



SPECIFICATION (1/2" to 4")

- * Body & end caps quality investment casting
- * Available in stainless steel or carbon steel
- * with ISO 5211 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

- * Valve Design: ASME B16.34
- * Steel Casting: MSS SP-55
- * Face to face: ASME B16.10
- * Flange connection: ASME B16.50
- * Pressure test: API 598 (ISO 5208)
- * Sulfide stress cranking: NACE MR-01-75

PN16/ PN40

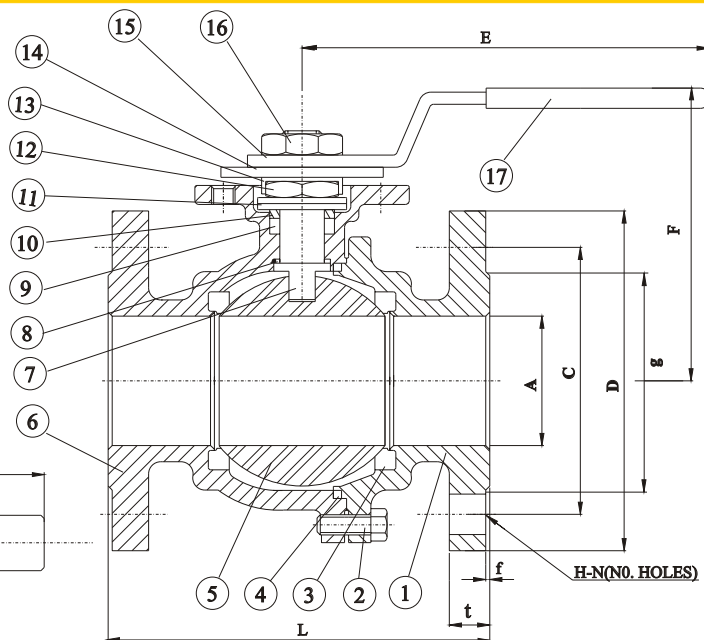
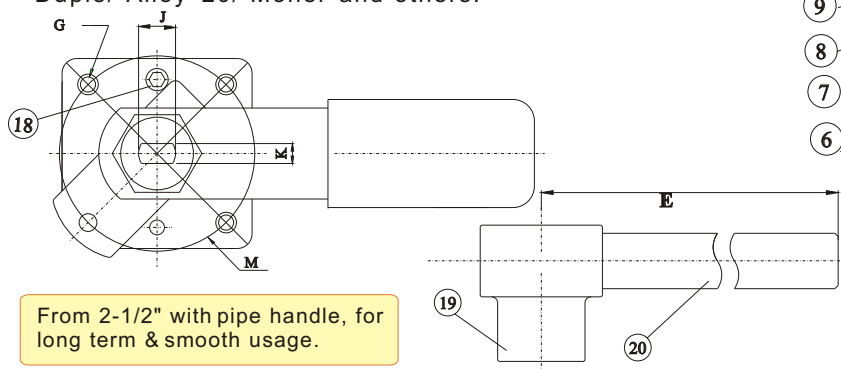
- * Valve Design: EN 12516-1
- * Steel Casting: EN 12680-1/ MSS SP-55
- * Face to face: DIN 3202 F4/ F1
- * Flange connection: DIN2633 (PN16)/DIN2635 (PN40)
- * Pressure test: EN12266-1 (ISO 5208)

OPTION (1/2" to 4")



- * **FIRE SAFE: API607-5th Edition Certified**
- * PTFE/ PFA coating (40-70 um)
- * Hastalloy C/ Super duplex/ Alloy 20/ Monel
- * Anti-static devices
- * V-ball for control valve in 15°, 30°, 60°, 90°, slot
- * Flange with Table D, Table E drilling

DRAWING FOR 1/2" TO 4"



From 2-1/2" with pipe handle, for long term & smooth usage.

