

ANSI150/ PN 16/ ANSI300/ PN 40
SIZE: 1/2"-4"

SPECIFICATION

- * Body & end caps quality investment casting
- * Available in stainless steel or carbon steel
- * with ISO 5211 direct mounting pad
- * Adjustable stem packing
- * Blow-out proof stem design
- * 100% air tested under water at 80-100 psi
- * Working pressure: Class150/Class300/PN16/PN40
- * Temperature range -20°F to 450°F

Class150/ Class300

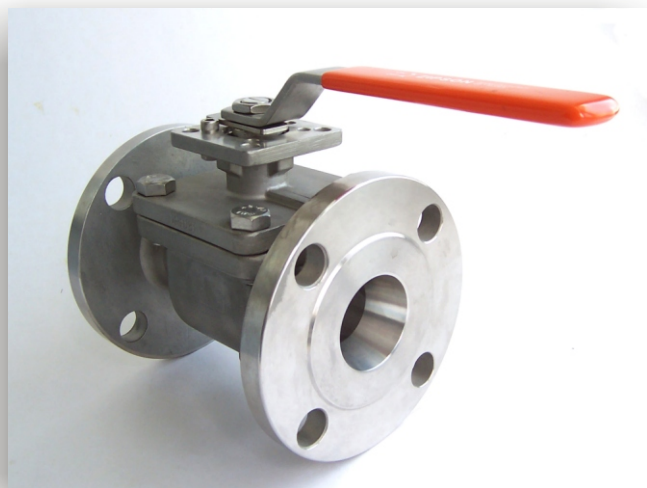
- * Face to face: ANSI B16.10
- * Flange connection: ANSI B16.50
- * Pressure test: API 598

PN16/ PN40

- * Face to face: DIN 3202-F1
- * Flange connection: DIN2633 (PN16)/DIN2635 (PN40)
- * Shell wall thickness: prEN12516-1
- * Pressure test: prEN12266-1 & prEN12266-2

OPTION

- * Spring handle (dead man handle)
- * Fire safe design (follow API 607 Edition 4)
- * Automation application
- * PTFE/ PFA coating (40-70 um)
- * Hastalloy C/ Super duplex/ Alloy 20/ Monel

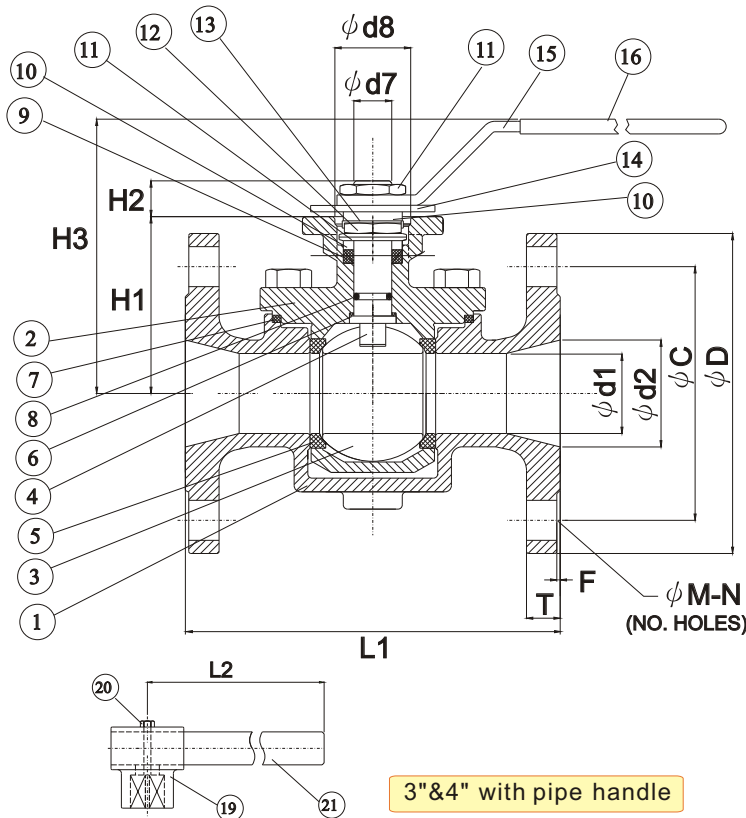
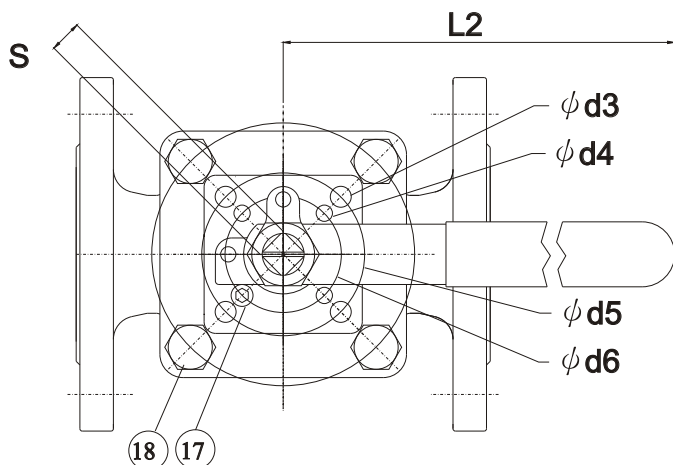


