

## SERIES 760005 STAINLESS STEEL BALL VALVE

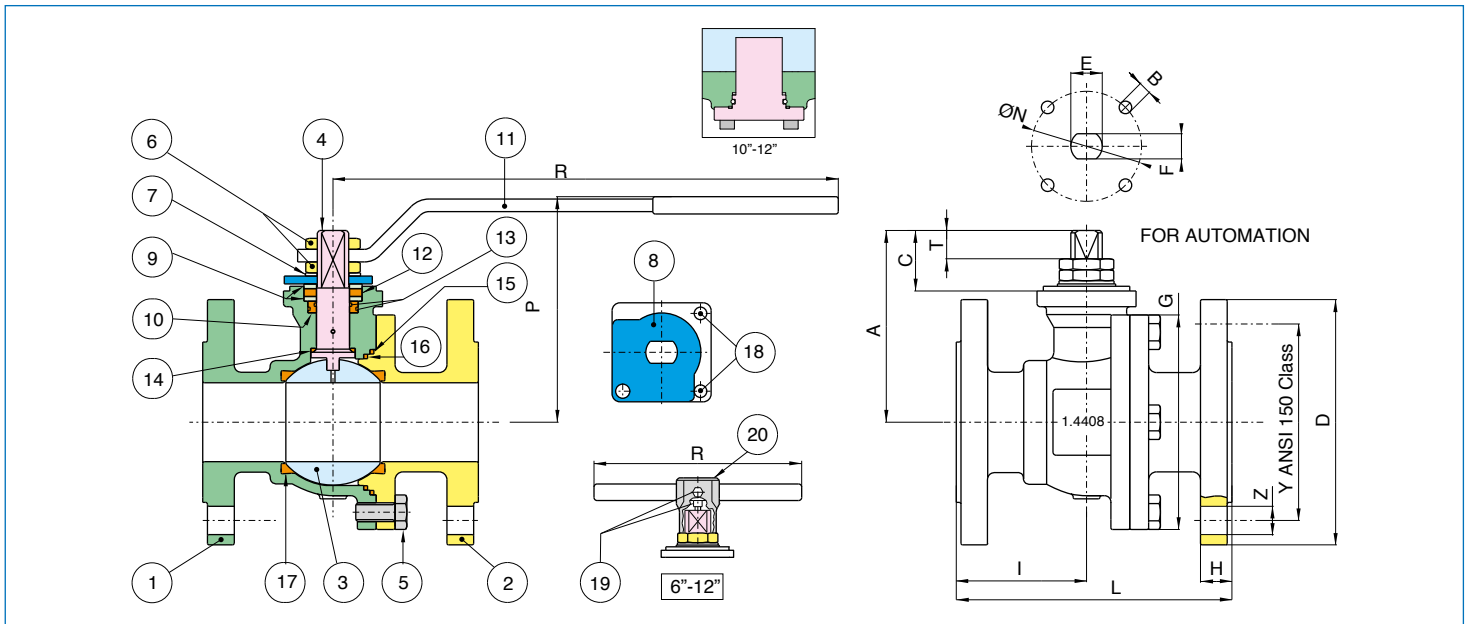


Stainless steel, ANSI class 150 flanged ends ball valve.

- Full port, sizes 1/2" to 12" (10" and 12" TRUNNION).
- Blow out proof stem, adjustable stem packing.
- P.T.F.E. seats, packing and thrust washer.
- Standard grounded stem and ball.
- 100% tested.
- PED 97/23/CE.
- Standard locking device.
- Temperature range -4° F to 366° F.
- ANSI B16.5, B16.10, B16.34 design.
- FIRE SAFE API 6FA-API 607 4th edition.
- Antistatic device.