DIMENSIONS (mm)/ ASME150 (1/2" to 4")

SIZE	A	F	E	L	K	M	G	J	CLASS 150 FLANGE DIMENSIONS								
									D	C	H	N	t	g	B	O	f
1/2"	15	76	145	108	6.5	42	M5	10	89	60.5	16	4	11.2	35	13.9	10.7	1.6
3/4"	20	80	145	117	6.5	42	M5	10	98	70	16	4	11.2	43	14.2	10.9	1.6
1"	25	88	195	127	9.7	50	M6	14	108	79.5	16	4	11.2	51	21.6	16.8	1.6
1-1/4"	32	92	195	140	9.7	50	M6	14	117	89	16	4	12.7	64	21.3	16.5	1.6
1-1/2"	38	114	250	165	9.7	70	M8	18	127	98.5	16	4	14.3	73	24.9	18.0	1.6
2"	50	123	250	178	9.7	70	M8	18	152	120.5	19	4	15.9	92	23.9	19.6	1.6
2-1/2"	65	142	310	190	12	102	M10	20	178	139.5	19	4	17.8	105	22.9	16.3	1.6
3"	80	152	310	203	12	102	M10	20	190	152.5	19	4	19.1	127	21.9	16.3	1.6
4"	100	182	310	229	15	102	M10	24	229	190.5	19	8	24.0	157	29.7	24.4	1.6

DIMENSIONS (mm)/ ASME300 (1/2" to 4")

