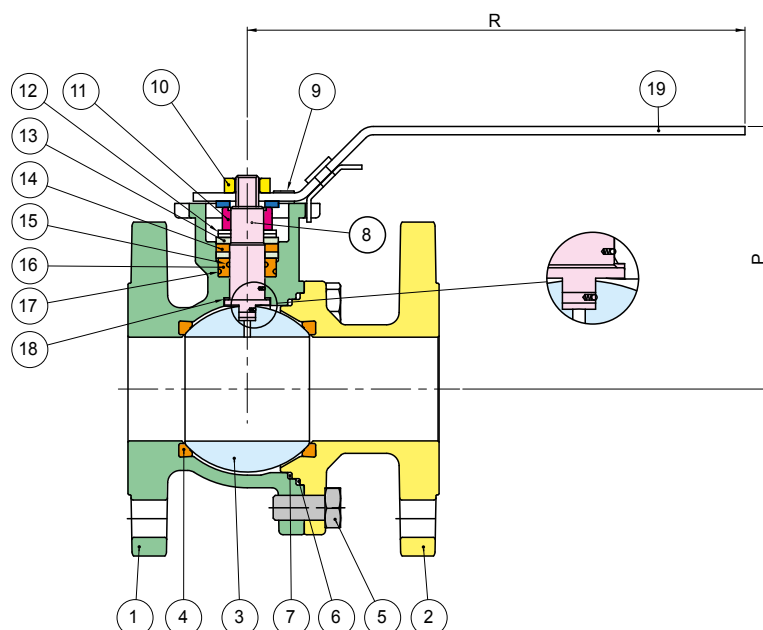
'Split Body' Ball Valves – Direct Mount – ANSI 150

766000, 766001

STAINLESS STEEL CARBON STEEL



766000* Stainless steel AISI316 - CF8M ball valve,
766001* Carbon Steel WCB ball valve: Flanged ANSI 150 stainless steel AISI316-CF8M and carbon steel WCB ball valve, full bore, with ISO 5211 pad direct mount, ANSI B 16.10 face to face dimension, Fire Safe, Antistatic Device.



No.	Part Name	Material	
		766000	766001
1	Body	A351-CF8M	A216-WCB
2	End Connection	A351-CF8M	A216-WCB
3	Ball	A182-F316 / A351-CF8M	A182-F304 / A351-CF8
4	Ball Seat	P.T.F.E.	P.T.F.E.
5	Screw	Stainless Steel	Carbon Steel
6	Body Seat	GRAPHOIL	GRAPHOIL
7	Body Seat	P.T.F.E.	P.T.F.E.
8	Stem	A182-F316	A182-F304
9	Screw	Stainless Steel	Carbon Steel
10	Nut	Stainless Steel	Carbon Steel
11	Nut	Stainless Steel	Carbon Steel
12	Spring Washer	Stainless Steel	Carbon Steel
13	Bush	A182-F316	A182-F316
14	Stem Seat	Graphoil	Graphoil
15	O-Ring	FKM (Viton®)	FKM (Viton®)
16	Stem Seat	P.T.F.E.	P.T.F.E.
17	O-Ring	FKM (Viton®)	FKM (Viton®)
18	Thrust Washer	P.T.F.E.	P.T.F.E.
19	Handle	Stainless Steel	Stainless Steel

Additional Options:



Fitted with Pneumatic Actuator



Fitted with Electric Actuator

	Thread	DN	D	Y	Z	H	I	L	P	R	A	C	E	ØN	B	ØN1	B1	Kv	PN	Kg
*04	1/2	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*05	3/4	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*06	1	25	110	79.5	4X16	14.5	54	127	93	160	69	11	9	50-F05	7	-	-	64.5	20	3.8
*08	1 1/2	40	130	98.5	4X16	17.5	76	165	118	240	94	14	11	70-F07	8.5	50-F05	M6	174.0	20	7.00
*10	2	50	150	102.5	4X19	19.5	84.5	178	127	240	103	13.5	11	70-F07	8.5	50-F05	M6	301.3	20	9.6
*14	3	80	190	152.5	4X19	24	93	203	162	320	137.5	17.5	14	102-F10	11	70-F07	M10	872.5	20	17.9
*18	4	100	230	190.5	8X19	24	99.5	229	177	380	153.5	19	17	102-F10	11	70-F07	M10	1363.3	20	24.3

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

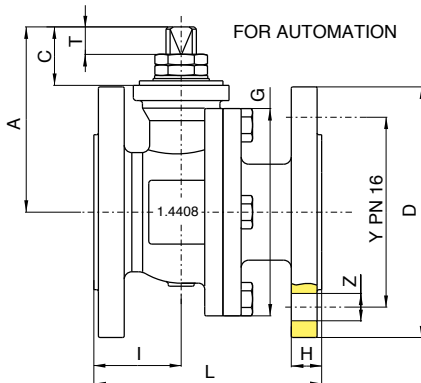
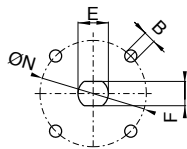
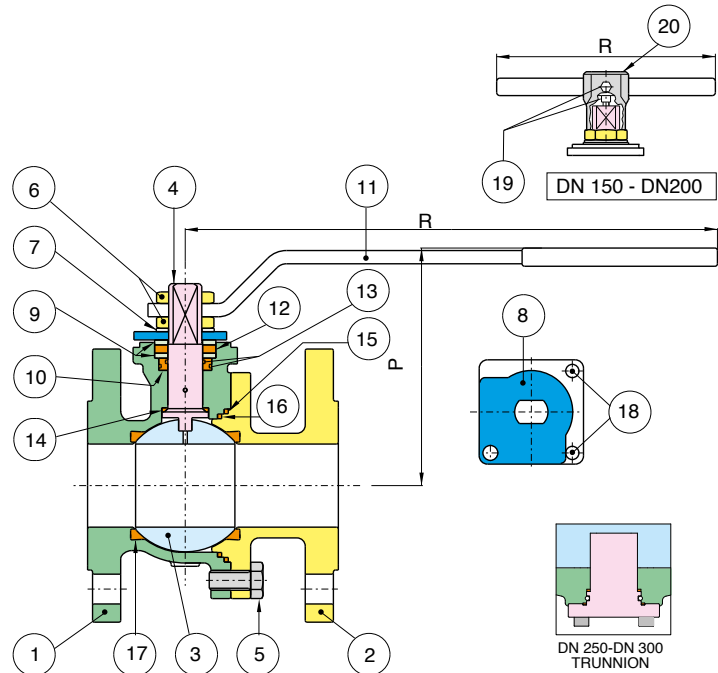
'Split Body' Steel Ball Valves - PN16/40

760000, 760001

STAINLESS STEEL CARBON STEEL



760000* Stainless Steel, **760001*** Carbon Steel:
Flanged PN16 stainless steel AISI 316-CF8M and
carbon steel WCB ball valve, full bore, EN 558 basic
series 27 face to face dimension, Fire Safe, Antistatic
Device.



No.	Part Name	Material	
		760000	760001
1	Body	1.4408	1.0619
2	End Connection	1.4408	1.0619
3	Ball	A182-F316 / A351-CF8M	A182-F304 / A351-CF8
4	Stem	A182-F316	A182-F304
5	Screw	Stainless Steel	Carbon Steel
6	Nut	Stainless Steel	Stainless Steel
7	Spring Washer	Stainless Steel	Carbon Steel
8	90° Stop	A182-F316	Carbon Steel
9	Packing Gland	A182-F316	A182-F316
10	Stem Seat	P.T.F.E.	P.T.F.E.
11	Handle	A182-F316	Carbon Steel
12	Stem Seal	Graphoil	Graphoil
13	O-Ring	FKM (Viton®)	FKM (Viton®)
14	Thrust Washer	P.T.F.E.	P.T.F.E.
15	Body Seat	Graphoil	Graphoil
16	Body Seat	P.T.F.E.	P.T.F.E.
17	Ball Seat	P.T.F.E.	P.T.F.E.
18	Screw	Stainless Steel	Carbon Steel
19	Screw	Stainless Steel	Carbon Steel
20	Body Handle DN150-200	EN-GJL 250	EN-GJL 250

	Thread	DN	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ØN	B	Kv	PN	Kg
*04	1/2	15	95	65	4 X Ø14	16	49	115	71	88	131	52	19	8	M10	7	42-F04	M5	19.2	40	2.50
*05	3/4	20	105	75	4 X Ø14	18	51	120	73.5	93	131	56	19	8	M10	7	42-F04	M5	35.0	40	3.20
*06	1	25	115	85	4 X Ø14	18	54	125	90.5	89	174	72.5	27.5	13	M12	8	50-F05	M6	64.5	40	4.50
*07	1 1/4	32	140	100	4 X Ø18	18	55	130	97	93	174	76	27.5	13	M12	8	50-F05	M6	103.8	40	5.80
*08	1 1/2	40	150	110	4 X Ø18	18	51.5	140	114	133	250	107	30	10	M16	10	50-F05	M6	174.0	40	8.10
*10	2	50	165	125	4 X Ø18	20	57.5	150	136.5	144	321	122	38.5	18	M20	14	70-F07	M8	301.3	40	11.40
*12	2 1/2	65	185	145	4 X Ø18	18	61	170	167.6	154	321	133	39.5	18	M20	14	70-F07	M8	545.7	16	15.40
*14	3	80	200	160	8 X Ø18	20	75.5	180	178.6	173	381	151	43	18	M24	18	102-F10	M10	872.5	16	20.50
*18	4	100	220	180	8 X Ø18	20	80	190	208.6	187	381	165	43	18	M24	18	102-F10	M10	1363.3	16	26.80
*19	5	125	250	210	8 X Ø18	22	149	325	273	209	381	187	43	18	M24	18	102-F10	M10	2360.3	16	50.20
*20	6	150	285	240	8 X Ø22	22	157	350	311	305	700	245	68	27.5	M42	30	125-F12	M12	3671.1	16	75.70
*21	8	200	340	295	12 X Ø22	24	190	400	402	348	700	288	68	27.5	M42	30	125-F12	M12	6816.6	16	104.00
*77	*10	250	405	355	12 X Ø26	26	225	450	500	-	-	353	81	47	M52	38	140-F14	M16	11170.7	16	180
*78	*12	300	460	410	12 X Ø26	28	250	500	560	-	-	384	81	47	M52	38	140-F14	M16	16805.6	16	226

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

* Trunnion Δp=10 bar - supplied without handle.