ZIPSON'S 110F, Top-Entry ball valve is designed for the industries required in-line repairing/ cleaning/ maintaining in very short time for urgent situation. 110F designed with ISO direct mounting pad, it's convenient for mounting pneumatic/ electric actuator for automatic control.

110F with the patent on the design while the valve is in "OPEN" position, it's easy to draw out the bonnet with the ball & seat at one time without any other tools & devices. And while the valve is in "CLOSE" position, the ball & seat will be compressed together closely without any other devices.

The flange connection and pressure rating is multiform on 110F. ZIPSON offer both ANSI & DIN standard in ANSI150/ ANSI300/ PN 16 (F1)/ PN 40 (F1) for different standard options. Fire safe design is available for option, too, with graphite stem packing/ bonnet gasket and SS 316 seat housing replacement.

Extraordinary material such as Hastalloy C/ Alloy 20/ Super Duplex/ Monel are available for media with chlorine or others. The soft kits for 110F, the very well design & high quality top-entry ball valve, we use TFM1600 (TFM) as standard. TFM4215/ UHMWPE (UPE) are both for options.



3"&4" with pipe handle

DIMENSIONS (mm)/ ANSI150

SIZE	d1	d2	d3	d4	d5	d6	d7	d8	H1	H2	H3	L1	L2	S	FLANGE DIMENSIONS (CLASS 150)					
															D	BOLT HOLE			T	F
																C	M	N		
3/4"	19.5	19.5	7.2	6.0	50	42	M14	30	65	14	96	117	165	11	98.5	69.9	16	4	11.2	1.6
1"	19.5	25.4	7.2	6.0	50	42	M14	30	65	14	96	127	165	11	108	79.5	16	4	11.2	1.6
1-1/2"	32	38.1	9.2	7.2	70	50	M18	35	75.5	18	111	165	205	14	127	98.5	16	4	14.3	1.6
2"	38	50.6	9.2	7.2	70	50	M18	35	80.5	18	111	178	205	14	152.4	120.7	19	4	15.9	1.6
3"	57.2	78	11.5	9.2	102	70	M22	55	106	23	153	203	340	17	190.5	152.5	19*	4	19.1	1.6
4"	76	101.6	11.5	9.2	102	70	M22	55	130	23	153	229	340	17	228.6	190.5	19*	8	23.9	1.6