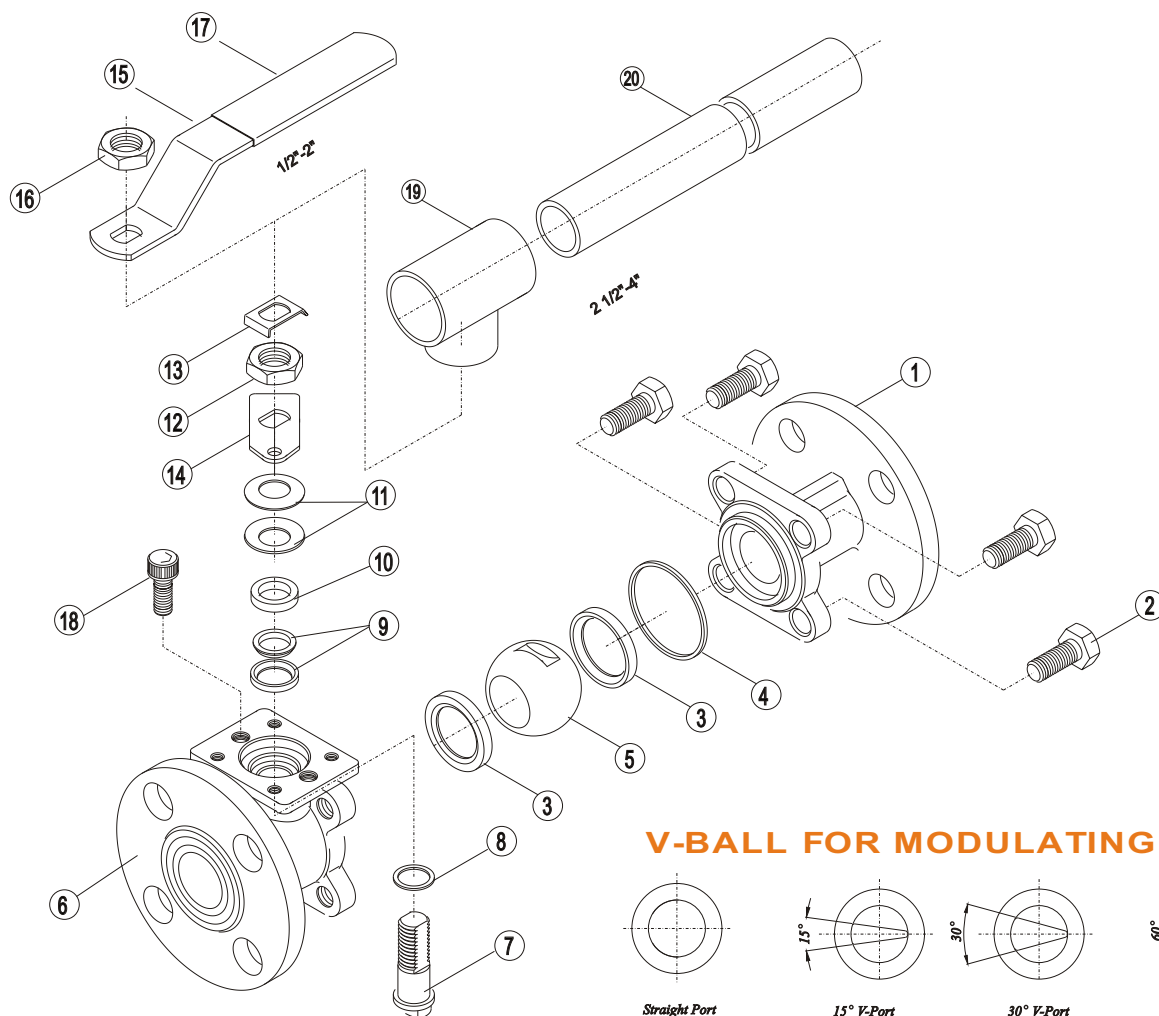
SIZE	A	F	E	L	K	M	G	J	CLASS 300 FLANGE DIMENSIONS								
									D	C	H	N	t	g	B	O	f
1/2"	15	76	145	139.7	6.5	42	M5	10	95	66.5	16	4	14.5	35	13.9	10.7	1.6
3/4"	20	80	145	152.4	6.5	42	M5	10	117	82.5	19	4	16	43	14.2	10.9	1.6
1"	25	88	195	165.1	9.7	50	M6	14	124	89	19	4	17.5	51	21.6	16.8	1.6
1-1/2"	38	114	250	190.5	9.7	70	M8	18	156	114.5	22	4	21	73	24.9	18.0	1.6
2"	50	123	250	215.9	9.7	70	M8	18	165	127	20	8	22.5	92	23.9	19.6	1.6
2-1/2"	65	142	310	241.3	12	102	M10	20	190	149	22	8	25.5	105	22.9	16.3	1.6
3"	80	152	310	282.7	12	102	M10	20	210	168	22	8	29	127	21.9	16.3	1.6
4"	100	182	310	304.8	15	102	M10	24	254	200	22	8	32	157	29.7	24.4	1.6

DIMENSIONS (mm)/ PN16 (1/2" to 4")

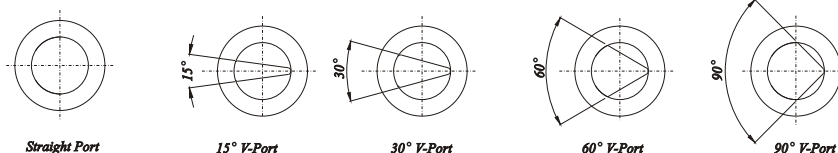
SIZE	A	F	E	L(F4)	L(F1)	K	M	G	J	PN16 FLANGE DIMENSIONS								
										D	C	H	N	t	g	B	O	f
1/2"	15	76	145	115	130	6.5	42	M5	10	95	65	14	4	14	45	13.9	10.7	2
3/4"	20	80	145	120	150	6.5	42	M5	10	105	75	14	4	16	58	14.2	10.9	2
1"	25	88	195	125	160	9.7	50	M6	14	115	85	14	4	16	68	21.6	16.8	2
1-1/4"	32	92	195	130	180	9.7	50	M6	14	140	100	18	4	16	78	21.6	16.8	2
1-1/2"	38	114	250	140	200	9.7	70	M8	18	150	110	18	4	16	88	24.9	18.0	3
2"	50	123	250	150	230	9.7	70	M8	18	165	125	18	4	18	102	23.9	19.6	3
2-1/2"	65	142	310	170	290	12	102	M10	20	185	145	18	4	18	122	22.9	16.3	3
3"	80	152	310	180	310	12	102	M10	20	200	160	18	8	20	138	21.9	16.3	3
4"	100	182	310	190	350	15	102	M10	24	220	180	18	8	20	158	29.7	24.4	3

