

SEGMENT BALL VALVE



LINUO VALVE

More info please contact : Ruamcharoen Engineering & Supplies Ltd., www.ruamcharoen.com, Tel : 02-7486096 to 7



SEGMENT BALL VALVE combines globe valve control with the efficiency of a rotary ball valve.

EXCELLENT sealing capacity - metal and soft seats.

PRECISE contouring of the V-notch provides excellent control characteristics for an extensive variety of flow applications.

RUGGED self-adjusting metal seated option is ideally suited for high temperature applications or slurries.

SPLINED CONNECTION between the shaft and ball ensures precise control and low hysteresis.

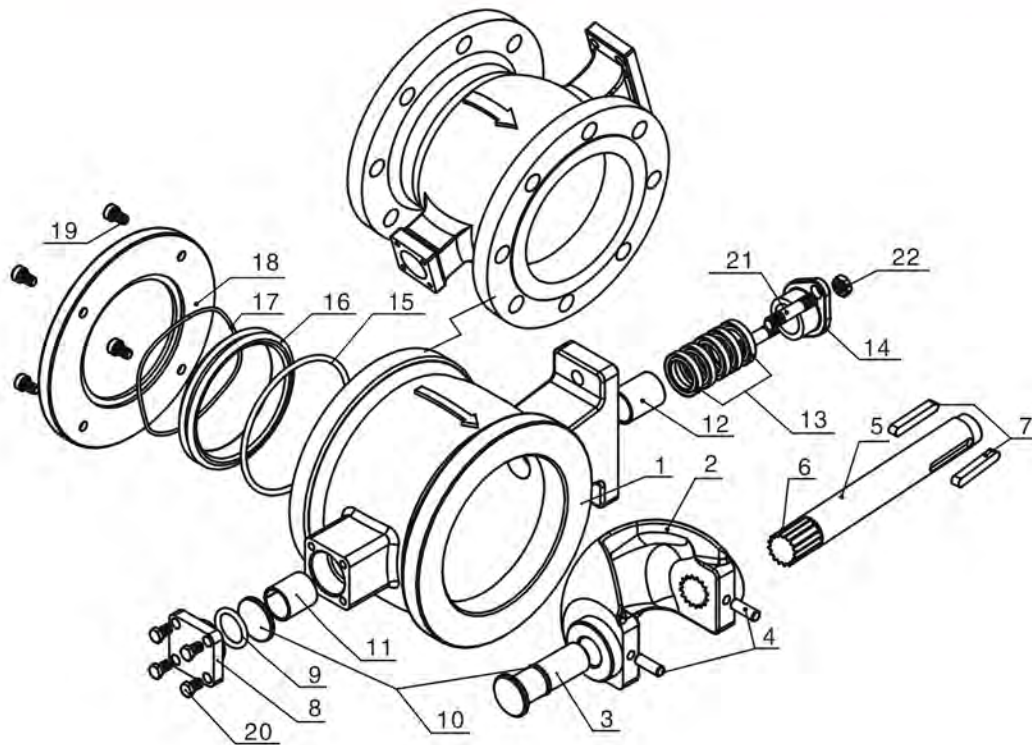
SHEARING ACTION between ball and seal promotes smooth, non-clogging operation - perfect for fiber or slurry applications.

EASY to change seats, means low cost for valve repairs.

HEAVY DUTY construction with unrestricted straight through flow path gives high capacity.

SPRING LOADED seat maintains constant contact with the ball, giving enhanced sealing performance.

SUPERIOR trunnion bearing technology is engineered for excellent abrasion resistance.



PARTS LIST / MATERIALS OF CONSTRUCTION

No.	Name	Quantity	Material
1	Body	1	WCB, CF8, CF8M
2	Ball	1	CF8, CF8M, Hard Chromium Plating or Stellite Surfacing
3	Lower shaft	1	17-4PH, SS316
4	Cylindrical pin	2	SS304, SS316
5	Upper shaft	1	17-4PH, SS316
6	Spline	1	17-4PH, SS316
7	Flat key	2	SS304, 45#
8	Blind flange	1	CF8, CF8M
9	O-ring	1	Viton, Graphite
10	Gasket	1 each	PTFE, Graphite
11	Self-lubricating bearing	1	Composite material
12	Self-lubricating bearing	1	Composite material
13	Packing	1 Set	PTFE, Graphite
14	Gland	1	CF8
15	O-ring	1	Viton, Graphite
16	Seat	1	PTFE, SS304, SS316, Hard Chrome Plating or Stellite Surfacing
17	Wavy spring	1	SS316
18	Retainer	1	Carbon Steel, SS304, SS316
19	Socked head screw	4	A193 B7, A193 B8
20	Hexagon screw	4	A193 B7, A193 B8
21	Stud	2	A193 B7, A193 B8
22	Hexagon nut	2	A194 2H, A194 8



SEGMENT BALL VALVE



TECHNICAL DATA

End Connections: Standard is ISA F/F Flanged 1" through 16", Optional ISA F/F Wafer Style 1" through 10"

Nominal Pressure Ratings: ANSI 150, ANSI 300

Working Temperature: -20°F to 320°F for PTFE Seats, -20°F to 400°F for Metal Seats, and
-20°F to 750°F for High Temperature Metal Seats

Pressure Testing: Each Linuo valve undergoes hydraulic test with 1.5 X pressure rating as shell test pressure, and
1.1 X pressure rating as seat tightness test pressure. Testing medium is water.

Seat shutoff: Soft seated -Class VI; metal seated-Class IV.