* Top two holes in each flange drilled and tapped 5/8"-11UNC-2B

DIMENSIONS (mm)/ ANSI300

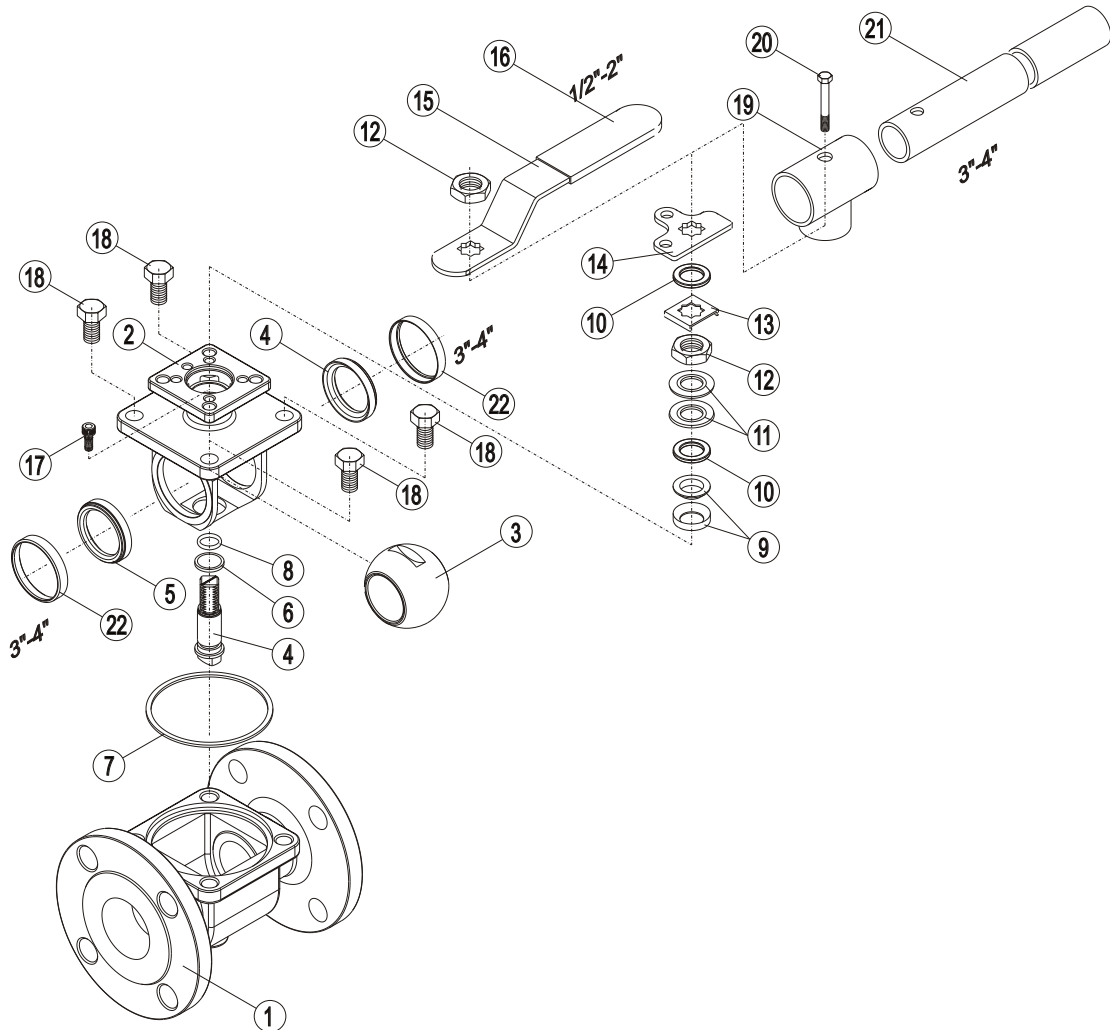
SIZE	d1	d2	d3	d4	d5	d6	d7	d8	H1	H2	H3	L1	L2	S	FLANGE DIMENSIONS (CLASS 300)					
															D	BOLT HOLE			T	F
																C	M	N		
1/2"	15	15	7.2	6.0	50	42	M14	30	65	14	96	140	165	11	95.3	66.7	16.0	4	14.3	1.6
3/4"	19.5	19.5	7.2	6.0	50	42	M14	30	65	14	96	152	165	11	117.5	82.5	19.0	4	15.9	1.6
1"	19.5	25.4	7.2	6.0	50	42	M14	30	65	14	96	165	165	11	123.9	88.9	19.0	4	17.5	1.6
1-1/2"	32	38.1	9.2	7.2	70	50	M18	35	75.5	18	111	191	205	14	155.6	114.3	22.2	4	20.7	1.6
2"	38	50.6	9.2	7.2	70	50	M18	35	80.5	18	111	216	205	14	165.1	127.0	19.0	8	22.3	1.6
3"	57.2	78	11.5	9.2	102	70	M22	55	106	23	153	283	340	17	209.6	168.3	22.2	8	28.6	1.6
4"	76	101.6	11.5	9.2	102	70	M22	55	130	23	153	305	340	17	254.0	200.0	22.2	8	31.8	1.6