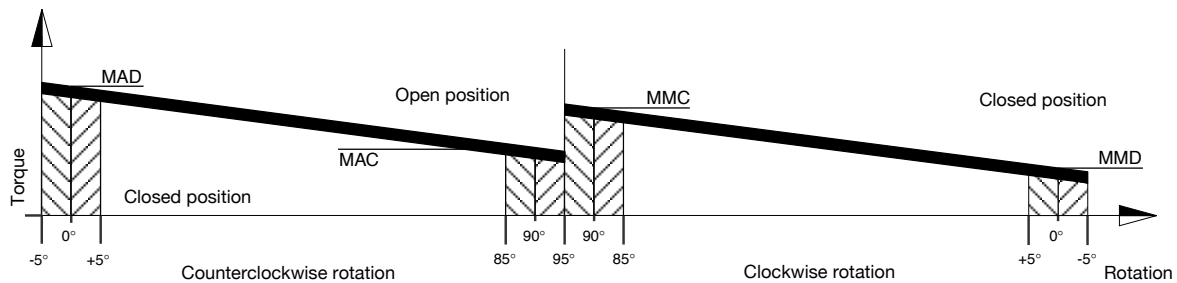
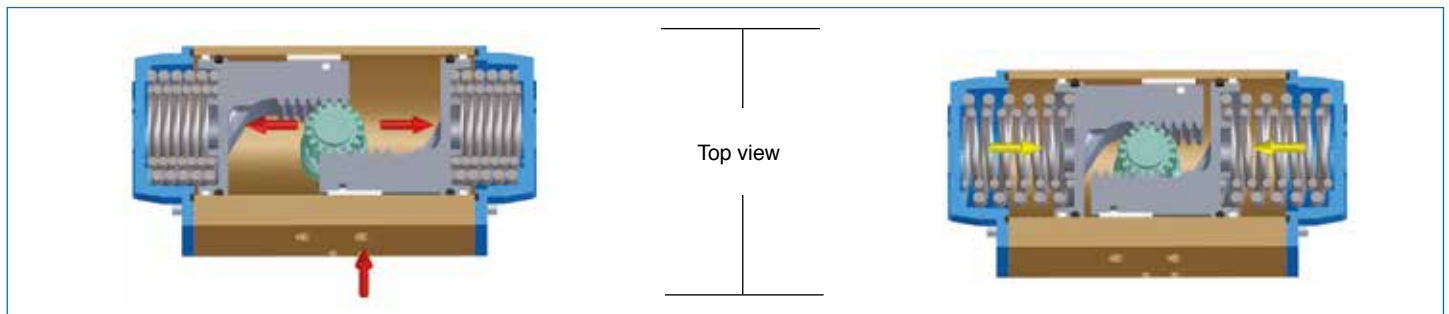
760021: STEAM SERVICE TRIM

COMPLIES WITH NACE MR 0175/ISO 15156 AND NACE MR 0103.



