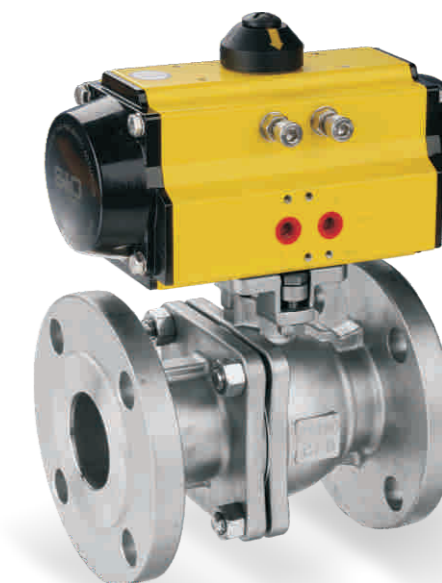
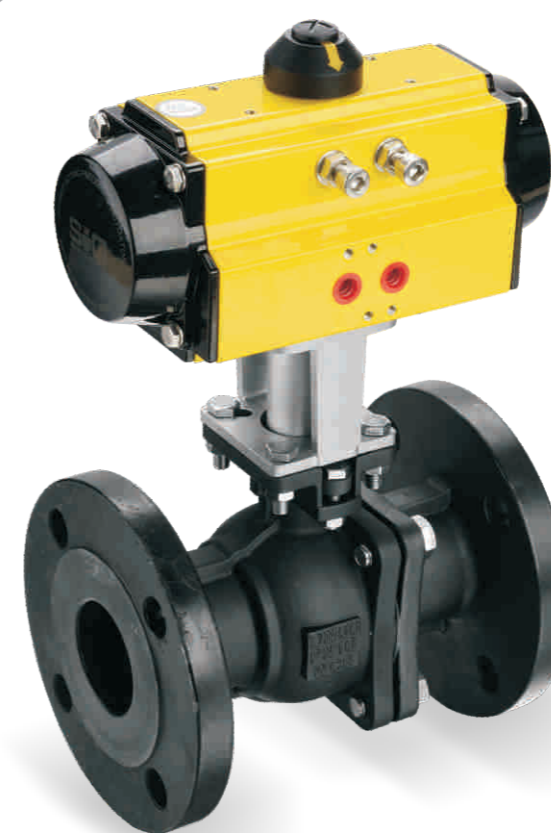


S09

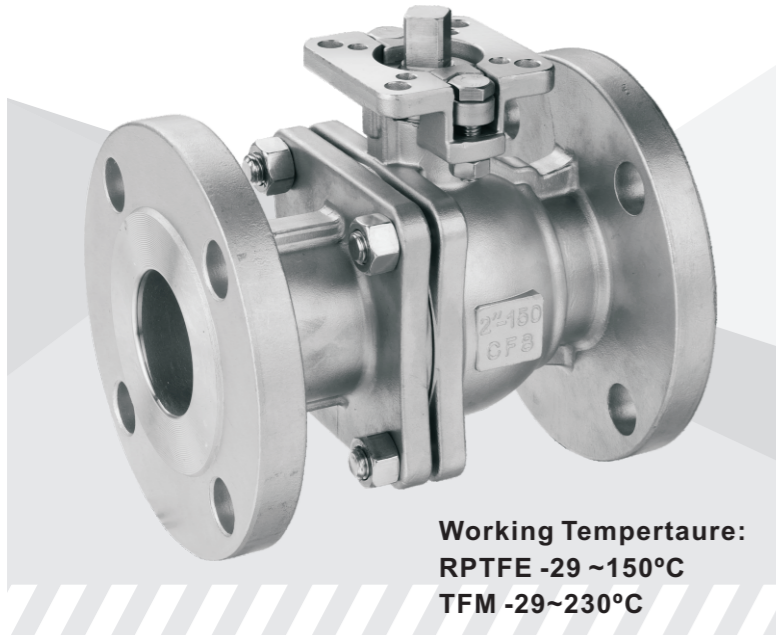
**2 Pieces Flanged Full Port
Ball Valve with ISO 5211
Direct Mount Pad**