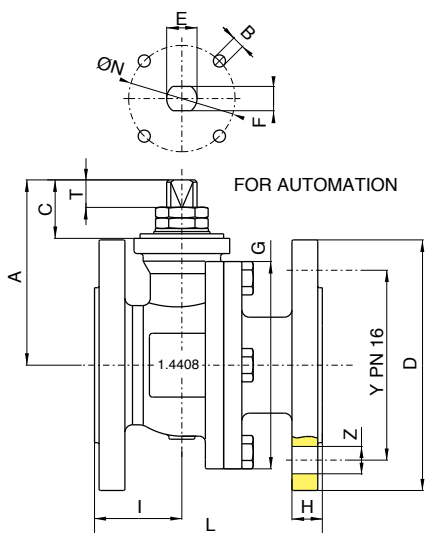
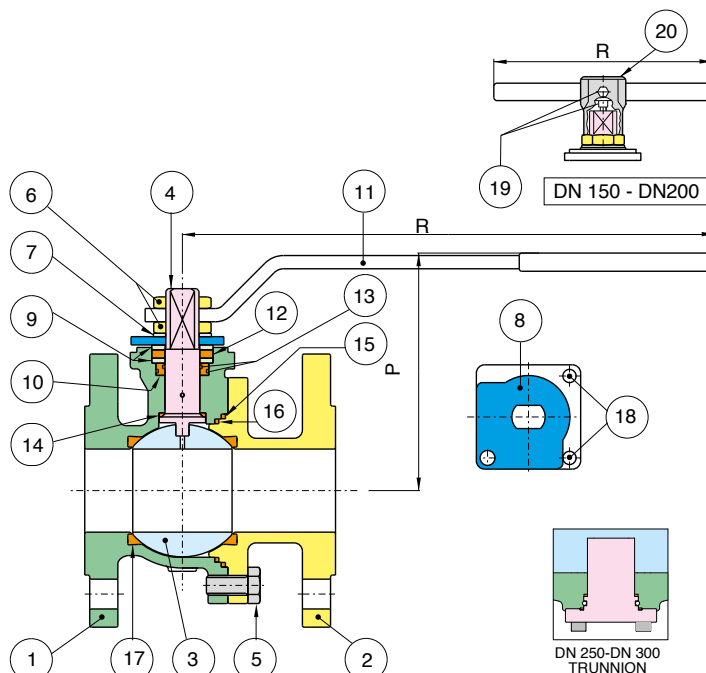
'Split Body' Steel Ball Valves - ANSI 150

760005, 762000

STAINLESS STEEL CARBON STEEL



760005* Stainless Steel, **762000*** Carbon Steel:
Flanged ANSI 150 stainless steel AISI 316-CF8M and
carbon steel WCB ball valve, full bore, ANSI B16.10
face to face dimension, Fire Safe, Antistatic Device.



No.	Part Name	Material	
		760005	762000
1	Body	A351-CF8M	A216-WCB
2	End Connection	A351-CF8M	A216-WCB
3	Ball	A182-F316 / A351-CF8M	A182-F304 / A351-CF8
4	Stem	A182-F316	A182-F304
5	Screw	Stainless Steel	Carbon Steel
6	Nut	Stainless Steel	Stainless Steel
7	Spring Washer	Stainless Steel	Carbon Steel
8	90° Stop	A182-F316	Carbon Steel
9	Packing Gland	A182-F316	A182-F316
10	Stem Seal	P.T.F.E.	P.T.F.E.
11	Handle	A182-F316	Carbon Steel
12	Stem Seal	Graphoil	Graphoil
13	O-Ring	FKM (Viton®)	FKM (Viton®)
14	Thrust Washer	P.T.F.E.	P.T.F.E.
15	Body Seat	Graphoil	Graphoil
16	Body Seat	P.T.F.E.	P.T.F.E.
17	Ball Seat	P.T.F.E.	P.T.F.E.
18	Screw	Stainless Steel	Carbon Steel
19	Screw	Stainless Steel	Carbon Steel
20	Body Handle DN150-200	EN-GJL 250	EN-GJL 250

	Thread	DN	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ØN	B	Kv	PN	Kg
*04	1/2	15	90	60.5	4 X Ø16	11.5	46.5	108	71	88	131	52	19	8	M10	7	42-F04	M5	19.2	20	1.91
*05	3/4	20	100	70	4 X Ø16	13	53	117	73.5	93	131	56	19	8	M10	7	42-F04	M5	35.0	20	2.43
*06	1	25	110	79.5	4 X Ø16	14.5	59.5	127	90.5	89	174	72.5	27.5	13	M12	8	50-F05	M6	64.5	20	3.70
*08	1 1/2	40	130	98.5	4 X Ø16	17.5	77	165	114	133	250	106	30	10	M16	10	50-F05	M6	174.0	20	7.10
*10	2	50	150	120.5	4 X Ø19	19.5	86	178	136.5	144	321	122	38.5	18	M20	14	70-F07	M8	301.3	20	10.80
*14	3	80	190	152.5	4 X Ø19	24	79.5	203	178.6	173	381	151	43	18	M24	18	102-F10	M10	872.5	20	21.60
*18	4	100	230	190.5	8 X Ø19	24	110	229	208.6	187	381	165	43	18	M24	18	102-F10	M10	1363.3	20	30.40
*20	6	150	280	241.5	8 X Ø22	25.5	181	394	311	305	700	245	68	27.5	M42	30	125-F12	M12	3671.1	20	78.00
*21	8	200	345	298.5	8 X Ø22	29	212	457	402	348	700	288	68	27.5	M42	30	125-F12	M12	6816.6	20	124.60
*77	*10	250	405	362	12 X Ø26	32.2	301.8	533	500	-	-	353	81	47	M52	38	140-F14	M16	11170.7	10	195
*78	*12	300	485	431.8	12 X Ø26	33.8	353.8	610	560	-	-	384	81	47	M52	38	140-F14	M16	16805.6	10	254

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

* Trunnion Δp=10 bar - supplied without handle.

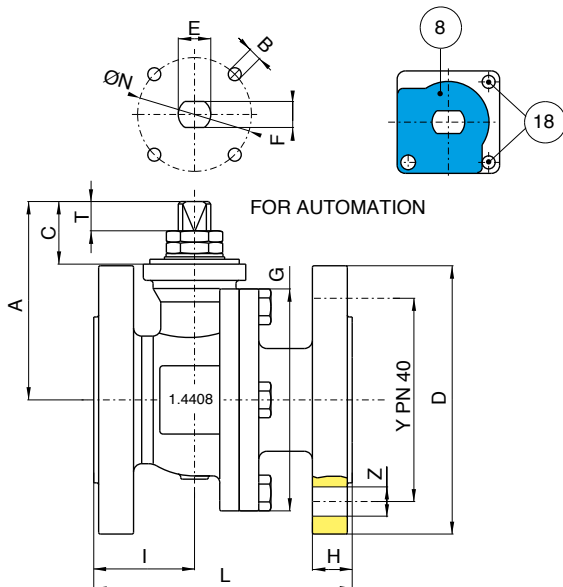
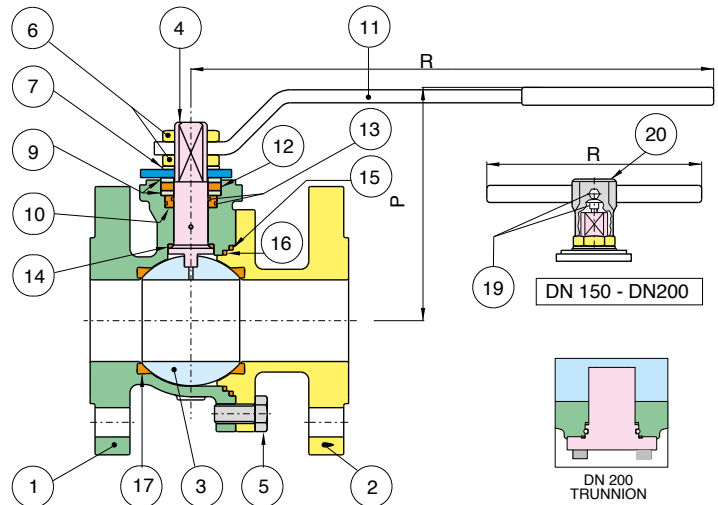
'Split Body' Steel Ball Valves - PN40

760040, 760041

STAINLESS STEEL CARBON STEEL



760040* Stainless Steel, **760041*** Carbon Steel:
Flanged PN40 stainless steel AISI 316-CF8M and
carbon steel WCB ball valve, full bore, EN 558 basic
series 27, face to face dimension, Fire Safe, Antistatic
Device.