Cv VERSUS VALVE ROTATION, in Degrees

Size	10	20	30	40	50	60	70	80	90
1"	0.11	0.84	2	4	7	11	16	21	27
1 1/4"	0.19	1.47	4	7	12	19	27	37	47
1 1/2"	0.28	2.18	6	11	19	28	40	55	70
2"	0.44	3.43	9	17	29	45	64	87	110
2 1/2"	0.68	5.30	14	27	45	69	98	134	170
3"	1	9	23	44	74	114	162	221	280
4"	2	13	34	64	109	166	237	324	410
5"	3	23	62	117	199	305	434	593	750
6"	4	31	81	153	260	398	566	774	980
8"	7	54	143	268	456	698	994	1,359	1,720
10"	12	90	241	452	769	1,177	1,676	2,291	2,900
12"	15	119	315	593	1,007	1,543	2,196	3,002	3,800
14"	28	218	581	1,092	1,855	2,842	4,046	5,530	7,000
16"	39	306	813	1,529	2,597	3,979	5,664	7,742	9,800

MAXIMUM ALLOWABLE DIFFERENTIAL PRESSURE

Size	Wafer Connection Class 150		Wafer Connection Class 300		Size	Flanged Connection Class 150		Flanged Connection Class 300	
	Max ShutOff dP	Max Control dP	Max ShutOff dP	Max Control dP		Max ShutOff dP	Max Control dP	Max ShutOff dP	Max Control dP
	psi	psi	psi	psi		psi	psi	psi	psi
1"	290	217	725	507	1"	290	217	725	507
1 1/4"	290	217	725	507	1 1/4"	290	217	725	507
1 1/2"	290	217	725	507	1 1/2"	290	217	725	507
2"	290	217	725	507	2"	290	217	725	507
2 1/2"	290	217	725	507	2 1/2"	290	217	725	507
3"	290	217	725	507	3"	290	217	725	507
4"	232	174	580	362	4"	232	174	580	362
5"	232	174	580	362	5"	232	174	580	362
6"	232	174	580	362	6"	232	174	580	362
8"	232	174	507	362	8"	232	174	507	362
10"	203	145	507	362	10"	203	145	507	362
12"	-	-	-	-	12"	203	145	507	362
14"	-	-	-	-	14"	174	116	435	290
16"	-	-	-	-	16"	174	116	435	290



ACTUATOR SIZING

Size	Torque in In-Lb at 150 psi Differential for B Seats	Z SERIES PISTON ACTUATORS	
		ZSQ Double Acting	ZDLQ Spring Return
1"	248	ZSQ41-80	ZDLQ41-100
1 1/4"	310	ZSQ41-80	ZDLQ41-100
1 1/2"	372	ZSQ41-80	ZDLQ41-125
2"	434	ZSQ41-80	ZDLQ41-125
2 1/2"	743	ZSQ41-100	ZDLQ50-160
3"	991	ZSQ41-125	ZDLQ50-160
4"	1,735	ZSQ50-160	ZDLQ60-200
5"	1,858	ZSQ50-160	ZDLQ60-200
6"	2,230	ZSQ50-160	ZDLQ80-200
8"	4,337	ZSQ60-200	ZDLQ80-300
10"	7,434	ZSQ80-250	ZDLQ100-300
12"	14,868	ZSQ100-300	ZDLQ130-350
14"	21,063	ZSQ130-300	ZDLQ160-400
16"	32,214	ZSQ130-400	ZDLQ160-450

ZSQ and ZDQ Series Piston Actuators are manufactured by Linuo.

For actuator particulars, please refer to Z Series Actuators Sizing.

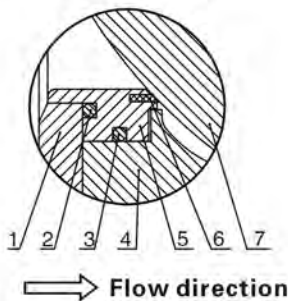
The actuators above are recommended for valves of pressure ANSI class 150 and temps -20 to 400°F, with minimum air supply pressure of 60 psig.

For actuator sizing for ANSI class 300 valves, please consult factory.

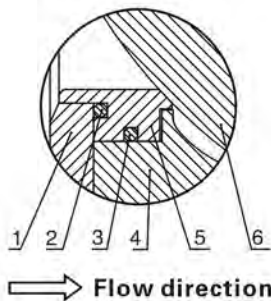
Torque values includes safety factor.

THREE DIFFERENT SEATS

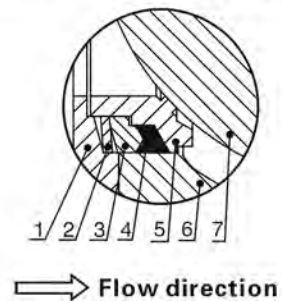
PTFE seated



Metal seated



Metal seated for high temp. application



SEAT TYPE A
PTFE Seated
Temp. Range -20°F to 320°F

No.	Parts	Std Material
1	Retainer	SS316
2	Spring	SS316/X750
3	O ring	Viton
4	Valve Body	CS or SS
5	Seat Body	SS316
6	Seat Seal	PTFE
7	Ball	CF8M w/Chrome

SEAT TYPE B
Metal Seated
Temp. Range -20°F to 400°F

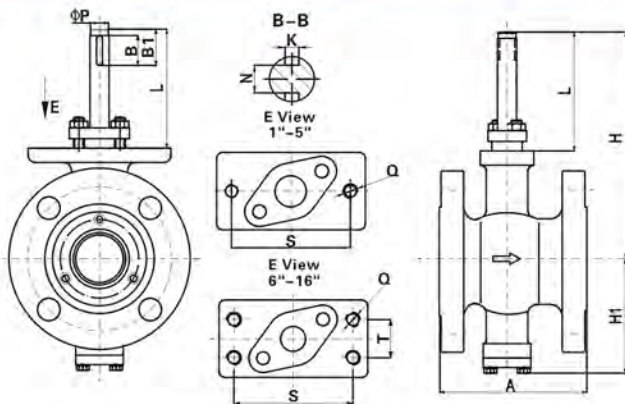
No.	Parts	Std Material
1	Retainer	SS316
2	Spring	SS316/X750
3	O ring	Viton/PFA
4	Valve Body	CS or SS
5	Seat	SS316 w/Stellite 6
6	Ball	CF8M w/Chrome

