

SERIES 440 BALL VALVES HIGH PERFORMANCE FLANGED



Valtorc's Series 440 3-PC high performance flanged ball valve full port design is ideal for high pressure industrial and chemical pipe lines.

The Series 440 Flanged Ball Valve is available in Class 600 (1,440 psi) and Class 900 (2,160 psi). Options include Stainless Steel, Carbon Steel, Hastalloy C, Alloy 20, 254 SMO, Duplex, Super Duplex for chlorine, seawater, or alkali contained media as required.

The Series 440 valve has a smart sealing design stem, self adjusting stem packing with Belleville washer, TFM thrust washer with PEEK washer protector for long term operation without leakage.

Teflon is the standard seat material for 2,160 psi pressure rating from 1/2" to 2". For 2-1/2" to 4" valves a Delrin seat is used for ambient temperature or PEEK seat for high temperature.

Series 440 valves are available in size ranges from 1/2" to 4" full port. V Ball control valves are available in 15,30,60, or 90 slot configuration depending on flow rate requirements.

This high pressure 3 piece flanged ball valve is available with fire safe design with SS seat housing and graphite stem packing/gasket to meet API607 fire safe standards.

The standard bare stem is designed with ISO 5111 direct mounting pad. Valtorc also offers pneumatic/electric actuators, limit switches, solenoid valves, modulating controllers, and gear operators for complete automation service.

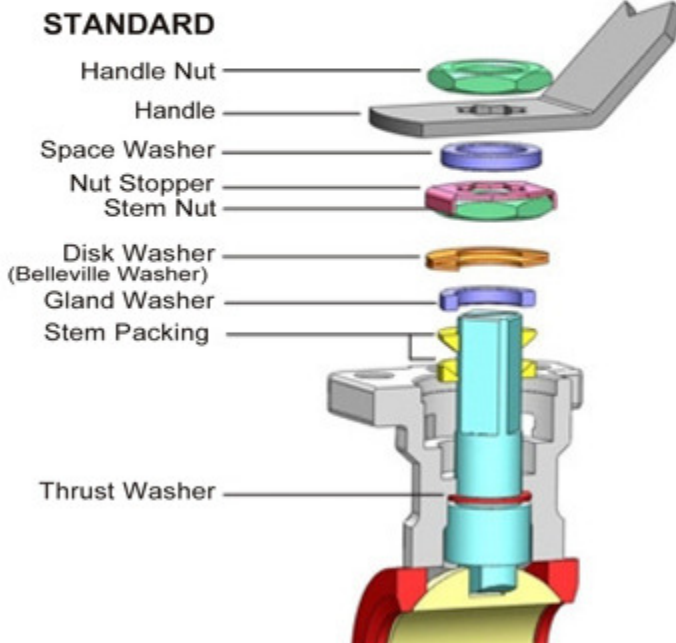
SPECIFICATIONS

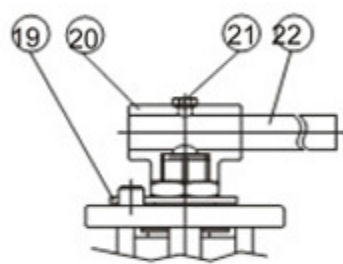
- * Body & end caps quality investment casting
- * Valve construction & thickness follow ANSIB16.34 *
- Full port design
- * with ISO 5211 direct mounting pad
- * Adjustable stem packing
- * Available in stainless steel or carbon steel
- * Blow-out proof stem design
- * 100% air tested under water at 80-100 psi
- * End type: Class 600 & Class 900
- * Working pressure:
 - TFM seat: 1/2"~2", Class 900 (2160 psi)
 - DELRIN/ PEEK seat: 2-1/2"~4", Class 900
- * Temperature range: see Pressure/Temperature table * with locking function