DIMENSIONS (mm)/ PN40 (1/2" to 4")

SIZE	A	F	E	L(F4)	K	M	G	J	PN40 FLANGE DIMENSIONS								
									D	C	H	N	t	g	B	O	f
1/2"	15	76	145	115	6.5	42	M5	10	95	65	14	4	16	45	13.9	10.7	2
3/4"	20	80	145	120	6.5	42	M5	10	105	75	14	4	18	58	14.2	10.9	2
1"	25	88	195	125	9.7	50	M6	14	115	85	14	4	18	68	21.6	16.8	2
1-1/2"	38	114	250	140	9.7	70	M8	18	150	110	18	4	18	88	24.9	18.0	3
2"	50	123	250	150	9.7	70	M8	18	165	125	18	4	20	102	23.9	19.6	3
2-1/2"	65	142	310	170	12	102	M10	20	185	145	18	8	22	122	22.9	16.3	3
3"	80	152	310	180	12	102	M10	20	200	160	18	8	24	138	21.9	16.3	3
4"	100	182	310	190	15	102	M10	24	235	190	22	8	24	162	29.7	24.4	3



V-BALL FOR MODULATING CONTROLLER



MATERIALS LIST/ ASME150 & 300

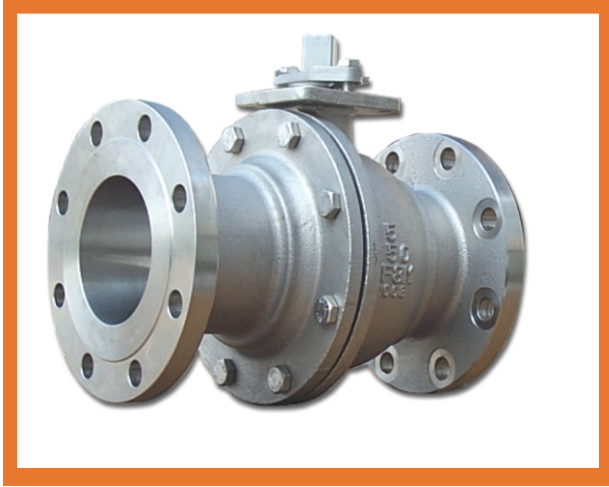
ITEM	PART NAME	MATERIALS
1	FLANGED END	CF8M/ WCB
2	BOLT	SS 304
3	BALL SEAT	PTFE/RPTFE
4	GASKET	PTFE
5	BALL	SS 316/ SS 304
6	BODY	CF8M/ WCB
7	STEM	SS 316/ SS 304
8	THRUST WASHER	RPTFE
9	STEM PACKING	PTFE
10	GLAND	SS 304
11	DISK WASHER	SS 301
12	STEM NUT	SS 304
13	NUT STOP	SS 304
14	STOPPER PLATE	SS 304
15	HANDLE	SS 304
16	HANDLE NUT	SS 304
17	SLEEVE	PLASTIC
18	STOP PIN	SS 304
19	LEVER HEAD	CF8
20	PIPE HANDLE	STEEL PIPE