DIMENSIONS (mm)/ PN16 (F1)

SIZE	d1	d2	d3	d4	d5	d6	d7	d8	H1	H2	H3	L1	L2	S	FLANGE DIMENSIONS (PN16)					
															D	BOLT HOLE			T	F
																C	M	N		
1/2"	15	15	7.2	6.0	50	42	M14	30	65	14	96	130	165	11	95	65	14	4	16	2
3/4"	19.5	19.5	7.2	6.0	50	42	M14	30	65	14	96	150	165	11	105	75	14	4	18	2
1"	19.5	25.4	7.2	6.0	50	42	M14	30	65	14	96	180	165	11	115	85	14	4	18	2
1-1/2"	32	38.1	9.2	7.2	70	50	M18	35	75.5	18	111	200	205	14	150	110	18	4	18	3
2"	38	50.6	9.2	7.2	70	50	M18	35	80.5	18	111	230	205	14	165	125	18	4	20	3
3"	57.2	78	11.5	9.2	102	70	M22	55	106	23	153	310	340	17	200	160	18	8	20	3
4"	76	101.6	11.5	9.2	102	70	M22	55	130	23	153	350	340	17	220	180	18	8	20	3

DIMENSIONS (mm)/ PN40 (F1)

SIZE	d1	d2	d3	d4	d5	d6	d7	d8	H1	H2	H3	L1	L2	S	FLANGE DIMENSIONS (PN40)					
															D	BOLT HOLE			T	F
																C	M	N		
1/2"	15	15	7.2	6.0	50	42	M14	30	65	14	96	130	165	11	95	65	14	4	16	2
3/4"	19.5	19.5	7.2	6.0	50	42	M14	30	65	14	96	150	165	11	105	75	14	4	18	2
1"	19.5	25.4	7.2	6.0	50	42	M14	30	65	14	96	180	165	11	115	85	14	4	18	2
1-1/2"	32	38.1	9.2	7.2	70	50	M18	35	75.5	18	111	200	205	14	150	110	18	4	18	3
2"	38	50.6	9.2	7.2	70	50	M18	35	80.5	18	111	230	205	14	165	125	18	4	20	3
3"	57.2	78	11.5	9.2	102	70	M22	55	106	23	153	310	340	17	200	160	18	8	24	3
4"	76	101.6	11.5	9.2	102	70	M22	55	130	23	153	350	340	17	235	190	22	8	24	3



MATERIALS LIST/ ANSI150 & 300

ITEM	PART NAME	MATERIALS
1	BODY FLANGE	CF8M
2	BONNET	CF8M
3	BALL	SS 316
4	STEM	SS 316
5	SEAT	TFM1600
6	THRUST WASHER	TFM1600
7	GASKET	TFM1600
8	O-RING	VITON
9	STEM PACKING	TFM1600
10	SPACE WASHER	SS 304
11	DISK WASHER	SS 301
12	STEM NUT	SS 304
13	NUT STOP	SS 304
14	STOPPER PLATE	SS 304
15	HANDLE	SS 304
16	SLEEVE	PLASTIC
17	STOP PIN	SS 304
18	BONNET BOLTS	GRADE B8
19	LEVER HEAD	1.4308
20	SET BOLT	SS 304
21	LEVER	STEEL PIPE
22	SEAT HOUSING	SS 316

Note: The greases ZIPSON use including lubricant & anti-seize grease are both SILICONE-FREE.

