VTV

Model : 201F

ANSI150/ PN 16/ ANSI300/ PN 40
SIZE: 1/2"-12"

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")

VTV Valve : , 2-piece flanged ball valve is designed for most industrial application. 207F designed with ISO mounting pad, it's convenient for mounting pneumatic/ electric actuator/ gear operator with bracket & adaptor. If you need the direct mount type, please go & see our 207S type.

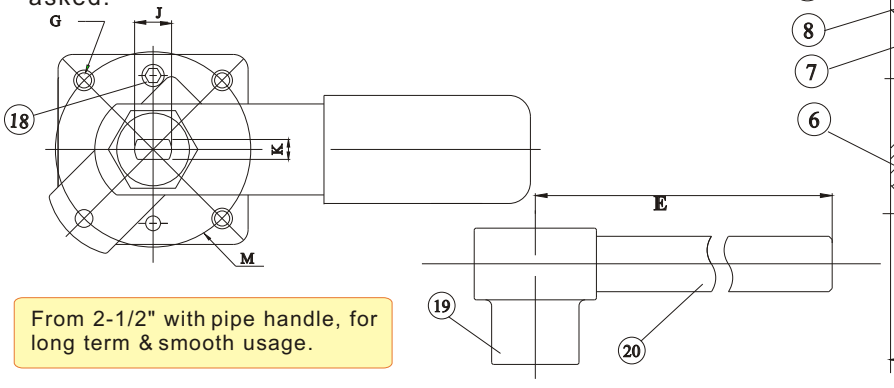
207F offer complete flange connection in ASME & DIN standard. ASME 150/ 300, PN16 (F1 & F4)/ PN40 are all available. Size range from 1/2" to 12" (DN15 to DN300)

offer gear operator in ratio 30:1/ 50:1/ 80:1 for the larger size valves with casted bracket & adaptor.

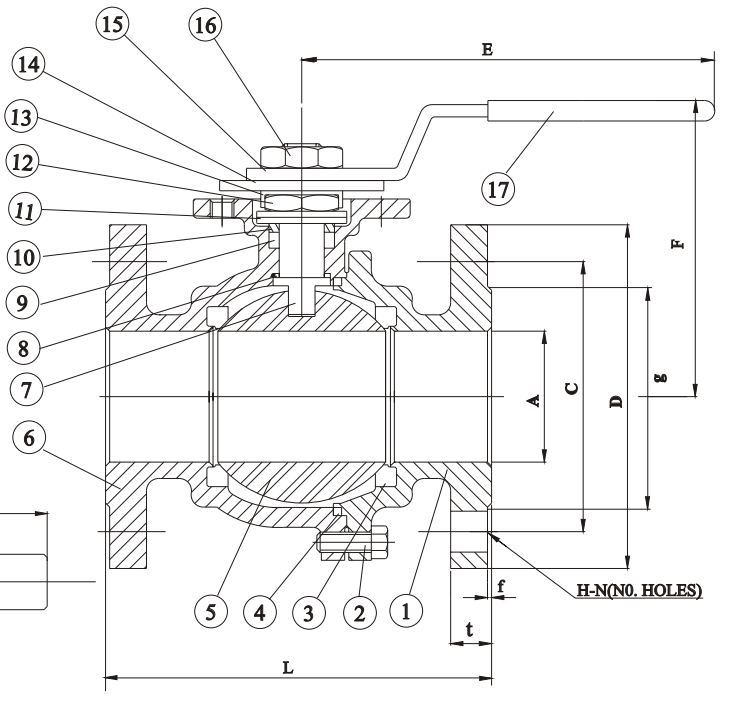
Fire safe design with graphite stem packing & gasket is for option. The fire safe lips were existed in our standard design. You may need the valve to be with PTFE/ PFA coating on the surface of valve body/ end/ ball/ stem to for anti-sticky function. This will also be convenient to clean the valve just flush by water.

TFM1600/ TFM4215/ UPE (UHMWPE)/ PEEK are available for different application as required. Hastelloy C/ Super Duple/ Alloy 20/ Monel and other extraordinary steel material are available as asked.