Authorized Dealer:



2 Pieces Flanged Full Port Ball Valve with ISO 5211 Direct Mount Pad



Working Tempertaure:
RPTFE -29 ~150°C
TFM -29~230°C

ANSI CLASS 150
Design ANSI/ASME B16.34
Face to Face ANSI/ASME B16.10
Flange Dimensions ANSI/ASME B16.5
Pressure Testing API 598
Mounting ISO 5211
Marking System for Valves MSS SP-25

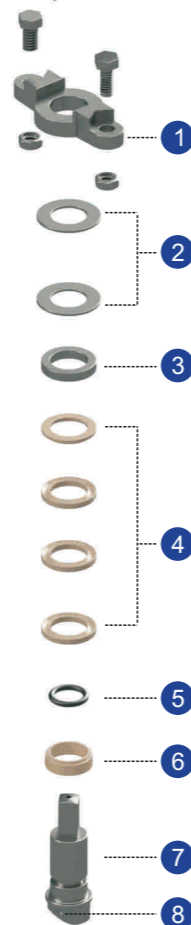
DIN PN16-40
Design DIN3357, En1256
Face to Face DIN3302-F4
Flange Dimensions DIN2501,PN10-40
Pressure Testing DIN3230/3,EN1266
Mounting ISO 5211
Marking System for Valves MSS SP-25
Fire Safe (Option)

High Cycle Stem Design Features

- **Live Loading Stem Sealing** (Adjustable Plate and Belleville Washer): The adjustable plate uniformly compresses the pair of Belleville washers to store energy for live loading. Live loading extends the time required between maintenance. During high cycle operation, the system works independently to maintain sealing integrity.
- **Independent Stem Rotation:** The rotational movement of the stem is independent of adjustable plate and Belleville washers (the live loading system). The action of stem rotation does not disrupt the sealing tightness of the disc plate.
- **Anti-Static Device:** To eliminate the possibility of static electrical charges within the valve, two grounding connections are set in the stem to ensure electrical continuity for the entire ball valve.

Three stages of stem sealing for effective control of stem leakage:

- **Pyramidal Body and Stem Seal** (1st Stage): Internal pressure of the valve pushes the pyramidal stem sealing upward. Because of it's shape, the sealing expands to fill all the air pockets that might become a potential leakage path in the lower stem area.
- **Viton® O-Ring** (2nd Stage): The elastic nature of the Viton® O-Ring serves as an effective sealing for gaseous medium that might escape the 1st stage sealing.
- **V-Ring Stem Packing** (3rd Stage): Live loading action of the Bellville washer expands the V-Ring stem packing, filling all the air pockets in the outer stem area. It effectively seals internal media within as well as keeping external media from entering the system



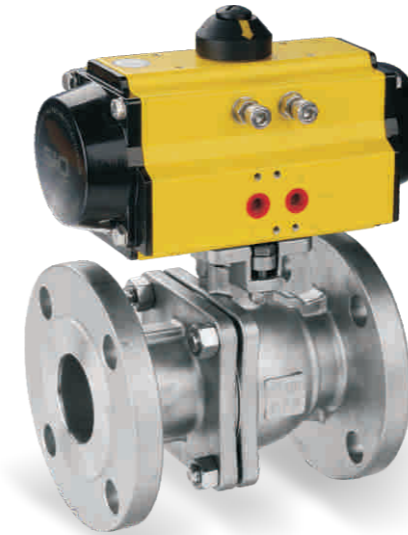
PARTS

1. Adjustable Plate
2. Belleville Washers
3. Gland
4. V-Ring Stem Packing
5. O-Ring
6. Pyramidal Stem Seal
7. Stem
8. Anti-Static Device

Top Mounting Pad

Top Mounting Pad: Two sets of ISO5211 mounting patterns are available to accommodate a great range of actuators. Machined flat surface ensures correct alignment of actuator to the stem top for minimum side loading during operation

Cast gasket and adaptor for high temperature application to protect the actuators



RPTFE -29 ~120°C



Gasket & Adaptor



TFM -29~230°C

Ball



Balls are precision machined and mirror finished for bubble-tight shut off with less operating torque. ball edges have machined curvatures to reduce seat wear and provide a high cycle life.