No.	Part Name	Material	
		760040	760041
1	Body	1.4408	1.0619
2	End Connection	1.4408	1.0619
3	Ball	A182-F316 / A351-CF8M	A182-F304 / A351-CF8
4	Stem	A182-F316	A182-F304
5	Screw	Stainless Steel	Carbon Steel
6	Nut	Stainless Steel	Stainless Steel
7	Spring Washer	Stainless Steel	Carbon Steel
8	90° Stop	A182-F316	Carbon Steel
9	Packing Gland	A182-F316	A182-F316
10	Stem Seal	P.T.F.E.	P.T.F.E.
11	Handle	A182-F316	Carbon Steel
12	Stem Seal	Graphoil	Graphoil
13	O-Ring	FKM (Viton®)	FKM (Viton®)
14	Thrust Washer	P.T.F.E.	P.T.F.E.
15	Body Seat	Graphoil	Graphoil
16	Body Seat	P.T.F.E.	P.T.F.E.
17	Ball Seat	P.T.F.E. + Glass	P.T.F.E. + Glass
18	Screw	Stainless Steel	Carbon Steel
19	Screw	Stainless Steel	Carbon Steel
20	Body Handle DN150-200	EN-GJL 250	EN-GJL 250

	Thread	DN	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ØN	B	Kv	PN	Kg
*04	1/2	15	95	65	4 X Ø14	16	49	115	71	88	131	52	19	8	M10	7	42-F04	M5	19.2	40	2.50
*05	3/4	20	105	75	4 X Ø14	18	51	120	73.5	93	131	56	19	8	M10	7	42-F04	M5	35.0	40	3.20
*06	1	25	115	85	4 X Ø14	18	54	125	90.5	89	174	72.5	27.5	13	M12	8	50-F05	M6	64.5	40	4.50
*07	1 1/4	32	140	100	4 X Ø18	18	55	130	97	93	174	76	27.5	13	M12	8	50-F05	M6	103.8	40	5.80
*08	1 1/2	40	150	110	4 X Ø18	18	51.5	140	114	133	250	107	30	10	M16	10	50-F05	M6	174.0	40	8.10
*10	2	50	165	125	4 X Ø18	20	57.5	150	136.5	144	321	122	38.5	18	M20	14	70-F07	M8	301.3	40	11.40
*12	2 1/2	65	185	145	8 X Ø18	22	61	170	167.6	154	321	133	39.5	18	M20	14	70-F07	M8	545.7	40	15.30
*14	3	80	200	160	8 X Ø18	24	75.5	180	178.6	173	381	151	43	18	M24	18	102-F10	M10	872.5	40	21.60
*18	4	100	235	190	8 X Ø22	24	80	190	219	187	381	165	43	18	M24	18	102-F10	M10	1363.3	40	31.20
*20	6	150	300	250	8 X Ø25	28	163	350	306	305	700	245	68	27.5	M42	30	125-F12	M12	3671.1	40	82.70
*21	*8	200	375	320	12 X Ø29	34	201	400	410	348	700	290	68	27.5	M42	30	125-F12	M12	6816.6	40	143.00

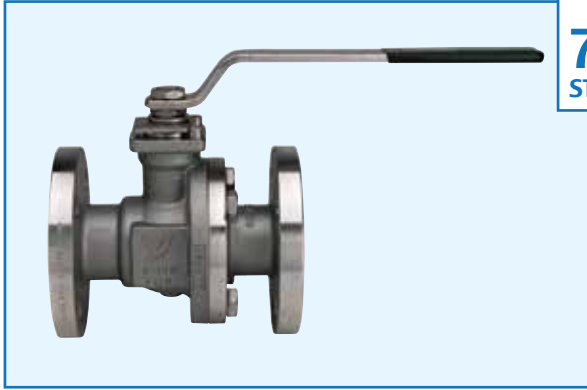
Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

* Trunnion Δp=25 bar

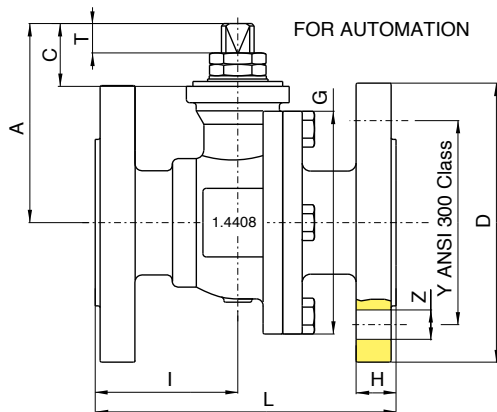
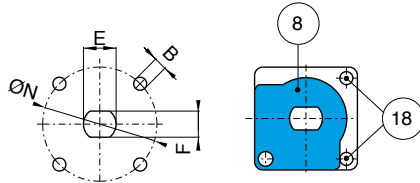
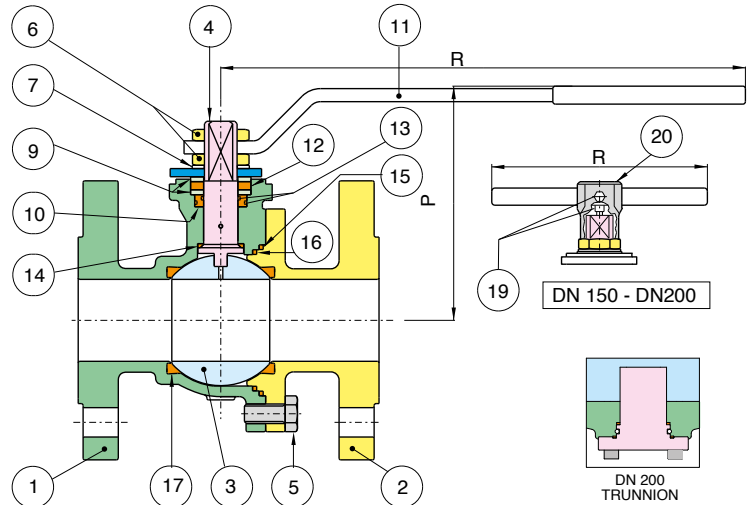
'Split Body' Steel Ball Valves - ANSI 300

761030, 761031

STAINLESS STEEL CARBON STEEL



761030* Stainless Steel, **761031*** Carbon Steel:
Flanged ANSI 300 stainless steel AISI 316-CF8M and
carbon steel WCB ball valve, full bore, ANSI B16.10
face to face dimension, Fire Safe, Antistatic Device.



No.	Part Name	Material	
		761030	761031
1	Body	A351-CF8M	A216-WCB
2	End Connection	A351-CF8M	A216-WCB
3	Ball	A182-F316 / A351-CF8M	A182-F304 / A351-CF8
4	Stem	A182-F316	A182-F304
5	Screw	Stainless Steel	Carbon Steel
6	Nut	Stainless Steel	Carbon Steel
7	Spring Washer	Stainless Steel	Carbon Steel
8	90° Stop	A182-F316	Carbon Steel
9	Packing Gland	A182-F316	A182-F316
10	Stem Seat	P.T.F.E.	P.T.F.E.
11	Handle	A182-F316	Carbon Steel
12	Stem Seal	Graphoil	Graphoil
13	O-Ring	FKM (Viton®)	FKM (Viton®)
14	Thrust Washer	P.T.F.E.	P.T.F.E.
15	Body Seat	Graphoil	Graphoil
16	Body Seat	P.T.F.E.	P.T.F.E.
17	Ball Seat	P.T.F.E. + Glass	P.T.F.E. + Glass
18	Screw	Stainless Steel	Carbon Steel
19	Screw	Stainless Steel	Carbon Steel
20	Body Handle DN150	EN-GJL 250	EN-GJL 250

	Thread	DN	D	Y	Z	H	I	L	G	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg
*04	1/2	15	95	66.5	4 X Ø16	14.5	61.5	140	85	131	88	52	19	8	M10	7	42-F04	M5	19.2	50	2.30
*05	3/4	20	115	82.5	4 X Ø19	16	61	152	78	131	93	56	19	8	M10	7	42-F04	M5	35.0	50	3.50
*06	1	25	125	89	4 X Ø20	17.5	70.5	165	96	174	109	72.5	27.5	13	M12	8	50-F05	M6	64.5	50	5.20
*08	1 1/2	40	155	114.5	4 X Ø22	21	78.5	190	126	250	133	107	30	10	M16	10	50-F05	M6	174.0	50	10.00
*10	2	50	165	127	8 X Ø20	22.5	86	216	136.5	321	144	122	38.5	18	M20	14	70-F07	M8	301.3	50	12.00
*14	3	80	210	168.5	8 X Ø22	29	81	283	178.5	381	173	151	43	18	M24	18	102-F10	M10	872.5	50	27.00
*18	4	100	255	200	8 X Ø22	32	88.5	305	219	381	187	165	43	18	M24	18	102-F10	M10	1363.3	50	41.00
*20	6	150	320	270	12 X Ø23	37	172	403	306	700	305	245	68	27.5	M42	30	125-F12	M12	3671.1	50	93.00
*21	*8	200	381	330	12 X Ø26	41.5	251	502	410	700	348	288	68.5	27.5	M42	30	125-F12	M12	6816.6	50	151.00