OPTIONS

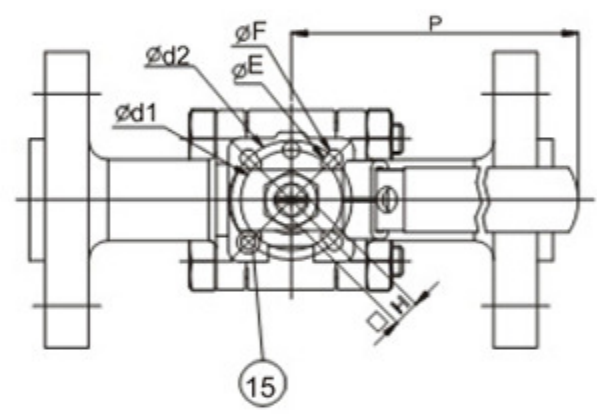
- * Fire safe design (with SS housing)
- * Spring return handle (dead man handle) *
- Steam jacket
- * V-ball for control valve (ball valve type)
- * Automation application
- * Cryogenic bonnet
- * Fugitive emission bonnet
- * PTFE/ PFA coating (40-70 um)
- * Alloy: Hastalloy C/ Super duplex/ Alloy 20/ Monel

STEM DESIGN



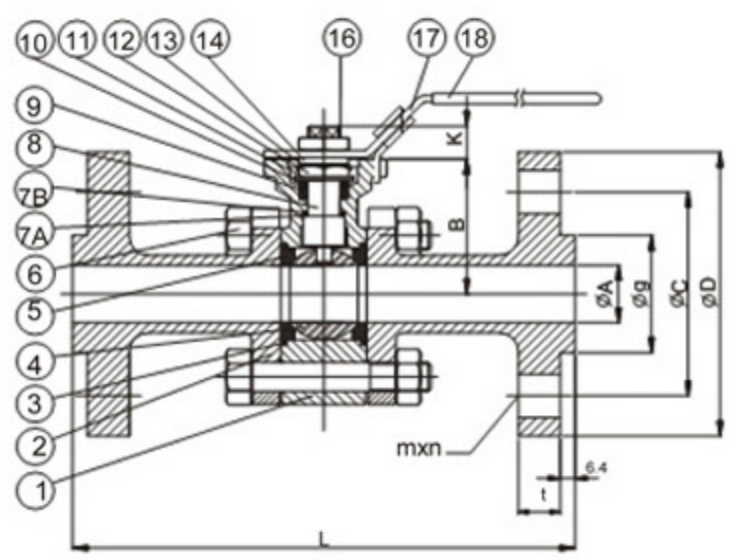


SIZE: 2" Only



MATERIALS LIST

ITEM	PART NAME	MATERIALS
1	BODY	CF8M
2	FLANG CAP	CF8M
3	GASKET	TFM
4	BALL	SS 316
5	BALL SEATS	TFM
6	BOLTS	SS 304
7A	THRUST WASHER	TFM
7B	THRUST WASHER	PEEK
8	STEM	SS 316
9	STEM PACKING	TFM
10	GLAND WASHER	SS 304
11	DISK WASHER	SS 301
12	GLAND NUT	SS 304
13	NUT STOP	SS 304
14	SPACE WASHER	SS 304
15	STOP PIN	SS 304
16	HANDLE NUT	SS 304
17	HANDLE	SS 304
18	HANDLE COVER	PLASTIC
19	PLATER	SS 304
20	LEVER HEAD	SS 304
21	BOLTS	SS 304
22	LEVER	STEEL PIPE



DIMENSIONS (mm) / ASME600 (1/2" to 2")