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	68.6	144.8	108	6.6	42	M5	10	89	60.5	16	4	11.5	35	13.9	10.7	1.6
3/4"	20	76.2	144.8	117	6.6	42	M5	10	98	70	16	4	11.5	43	14.2	10.9	1.6
1"	25	88.9	175.3	127	9.7	50	M6	14	108	79.5	16	4	11.5	51	21.6	16.8	1.6
1-1/4"	32	88.9	175.3	140	9.7	50	M6	14	117	89	16	4	12.7	64	21.3	16.5	1.6
1-1/2"	38	106.7	233.7	165	9.7	70	M8	18	127	98.5	16	4	14.3	73	24.9	18.0	1.6
2"	50	119.4	233.7	178	9.7	70	M8	18	152	120.5	19	4	15.9	92	23.9	19.6	1.6
2-1/2"	65	137.2	305.0	190	12	102	M10	20	178	139.5	19	4	17.8	105	22.9	16.3	1.6
3"	80	149.9	305.0	203	12	102	M10	20	190	152.5	19	4	19.1	127	21.9	16.3	1.6
4"	100	170.2	305.0	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")

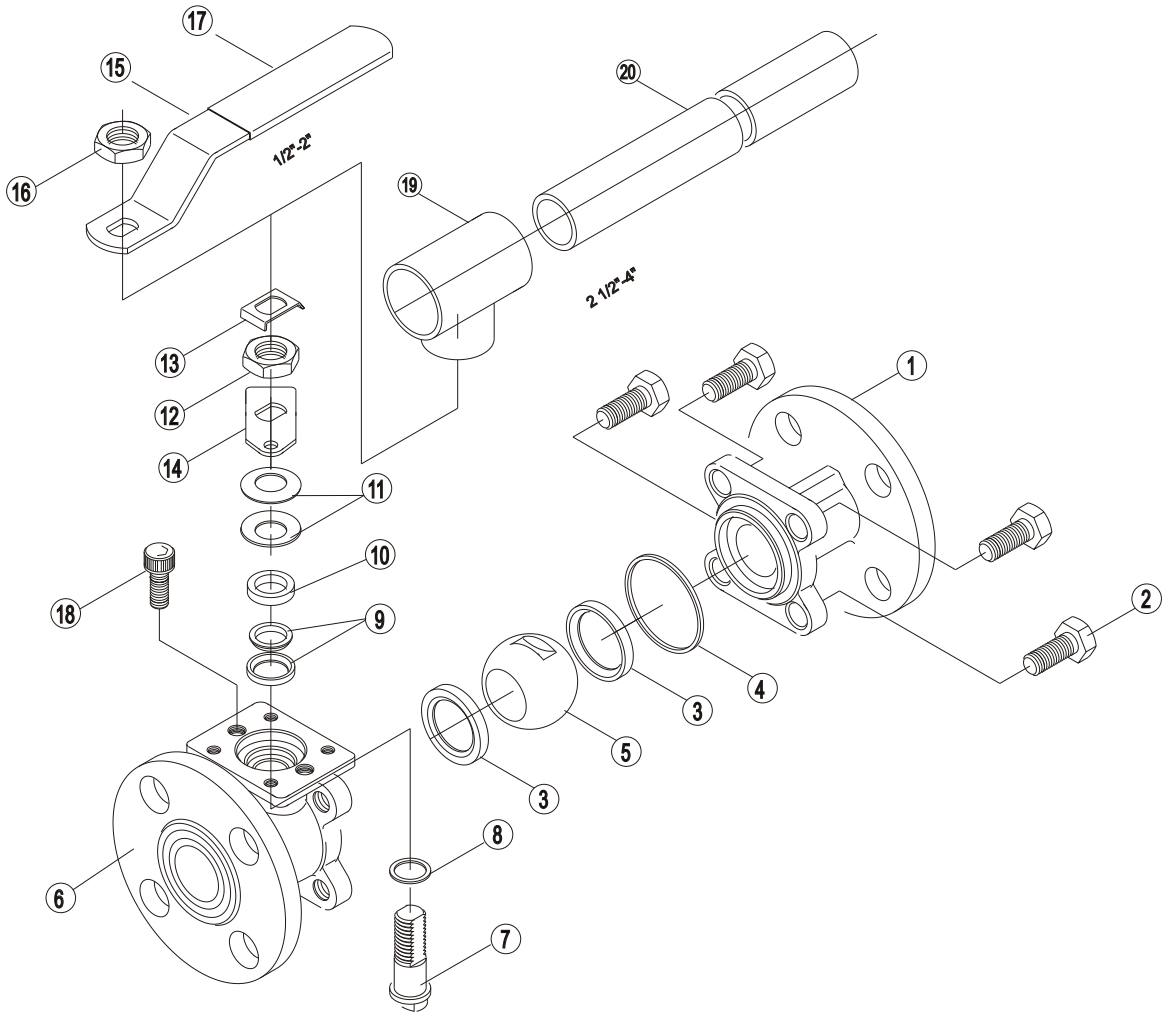
SIZE	A	F	E	L	K	M	G	J	CLASS 300 FLANGE DIMENSIONS								
									D	C	H	N	t	g	B	O	f
1/2"	15	68.6	144.8	139.7	6.6	42	M5	10	95	2.62	16	4	14.5	66.5	13.9	10.7	1.6
3/4"	20	76.2	144.8	152.4	6.6	42	M5	10	117	3.25	19	4	16	82.5	14.2	10.9	1.6
1"	25	88.9	175.3	165.1	9.7	50	M6	14	124	3.50	19	4	17.5	89	21.6	16.8	1.6
1-1/2"	38	106.7	233.7	190.5	9.7	70	M8	18	156	4.50	22	4	21	114.5	24.9	18.0	1.6
2"	50	119.4	233.7	215.9	937	70	M8	18	165	5.00	20	8	22.5	127	23.9	19.6	1.6
2-1/2"	65	137.4	355.9	241.3	12	102	M10	20	190	5.87	22	8	25.5	149	22.9	16.3	1.6
3"	80	149.9	355.9	282.7	12	102	M10	20	210	6.62	22	8	29	168	21.9	16.3	1.6
4"	100	170.2	381.0	304.8	15	102	M10	24	254	7.88	22	8	32	200	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	65	140	115	130	6.5	42	M5	10	95	65	14	4	14	45	13.9	10.7	2