SEAT TYPE C
Metal Seated for High Temp
Temp. Range -20°F to 750°F

No.	Parts	Std Material
1	Retainer	SS316
2	Belville Spring	17-7PH/X750
3	Plunge Ring	SS316
4	Graphite ring	Graphite
5	Metal Seat	SS316 w/Stellite 6
6	Valve Body	CS or SS
7	Ball	CF8M w/Chrome

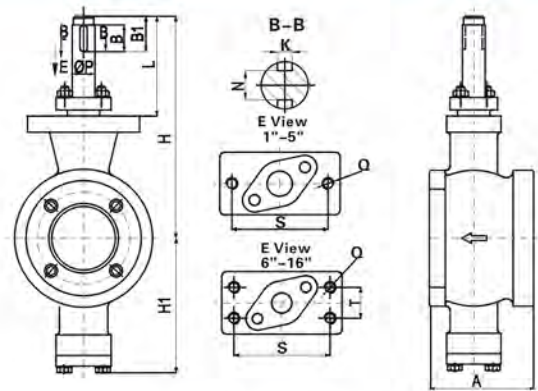


SEGMENT BALL VALVE



FLANGED STYLE – ISA Face to Face

Available 1" through 16"



WAFER STYLE – ISA Face to Face

Available 1" through 10"

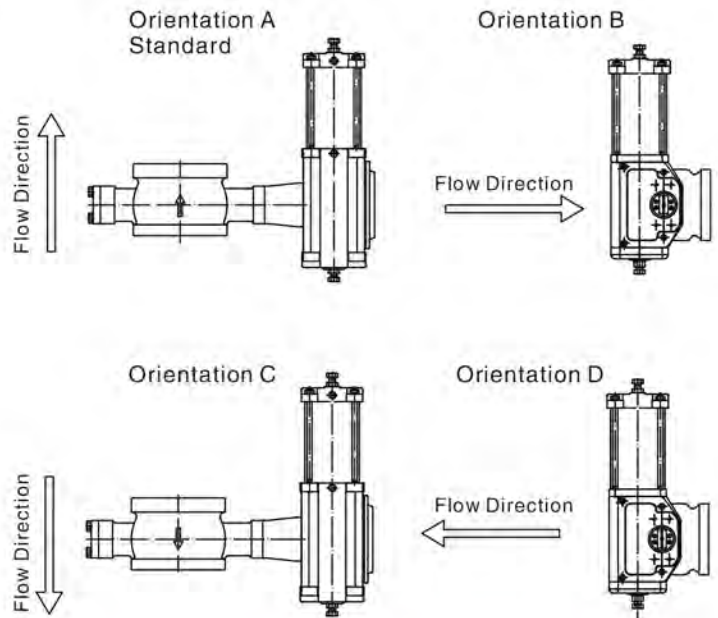
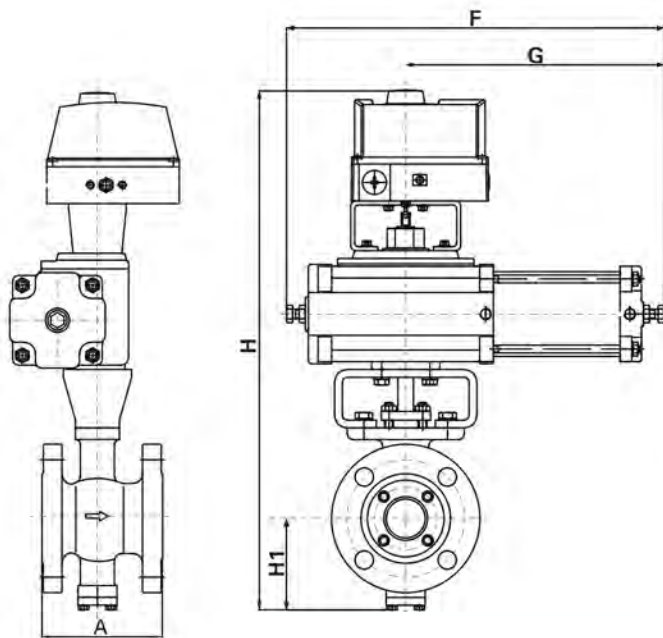
DIMENSIONS OF BARE STEM VALVE, Flanged or Wafer, CLASS 150 – ISA Face to Face