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

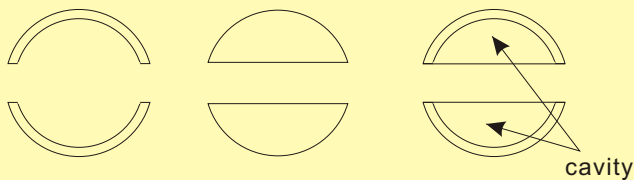
MATERIALS LIST/ PN 16 & 40

ITEM	PART NAME	MATERIALS
1	FLANGED END	1.4408/ 1.0619
2	BOLT	SS 304
3	BALL SEAT	PTFE/RPTFE
4	GASKET	PTFE
5	BALL	SS 316/ SS 304
6	BODY	1.4408/ 1.0619
7	STEM	SS 316/ SS 304
8	THRUST WASHER	RPTFE
9	STEM PACKING	PTFE
10	GLAND	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	HANDLE NUT	SS 304
17	SLEEVE	PLASTIC
18	STOP PIN	SS 304
19	LEVER HEAD	CF8
20	PIPE HANDLE	STEEL PIPE

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



BALL TYPE OPTION OF 207F



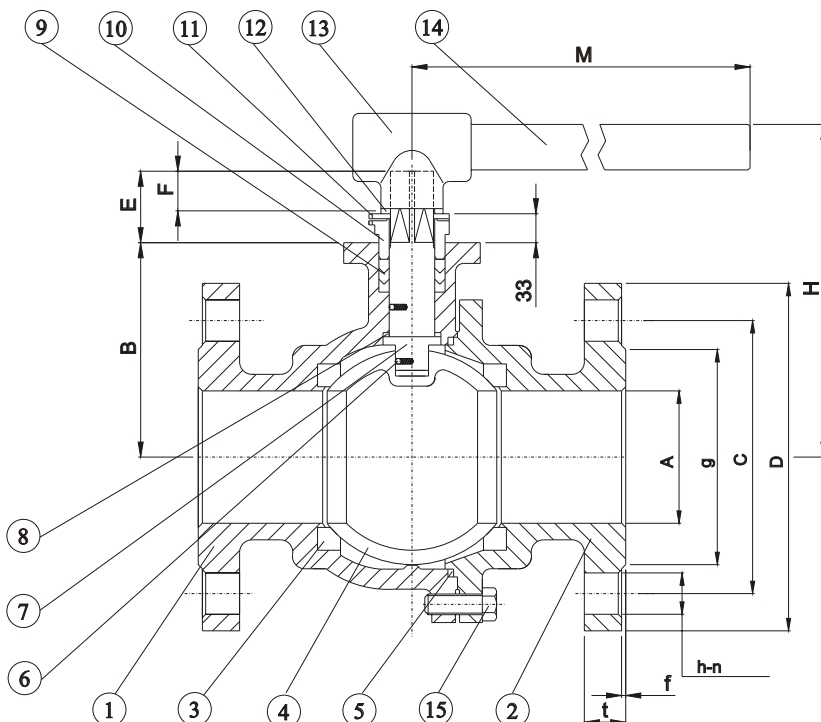
Hollow ball Solid ball Cored cavity ball

* 5"~8" solid ball & hollow

* 10" & 12" cored cavity ball & hollow ball

Hollow ball will save some cost if the media (particles) will not leave in the ball.

DRAWING FOR 5" TO 12"



SPECIFICATION (5" to 12")

- * Body & end: SS 5" & 6" investment casting, 8"~12" sand casting
- * Body & end: CS 5"~12" sand casting
- * with ISO 5211 mounting pad
- * Adjustable stem packing
- * Blow-out proof stem design
- * 100% air tested under water at 80-100 psi
- * Working pressure: Class150/PN16
- * Temperature range -20°F to 450°F
- * 5"~8" solid ball & hollow ball; 10" & 12" cored cavity ball & hollow ball