3/4"	20	75	140	120	150	6.5	42	M5	10	105	75	14	4	16	58	14.2	10.9	2
1"	25	85	170	125	160	9.7	50	M6	14	115	85	14	4	16	68	21.6	16.8	2
1-1/4"	32	90	170	130	180	9.7	50	M6	14	140	100	18	4	16	78	21.6	16.8	2
1-1/2"	38	105	230	140	200	9.7	70	M8	18	150	110	18	4	16	88	24.9	18.0	3
2"	50	115	230	150	230	9.7	70	M8	18	165	125	18	4	18	102	23.9	19.6	3
2-1/2"	65	132	300	170	290	12	102	M10	20	185	145	18	4	18	122	22.9	16.3	3
3"	80	146	340	180	310	12	102	M10	20	200	160	18	8	20	138	21.9	16.3	3
4"	100	165	420	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		140	115	6.5		M5	10								10.7	
3/4"	20		140	120	6.5	42	M5									10.9	
1"	25		170	125	9.7	50	M6					4			21.6	16.8	
1-1/2"	38		230	140	9.7	70	M8	18								18.0	
2"	50			150	9.7	70	M8								23.9	19.6	
2-1/2"	65		300	170	12	102	M10								22.9	16.3	
	80			180											21.9	16.3	
	100		420	190											29.7	24.4	



MATERIALS LIST/ ASME150 & 300

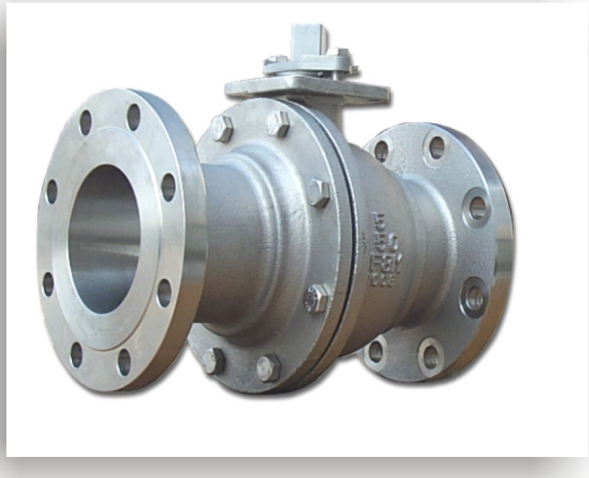
ITEM	PART NAME	MATERIALS
1	FLANGED END	CF8M/ WCB
2	BOLT	SS 304
3	BALL SEAT	PTFE/RPTFE
4	GASKET	PTFE
5	BALL	SS 316/ SS 304
6	BODY	CF8M/ WCB
7	STEM	SS 316/ SS 304
8	THRUST WASHER	RPTFE
9	STEM PACKING	PTFE
10	GLAND	SS 304
11	DISK WASHER	SS 301
12	STEM NUT	SS 304
13	NUT STOP	SS 304
14	STOPPER PLATE	SS 304
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 VTV 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 VTV use including lubricant & anti-seize grease are both SILICONE-FREE.