MATERIALS LIST/ PN 16& 40

ITEM	PART NAME	MATERIALS
1	BODY FLANGE	1.4408
2	BONNET	1.4408
3	BALL	SS 316
4	STEM	SS 316
5	SEAT	TFM1600
6	THRUST WASHER	TFM1600
7	GASKET	TFM1600
8	O-RING	VITON
9	STEM PACKING	TFM1600
10	SPACE WASHER	SS 304
11	DISK WASHER	SS 301
12	STEM NUT	SS 304
13	NUT STOP	SS 304
14	STOPPER PLATE	SS 304
15	HANDLE	SS 304
16	SLEEVE	PLASTIC
17	STOP PIN	SS 304
18	BONNET BOLTS	GRADE B8
19	LEVER HEAD	1.4308
20	SET BOLT	SS 304
21	LEVER	STEEL PIPE
22	SEAT HOUSING	SS 316

Note: The greases ZIPSON use including lubricant & anti-seize grease are both SILICONE-FREE.

BREAK-TORQUE VALUE for ANSI150/ PN16 (Nm/ at 0 psi)


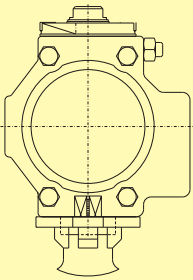
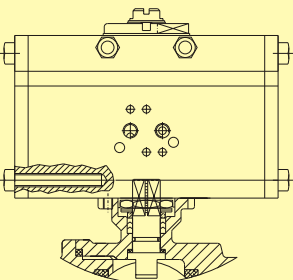
SIZE	1/2"	3/4"	1"	1 1/2"	2"	3"	4"
GREASE	6	8.5	8.5	12.5	18	52.5	86
NON-GREASE	8	11.5	11.5	19	29	121	187.5

BREAK-TORQUE VALUE for ANSI300/ PN40 (Nm)

SIZE	1/2"	3/4"	1"	1 1/2"	2"	3"	4"
GREASE	9	12.8	12.8	18.8	27	78.8	129
NON-GREASE	12	17.3	17.3	28.5	43.5	182	281.3

Note 1: The greases ZIPSON use including lubricant & anti-seize grease are both SILICONE-FREE.

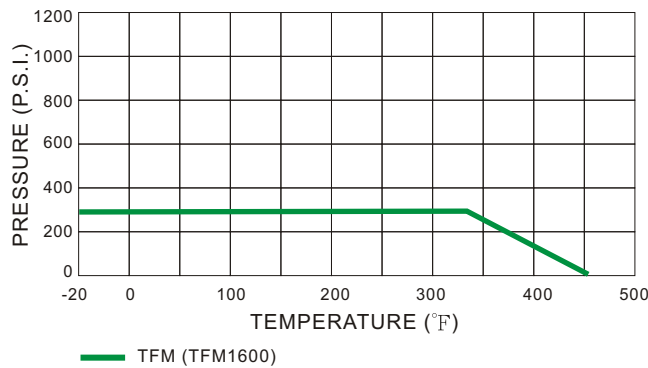
Note 2: Strongly suggest increasing at least 30%~40% for safety factor for mounting actuator.

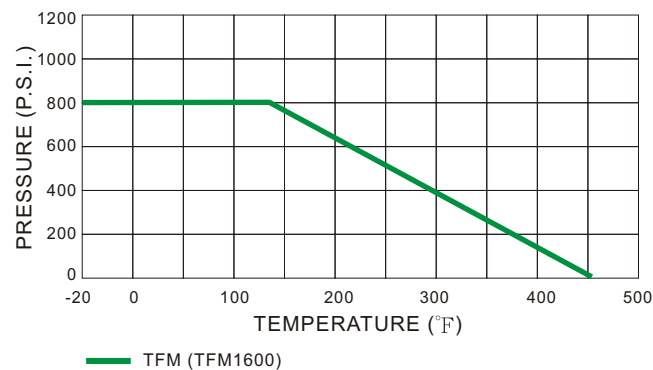
ISO direct mount for actuator assembling directly.