Class150/ Class300

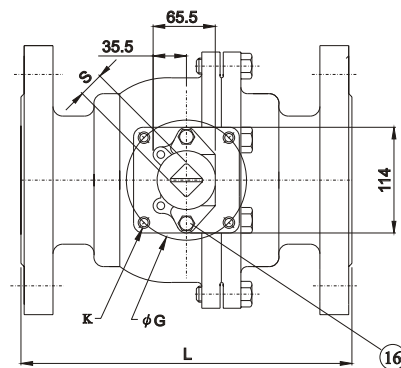
- * Valve Design: ASME B16.34
- * Steel Casting: MSS SP-55
- * Face to face: ASME B16.10
- * Flange connection: ASME B16.50
- * Pressure test: API 598 (ISO 5208)
- * Sulfide stress cranking: NACE MR-01-75

PN16

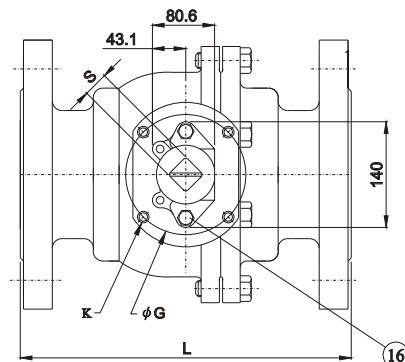
- * Valve Design: EN 12516-1
- * Steel Casting: EN 12680-1/ MSS SP-55
- * Face to face: DIN 3202 F5
- * Flange connection: DIN2633 (PN16)
- * Pressure test: EN12266-1 (ISO 5208)

OPTION (5" to 12")

- * Fire safe design
- * Gear operator/ pneumatic & electric actuator
- * PTFE/ PFA coating (40-70 um)
- * Hastalloy C/ Super duplex/ Alloy 20/ Monel



207F, 5"~6"



207F, 8"~12"

DIMENSIONS (mm)/ ASME150 (5" to 12")

SIZE	A	B	E	F	G	H	M	L	K	S	CLASS 150 FLANGE DIMENSIONS						
											D	C	n	h	g	t	f
5"	125	150	58	34	125	265	700	356	M12	28	254	216	8	22	186	23.9	1.6
6"	150	170	58	34	125	285	850	394	M12	28	279	241.5	8	22	216	25.4	1.6
8"	200	219	64	38	125	354	1100	457	M12	36	343	298.5	8	22	270	28.6	1.6
10"	250	255	64	38	125	390	1200	533	M12	36	406	362	12	25	324	30.2	1.6
12"	300	307	79	46	140	442	1500	610	M16	36	483	432	12	25	381	31.8	1.6

DIMENSIONS (mm)/ ASME300 (6" to 10")

SIZE	A	B	E	F	G	H	M	L	K	S	CLASS 300 FLANGE DIMENSIONS						
											D	C	n	h	g	t	f
6"	150	174.5	53.5	31.5	125	288	850	403	M12	28	318	270	12	22	216	37	1.6
8"	200	219.5	64	38	125	343	1100	502	M12	36	381	330.2	12	26	270	41.5	1.6
10"	250	255	64	38	125	379	1200	568.5	M12	36	445	387.3	16	29	324	48	1.6

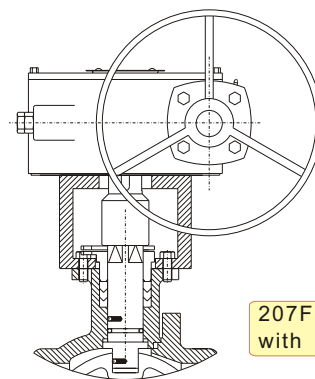
DIMENSIONS (mm)/ PN16-F5 (5" to 12")

SIZE	A	B	E	F	G	H	M	L	K	S	PN16 FLANGE DIMENSIONS						
											D	C	n	h	g	t	f
5"	125	150	58	34	125	265	700	325	M12	28	250	210	8	18	188	22	3
6"	150	170	58	34	125	285	850	350	M12	28	285	240	8	22	212	22	3
8"	200	219	64	38	125	354	1100	400	M12	36	340	295	12	22	268	24	3
10"	250	255	64	38	125	390	1200	450	M12	36	405	355	12	26	320	26	3
12"	300	307	79	46	140	442	1500	500	M16	36	460	410	12	26	378	28	4