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

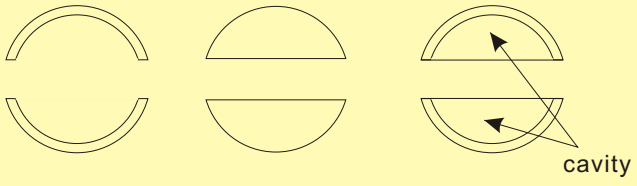
Class150

* 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)

BALL TYPE OPTION OF 207F



Hollow ball | Solid ball | Cored cavity ball

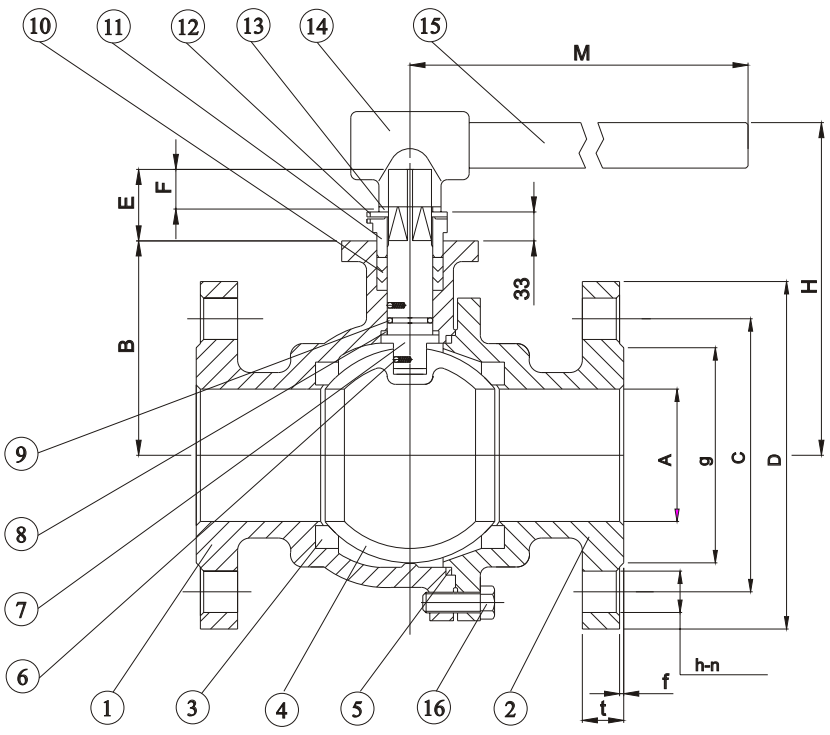
* 5"~8" solid ball & hollow
* 10" & 12" cored cavity ball & hollow ball

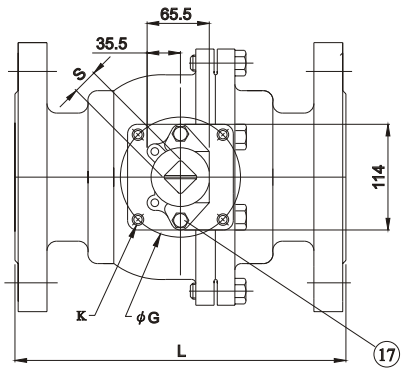
Hollow ball will save some cost if the media (particles) will not leave in the ball.