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

* Trunnion Δp=25 bar

'Split Body' Steel Ball Valves – DIN 3202 F1

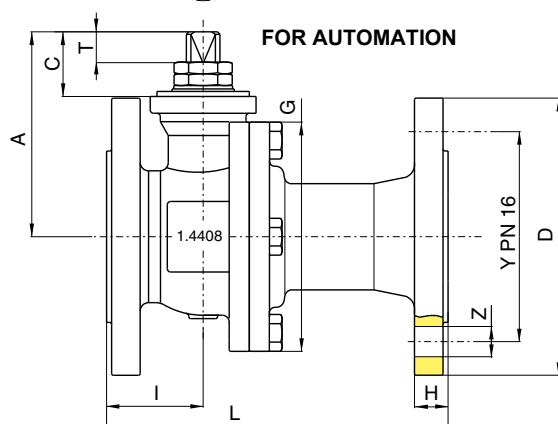
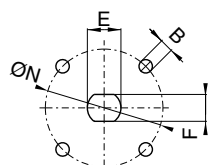
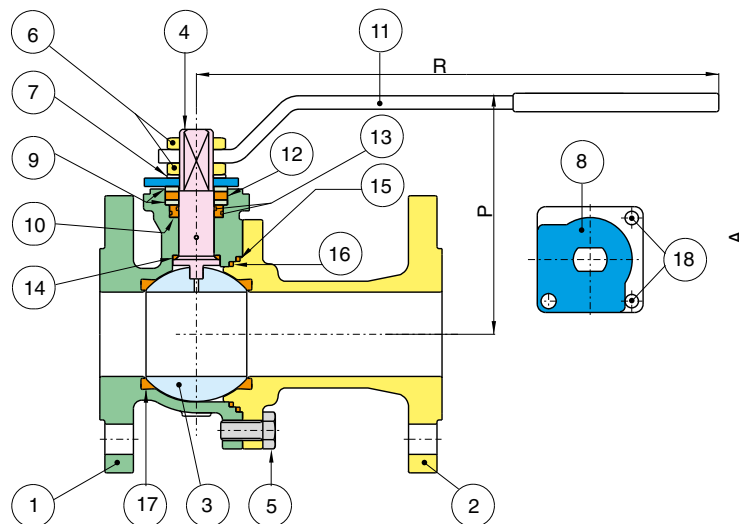


760801, 760802

STAINLESS STEEL CARBON STEEL



760801* Stainless Steel, **760802*** Carbon Steel:
Flanged PN16 stainless steel AISI 316-CF8M and
carbon steel WCB ball valve, full bore, EN 558 basic
series 1 face to face dimension, Fire Safe, Antistatic
Device.



No.	Part Name	Material	
		760801	760802
1	Body	1.4408	1.0619
2	End Connection	1.4408	1.0619
3	Ball	A182-F316 / A351-CF8M	A182-F304 / A351-CF8
4	Stem	A182-F316	A182-F304
5	Screw	Stainless Steel	Carbon Steel
6	Nut	Stainless Steel	Carbon Steel
7	Spring Washer	Stainless Steel	Carbon Steel
8	90° Stop	A182-F316	Carbon Steel
9	Packing Gland	A182-F316	A182-F316
10	Stem Seat	P.T.F.E.	P.T.F.E.
11	Handle	A182-F316	Carbon Steel
12	Stem Seal	Graphoil	Graphoil
13	O-Ring	FKM (Viton®)	FKM (Viton®)
14	Thrust Washer	P.T.F.E.	P.T.F.E.
15	Body Seat	Graphoil	Graphoil
16	Body Seat	P.T.F.E.	P.T.F.E.
17	Ball Seat	P.T.F.E.	P.T.F.E.
18	Screw	Stainless Steel	Carbon Steel

	Thread	DN	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ØN	B	Kv	PN	Kg
*04	1/2	15	95	65	4 X Ø14	16	49	130	71	88	131	52	19	8	M10	7	42-F04	M5	19.2	40	3.00
*05	3/4	20	105	75	4 X Ø14	18	51.5	150	73.5	93	131	56	19	8	M10	7	42-F04	M5	35.0	40	3.50
*06	1	25	115	85	4 X Ø14	18	53	160	90.5	89	174	72.5	27.5	13	M12	8	50-F05	M6	64.5	40	4.00
*07	1 1/4	32	140	100	4 X Ø18	18	55	180	97	112	174	76	27.5	13	M12	8	50-F05	M6	103.8	40	6.10
*08	1 1/2	40	150	110	4 X Ø18	18	51.5	200	114	133	250	107	30	10	M16	10	50-F05	M6	174.0	40	10.00
*10	2	50	165	125	4 X Ø18	20	57.5	230	136.5	144	321	122	38.5	18	M20	14	70-F07	M8	301.3	40	12.50
*12	2 1/2	65	185	145	4 X Ø18	18	61	290	167.6	154	321	133	39.5	18	M20	14	70-F07	M8	545.7	16	15.00
*14	3	80	200	160	8 X Ø18	20	75.5	310	178.6	173	381	151	43	18	M24	18	102-F10	M10	872.5	16	23.00
*18	4	100	220	180	8 X Ø18	20	80	350	208.6	187	381	165	43	18	M24	18	102-F10	M10	1363.3	16	31.00

Temperature range: Stainless Steel -20°C to +160°C. Carbon Steel -10°C to +160°C. Vacuum: 10⁻³ torr.

NEW

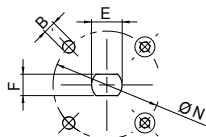
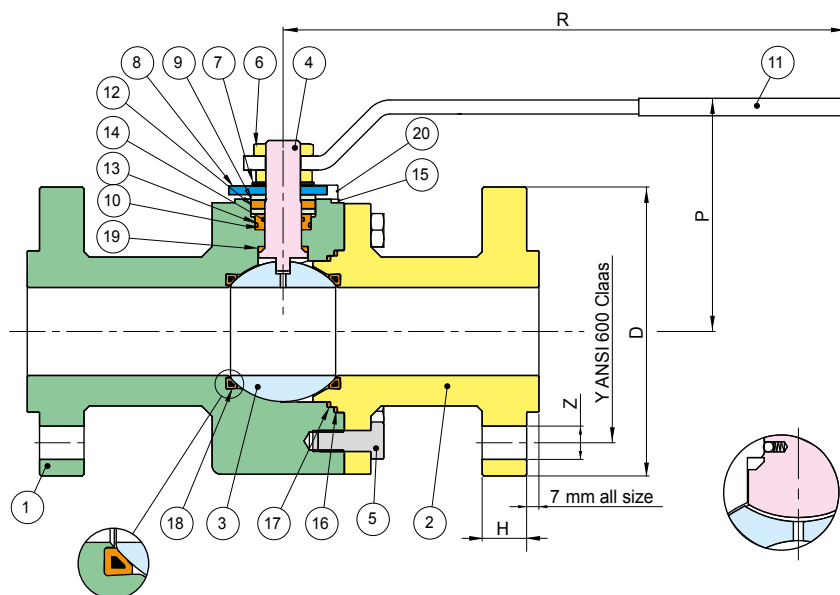
'Split Body' Steel Ball Valves - ANSI 600

760200, 760150

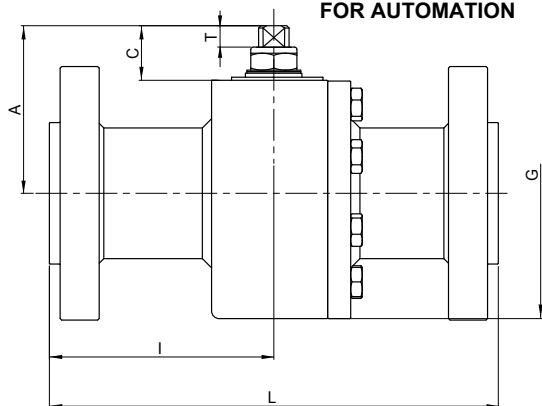
STAINLESS STEEL CARBON STEEL



760200* Stainless Steel, **760150*** Carbon Steel:
Flanged ANSI 600 stainless steel AISI 316 and carbon
steel A350-LF2 ball valve, full bore, ANSI B16.10 face
to face dimension, Fire Safe Antistatic Device.