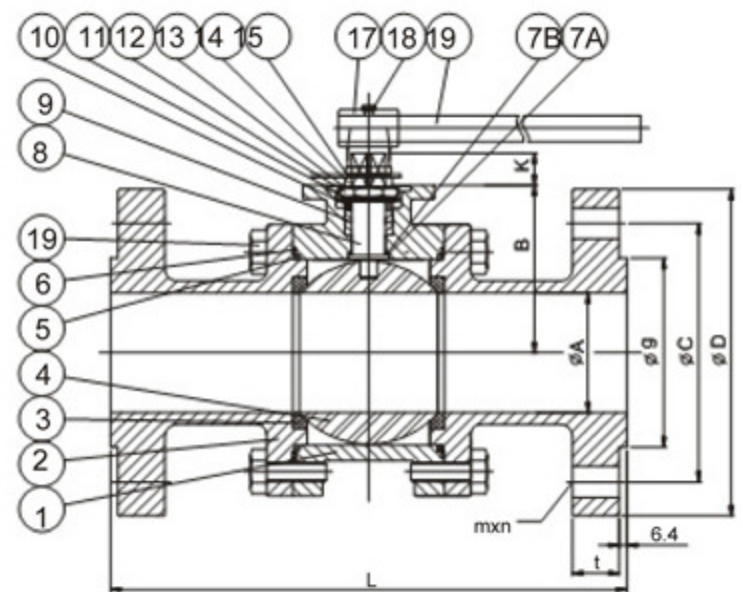
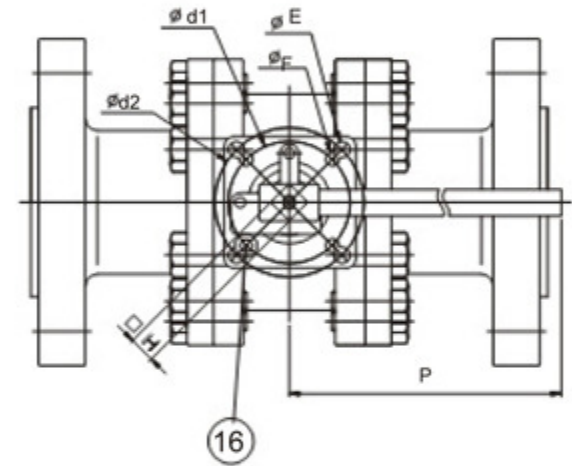
SIZE	A	B	K	d1	d2	E	F	H	P	L	g	C	D	t	m	n
1/2"	15	48	9.5	36	42	6.0	6.0	9	130	165	35	66.7	95	14.3	15.9	4
3/4"	20	53	12	42	50	6.0	6.0	11	155	190	43	82.6	115	15.9	19.1	4
1"	25	59	12	42	50	6.0	7.0	11	155	216	51	88.9	125	17.5	19.1	4
1-1/4"	32	62	16	50	70	7.0	9.2	14	205	229	64	98.4	135	20.7	19.1	4
1-1/2"	38	70	16	50	70	7.0	9.2	14	205	241	73	114.3	155	22.3	22.3	4
2"	50	90	19	70	102	9.2	11.4	17	300	292	93	127.0	165	25.4	19.1	8

DIMENSIONS (mm) / ASME900 (1/2" to 2")

SIZE	A	B	K	d1	d2	E	F	H	P	L	g	C	D	t	m	n
1/2"	15	48	9.5	36	42	6.0	6.0	9	130	216	35	82.6	120	22.3	22.2	4
3/4"	20	53	12	42	50	6.0	6.0	11	155	229	43	88.9	130	25.4	22.2	4
1"	25	59	12	42	50	6.0	7.0	11	155	254	51	101.6	150	28.6	25.4	4
1-1/4"	32	62	16	50	70	7.0	9.2	14	205	279	64	111.1	160	28.6	25.4	4
1-1/2"	38	70	16	50	70	7.0	9.2	14	205	305	73	123.8	180	31.8	28.6	4
2"	50	90	19	70	102	9.2	11.4	17	300	368	93	165.1	215	38.1	25.4	8

MATERIALS LIST

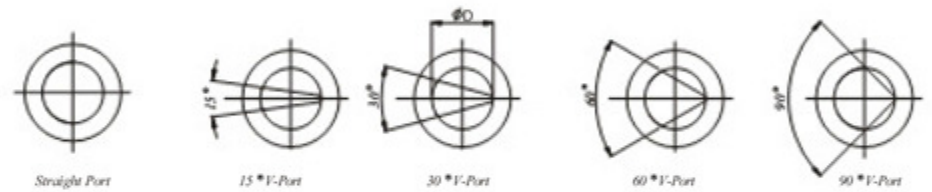
ITEM	PART NAME	MATERIALS
1	BODY	CF8M
2	FLANG CAP	CF8M
3	BALL SEATS	TFM
4	BALL	SS 316
5	GASKET	TFM
6	SECONDLY GASKET (4" ONLY)	TFM
7A	THRUST WASHER	TFM
7B	THRUST WASHER	PEEK
8	STEM	SS 316
9	STEM PACKING	TFM
10	GLAND WASHER	SS 304
11	DISK WASHER	SS 301
12	GLAND NUT	SS 304
13	NUT STOP	SS 304
14	SPACE WASHER	SS 304
15	PLATER	SS 304
16	STOP PIN	SS 304
17	LEVER HEAD	SS 304
18	BOLTS	SS 304
19	LEVER	STEEL PIPE