OPTION (5" to 12")

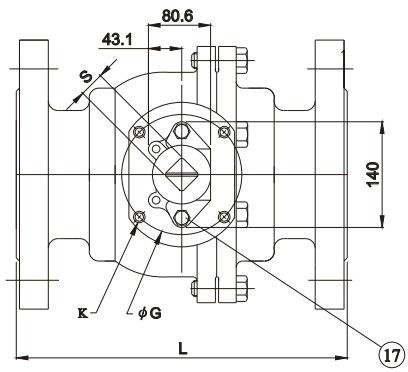
* Fire safe design
* Gear operator/ pneumatic & electric actuator
* PTFE/ PFA coating (40-70 um)
* Hastalloy C/ Super duplex/ Alloy 20/ Monel

DRAWING FOR 5" TO 12"





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	190.5	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)/ 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

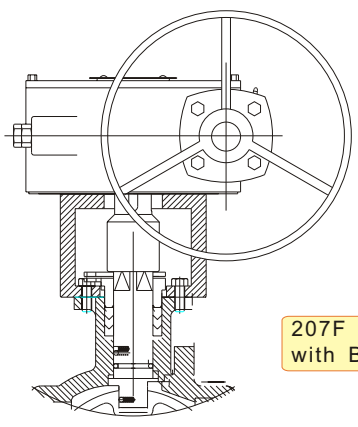
ITEM	PART NAME	MATERIALS
1	BODY	CF8M/ WCB
2	FLANGED END	CF8M/ WCB
3	BALL SEAT	PTFE/RPTFE
4	BALL	SS 316/ SS 304
5	GASKET	PTFE
6	ANTI-STATIC	SS 316
7	STEM	SS 316/ SS 304
8	THRUST WASHER	RPTFE
9	O-RING	VITON
10	STEM PACKING	PTFE
11	GLAND	SS 304
12	STOPPER	SS 304
13	STOPPER PLATE	SS 304
14	LEVER HEAD	FCD45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

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

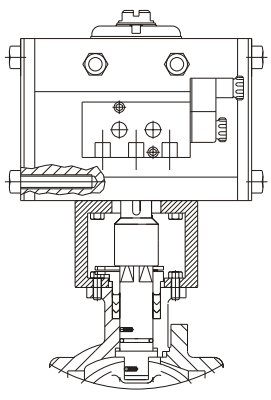
MATERIALS LIST/ PN 16

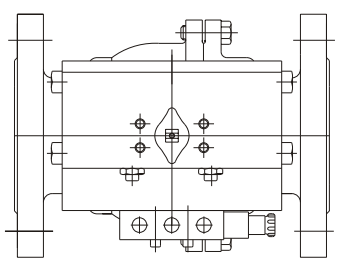
ITEM	PART NAME	MATERIALS
1	BODY	1.4408/ 1.0619
2	FLANGED END	1.4408/ 1.0619
3	BALL SEAT	PTFE/RPTFE
4	BALL	SS 316/ SS 304
5	GASKET	PTFE
6	ANTI-STATIC	SS 316
7	STEM	SS 316/ SS 304
8	THRUST WASHER	RPTFE
9	O-RING	VITON
10	STEM PACKING	PTFE
11	GLAND	SS 304
12	STOPPER	SS 304
13	STOPPER PLATE	SS 304
14	LEVER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

