

Zipson
Manufacturer of Valves

Item 513F

3/4 Way High Pressure Ball Valve

ASME600, 900 & 1500

SIZE: 1/2"-2"



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ZIPSON'S 513F, 3600 psi, 3/4 way high performance flanged ball valve was designed for the high pressure industrial pipe line. With T/L/X/I-port for 3/4 way block body type, easy to find a suitable flow pattern for any application which is a smart way to save the cost on pipe line construction and space. With ISO direct mounting pad design, 513F is able to assemble the actuator directly.

513F was designed according to ASME B16.34. 513F is with 4 seats, this will help to keep the ball position stable. The trunnion ball/ stem help to stand high working pressure and protect the seat and keep from leakage to prolong the life time. The valve is totally solid designed for oil & gas application or other high pressure application for both mixing and diverter purpose.

End caps can be ASME 600/ 900/ 1500. The same

center section is also suitable for thread/ SW/ BW ends on 513T type.

513F valve can be with cavity fillers to filled all the valve cavity over 90%. This will help to keep the media from leaving in the cavity for easy cleaning & anti-sticky of the ball. Of course, the internal body need to be machining first for the service.

The size range of 513F is now complete from 1/2" to 2" (DN15 to DN50), and will be ready to expand up to 4" with Class 600 & Class 900 pressure rating soon. TFM/ TFM4215 seat material for Class 600 (DN15 to DN50) and PEEK/ Delrin for Class 900/ 1500 is the standard option.

Extraordinary material such as Hastelloy C, Monel, Alloy 20, Duplex are available, too, for special media or environment.

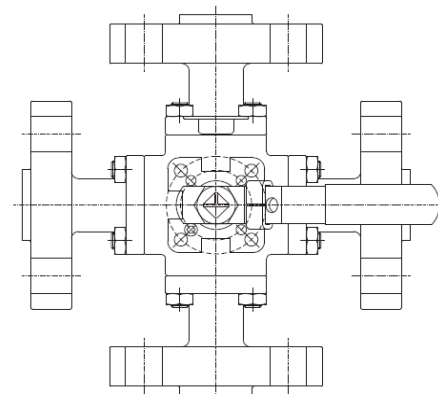
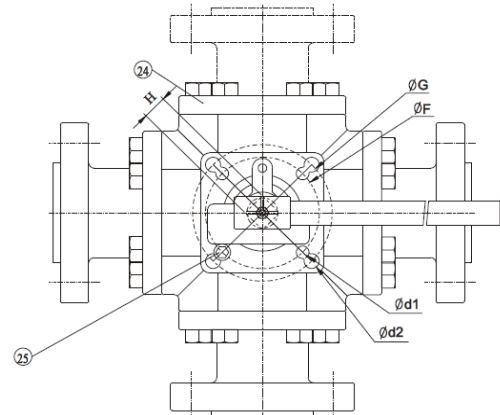
513F, 3/4-Way High Pressure Ball Valve P.2

SPECIFICATION

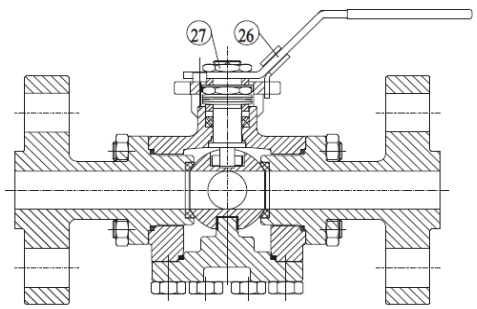
- * Body & end caps quality investment casting
- * Construction design follow ASME B16.34 standard
- * Flange connection - ANSI B16.50
- * Available in stainless steel or carbon steel
- * with ISO 5211 direct mounting pad
- * Adjustable stem packing
- * Blow-out proof stem design
- * Available in L/ T/ X/ I-port
- * Trunnion and Full bore design
- * Temperature range -20° F to 450° F
- * End type: ANSI600/ ANSI900/ ANSI1500
- * Working pressure:
 TFM/ TFM4215 seat: ANSI600
 PEEK/DELTRIN seat: ANSI900/ ANSI1500
- * For ANSI 1500: 1/2"~1-1/4", 3600 psi
 1-1/2" & 2", 3000 psi

