

## Mark 97 Sanitary Control Valves



A line of pneumatic control valves designed in accordance to 3-A® standards for use on sanitary services in pharmaceutical, biotech, healthcare, food & beverage, and specialty process applications.

- Maintenance-friendly — easy to perform sanitary maintenance requirements with simple disassembly, reassembly, and steam-in-place/clean-in-place capabilities.
- Stainless Steel polished components — 100% SST construction with body interior mechanically polished to 20 ra finish and electropolished.
- No guiding surfaces in the fluid — prevents particulate generation.
- Totally enclosed multi-spring actuator — available in four sizes to meet wide range of pressure requirements.
- Self-draining — when mounted in traditional vertical orientation.
- No threads in contact with service media — prevents accumulation of contaminants.

**STERIFLOW™**  
Sanitary Products by Jordan Valve



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# Mark 97 Sanitary Control Valve

## Specifications

Conforms to 3-A<sup>®</sup> sanitary standards #53-00

Sizes: 1/2", 3/4", 1", 1-1/2", 2"

End Connections: *standard*— Tri-Clamp; *optional*— DIN/BS sanitary; or butt weld

Purge Ports: optional

Materials of Construction:

- **Body & Trim:** 316L Stainless Steel (ASTM A479). Hard chrome plate on o-ring bearing surfaces.
- **Seat:** integral 316L SST seat
- **Actuator:** 1/2" & 3/4": 14M: epoxy coated aluminum or stainless steel; 35M: epoxy coated stainless steel; 1" - 2": 55M & 85M: epoxy coated steel
- **O-Rings:** (*stem seal & body/bonnet seal*): EPDM (to 275°F); TFE-Encapsulated Silicon (to 400°F); TFE-Encapsulated Viton (to 450°F)

Shutoff: ANSI Class III

Stroke Length:

- 1/2" & 3/4" valves — 1/2" stroke
- 1" - 2" — 1" stroke

Ranges: 3-15, 6-30, 3-9, or 9-15 psi

Flow Characteristic: linear, equal percentage, or quick opening

Pressure/Temperature Rating: pressure to 450 psig; temperatures from -20°F to +450°F

Cv Ratings:

Valve Size	Orifice Diameter	Cv: linear, equal %	Cv: quick opening
1/2"	0.144"	.05, .1	.5
	0.210"	.2, .5, 1	1
3/4"	0.144"	.05, .1	.5
	0.210"	.2, .5, 1	1
	0.500"	2, 3.5, 5	5
1"	0.75"	3.5, 5	10
	1.06"	7.5, 15	17
1-1/2"	1.06"	10	17
	1.50"	15, 30	44
2"	1.50"	10, 15	44
	2.00"	20, 40, 60*	70

\*Cv 60 available only in linear trim

## Available Finishes

### Body

- **Standard:** 20 ra mechanical finish on inside wetted surfaces; machine finish and electropolish on exterior
- **Optional:** 20 ra mechanical finish on external surfaces; 8 ra finish on internal or external surfaces

### Stem

- **Standard:** 20 ra mechanical finish
- **Optional:** 8 ra finish

Tri-Clamp is a registered trademark of Tri-Clover Inc.  
Teflon is a registered trademarks of DuPont.

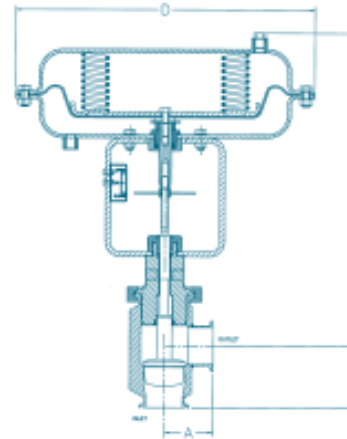
## Maximum ΔP Ratings, PSI

Use orifice diameter found in preceding Cv Table

Orifice Diameter	Valve Size	Act. Size	ATO 3-15	ATO 6-30 or ATO with positioner	ATC 3-15@ 20 psi	ATC w/positioner or ATC 6-30 @40 psi
0.144	1/2"	14M	450	450	450	450
	3/4"	35M	450	450	450	450
0.210	1/2"	14M	450	450	450	450
	3/4"	35M	450	450	450	450
0.375	3/4"	14M	380	450	450	450
0.50	3/4"	14M	110	320	250	450
		35M	430	450	450	450
0.75	1"	55M	320	450	450	450
		85M	450	450	450	450
1.06	1"	55M	160	350	280	450
		85M	260	450	450	450
1.50	1.5"	55M	80	170	140	290
		85M	130	270	220	450
2.00	2"	55M	40	90	80	160
		85M	70	150	120	260
Max. Outlet PSI	1/2", 3/4" sizes	14M	75	170	140	280
		35M	200	450	360	450

Notes: maximum ΔP cannot exceed body rating. 1/2" & 3/4" valves also usable as 3-15 psi range with 40 psi air loaded into actuator -- ratings same as shown for ATC 6-30 @ 40 psi. ATC ratings determined at nominal bench set and supply pressure set according to table value; ATO ratings determined at nominal bench set and 0 psig in actuator.

## Dimensions



Size	Act.	A	B	C	D	Weight
1/2"	14M	1.75"	10.75"	1.38"	6.25"	8.2#
	35M	1.75"	11.97"	1.38"	9.50"	17.0#
3/4"	14M	1.75"	10.45"	1.50"	6.25"	8.4#
	35M	1.75"	11.85"	1.50"	9.50"	17.2#
1"	55M	2.03"	14.60"	2.49"	12.50"	30.5#
	85M	2.03"	15.47"	2.49"	15.00"	40.2#
1-1/2"	55M	2.25"	14.35"	3.03"	12.50"	33.1#
	85M	2.25"	15.22"	3.03"	15.00"	42.8#
2"	55M	2.50"	14.10"	3.28"	12.50"	35.7#
	85M	2.50"	14.97"	3.28"	15.00"	45.4#