Seat



seat designed to ensure bi-directional, bubble-tight sealing while providing the lowest possible torque. This seat design reduces friction, minimizes seat wear and reduces operating torque.
 TFM seat with Anti expansion design for high temperature application

Stem

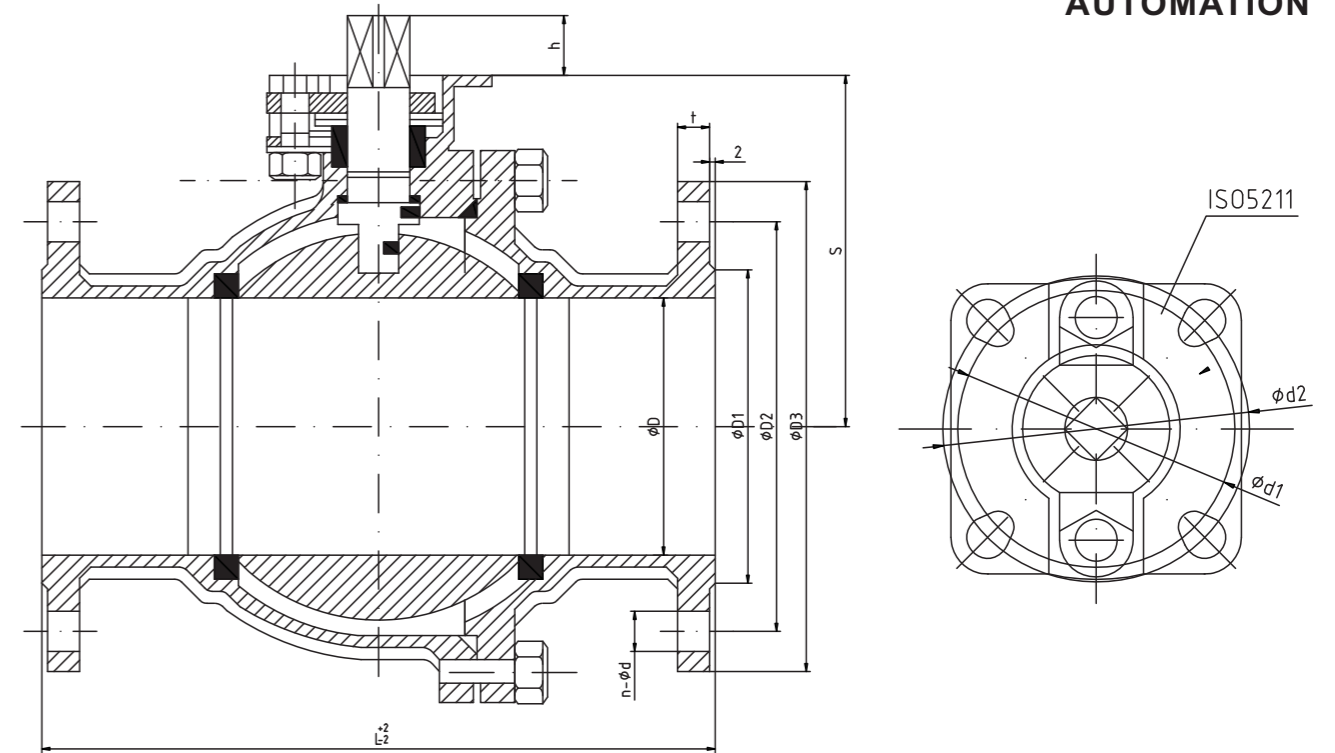
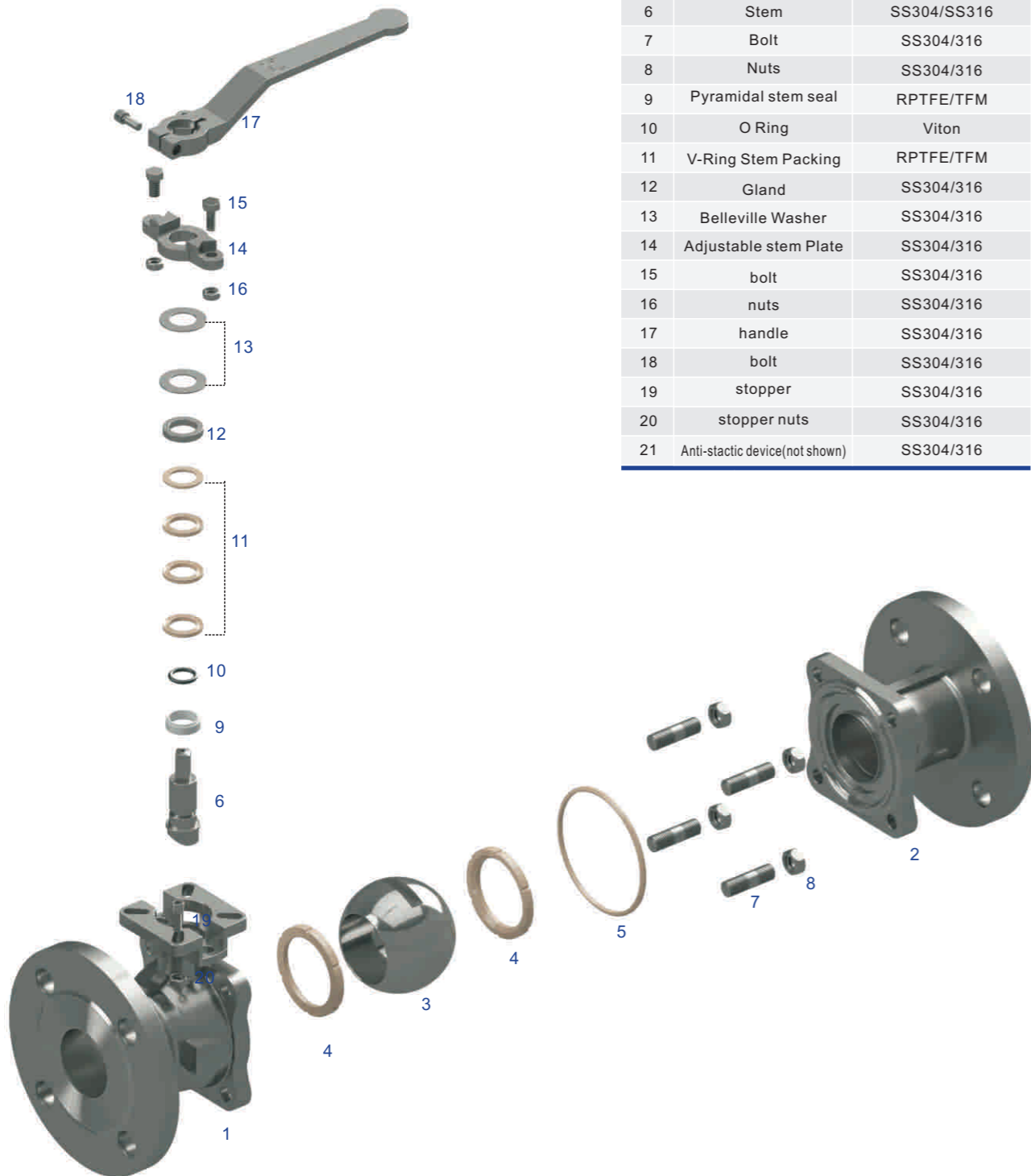