N Pcs	PART NAME	MATERIAL	N Pcs	SIZE	D	Y	Z	H	I	L	G	P	R	A	C	T	E	F	ØN	B	Cv	Lbs
1	BODY	A351 CF8M	1	1/2"	3.54	2.38	4xØ0.63	0.45	1.83	4.25	2.80	3.46	5.16	2.05	0.75	0.31	M10	0.28	1.65-F04	M5	18.95	4.21
2	END CONNECTION	A351 CF8M	1	3/4"	3.94	2.76	4xØ0.63	0.51	2.09	4.61	2.89	3.66	5.16	2.20	0.75	0.31	M10	0.28	1.65-F04	M5	34.30	5.36
3	BALL	A276-316/A351-CF8M	1	1"	4.33	3.13	4xØ0.63	0.57	2.34	5.00	3.56	3.50	6.85	2.85	1.08	0.51	M12	0.31	1.97-F05	M6	50.00	8.15
4	STEM	A276-316	1	1 1/2"	5.12	3.88	4xØ0.63	0.69	3.03	6.50	4.49	5.24	9.84	4.17	1.18	0.39	M16	0.39	1.97-F05	M6	267.44	15.65
5	SCREW	STAINLESS STEEL	4	2"	5.91	4.74	4xØ0.75	0.77	3.39	7.01	5.37	5.67	12.64	4.80	1.52	0.71	M20	0.55	2.76-F07	M8	308.14	23.80
6	NUT	STAINLESS STEEL	2	3"	7.48	6.00	4xØ0.75	0.94	3.13	7.99	7.03	6.81	15.00	5.94	1.69	0.71	M24	0.71	4.02-F10	M10	1015.12	47.61
7	SPRING WASHER	STEEL	2	4"	9.06	7.50	8xØ0.75	0.94	4.33	9.02	8.21	7.36	15.00	6.50	1.69	0.71	M24	0.71	4.02-F10	M10	1616.28	67.00
8	TRAVEL STOP	STAINLESS STEEL	1	5"	10.04	8.50	8xØ0.87	1.00	5.91	14.02	10.75	8.23	15.00	7.36	1.69	0.71	M24	0.71	4.02-F10	M10	1984.88	112.84
9	PACKING GLAND	STAINLESS STEEL	2	6"	11.02	9.51	8xØ0.87	1.00	7.13	15.51	12.24	12.01	27.56	9.65	2.68	1.08	M42	1.18	4.92-F12	M12	2353.49	171.91
10	STEM SEAL	P.T.F.E.	1	8"	13.58	11.75	8xØ0.87	1.14	8.35	17.99	15.83	13.70	27.56	11.34	2.68	1.08	M42	1.18	4.92-F12	M12	3162.79	274.62
11	HANDLE	STAINLESS STEEL	1	10" *	15.94	14.25	12xØ1.02	1.27	11.88	20.98	19.69	16.61	47.24	13.90	3.19	1.85	M52	1.50	5.51-F14	M16	9883.72	429.78
12	STEM SEAL	GRAPHOIL	1	12" *	19.09	17.00	12xØ1.02	1.33	13.93	24.02	22.05	17.80	47.24	15.12	3.19	1.85	M52	1.50	5.51-F14	M16	16279.07	559.82

\* TRUNNION max Δp= 145 psi



With reference to the above diagram the torque of a spring return actuator is not constant but decreasing. This is due to the action of the springs that when compressed during air actuation counteract the piston movement and accumulate energy which will be available in a decreasing way during the rotation inversion.

The torque given by the actuator is defined by four fundamental values.

Opening rotation

MAD = Actuator torque with unfolded springs

MAC = Actuator torque with compressed springs.

Closing rotation

MMC = Torque with compressed springs.

MMD = Torque with unfolded springs

The users can decide on which model to choose according to their own specific requirements, using the following guidelines:

1. Define the maximum torque of the valve to automate.
2. To obtain a safety factor increase the torque value chosen by 25% - 50% (subject to the type of valve and working conditions).
3. Once the torque value suggested is obtained consult the torque chart and in relation to the corresponding air pressure find the torque value exact to or exceeding the one obtained, taking account of the lower value between the MMD and MAC values.
4. Once the torque value is determined move horizontally to the column "model" to find the actuator model required.

VALID FROM MOD. 52 TO MOD. 140 \*

SPRING SETTING

SET STANDARD 05

SET	EXTERNAL SPRING	INTERNAL SPRING
01	1	1
02	2	-
03	1	2
04	2	1
05	2	2

VALID FROM MOD. 160 TO MOD. 200

SPRING SETTING

SET STANDARD 06

SET	EXTERNAL SPRING	CENTRAL SPRING	INTERNAL SPRING
01	-	2	-
02	2	-	-
03	1	2	-
04	2	-	2
05	2	2	-
06	2	2	2

VALID FROM MOD. 230 TO MOD. 330

SPRING SETTING

PRETENSIONED SPRING

SET	N° OF SPRINGS FOR EACH SIDE	
01	2/3	
02	3/3	
03	3/4	
04	4/4	
05	4/5	
06	5/5	
07	5/6	
08	6/6	

MOD.230  
MOD.270 e 330

\* Valid also for stainless steel actuator from mod. 52 to mod. 100.