FOR AUTOMATION



No.	Part Name	Material	
		760200	760150
1	Body	A182-F316	A350-LF2
2	End Connection	A182-F316	A350-LF2
3	Ball	A182-F316	A182-F304
4	Stem	A182-F316	A182-F304
5	Screw	Stainless Steel	Carbon Steel
6	Nut	Stainless Steel	Carbon Steel
7	Spring Washer	Stainless Steel	Carbon Steel
8	90° Stop	Stainless Steel	Carbon Steel
9	Packing Gland	A182-F316	A182-F316
10	Stem Seat	P.T.F.E.	P.T.F.E.
11	Handle	Stainless Steel	Carbon Steel
12	Stem Seal	Graphoil	Graphoil
13	O-Ring	FKM (Viton®)	FKM (Viton®)
14	O-Ring	FKM (Viton®)	FKM (Viton®)
15	Thrust Washer	A182-F304	A182-F304
16	Body Seat	Graphoil	Graphoil
17	Body Seat	P.T.F.E.	P.T.F.E.
18	Ball Seat	P.T.F.E. + MET / R P.T.F.E	P.T.F.E. + MET/R P.T.F.E
19	Thrust Washer	P.T.F.E.	P.T.F.E.
20	Screw	Stainless Steel	Stainless Steel

	Thread	DN	D	Y	Z	H	I	L	G	R	P	A	C	T	E	F	ØN	B	Kv	PN	Kg
*04	1/2	15	95	66.7	4 X Ø16	14.3	82.5	165	85	131	88	52.5	19.5	8	M10	7	42-F04	M5	19.2	100	4.10
*05	3/4	20	115	82.6	4 X Ø19	15.9	95.5	191	95	131	92	56	19.5	8.5	M10	7	42-F04	M5	35.0	100	6.00
*06	1	25	125	89	4 X Ø19	17.5	108	216	108	174	110	72.5	27.5	13	M12	8	50-F05	M6	64.5	100	8.90
*07	1 1/2	40	155	114.5	4 X Ø22	22.3	120.5	241	159	251	131	107	32	13	M16	10	50-F05	M6	174.0	100	20.00
*08	2	50	165	127	8 X Ø19	25.4	146	292	163	321	133	109	35.5	14	M20	14	70-F07	M8	301.3	100	25.50
*14	3	80	210	168.5	8 X Ø22	31.8	178	356	208	381	156	132	40	16	M24	18	102-F10	M10	872.5	100	52.00
*18	4	100	275	216	8 X Ø26	38.1	216	432	261	381	186	165	43	18	M24	18	102-F10	M10	1363.3	100	97.00

Temperature range: -20°C to +160°C. Vacuum: 10⁻³ torr.

Butterfly Valves – “Wafer” Type Cast Iron Body, EPDM Seat



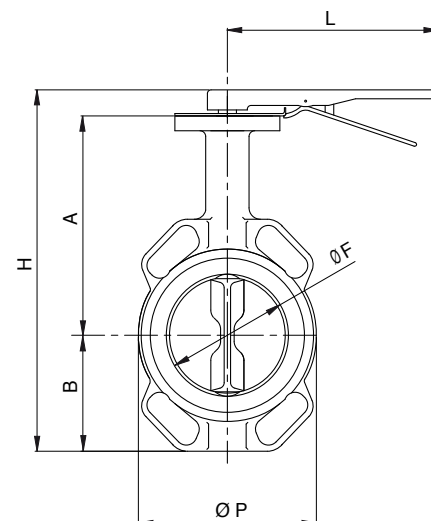
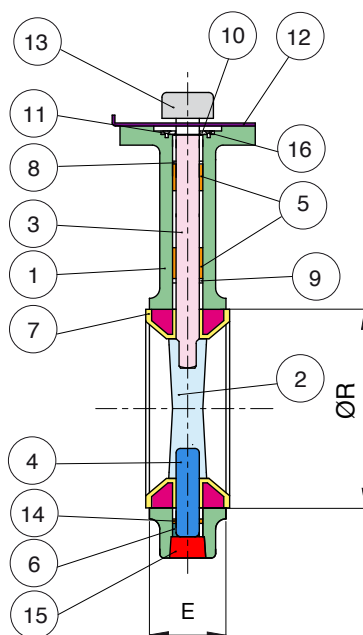
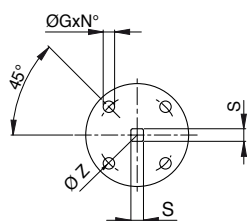
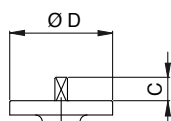
600104, 600105

DISC GGG40

DISC CF8M



600104* DISC GGG40, 600105* DISC CF8M:
Butterfly valve WAFER type PN16, body in cast iron
G250 + Epoxy painting, EPDM seat.



Additional Options:



Available with Pneumatic or
Electric Actuators



Gearbox Operator



with limit switch box

- 600125 - Disc Cast Iron seat **Viton**
- 600124 - Disc stainless steel seat **Viton**

No.	Part Name	Material	
		600104	600105
1	Body	EN-GJL 250	EN-GJL 250
2	Disc	EN-GJS 400	A351-CF8M
3	Stem	SS416	SS416
4	Stem	SS416	SS416
5	Stem Seat	P.T.F.E.	P.T.F.E.
6	Stem Seat	P.T.F.E.	P.T.F.E.
7	Seat	EPDM	EPDM
8	O-Ring	EPDM	EPDM
9	O-Ring	EPDM	EPDM
10	Washer	Carbon Steel	Carbon Steel
11	Circlip	Spring Steel	Spring Steel
12	Retainer	Carbon Steel	Carbon Steel
13	Lever	EN-GJL 250	EN-GJL 250
14	O-Ring	EPDM	EPDM
15	Cap	Carbon Steel	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel

	DN	H	A	B	L	ØF	ØP	ØR	E	ØD	C	ØG	N°	ØZ	S	Kv	PN	Kg
*07	32	190	112	58	162	35	85	56	33	90	22	7/10	4	50/70	11	51.0	PN16 - ANSI 150	2.04
*08	40	204	112	70	162	41	95	68	33	90	22	7/10	4	50/70	11	68.0	PN16 - ANSI 150	2.30
*10	50	236.1	142.7	71.4	267	52.25	100	73.3	43	90	22	7/10	4	50/70	11	99.0	PN16 - ANSI 150	3.24
*12	65	255.2	155.4	77.8	267	64.05	120	86	46	90	22	7/10	4	50/70	11	169.0	PN16 - ANSI 150	3.88
*14	80	272.8	161.8	89	267	78.65	127	100.9	46	90	22	7/10	4	50/70	11	260.0	PN16 - ANSI 150	4.18
*18	100	302	178	102	267	104.15	161	132	52	90	22	10	4	70	14	516.0	PN16 - ANSI 150	5.36
*19	125	335.5	190.5	123	267	123.35	190	156	56	90	22	10	4	70	14	879.0	PN16 - ANSI 150	7.10
*20	150	365.2	205.2	138	267	155.85	215	185.4	56	90	22	10	4	70	14	1358.0	PN16 - ANSI 150	8.28
*21	200	439.5	237	168	358	202.55	268	235.2	60	150	34.5	12	4	102	17	2697.0	PN16 - ANSI 150	13.70
*77	250	509.8	268.3	207	358	250.55	325	289.4	68	150	34.5	12	4	102	22	4592.0	PN16 - ANSI 150	21.82
*78	300	586.5	308.5	243.5	358	301.65	375	341.2	78	150	34.5	14	4	125	27	7095.0	PN16 - ANSI 150	32.09
*97	350**	-	386	259	-	341.7	436	-	78	175	65	18	4	140	Ø 28	10249	16	-
*98	400**	-	400	309	-	397.5	488	-	102	175	75	18	4	140	Ø 38	14094	16	-
*	450**	-	422	327	-	448.4	536	-	114	175	75	18	4	140	Ø 37.9	18666	16	-
*	500**	-	480	361	-	499	593	-	127	210	90	23	4	165	Ø 45	24001	16	-
*	600**	-	562	459	-	600.1	820	-	151	210	100	23	4	165	Ø 55.6	37080	16	-

**Gear operator included (DN 350-600). Temperature range: -10°C to +120°C.

NEW

Butterfly Valves – “Wafer” Type Cast Iron Body, NBR Seat



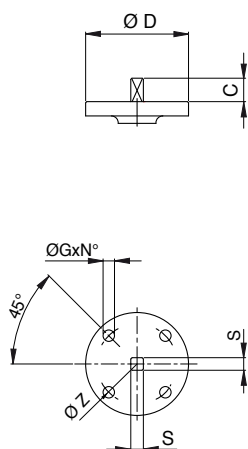
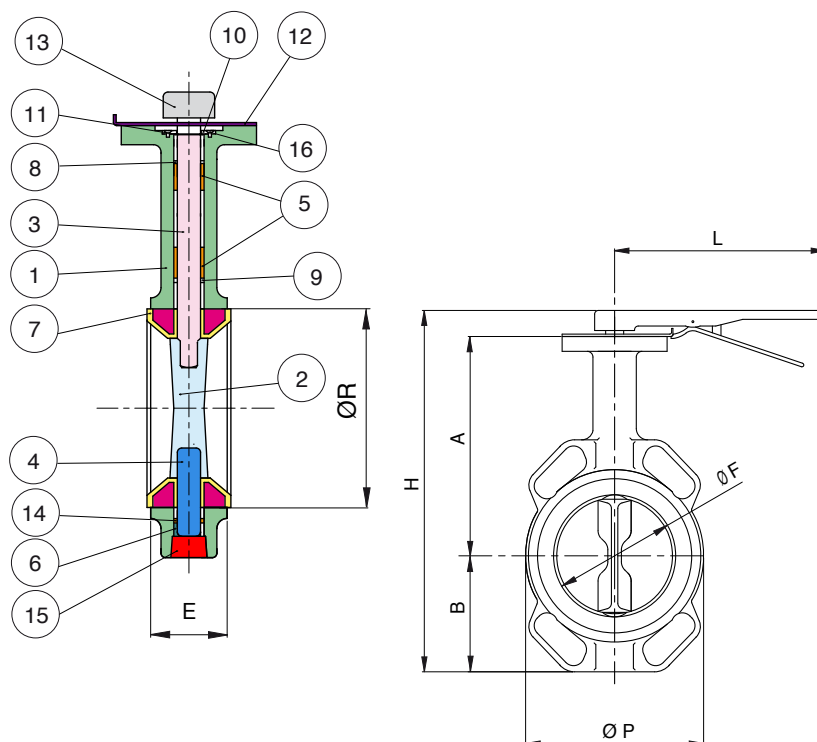
600117, 600119

DISC GGG40

DISC CF8M



600117* DISC GGG40, **600119*** DISC CF8M:
Butterfly valve WAFER type PN16, body in cast iron
G250 + Epoxy painting, NBR seat.