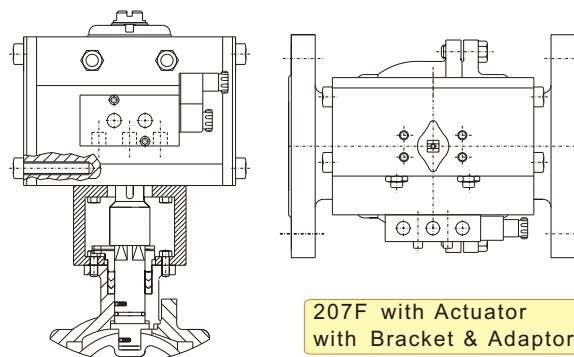
MATERIALS LIST/ ASME150/ ASME300/ PN 16

ITEM	PART NAME	MATERIALS
1	BODY	CF8M/ WCB/ 1.4408/ 1.0619
2	FLANGED END	CF8M/ WCB/ 1.4408/ 1.0619
3	BALL SEAT	PTFE/RPTFE
4	BALL	SS 316/ SS 304
5	GASKET	PTFE
6	ANTI-STATIC	SS 316
7	STEM	SS 316/ SS 304
8	THRUST WASHER	RPTFE
9	STEM PACKING	PTFE
10	GLAND	SS 304
11	STOPPER	SS 304
12	STOPPER PLATE	SS 304
13	LEVER HEAD	FCD45
14	PIPE HANDLE	STEEL PIPE
15	BOLT	SS 304
16	GLAND BOLT	SS 304

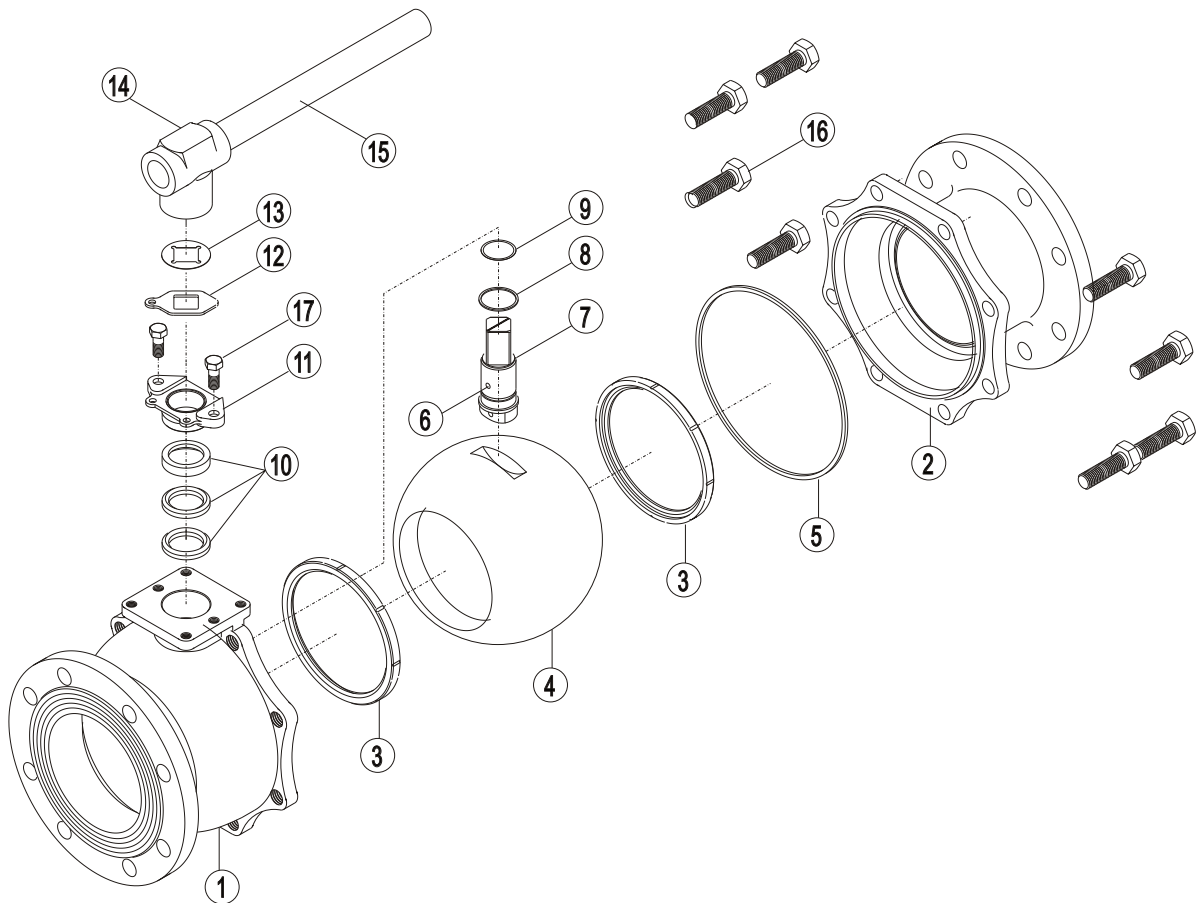
Note: ZIPSON offer SILICONE-FREE grease for option.