The sturdy blow-out proof stem, bare shaft is designed for direct mounting of actuator that meets ISO5211 specifications.



Lockable handle with stopper available

COMPONENTS AND MATERIALS		
Code	Name	Material
1	Body	ASTMA216 WCB/ASTM A351 Gr CF8/CF8M
2	End Cap	ASTMA216 WCB/ASTM A351 Gr CF8/CF8M
3	Ball	SS304/SS316
4	Seat	RPTFE/TFM
5	Gasket	RPTFE/TFM
6	Stem	SS304/SS316
7	Bolt	SS304/316
8	Nuts	SS304/316
9	Pyramidal stem seal	RPTFE/TFM
10	O Ring	Viton
11	V-Ring Stem Packing	RPTFE/TFM
12	Gland	SS304/316
13	Belleville Washer	SS304/316
14	Adjustable stem Plate	SS304/316
15	bolt	SS304/316
16	nuts	SS304/316
17	handle	SS304/316
18	bolt	SS304/316
19	stopper	SS304/316
20	stopper nuts	SS304/316
21	Anti-stactic device(not shown)	SS304/316



ANSI CLASS 150

Main Dimension(mm)

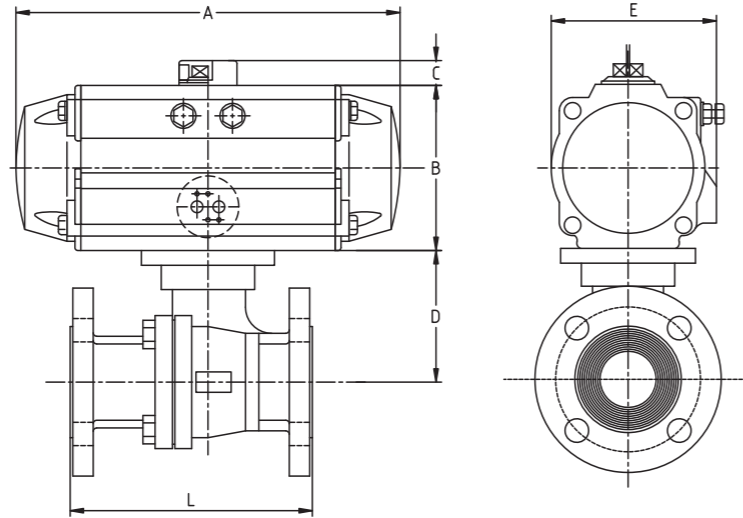
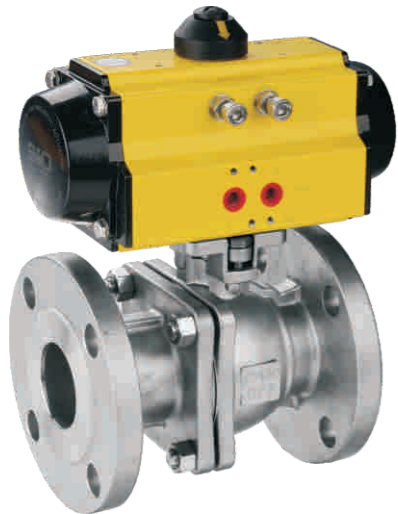
SIZE	DN	D	L	S	h	D1	D2	D3	d1	d2	t	n-Φd	Torque(Nm)
1/2"	15	15	108	48	9	34.9	60.3	90	36	42	9.6	4-15.9	11
3/4"	20	20	117	53	9	42.9	69.9	100	36	42	11.2	4-15.9	11
1"	25	25	127	58	11	50.8	79.4	110	42	50	12.7	4-15.9	14
1 1/4"	32	32	140	62	11	63.5	88.9	115	42	50	14.3	4-15.9	16
1 1/2"	40	38	165	75	14	73	98.4	125	50	70	15.9	4-15.9	22
2"	50	50	175	85	14	92.1	120.7	150	50	70	17.5	4-19.1	29
2 1/2"	65	65	190	104	17	104.8	139.7	180	70	102	20.7	4-19.1	56
3"	80	78	203	114	17	127	152.4	190	70	102	22.3	4-19.1	102
4"	100	98	229	135	19	157.2	190.5	230	70	102	22.3	8-19.1	170

DIN PN16/25

Main Dimension(mm)