Additional Options:



Available with Pneumatic or
Electric Actuators



Gearbox Operator



with limit switch box

- 600125 - Disc Cast Iron seat **Viton**
- 600124 - Disc stainless steel seat **Viton**

No.	Part Name	Material	
		600117	600119
1	Body	EN-GJL 250	EN-GJL 250
2	Disc	EN-GJS 400	A351-CF8M
3	Stem	SS416	SS416
4	Stem	SS416	SS416
5	Stem Seat	P.T.F.E.	P.T.F.E.
6	Stem Seat	P.T.F.E.	P.T.F.E.
7	Seat	NBR	NBR
8	O-Ring	NBR	NBR
9	O-Ring	NBR	NBR
10	Washer	Carbon Steel	Carbon Steel
11	Circlip	Spring Steel	Spring Steel
12	Retainer	Carbon Steel	Carbon Steel
13	Lever	EN-GJL 250	EN-GJL 250
14	O-Ring	NBR	NBR
15	Cap	Carbon Steel	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel

	DN	H	A	B	L	ØF	ØP	ØR	E	ØD	C	ØG	N°	ØZ	S	Kv	PN	Kg
*07	32	190	112	58	162	35	85	56	33	90	22	7/10	4	50/70	11	51.0	PN16 - ANSI 150	2.04
*08	40	204	112	70	162	41	95	68	33	90	22	7/10	4	50/70	11	68.0	PN16 - ANSI 150	2.30
*10	50	236.1	142.7	71.4	267	52.25	100	73.3	43	90	22	7/10	4	50/70	11	99.0	PN16 - ANSI 150	3.24
*12	65	255.2	155.4	77.8	267	64.05	120	86	46	90	22	7/10	4	50/70	11	169.0	PN16 - ANSI 150	3.88
*14	80	272.8	161.8	89	267	78.65	127	100.9	46	90	22	7/10	4	50/70	11	260.0	PN16 - ANSI 150	4.18
*18	100	302	178	102	267	104.15	161	132	52	90	22	10	4	70	14	516.0	PN16 - ANSI 150	5.36
*19	125	335.5	190.5	123	267	123.35	190	156	56	90	22	10	4	70	14	879.0	PN16 - ANSI 150	7.10
*20	150	365.2	205.2	138	267	155.85	215	185.4	56	90	22	10	4	70	14	1358.0	PN16 - ANSI 150	8.28
*21	200	439.5	237	168	358	202.55	268	235.2	60	150	34.5	12	4	102	17	2697.0	PN16 - ANSI 150	13.70
*77	250	509.8	268.3	207	358	250.55	325	289.4	68	150	34.5	12	4	102	22	4592.0	PN16 - ANSI 150	21.82
*78	300	586.5	308.5	243.5	358	301.65	375	341.2	78	150	34.5	14	4	125	27	7095.0	PN16 - ANSI 150	32.09
*97	350**	-	386	259	-	341.7	436	-	78	175	65	18	4	140	Ø 28	10249	16	-
*98	400**	-	400	309	-	397.5	488	-	102	175	75	18	4	140	Ø 38	14094	16	-
*	450**	-	422	327	-	448.4	536	-	114	175	75	18	4	140	Ø 37.9	18666	16	-
*	500**	-	480	361	-	499	593	-	127	210	90	23	4	165	Ø 45	24001	16	-
*	600**	-	562	459	-	600.1	820	-	151	210	100	23	4	165	Ø 55.6	37080	16	-

Valve design may vary from type shown. **Gear operator included (DN 350-600). Temperature range: -10°C to +100°C.

Butterfly Valves – “Lugged” Type Ductile Iron Body, EPDM Seat



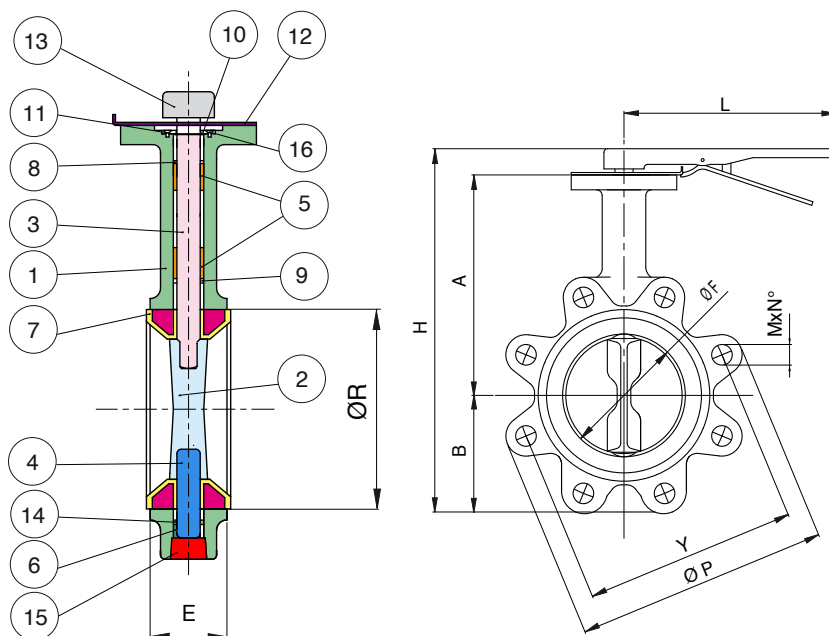
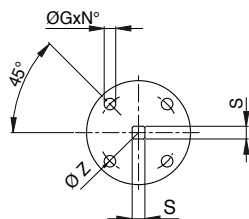
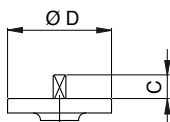
600204, 600205

DISC GGG40

DISC CF8M



600204* DISC GGG40, 600205* DISC CF8M:
Butterfly valve LUG type PN16, body in cast iron
GGG40+Epoxy painting, EPDM seat.



Additional Options:



Available with Pneumatic or
Electric Actuators



Gearbox Operator



with limit switch box

- 600222 - Disc Cast Iron seat **Viton**
- 600214 - Disc stainless steel seat **Viton**

No.	Part Name	Material	
		600204	600205
1	Body	EN-GJS 400	EN-GJS 400
2	Disc	EN-GJS 400	A351-CF8M
3	Stem	SS 416	SS 416
4	Stem	SS 416	SS 416
5	Stem Seat	P.T.F.E.	P.T.F.E.
6	Stem Seat	P.T.F.E.	P.T.F.E.
7	Seat	EPDM	EPDM
8	O-Ring	EPDM	EPDM
9	O-Ring	EPDM	EPDM
10	Washer	Carbon Steel	Carbon Steel
11	Circlip	Spring Steel	Spring Steel
12	Retainer	Carbon Steel	Carbon Steel
13	Lever	EN-GJL 250	EN-GJL 250
14	O-Ring	EPDM	EPDM
15	Cap	Carbon Steel	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel

	DN	H	A	B	L	ØF	ØP	ØR	E	ØD	C	ØG	N°	ØZ	S	Y	M X N°	Kv	PN	Kg
*08	40	204	112	70	162	41	145	68	33	90	22	7/10	4	50/70	11	110	M16X4	68.0	16	2.78
*10	50	236.1	142.7	71.4	267	52.25	165	73.3	43	90	22	7/10	4	50/70	11	125	M16 X 4	99.0	16	3.90
*12	65	255.2	155.4	77.8	267	64.05	185	86	46	90	22	7/10	4	50/70	11	145	M16 X 4	169.0	16	4.72
*14	80	272.8	161.8	89	267	78.65	200	100.9	46	90	22	7/10	4	50/70	11	160	M16 X 8	260.0	16	5.32
*18	100	302	178	102	267	104.15	220	132	52	90	22	10	4	70	14	180	M16 X 8	516.0	16	7.94
*19	125	335.5	190.5	123	267	123.35	250	156	56	90	22	10	4	70	14	210	M16 X 8	879.0	16	10.48
*20	150	365.2	205.2	138	267	155.85	285	185.4	56	90	22	10	4	70	14	240	M20 X 8	1358.0	16	12.06
*21	200	439.5	237	168	358	202.55	340	235.2	60	150	34.5	12	4	102	17	295	M20 X 12	2697.0	16	21.12
*77	250	509.8	268.3	207	358	250.55	405	289.4	68	150	34.5	12	4	102	22	355	M24 X 12	4592.0	16	32.23
*78	300	586.5	308.5	243.5	358	301.65	460	341.2	78	150	34.5	14	4	125	27	410	M24 X 12	7095.0	16	47.05
*97	350 **	-	368	259	-	341.7	524	-	78	175	65	18	4	140	Ø 28	470	M24x16	10249	16	-
*98	400 **	-	400	309	-	397.5	589.5	-	102	175	75	18	4	140	Ø 38	525	M27x16	14094	16	-
*	450 **	-	422	327	-	448.4	634	-	114	175	75	18	4	140	Ø 37.9	585	M27x20	18666	16	-
*	500 **	-	480	361	-	499	704	-	127	210	90	23	4	165	Ø 45	650	M30x20	24001	16	-
*	600 **	-	562	459	-	600.1	830	-	154	210	100	23	4	165	Ø 55.6	770	M33x20	37080	16	-

Valve design may vary from type shown. **Gear operator included (DN 350-600). Temperature range: -10°C to +120°C.