Size	Outline Dimensions (inch)			Mounting Dimensions (mm except as noted)										Weight (Pounds)	
	A	H	H1	L	ΦP	B1	B	K	N	S	Q	T		Flanged	Wafer
1"	4.0	7.4	3.4	110.0	16.0	40.0	35.0	5.0	13.0	80.0	M10	–		9	7
1 1/4"	4.1	7.7	3.4	110.0	16.0	40.0	35.0	5.0	13.0	80.0	M10	–		12	9
1 1/2"	4.5	7.7	3.4	110.0	16.0	40.0	35.0	5.0	13.0	80.0	M10	–		13	9
2"	4.9	8.0	3.8	110.0	16.0	40.0	35.0	5.0	13.0	80.0	M10	–		17	12
2 1/2"	5.7	8.7	4.4	110.0	16.0	40.0	35.0	5.0	13.0	80.0	M10	–		19	14
3"	6.5	9.4	4.4	120.0	20.0	40.0	35.0	6.0	16.5	90.0	M12	–		31	24
4"	7.6	9.8	4.8	120.0	20.0	40.0	35.0	6.0	16.5	90.0	M12	–		47	35
5"	8.4	10.6	5.6	120.0	25.0	40.0	35.0	8.0	21.0	100.0	M12	–		50	37
6"	9.0	12.2	6.5	133.0	30.0	45.0	40.0	10.0	25.0	110.0	M12	40.0		81	66
8"	9.6	13.3	7.7	133.0	30.0	45.0	40.0	10.0	25.0	110.0	M12	40.0		128	101
10"	11.7	15.2	9.3	145.0	40.0	55.0	50.0	12.0	35.0	130.0	M12	45.0		187	150
12"	13.3	16.3	11.1	145.0	40.0	55.0	50.0	12.0	35.0	130.0	M12	45.0		295	–
14"	15.7	20.0	13.3	180.0	50.0	68.0	60.0	16.0	44.0	134.0	M16	64.0		431	–
16"	15.7	23.4	15.4	214.0	60.0	88.0	80.0	18.0	53.0	175.0	M24	70.0		759	–

DIMENSIONS OF BARE STEM VALVE, Flanged or Wafer, CLASS 300 – ISA Face to Face

Size	Outline Dimensions (inch)			Mounting Dimensions (mm except as noted)										Weight (Pounds)	
	A	H	H1	L	ΦP	B1	B	K	N	S	Q	T		Flanged	Wafer
1"	4.0	7.4	3.4	110.0	16.0	40.0	35.0	5.0	13.0	80.0	M10	–		12	7
1 1/4"	4.1	7.7	3.4	110.0	16.0	40.0	35.0	5.0	13.0	80.0	M10	–		14	9
1 1/2"	4.5	7.7	3.4	110.0	16.0	40.0	35.0	5.0	13.0	80.0	M10	–		18	9
2"	4.9	8.3	4.1	110.0	16.0	40.0	35.0	5.0	13.0	80.0	M12	–		24	15
2 1/2"	5.7	9.1	5.0	120.0	20.0	40.0	35.0	6.0	16.5	90.0	M12	–		28	18
3"	6.5	10.0	5.4	120.0	25.0	40.0	35.0	8.0	21.0	100.0	M12	32.0		51	32
4"	7.6	10.3	5.7	120.0	25.0	40.0	35.0	8.0	21.0	100.0	M12	32.0		73	42
5"	8.4	11.1	7.2	133.0	30.0	45.0	40.0	10.0	25.0	110.0	M12	40.0		81	48
6"	9.0	13.6	8.0	145.0	40.0	55.0	50.0	12.0	35.0	130.0	M16	45.0		143	93
8"	9.6	14.3	8.7	145.0	40.0	55.0	50.0	12.0	35.0	130.0	M16	45.0		198	121
10"	11.7	18.4	10.6	193.0	50.0	68.0	60.0	16.0	44.0	175.0	M20	70.0		342	228
12"	13.3	18.9	11.3	193.0	50.0	68.0	60.0	16.0	44.0	175.0	M24	70.0		485	–
14"	15.7	22.2	13.9	210.0	60.0	88.0	80.0	18.0	53.0	175.0	M24	70.0		684	–
16"	18.9	25.9	16.1	248.0	70.0	88.0	80.0	20.0	62.5	215.0	M27	96.0		1045	–

NOTE: Stem heights may vary. Please consult Linuo for exact dimensions for your order.



DIMENSIONS OF FLANGED STYLE VALVE – AUTOMATED with Linuo Piston Type Actuator

Dimensions and weights are applicable for ANSI class 150 valves, with appropriate actuators.

For actuator sizing for ANSI class 300 valves, their dimensions and weights, please consult factory.

Size	With ZSQ Series Double Acting Actuator					Weight (Lbs)
	A	H1	H	G	F	
1"	102.0	87.0	501.9	273.0	408.0	31
1 1/4"	105.0	87.0	508.9	273.0	408.0	34
1 1/2"	114.0	87.0	508.9	273.0	408.0	35
2"	124.0	97.0	526.9	273.0	408.0	38
2 1/2"	145.0	112.0	560.9	301.0	436.0	45
3"	165.0	112.0	568.9	301.0	436.0	57
4"	194.0	122.0	609.1	400.0	550.0	90
5"	213.0	142.0	649.1	400.0	550.0	93
6"	229.0	165.0	700.1	400.0	550.0	125
8"	243.0	195.0	792.9	409.0	583.0	201
10"	297.0	237.0	913.9	526.0	773.0	396
12"	338.0	281.0	1010.9	619.0	892.0	731
14"	400.0	338.0	1100.1	650.0	1015.0	981
16"	400.0	390.0	1304.1	800.0	1165.0	1432

Size	With ZDLQ Spring Return Actuator					Weight (Lbs)
	A	H1	H	G	F	
1"	102.0	87.0	501.9	425.0	560.0	42
1 1/4"	105.0	87.0	508.9	425.0	560.0	45
1 1/2"	114.0	87.0	508.9	450.0	590.0	50
2"	124.0	97.0	526.9	450.0	590.0	54
2 1/2"	145.0	112.0	571.1	540.0	705.0	94
3"	165.0	112.0	579.1	540.0	705.0	105
4"	194.0	122.0	644.9	630.0	820.0	149
5"	213.0	142.0	684.9	630.0	820.0	152
6"	229.0	165.0	769.9	720.0	970.0	341
8"	243.0	195.0	826.9	835.0	1105.0	530
10"	297.0	237.0	927.9	910.0	1210.0	719
12"	338.0	281.0	1053.1	1065.0	1430.0	1217
14"	400.0	338.0	1160.0	1220.0	1625.0	1786
16"	400.0	390.0	1364.0	1225.0	1635.0	2259