SIZE	DN	D	L	S	h	D1	D2	D3	d1	d2	t	n-Φd	Torque(Nm)
1/2"	15	15	115	48	9	45	65	95	36	42	16	4-14	11
3/4"	20	20	120	53	9	58	75	105	36	42	18	4-14	11
1"	25	25	125	58	11	68	85	115	42	50	18	4-14	14
1 1/4"	32	32	130	62	11	78	100	140	42	50	18	4-18	16
1 1/2"	40	38	140	75	14	88	110	150	50	70	18	4-18	22
2"	50	50	150	85	14	102	125	165	50	70	18	4-18	29
2 1/2"	65	65	170	104	17	122	145	185	70	102	18	8-18	56
3"	80	78	180	114	17	138	160	200	70	102	20	8-18	102
4"	100	98	190	135	19	158	180	220	70	102	20	8-18	170

High Cycle life automation flange ball valve



Main Dimension(mm)

PN 16/25/40 BALL VALVE WITH DOUBLE ACTING ACTUATOR

SIZE	ACT	A	B	C	E	L	D
1/2"	63	168	85	20	83	115	48
3/4"	63	168	85	20	83	120	53
1"	63	168	85	20	83	125	58
1 1/4"	75	219	102.5	20	95.5	130	62
1 1/2"	75	219	102.5	20	95.5	140	75
2"	90	249	115	20	105.5	150	85
2 1/2"	100	274	127.5	20	122	170	104
3"	115	315	140	30	132.5	180	114
4"	125	355	156.5	30	150	190	135

PN 16/25/40 BALL VALVE WITH SPRING RETURN ACTUATOR

SIZE	ACT	A	B	C	E	L	D
1/2"	75	219	102.5	20	95.5	115	48
3/4"	75	219	102.5	20	95.5	120	53
1"	75	219	102.5	20	95.5	125	58
1 1/4"	90	249	115	20	105.5	130	62
1 1/2"	90	249	115	20	105.5	140	75
2"	100	274	127.5	20	122	150	85
2 1/2"	115	315	140	20	132.5	170	104
3"	145	417	176	30	169.5	180	114
4"	160	452	196	30	185	190	135

ANSI CLASS 150 BALL VALVE WITH DOUBLE ACTING ACTUATOR

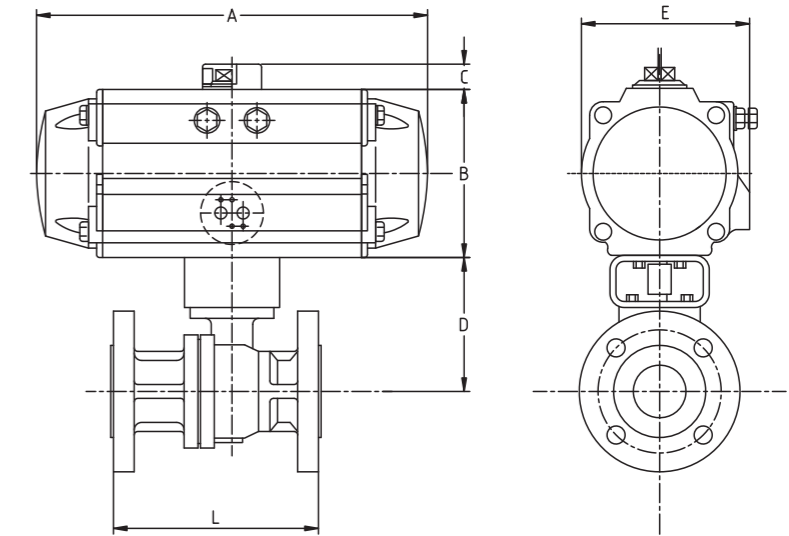
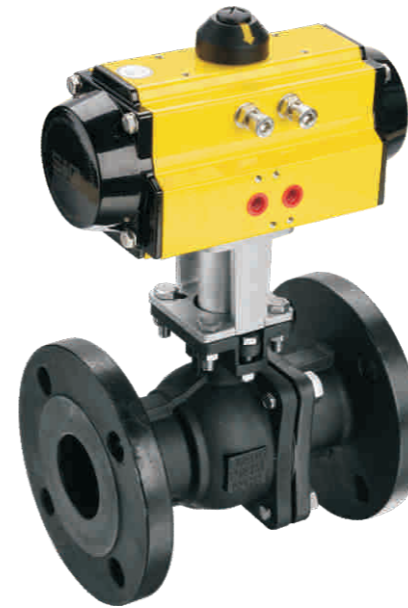
SIZE	ACT	A	B	C	E	L	D
1/2"	63	168	85	20	83	108	48
3/4"	63	168	85	20	83	117	53
1"	63	168	85	20	83	127	58
1 1/4"	75	219	102.5	20	95.5	140	62
1 1/2"	75	219	102.5	20	95.5	165	75
2"	90	249	115	20	105.5	175	85
2 1/2"	100	274	127.5	20	122	190	104
3"	115	315	140	30	132.5	203	114
4"	125	355	156.5	30	150	229	135