- * Pneumatic (DA or SR)/ Electric actuator
- * Accessories of Solenoid valve/ Limit Switch Box/ EP

PRESSURE/ TEMPERATURE ANSI150/ PN16

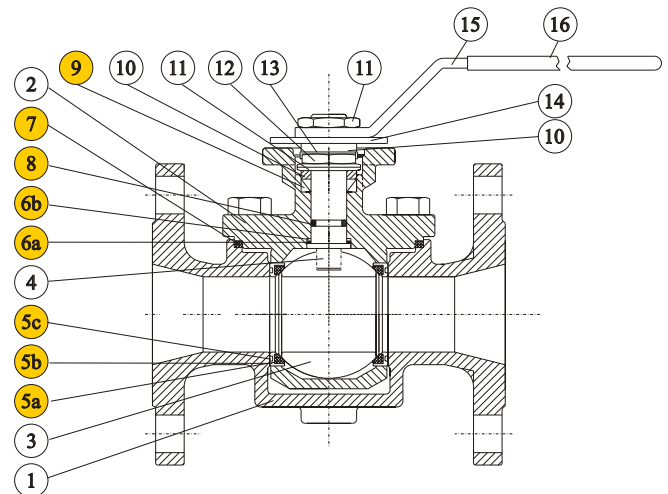


ANSI300/ PN40



MATERIALS LIST FOR FIRE SAFE

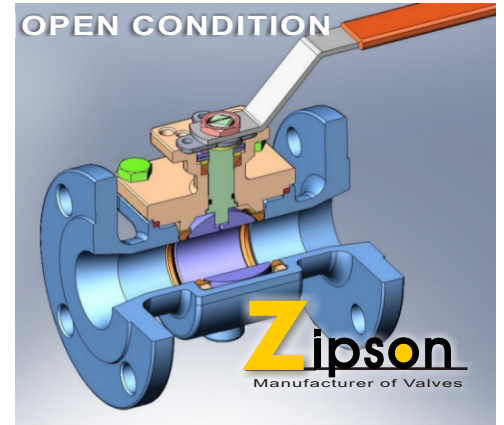
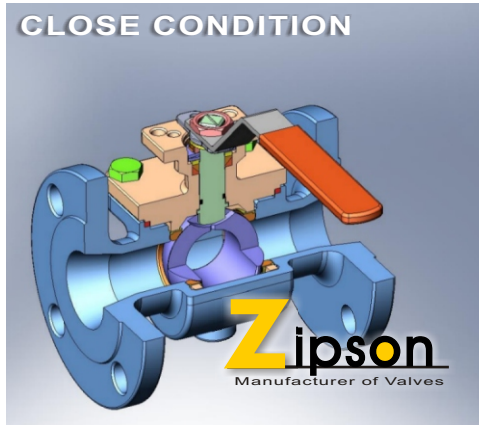
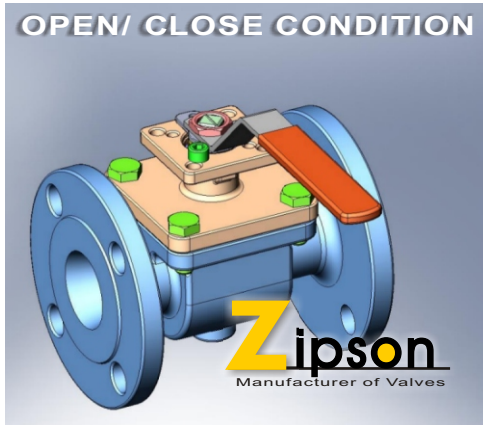
ITEM	PART NAME	MATERIALS
5a	SEAT	TFM1600
5b	SEAT HOUSING	SS 316
5c	SEAT GASKET	GRAPHITE
6a	THRUST WASHER	TFM1600
6b	THRUST WASHER	GRAPHITE
7	GASKET	GRAPHITE
8	O-RING	VITON
9	STEM PACKING	GRAPHITE



Suggestion!

1. As dismantle the ball valve, don't forget to replace new Repair Kits, especially the gasket to prevent from leaking.
2. PTFE is better than RPTFE (+15% Glass) as operate the valve by actuator, for Glass fiber will hurt the ball and cause the torque value increasing after over 500 times operation. Another good option is TFM or PTFE+25% Carbon.
3. Before welding the valves, make sure the ends were dismantled. And welding the dismantled ends. After all the ends be cool, assemble the ends & use new gasket to prevent from leaking.

OPEN/ CLOSE CONDITION



DISMANTLING (FABRICATION CONTRARY)