		WORKING TIME (SEC)															
TYPE	MODEL		32	52*	63*	75*	85*	100*	115	125	140	160	180	200	230	270	330
	ROT. 0°-90°	COUNTERCLOCKWISE ROTATION (DA)	CCW	0,03	0,07	0,11	0,18	0,36	0,38	0,60	0,80	1,13	1,43	1,99	3,08	4,15	6,16
CLOCKWISE ROTATION (DA)		CW	0,03	0,05	0,10	0,15	0,25	0,34	0,54	0,70	0,94	1,25	1,80	2,41	3,80	5,47	5,50
COUNTERCLOCKWISE ROTATION (SR)		CCW	-	0,07	0,13	0,32	0,32	0,54	0,92	1,20	1,64	2,27	3,08	3,58	6,20	8,97	6,40
CLOCKWISE ROTATION (SR)		CW	-	0,07	0,13	0,22	0,30	0,48	0,75	0,94	1,25	1,60	2,38	2,80	5,40	6,62	7,40
ROT. 0°-180°	COUNTERCLOCKWISE ROTATION (DA)	CCW	-	0,08	0,14	0,34	0,42	0,64	1,11	1,87	2,95	3,03	-	-	-	-	-
	CLOCKWISE ROTATION (DA)	CW	-	0,06	0,12	0,25	0,39	0,62	1,08	1,13	2,03	2,29	-	-	-	-	-

\* Approximative times obtained at the pressure of 90 PSI without valve.

		WEIGHT CHART (Lbs)															
TYPE	MODEL	32	52	63	75	85	100	115	125	140	160	180	200	230	270	330	
	DA 90°		1,08	2,47	3,66	6,13	8,60	12,13	19,51	23,81	35,94	47,96	63,95	81,59	128,99	182,29	370,44
SR 90°		/	2,87	4,34	7,47	10,58	15,44	25,25	31,05	48,07	65,05	87,98	121,28	156,56	221,10	460,85	
DA 180°		/	3,75	5,51	9,26	13,19	18,81	30,10	38,26	55,11	68,78	/	/	/	/	/	

		STAINLESS STEEL ACTUATOR WEIGHT CHART (Lbs)				
TYPE	MODEL	52	63	75	85	100
	DA 90°		4,98	6,90	10,94	16,54
SR 90°		5,38	7,59	12,28	18,41	25,86

		ACTUATOR AIR CONSUMPTION CHART															
		Litres: 1 Litre = 1000 cm3															
TYPE	MODEL	32	52*	63*	75*	85*	100*	115	125	140	160	180	200	230	270	330	
	ROT. 0°-90°	COUNTERCLOCKWISE ROTATION (DA/SR)	CCW	2,44	6,1	11,6	21,96	31,12	48,2	78,72	99,47	137,91	220,3	282,54	347,83	651,73	915,35
CLOCKWISE ROTATION (DA)		CW	1,83	7,93	14,04	26,85	39,06	61,02	104,35	134,86	192,83	306,33	402,75	643,8	918,4	1086,22	2697,25
ROT. 0°-180°	COUNTERCLOCKWISE ROTATION (DA)	CCW	/	10,37	20,13	36,61	54,92	83,6	130	176,96	299	329,52	/	/	/	/	/
	CLOCKWISE ROTATION (DA)	CW	/	9,76	17,7	34,17	50,65	80,55	137,3	183	238	385,67	/	/	/	/	/

To obtain the air consumption in NI/min multiply the value in the chart for the correct parameters. That is to say for the supplied absolute pressure and the number of strokes in a minute.

\* Suitable also for stainless steel actuator.