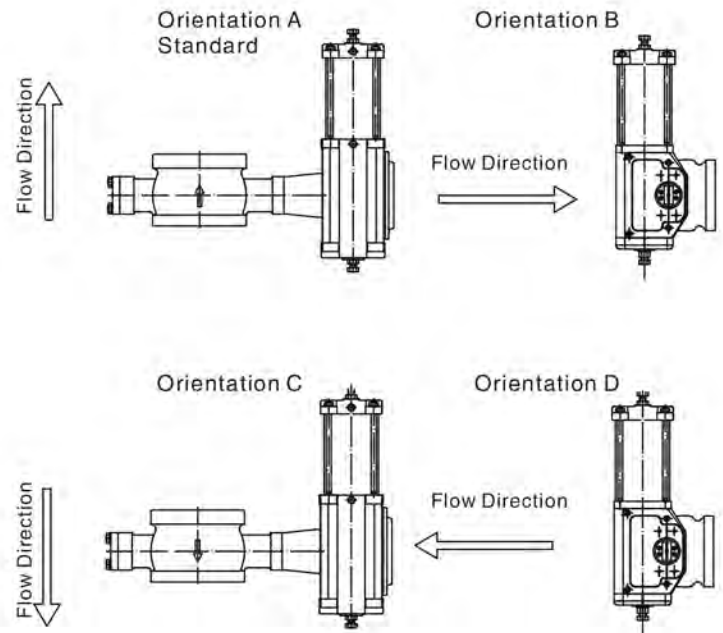
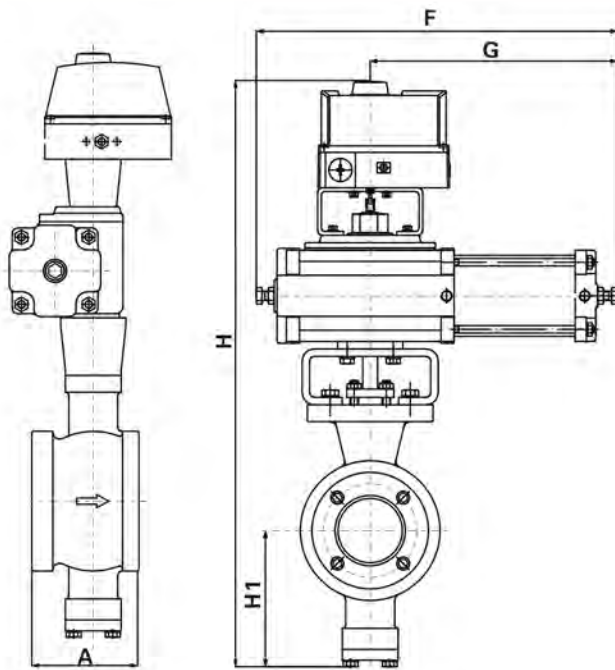
NOTE: The dimensions above are exclusive for valves equipped with Linuo piston type actuators, ZSQ Double Acting and ZDLQ Spring Return Series.

For actuator particulars, please refer to ACTUATOR SIZING on Page 5.

Positioner height and weight based on VAC D400 positioner.



SEGMENT BALL VALVE



DIMENSIONS OF WAFER STYLE VALVE – AUTOMATED with Linuo Piston Type Actuator

Dimensions and weights are applicable for ANSI class 150 valves, with appropriate actuators.
For actuator sizing for ANSI class 300 valves, their dimensions and weights, please consult factory.

Size	With ZSQ Series Double Acting Actuator					Weight (Lbs)
	A	H1	H	G	F	
1"	102.0	87.0	501.9	273.0	408.0	29
1 1/4"	105.0	87.0	508.9	273.0	408.0	30
1 1/2"	114.0	87.0	508.9	273.0	408.0	30
2"	124.0	97.0	526.9	273.0	408.0	33
2 1/2"	145.0	112.0	560.9	301.0	436.0	38
3"	165.0	112.0	568.9	301.0	436.0	50
4"	194.0	122.0	609.1	400.0	550.0	77
5"	213.0	142.0	649.1	400.0	550.0	80
6"	229.0	165.0	700.1	400.0	550.0	109
8"	243.0	195.0	792.9	409.0	583.0	275
10"	297.0	237.0	913.9	526.0	773.0	359

Size	With ZDLQ Spring Return Actuator					Weight (Lbs)
	A	H1	H	G	F	
1"	102.0	87.0	501.9	425.0	560.0	40
1 1/4"	105.0	87.0	508.9	425.0	560.0	41
1 1/2"	114.0	87.0	508.9	450.0	590.0	46
2"	124.0	97.0	526.9	450.0	590.0	49
2 1/2"	145.0	112.0	571.1	540.0	705.0	87
3"	165.0	112.0	579.1	540.0	705.0	98
4"	194.0	122.0	644.9	630.0	820.0	137
5"	213.0	142.0	684.9	630.0	820.0	140
6"	229.0	165.0	769.9	720.0	970.0	325
8"	243.0	195.0	826.9	835.0	1105.0	503
10"	297.0	237.0	927.9	910.0	1210.0	682

NOTE: The dimensions above are exclusive for valves equipped with Linuo piston type actuators, ZSQ Double Acting and ZDLQ Spring Return Series.
For actuator particulars, please refer to ACTUATOR SIZING on Page 5.
Positioner height and weight based on VAC D400 positioner.