ANSI CLASS 150 BALL VALVE WITH SPRING RETURN ACTUATOR

SIZE	ACT	A	B	C	E	L	D
1/2"	75	219	102.5	20	95.5	108	48
3/4"	75	219	102.5	20	95.5	117	53
1"	75	219	102.5	20	95.5	127	58
1 1/4"	90	249	115	20	105.5	140	62
1 1/2"	90	249	115	20	105.5	165	75
2"	100	274	127.5	20	122	175	85
2 1/2"	115	315	140	30	132.5	190	104
3"	145	417	176	30	169.5	203	114
4"	160	452	196	30	185	229	135

All above dimension based on RPTFE seats and actuator with 5 Bar Air supply.

High temperature High Cycle life automation flange ball valve



Main Dimension(mm)

PN 16/25/40 BALL VALVE WITH DOUBLE ACTING ACTUATOR

SIZE	ACT	A	B	C	E	L	D
1/2"	63	168	85	20	83	115	108
3/4"	63	168	85	20	83	120	113
1"	63	168	85	20	83	125	118
1 1/4"	75	219	102.5	20	95.5	130	128
1 1/2"	75	219	102.5	20	95.5	140	141
2"	90	249	115	20	105.5	150	151
2 1/2"	100	274	127.5	20	122	170	170
3"	115	315	140	30	132.5	180	189
4"	125	355	156.5	30	150	190	210

PN 16/25/40 BALL VALVE WITH SPRING RETURN ACTUATOR

SIZE	ACT	A	B	C	E	L	D
1/2"	75	219	102.5	20	95.5	115	108
3/4"	75	219	102.5	20	95.5	120	113
1"	75	219	102.5	20	95.5	125	118
1 1/4"	90	249	115	20	105.5	130	128
1 1/2"	90	249	115	20	105.5	140	141
2"	100	274	127.5	20	122	150	151
2 1/2"	115	315	140	30	132.5	170	170
3"	145	417	176	30	169.5	180	189
4"	160	452	196	30	185	190	210

ANSI CLASS 150 BALL VALVE WITH DOUBLE ACTING ACTUATOR

SIZE	ACT	A	B	C	E	L	D
1/2"	63	168	85	20	83	108	108
3/4"	63	168	85	20	83	117	113
1"	63	168	85	20	83	127	118
1 1/4"	75	219	102.5	20	95.5	140	128
1 1/2"	75	219	102.5	20	95.5	165	141
2"	90	249	115	20	105.5	175	151
2 1/2"	100	274	127.5	20	122	190	170
3"	115	315	140	30	132.5	203	189
4"	125	355	156.5	30	150	229	210

ANSI CLASS 150 BALL VALVE WITH SPRING RETURN ACTUATOR

SIZE	ACT	A	B	C	E	L	D
1/2"	75	219	102.5	20	95.5	108	108
3/4"	75	219	102.5	20	95.5	117	113
1"	75	219	102.5	20	95.5	127	118
1 1/4"	90	249	115	20	105.5	140	128
1 1/2"	90	249	115	20	105.5	165	141
2"	100	274	127.5	20	122	175	151
2 1/2"	115	315	140	30	132.5	190	170
3"	145	417	176	30	169.5	203	189
4"	160	452	196	30	185	229	210

All above dimension based on TFM seats and actuator with 5 Bar Air supply.