OPTION

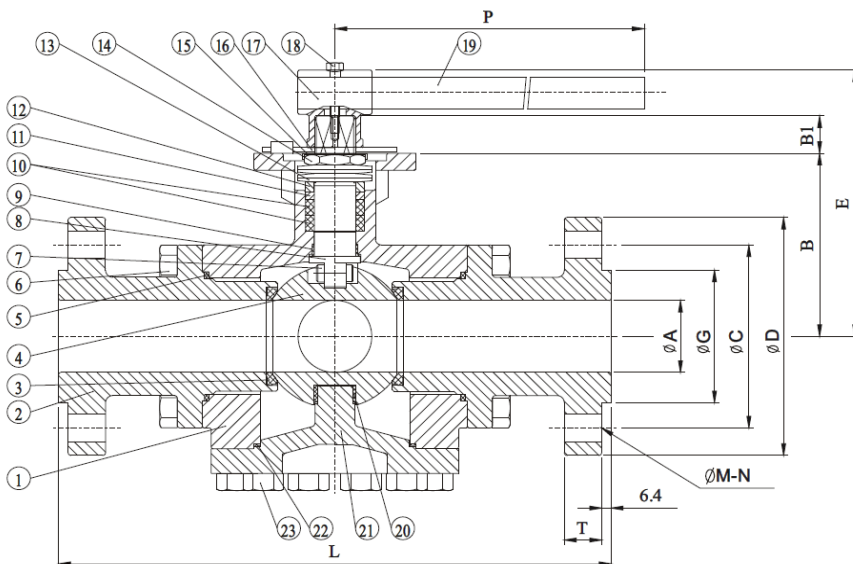
- * Automation application
- * Cavity filler
- * Hastelloy C, Alloy 20, Super Duplex, Monel
- * Fire safe design



4 WAY "LL"(X) PORT



1/2"~3/4"



DIMENSIONS, 1/2" to 2" (mm)

SIZE (full port)	A	B	B1	E	F	G	d1	d2	H	P
1/2"	15	52	11	112	-	50	-	7.2	11	160
3/4"	20	63	11	123	-	50	-	7.2	11	160
1"	25	73	14	126	50	70	7.2	9.2	14	310
1 1/2"	38	92	17	145	70	102	9.2	11.4	17	310
2"	50	127	26	190	102	125	11.4	13.5	22	310

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SIZE	CLASS 600						
	C	D	G	T	M	N	L
1/2"	66.5	95.3	35	14.2	16	4	210
3/4"	82.6	117.3	43	15.8	19	4	248
1"	88.9	124	51	17.5	19	4	273
1 1/2"	114.3	155.5	73	22.4	22	4	343
2"	127	165	92	25.4	19	8	375

SIZE	CLASS 900/ 1500						
	C	D	G	T	M	N	L
1/2"	82.6	120.7	35	22.4	22	4	216
3/4"	88.9	130	43	25.4	22	4	255
1"	101.6	149.5	51	28.5	25.5	4	281
1 1/2"	124	177.8	73	31.8	28.5	4	355
2"	165.1	216	92	38.1	25.5	8	395

MATERIALS LIST, 1/2" to 2"

ITEM	PART NAME	MATERIALS
1	BODY	CF8M/ WCB
2	FLANGE END	CF8M/ WCB
3	SEAT	TFM/ DELRIN/ PEEK
4	BALL	SS 316
5	GASKET	TFM/ GRAPHITE
6	END BOLT	SS 304
7	TRUNNION PIN	SS 316
8	STEM	SS 316
9	THRUST WASHER	PEEK
10	STEM PACKING	TFM/ GRAPHITE
11	STEM BUSHING	DELIN/ PEEK
12	GLAND	SS 304
13	DISK WASHER	SS 301
14	STEM NUT	SS 304
15	NUT STOP	SS 304
16	PLATE STOPPER	SS 304
17	LEVER HEAD	SS 304