LINUO Z-Series Actuators have been time tested and proven to be excellent for both On/Off and Control Valve applications.

ROBUST CONSTRUCTION of our piston style actuator guarantees reliable performance, long service life, and optimum torque output.

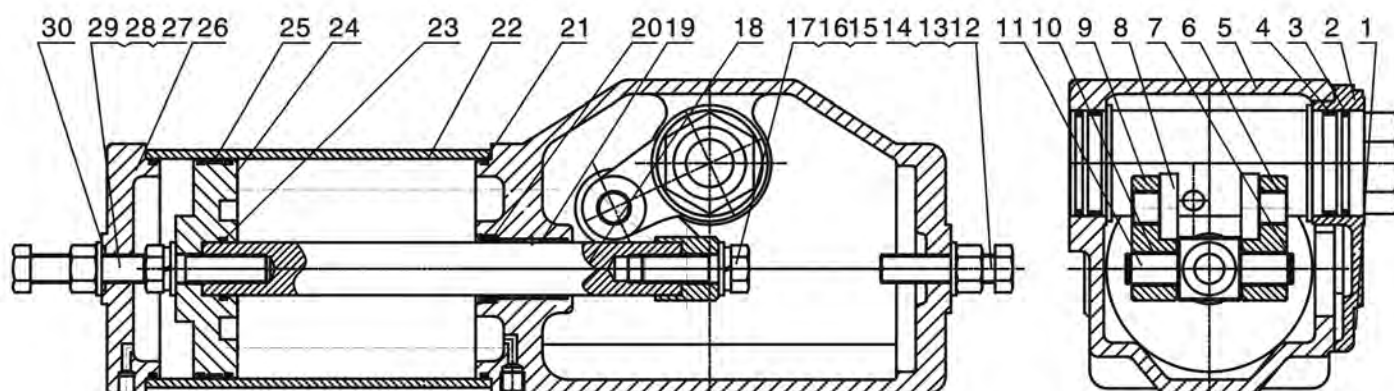
IP67 WATERPROOF and dustproof rating is standard for all actuators.

HIGH STRENGTH ALUMINUM ALLOY CYLINDER is polished to a mirror finish on the inside, before being coated with teflon – superior abrasion resistance with minimum friction!

CORROSION RESISTANT HOUSING of aluminum alloy for small sizes and cast steel for larger sizes is an upgrade compared to other actuators with cast iron bodies. Linuo actuator housings of aluminum and steel make them suitable for offshore applications. Housings are machined to ISO 5211 standards.

DOUBLE O-RING piston seals combined with a wide, reinforced teflon guiding belt, ensure proper alignment and tight sealing of the piston to the cylinder, giving a long life. Piston itself is high strength aluminum alloy.

ZSQ Series Double Acting Actuator



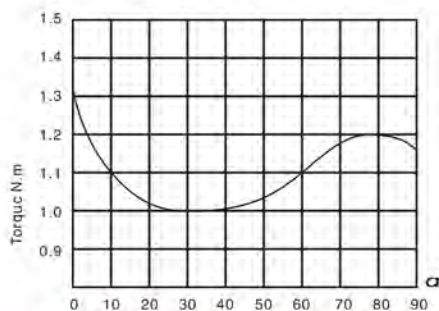
No.	Model	Part	Qty	Material	Remark
1	GB/T70.1-2000	Screw	4	Stainless Steel	
2	ZSQ-01	Cover	1	Aluminum or Steel	
3	GB3452.1-82	O-Ring	2	NBR	
4	DF-104	Pinion Guide Bearing	2	Reinforced PTFE	
5	ZSQ-02	Housing	1	Aluminum or Steel	
6	SF-2	Boundary Lube Bearing	2	Composite Plastic	
7	GB/T894.1-86	Retaining Ring	2	Spring Steel	
8	ZSQ-03	Lever Arm	1	Cast Iron	
9	ZSQ-04	Connecting Arm	1	Steel	
10	SF-2	Boundary Lube Bearing	2	Composite Plastic	
11	ZSQ-06	Cardan Shaft	1	45# Steel	
12	GB/T5783-2000	Travel Stop Bolt	1	Stainless Steel	
13	GB/T6170-2000	Nut	1	Stainless Steel	
14	GB/T97.1-1985	Washer	1	Stainless Steel	
15	GB/T5782-2000	Bolt	1	Stainless Steel	

No.	Model	Part	Qty	Material	Remark
16	GB/T93-87	Spring Washer	1	Spring Steel	
17	GB/97.1-1985	Washer	1	Stainless Steel	
18	ZSQ-07A	Piston Rod	1	45# Steel + CR	
19	SF-2	Boundary Lube Bearing	1	Composite Plastic	
20	GB10708.1-89	Y-Ring	1	Rubber	
21	GB3452.1-82	O-Ring	4	NBR	
22	ZSQ-10A	Cylinder	1	Alum Alloy / Steel + CR	
23	GB3452.1-82	O-Ring	1	NBR	
24	ZSQ-09A	Piston	1	Aluminum Alloy	
25	DF-104	Guide Bearing	1	Reinforced PTFE	
26	ZSQ-11A	Cylinder End	1	Cast Steel	
27	GB/T898-2000	Bolt	1	Stainless Steel	
28	GB/923-1988	Nut	1	Stainless Steel	
29	GB/T97.1-1985	Washer	1	Stainless Steel	
30		Gasket	1	PTFE	

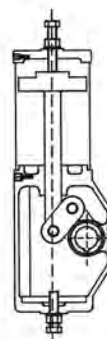


ABOUT LINUO ACTUATORS:

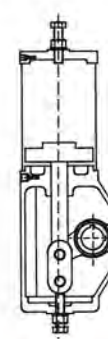
LINUO ACTUATORS are designed for quarter turn action by movement of a piston which leads to the rotary motion of the lever arm. The effective arm of force of the lever arm changes during rotary motion, which outputs corresponding changing torques. See the chart below – output as a function of turning angle. In the chart, the max peak value of the torque output is achieved at $\alpha = 0^\circ$ at which generally a butterfly valve or ball valve is closed. However, this is not the angle at which the maximum operating torque of the actuator is required. At $\alpha = 60^\circ$ to 80° the peak value of dynamic torque requirement of butterfly valves corresponds to the second peak value of torque for the Linuo actuator. **A definite advantage of this design.**



Output Torque as a Function of Turning Angle

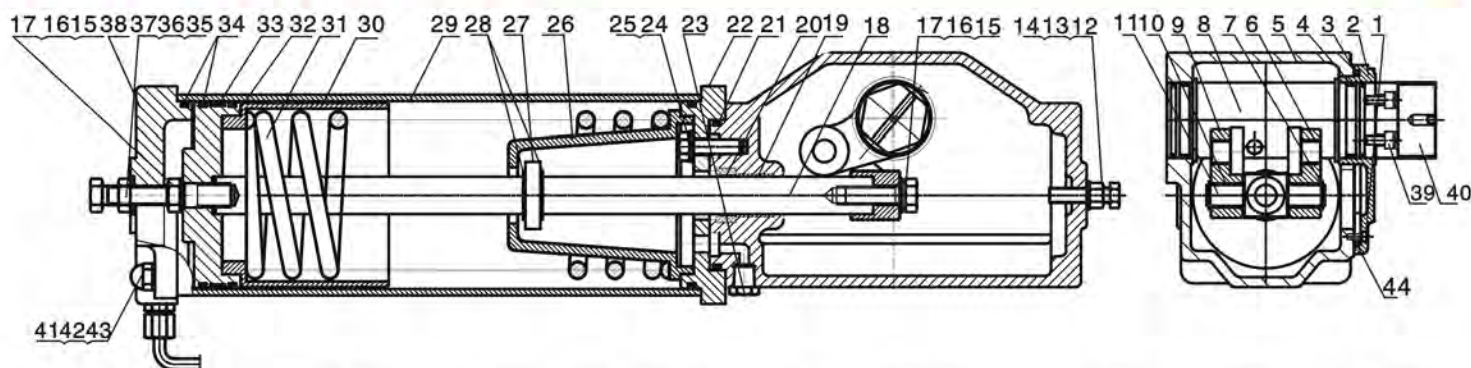


$\alpha = 0^\circ$ Valve is closed



$\alpha = 90^\circ$ Valve is open

ZDQ Series Spring Return Actuator



No.	Model	Part	Qty	Material
1	GB/T70.1-2000	Screw	4	Stainless Steel
2	ZD-XG	Cover	1	Aluminum or Steel
3	GB3452.1-82	O-Ring	2	NBR
4	DF-104	Pinion Guide Bearing	2	Reinforced PTFE
5	ZD-XT	Housing	1	Aluminum or Steel
6	SF-2	Boundary Lube Bearing	2	Composite Plastic
7	GB/T894.1-86	Retaining Ring	2	Spring Steel
8	ZD-QB	Lever Arm	1	Cast Iron
9	ZD-LG	Connecting Arm	2	Steel
10	SF-2	Boundary Lube Bearing	2	Composite Plastic
11	ZD-WZ	Cardan Shaft	1	45# Steel
12	GB/T5783-2000	Nut	1	Stainless Steel
13	GB/T6170-2000	Travel Stop Bolt	1	Stainless Steel
14	GB/T97.1-1985	Washer	1	Stainless Steel
15	GB/T5782-2000	Washer	1	Stainless Steel
16	GB/T93-87	Spring Washer	1	Spring Steel
17	GB/T97.1-1985	Bolt	1	Stainless Steel
18	ZD-HG	Piston Rod	1	45# Steel + Cr
19	SF-2	Boundary Lube Bearing	1	Composite Plastic
20	GB10708.1-89	Y-Ring	1	Rubber
21	GB3452.1-82	O-ring	1	NBR
22	ZD-FL	Filter Flange	1	Cast Steel

No.	Model	Part	Qty	Material
23		Muffler	1	Steel
24	GB/T923-1988	Bolt	4	Stainless Steel
25	GB/T97.1-1985	Washer	4	Stainless Steel
26	ZD-TZX	Rear Spring Seat	1	Steel
27	ZD-KD	Spring Retainer	1	Steel
28	GB894<1>.1-86Atype	Spring Retaining Ring	2	Spring Steel
29	ZD-KD	Cylinder	1	Alum Alloy Steel+CR
30	ZD-QG I	Spring Guide Bushing	1	Steel
31	ZD-DZ - I	Spring	1	Spring Steel
32	ZD-HS I	Piston	1	Aluminum Alloy
33		Guide Bearing	1	Reinforced PTFE
34	GB3452-1-82	O-Ring	4	NBR
35		Gasket	1	PTFE
36		Nut	1	Stainless Steel
37	GB/T70.1-2000	Travel Stop Bolt	1	Stainless Steel
38	ZD-QDG	Cylinder End	1	Cast Steel
39	GB/T70.1-2000	Screw	4	Stainless Steel
40	ZD-QBDG	Lever Arm End	1	Stainless Steel
41	ZD-LZ	Bolt Stud	4	45# Steel + Zn
42		Nut	4	Stainless Steel
43		Washer	4	Stainless Steel
44	ZD-DP	Waterproof Gasket	1	Rubber