MAX. OPERATING PRESSURE

Body Rating (Non-Shock)

VALVE SIZE	MAX. PRESSURE RATING
1/4"~1/2"	UP TO 5000 psi
3/4" & 1"	UP TO 4500 psi
1-1/4" & 1-1/2"	UP TO 4000 psi
2"	UP TO 3000 psi



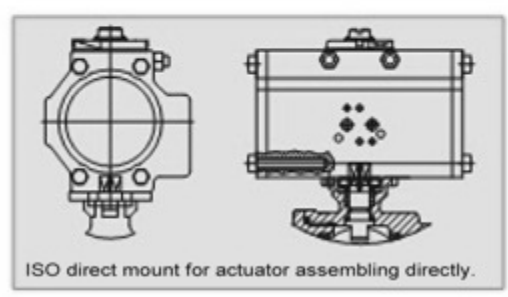
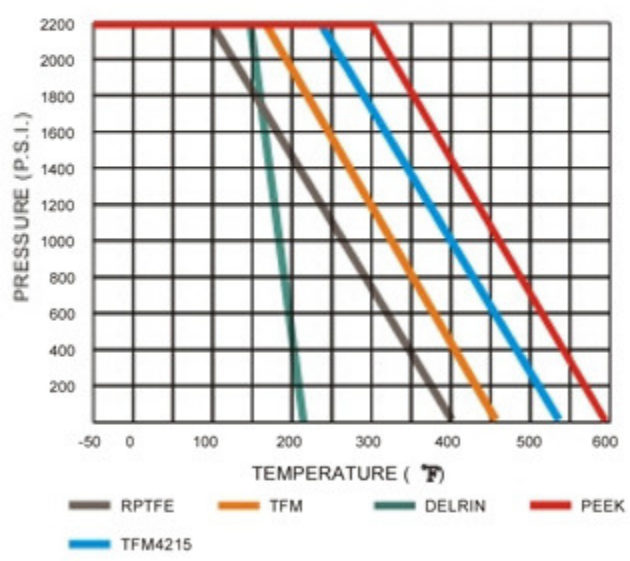
DIMENSIONS (mm) / ASME600 (2-1/2" to 4")

SIZE	A	B	K	d1	d2	E	F	H	P	L	g	C	D	t	m	n
2-1/2"	63.5	105	19	70	102	11.4	9.2	17	350	330	105	149.2	190	28.6	23	8
3"	78	119	23	102	125	13.5	11.4	22	350	356	127	168.3	210	31.8	23	8
4"	100	140	23	102	125	13.5	11.4	22	500	432	158	216	275	38.1	26	8

DIMENSIONS (mm) / ASME900 (2-1/2" to 4")

SIZE	A	B	K	d1	d2	E	F	H	P	L	g	C	D	t	m	n
2-1/2"	63.5	105	19	70	102	11.4	9.2	17	350	419	105	190.5	245	41.3	29	8
3"	78	119	23	102	125	13.5	11.4	22	350	381	127	190.5	240	38.1	26	8
4"	100	140	23	102	125	13.5	11.4	22	500	457	158	235	290	44.5	32	8

PRESSURE/ TEMPERATURE



BREAK-TORQUE VALUE (Nm/ at 2000 psi)

SIZE	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2-1/2"	3"	4"
SEAT	TFM	TFM	TFM	TFM	TFM	TFM	TFM	TFM	DELRIN	DELRIN	DELRIN
GREASE	8	8	12	15	18	25	47	83	165	250	380

Note 1: The greases Valtorc 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.