18	SET BOLT	SS 304
19	LEVER	SS 304/ CS
20	TRUNNION BUSHING	DELIN/ PEEK
21	TRUNNION CAP	CF8M/ WCB
22	GASKET	TFM/ GRAPHITE
23	TRUNNION CAP BOLT	SS 304
24	BLANK CAP	CF8M/ WCB
25	STOP PIN	SS 304
26	HANDLE	SS 304
27	HANDLE NUT	SS304




513F ball valve is available for 180° operation. This design will allow more flow patterns to be use in your pipe works. Customer just have to change a 180° stop plate for this option.

180° stop plate


FLOW PATTERN

3-WAY


L3-90° STANDARD




T3-90° STANDARD




T4-90°



T5-90°

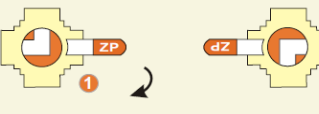


T6-90°




4-WAY


L5-180°




T5-180°



X-90°

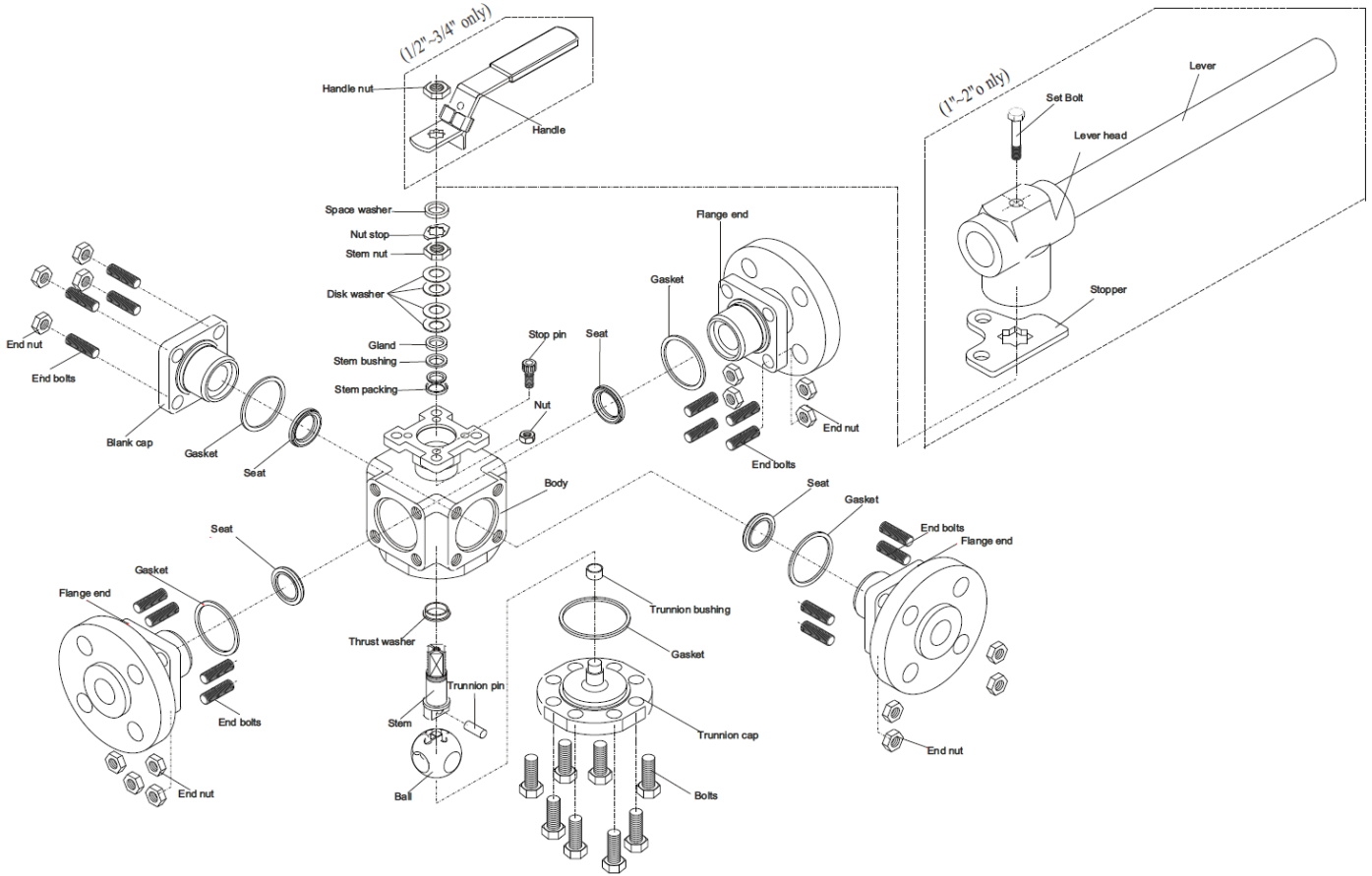


I-90°

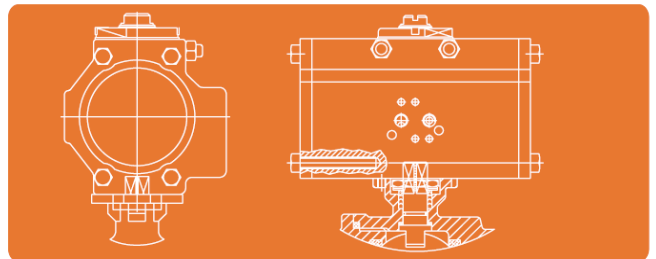
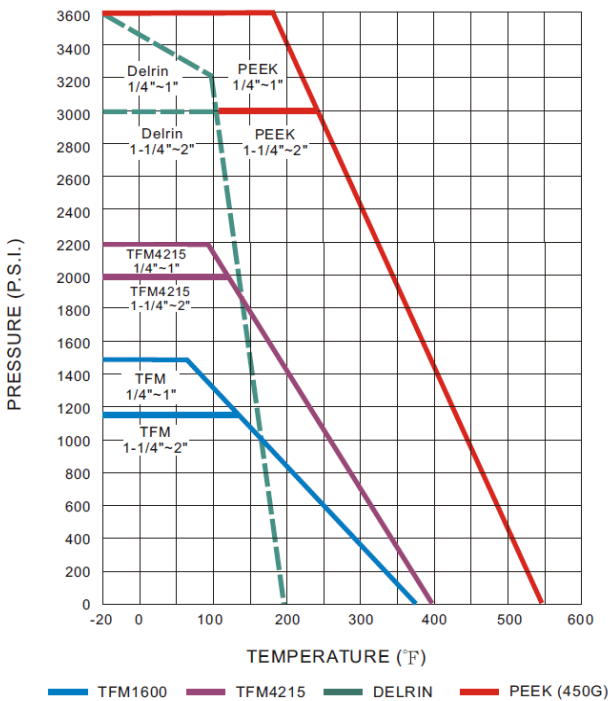


T-port 90° operation (T3/ T4/ T5/ T6) can be suitable for 4-way valve.

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PRESSURE/ TEMPERATURE



ISO direct mount for actuator assembling directly.

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



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BREAK-TORQUE VALUE (Nm)

SIZE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
GREASE	27.5	45.6	55	-	88	132
NON-GREASE	35.2	62.2	77	-	121	187
AT 3000 PSI	44	76.8	93.5	-	198	341

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.



513F, multi-way ball valve can be with cavity filler in internal body to fill the inner cavity. This may keep the body cavity clean and easy to cleanse. The cavity filler will keep the ball operation from sticking for glue-like media.