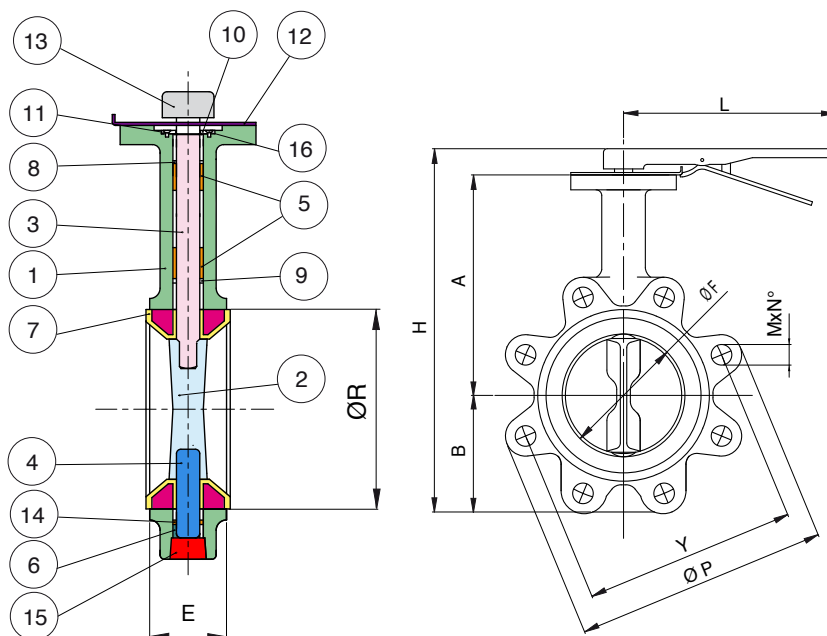
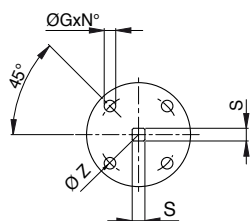
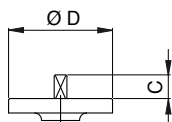
NEW**Butterfly Valves – “Lugged” Type
Ductile Iron Body, NBR Seat****600231, 600230**

DISC GGG40

DISC CF8M



600231* DISC GGG40, 600230* DISC CF8M:
Butterfly valve LUG type PN16, body in cast iron
GGG40+Epoxy painting, NBR seat.

**Additional Options:**

Available with Pneumatic or
Electric Actuators



Gearbox Operator



with limit switch box

- 600222 - Disc Cast Iron seat **Viton**
- 600214 - Disc stainless steel seat **Viton**

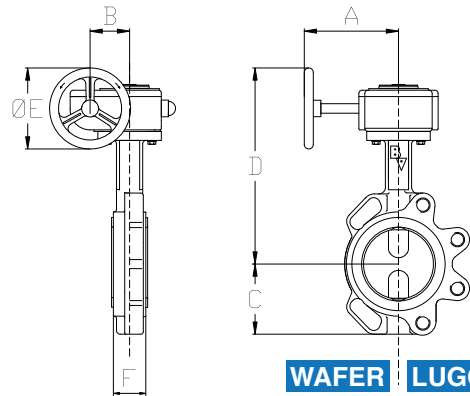
No.	Part Name	Material	
		600231	600230
1	Body	EN-GJS 400	EN-GJS 400
2	Disc	EN-GJS 400	A351-CF8M
3	Stem	SS 416	SS 416
4	Stem	SS 416	SS 416
5	Stem Seat	P.T.F.E.	P.T.F.E.
6	Stem Seat	P.T.F.E.	P.T.F.E.
7	Seat	NBR	NBR
8	O-Ring	NBR	NBR
9	O-Ring	NBR	NBR
10	Washer	Carbon Steel	Carbon Steel
11	Circlip	Spring Steel	Spring Steel
12	Retainer	Carbon Steel	Carbon Steel
13	Lever	EN-GJL 250	EN-GJL 250
14	O-Ring	NBR	NBR
15	Cap	Carbon Steel	Carbon Steel
16	Screw	Carbon Steel	Carbon Steel

	DN	H	A	B	L	ØF	ØP	ØR	E	ØD	C	ØG	N°	ØZ	S	Y	M X N°	Kv	PN	Kg
*08	40	204	112	70	162	41	145	68	33	90	22	7/10	4	50/70	11	110	M16X4	68.0	16	2.78
*10	50	236.1	142.7	71.4	267	52.25	165	73.3	43	90	22	7/10	4	50/70	11	125	M16 X 4	99.0	16	3.90
*12	65	255.2	155.4	77.8	267	64.05	185	86	46	90	22	7/10	4	50/70	11	145	M16 X 4	169.0	16	4.72
*14	80	272.8	161.8	89	267	78.65	200	100.9	46	90	22	7/10	4	50/70	11	160	M16 X 8	260.0	16	5.32
*18	100	302	178	102	267	104.15	220	132	52	90	22	10	4	70	14	180	M16 X 8	516.0	16	7.94
*19	125	335.5	190.5	123	267	123.35	250	156	56	90	22	10	4	70	14	210	M16 X 8	879.0	16	10.48
*20	150	365.2	205.2	138	267	155.85	285	185.4	56	90	22	10	4	70	14	240	M20 X 8	1358.0	16	12.06
*21	200	439.5	237	168	358	202.55	340	235.2	60	150	34.5	12	4	102	17	295	M20 X 12	2697.0	16	21.12
*77	250	509.8	268.3	207	358	250.55	405	289.4	68	150	34.5	12	4	102	22	355	M24 X 12	4592.0	16	32.23
*78	300	586.5	308.5	243.5	358	301.65	460	341.2	78	150	34.5	14	4	125	27	410	M24 X 12	7095.0	16	47.05
*97	350 **	-	368	259	-	341.7	524	-	78	175	65	18	4	140	Ø 28	470	M24x16	10249	16	-
*98	400 **	-	400	309	-	397.5	589.5	-	102	175	75	18	4	140	Ø 38	525	M27x16	14094	16	-
*	450 **	-	422	327	-	448.4	634	-	114	175	75	18	4	140	Ø 37.9	585	M27x20	18666	16	-
*	500 **	-	480	361	-	499	704	-	127	210	90	23	4	165	Ø 45	650	M30x20	24001	16	-
*	600 **	-	562	459	-	600.1	830	-	154	210	100	23	4	165	Ø 55.6	770	M33x20	37080	16	-

Valve design may vary from type shown. **Gear operator included (DN 350-600). Temperature range: -10°C to +100°C.

Butterfly Valves

Gearbox Operated



Dimensions

Wafer Pattern DN50-DN1200

DN	NPS	A	B	C	D	E	F	kg
50	2	173.50	45.00	71.40	253.70	150.00	43.00	8.70
65	2 1/2	173.50	45.00	77.80	266.40	150.00	46.00	9.45
80	3	173.50	45.00	89.00	272.80	150.00	46.00	9.45
100	4	173.50	45.00	102.00	289.00	150.00	52.00	10.80
125	5	173.50	45.00	123.00	301.50	150.00	56.00	12.30
150	6	173.50	45.00	138.00	316.20	150.00	56.00	12.40
200	8	237.00	63.00	168.00	430.00	300.00	60.00	24.90
250	10	237.00	63.00	207.00	461.30	300.00	68.00	27.50
300	12	225.00	80.00	243.50	497.50	300.00	78.00	50.50
350	14	225.00	80.00	273.00	575.00	300.00	78.00	60.50
400	16	292.00	181.00	318.00	685.00	300.00	102.00	82.00
450	18	292.00	181.00	334.00	707.00	300.00	114.00	117.00
500	20	341.50	200.00	367.00	777.00	300.00	127.00	170.00
600	24	341.50	200.00	471.00	849.00	300.00	154.00	225.00
700	28	362.00	242.50	521.00	998.00	425.00	169.00	320.00
800	32	362.00	242.50	591.00	1038.00	425.00	195.00	520.00
900	36	411.00	263.50	650.00	1161.50	425.00	211.00	910.00
1000	40	411.00	263.50	713.00	1245.50	425.00	224.00	1022.00
1200	48	607.00	563.50	855.00	2295.00	500.00	286.00	1580.00