207F with Gear Operator
with Bracket & Adaptor



207F with Actuator
with Bracket & Adaptor



BREAK-TORQUE VALUE for ASME150/ PN16 (Nm/ at 0 psi)

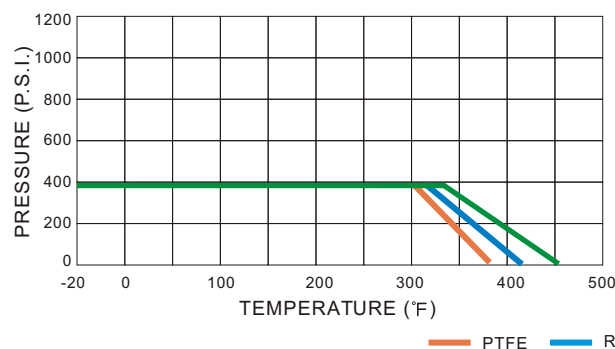
SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"
GREASE	5.5	7.2	8.8	13	20	24	54	62	124	230	250	360	605	880
NON-GREASE	7.2	9.4	13.2	18.2	30	36	95	132	245	—	—	—	—	—

BREAK-TORQUE VALUE for ANSI300/ PN40 (Nm)

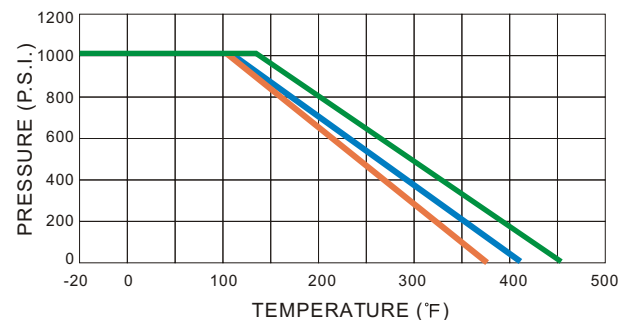
SIZE	1/2"	3/4"	1"	1 1/2"	2"	2-1/2"	3"	4"
GREASE	8.2	9.8	12.8	26.9	33.7	71.3	84.6	156.5
NON-GREASE	11.5	13.7	19.2	43.7	60.7	142.6	177.6	328.7

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

PRESSURE/ TEMPERATURE ANSI150/ PN16



PRESSURE/ TEMPERATURE ANSI300/ PN40



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.