How To Order - Manual and Automated Valves

LVC	01	V /	C /	C /	1 /	DA /	D
1	2	3	4	5	6	7	8

1

Bare Stem or Automated Ball Valve

LV	Valve Bare Stem
LVC	Valve Assembled with Actuator

2

Valve Size

01	1"	02	2"	04	4"	10	10"	16	16"
13	1-1/4"	25	2-1/2"	06	6"	12	12"	18	18"
15	1-1/2"	03	3"	08	8"	14	14"	20	20"

3

Valve Style

V	Segment Ball Valve
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4

Body Material

C	WCB Carbon Steel
S	CF8M Stainless Steel -SS316
P	CF8 Stainless Steel -SS304
7	CG8M Stainless Steel -SS317

5

Seat Type

A	PTFE Soft Seat	-20°F to 320°F
B	Metal Seated	-20°F to 400°F
C	High Temperature Metal Seated	-20°F to 750°F

6

End Connection

1	Class 150 Flanged - ISA Face to Face
2	Class 150 Wafer Style - ISA Face to Face
3	Class 300 Flanged - ISA Face to Face
4	Class 300 Wafer Style - ISA Face to Face - use this for 150/300 Dual Rated

7

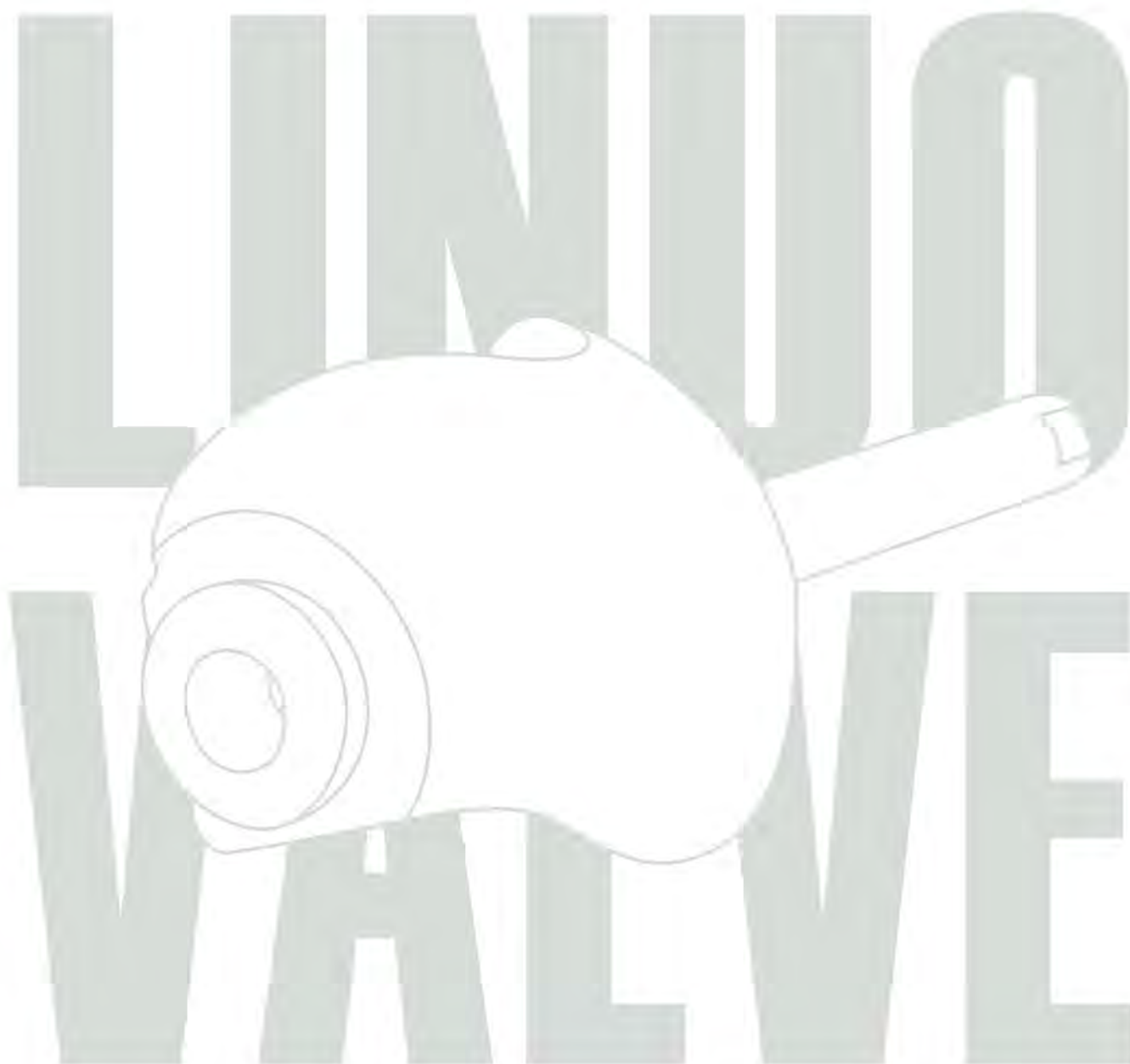
Automation

BS	Bare Stem Valve - No Automation
SR	Z-Series Spring Return Actuator -Specify Fail Close (A) or Open (B)
SRH	Z-Series Spring Return - For valves with 740psi Differential
DA	Z-Series Double Acting Actuator
DAH	Z-Series Double Acting For valves with 740psi Differential

8

Actuator Orientation

A, B, C, or D	A is standard
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Linuo Valve

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sales@linuovalves.com
518-747-2748



Specifications of the product may be changed without notice; color of the items listed may differ from actual specification due to printing; please refer to actual color.

LVSB01/2011 REV 1



LINUO VALVE