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

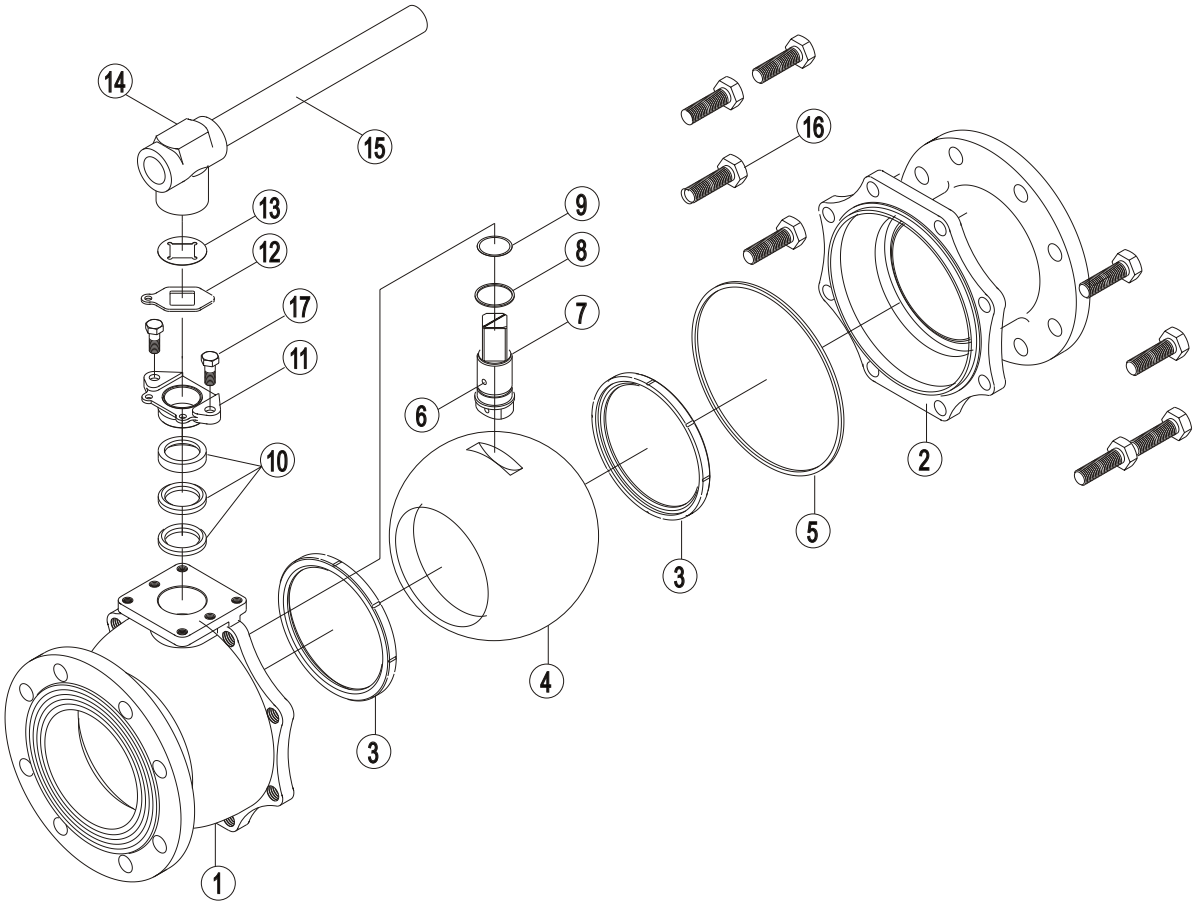


207F with Gear Operator with Bracket & Adaptor





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	—	—	—	—	—

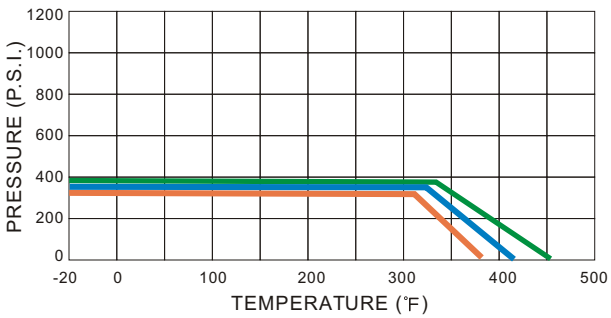
BREAK-TORQUE VALUE for ANSI300/ PN40 (Nm)

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.

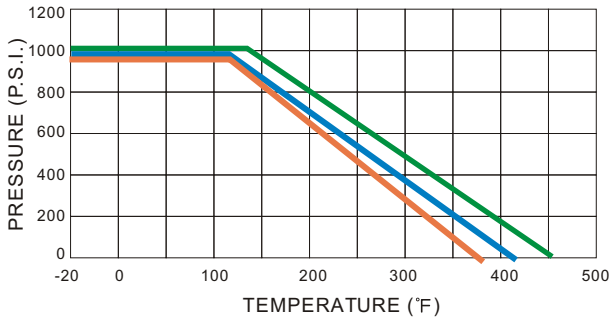
PRESSURE/ TEMPERATURE

ANSI150/ PN16



PRESSURE/ TEMPERATURE

ANSI300/ PN40



PTFE RPTFE (PTFE+15% Glass) TFM (TFM1600)

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.