Dimensions

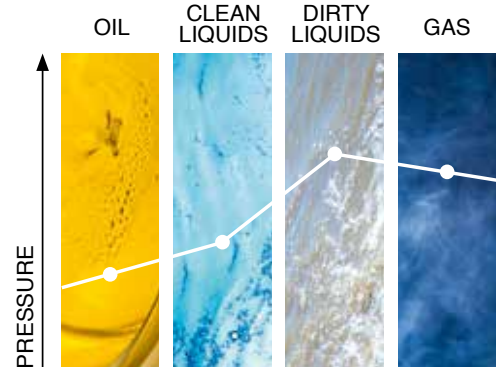
Lugged Pattern DN50-DN600

DN	NPS	A	B	C	D	E	F	kg
50	2	173.50	45.00	71.40	253.70	150.00	43.00	8.70
65	2 1/2	173.50	45.00	77.80	266.40	150.00	46.00	9.70
80	3	173.50	45.00	89.00	272.80	150.00	46.00	10.20
100	4	173.50	45.00	102.00	289.00	150.00	52.00	12.30
125	5	173.50	45.00	123.00	301.50	150.00	56.00	15.20
150	6	173.50	45.00	138.00	316.20	150.00	56.00	15.40
200	8	237.00	63.00	168.00	430.00	300.00	60.00	28.00
250	10	237.00	63.00	207.00	461.30	300.00	68.00	42.20
300	12	225.00	80.00	243.50	497.50	300.00	78.00	50.90
350	14	307.00	78.00	259.00	560.00	300.00	78.00	80.00
400	16	292.00	120.00	309.00	615.00	390.00	102.00	131.00
450	18	292.00	120.00	327.00	637.00	390.00	114.00	152.00
500	20	350.00	321.50	371.00	739.00	400.00	127.00	223.00
600	24	471.00	321.50	471.00	842.00	400.00	151.00	306.00

Torque Values in Nm

Back-up Seated

mm	inches	6 Bar	10 Bar	16 Bar	Max Allowed Torque on Stem
50	2	13.0	13.9	15.1	94
65	2 1/2	13.8	15.4	17.2	94
80	3	21.0	21.7	23.1	94
100	4	34.9	37.1	39.8	193
125	5	53.8	57.9	61.9	193
150	6	84.5	93.9	102.0	193
200	8	154.0	173.0	192.0	346
250	10	249.0	286.0	323.0	578
300	12	371.0	429.0	490.0	1388
350	14	466.0	550.0	625.0	1680
400	16	632.0	755.0	846.0	3026
450	18	831.0	1012.0	1131.0	4190
500	20	1093.0	1350.0	1431.0	5788
600	24	1679.0	2111.0	2301.0	10794
700	28	3010.0	3272.0	4254.0	15233
750	30	3487.0	3767.0	4897.0	15233
800	32	3963.0	4308.0	5600.0	15233
900	36	4913.0	5257.0	6834.0	25367
1000	40	8367.0	8926.0	11604.0	36930
1050	42	8433.0	9024.0	11731.0	36930
1100	44	10466.0	11200.0	14560.0	36930
1200	48	11733.0	12555.0	16322.0	69654



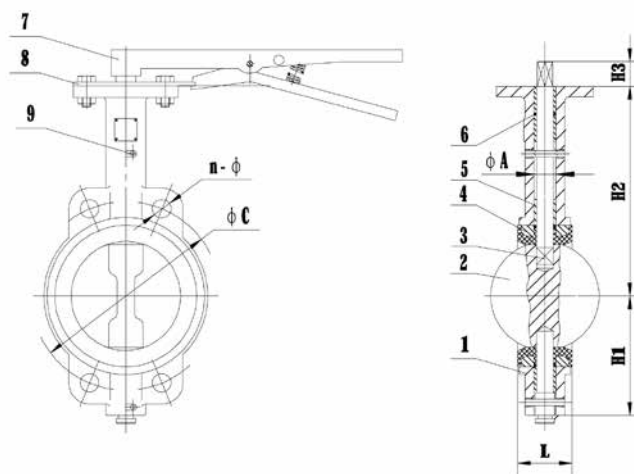
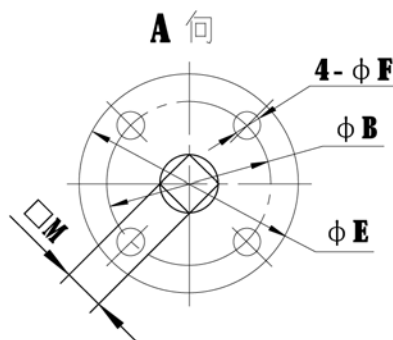
Application Factors

Media	Multiplier
Oil, lubricating media	0.8
Liquid, clean (particle free)	1.0
Liquid, dirty (slurry), raw water	1.6
Gas, clean and wet (sat. steam)	1.0
Gas, dry (superheated steam)	1.4
Gas, dirty (natural gas)	1.5
Oxygen, chlorine	1.5
Frequency	Multiplier
Operates once per week or more	1.0
Operates once per month	1.3
Operates once per 3 month	1.7
Automation	Multiplier
Manual gearbox	1.25
Hydraulic actuator	1.3
Pneumatic actuator	1.3
Electric actuator	1.35

Butterfly Valves – Stainless Steel “Wafer” Type T1000



T1000*: ASTM A351 CF8M 316 Steel Body and Disc
PTFE (EPDM backed) Liner DIN flanged to suit
PN10/16 and ANSI 150 flanges c/w flow control lever.
ISO 5211 Top Mounting Flange and Square Drive for
Actuation.



Additional Options:
Fitted with pneumatic actuators
(double and single acting).



Stainless Steel Actuator

Part Name	Material
Body	A351 CF8M Stainless Steel
Disc	A351 CF8M Stainless Steel
Stem	416 Stainless Steel
Seat	P.T.F.E.
Bushes	P.T.F.E.
O-Ring	EPDM
Lever	304 Stainless Steel
Position Handle	304 Stainless Steel
Pin	316 Stainless Steel

Dimensions (mm)											DIN PN10		DIN PN16		ANSI B16.1	
	DN	H1	H2	H3	L	ØA	ØE	ØB	ØF	M	ØC	n-Ø	ØC	n-Ø	ØC	n-Ø
*1 1/2	40	66	110	32	35	12.7	92	70	9	9	110	4 - Ø18	110	4 - Ø18	98.5	4 - Ø16
*2	50	70	128	32	45	12.7	92	70	9	9	125	4 - Ø18	125	4 - Ø18	120.65	4 - Ø19
*2 1/2	65	75	136	32	48	12.7	92	70	9	9	145	4 - Ø18	145	4 - Ø18	139.7	4 - Ø19
*3	80	94	143	32	49	12.7	92	70	9	9	160	4 - Ø18	160	8 - Ø18	152.4	4 - Ø19
*4	100	106	163	32	55	15.8	92	70	9	11	180	8 - Ø18	180	8 - Ø18	190.5	8 - Ø19
*5	125	119	187	32	58	19.05	92	70	9	14	210	8 - Ø18	210	8 - Ø18	215.9	8 - Ø22.4
*6	150	139	203	32	59	19.05	92	70	9	14	240	8 - Ø23	240	8 - Ø23	241.3	8 - Ø22.4
*8	200	165	237	36	64	22.2	125	102	11	17	295	8 - Ø23	295	12 - Ø23	298.45	8 - Ø22.4

Butterfly Valves – Stainless Steel Hygienic 121, 121C, 124

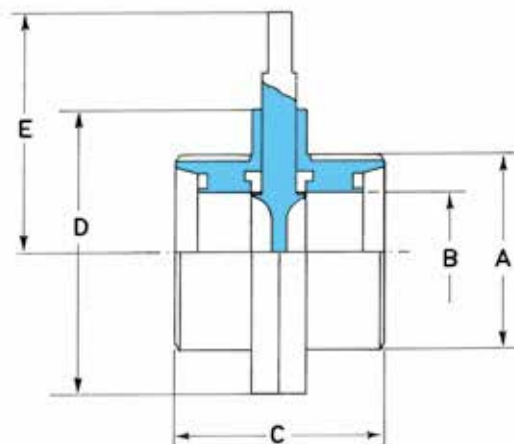


121*: Male Ends DINN.

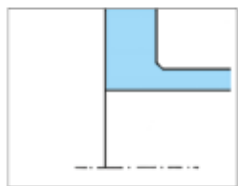
121C*: Tri Clamp Ends.

124*: Weld Ends.

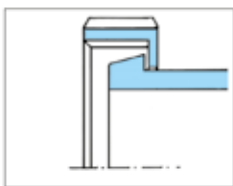
Stainless Steel Butterfly Valve available in
AISI 304 / AISI 316 Body Options, Silicon/EPDM and
Viton seal options fitted with 2 position stainless steel
lever. For the Pharmaceutical, brewing, food and dairy
industry.



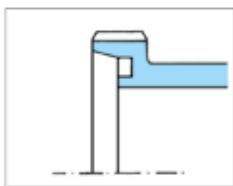
Available End Connections



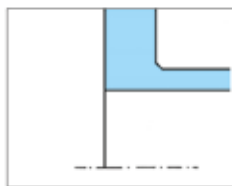
Flanged Connection



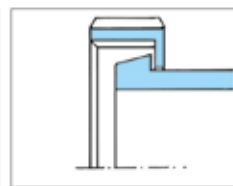
Liner-Nut Connection



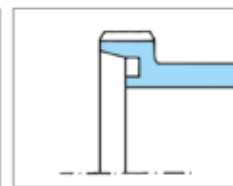
Male Part Connection



Garolla Connection



Tri-Clamp Connection



Gas Connection

Additional Options:

Handle with 9 positions

Handle with 12 positions

Handle with 4 positions (locking)



Fitted with Pneumatic
Actuator



Fitted with Electrical
Actuator

	DIN	A	B	C	D	P (Bar)
*1	25	52	26	66	79	20
*1 - 1/4	32	58	32	68	84	25
*1 - 1 1/2	40	65	39	68	94	25
*2	50	78	50	74	104	20
*2 1/2	65	95	66	80	128	10
*3	80	110	80	80	137	7
*4	100	130	100	85	155	6