

Mark 75MV Series

CRN Registration Number Available

Wafer Style Control Valves

The Mark 75MV wafer style control valve was developed by Jordan Valve as the next generation of control valves. Featuring all the benefits of the time-tested Sliding Gate design, in a lightweight, compact wafer-style body, the Mark 75MV dramatically reduces the size and weight of conventional control valves.

The Mark 75MV offers a variety of design features that help provide the superior performance customers expect from Jordan Valve.

PRICING ADVANTAGE

The Mark 75MV offers an incredible pricing advantage in the market place due to its wafer style body. A 4" Mark 75MV valve is only 2.06" (52,3 mm) face-to-face in comparison to a 4" Globe Style Control Valve that is 13.87" (353 mm) face-to-face.

What does this mean to you? You pay for less metal to make the valve. In the case above, 11.81" (300 mm) of metal! The actual material is only part of the savings. You pay less for machining time; even shipping costs are reduced due to the lighter weight.

WEIGHT ADVANTAGE

The weight advantage also allows you to spend less money and time on installation and support. With a 4" Mark 75MV weighing 53 lbs (24 kgs), there is no need to rent a lift to put the valve in line as you would have with heavier alternative valves. Supporting the lighter weight Mark 75MV is much simpler and less costly than a standard globe style valve.

With Jordan Valve's time-tested sliding gate seats at the heart of the Mark 75MV, the stroke remains much smaller than typical globe style valves. The shorter stroke means smaller actuators are needed to operate the valve, increasing the accuracy of the Mark 75MV while reducing the overall weight and air consumption.



CAPACITY

The Mark 75MV provides great capacity in a compact wafer style body. A 2" Mark 75MV provides 72 Cv (62 Kv), and a 6"* Mark 75MV provides 400 Cv (345 Kv) as the linear operating Cv. (Refer to Cv Capacity Charts for information concerning all line sizes).

* Consult factory for 6" valves

EASE OF MAINTENANCE

The Mark 75MV features a 'T' slot design connection to the disc. This connection allows for quick and easy reversing of functions. Instead of having to go into the actuator to change action, all that is needed in a Mark 75MV is to turn the seats 180°. With this simple rotation, the valve can go from reverse acting to direct acting (or vice versa).

The stroke length of the Mark 75MV is a slightly longer stroke than standard sliding gate valves. This longer stroke enables better turndown. Combined with the capacity of the Mark 75MV, the increased turndown makes for a great control valve.



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SPECIFICATIONS

Sizes:

1" (DN25) thru 6" (DN150) ANSI 150# / 300# (PN25/40) Class Wafer Style Valves (bolt-around)

Body/Bonnet Connection

- 316 Stainless Steel (ASME SA-479)
- Carbon Steel (SA-105)

Trim Material

- 316 Stainless Steel

Seats Materials

- Jorcote/316SS – standard
- Jorcote with 303SS - optional

Yoke Materials

- Ductile Iron (1" - 2")
- NAMUR Cast Iron

Packing Material

- Spring loaded Teflon V-Ring to 500°F (260°C)
- Grafoil above 500°F (260°C)

Shutoff: ANSI Class IV tightness

Ranges:

- 4 - 20 mA
- 0 -10 V

Action

- Direct
- Reverse

Body Rating (1" – 6")

- Stainless Steel 720 psi @ 100°F (49,6 bar @ 37,8°C); 480 psi @ 500°F with Teflon packing (33,1 bar @ 260°C); 445 psi @ 550°F with braided packing (30,7 bar @ 288°C)

- Carbon Steel 740 psi @ 100°F (51,0 bar at 38°C); 600 psi @ 500°F with Teflon packing (41,4 bar @ 260°C); 535 psi @ 550°F with braided packing (39,6 bar @ 343°C)

Body Rating (8")

- Stainless Steel 275 psi @ 100°F (19 bar @ 38,8°C) and 155 psi @ 550°F (10,7 bar @ 288°C)
- Carbon Steel 285 psi @ 100°F (19,7 bar @ 38,8°C) and 155 psi @ 550°F (10,7 bar @ 288°C)

Turndown Ratio Capability: 100:1

Approvals: CML-100 / CML-250: FM approval is standard with motor, for all other approvals please consult factory

Maximum Allowable Pressure Reductions (psi):

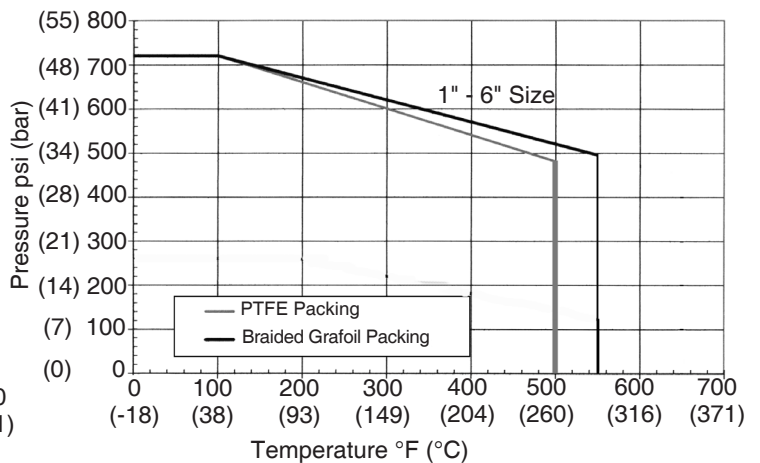
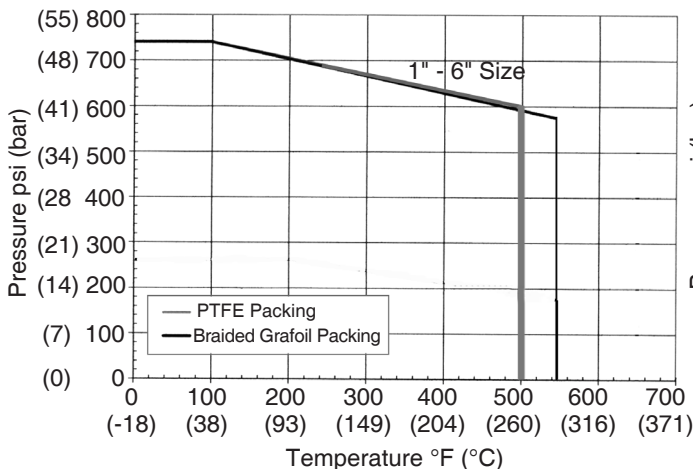
Valve Size	Jorcote Seats	
	CML 100	CML 250
1"	150	300
1-1/2"	125	250
2"	125	250
2 1/2"	115	275
3"	70	175
4"	---	85

* Consult Factory for 6" valves

PRESSURE/TEMPERATURE CHART

Carbon Steel

Stainless Steel



Cv/Kv vs TRAVEL – LINEAR

Cv (Kv)	Flow Characteristics	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
9.5 (8,2)	Linear	0.95	1.90	2.85	3.8	4.75	5.70	6.65	7.60	8.55	9.5
33 (28)	Linear	3.3	6.6	9.9	13.2	16.5	19.8	23.1	26.4	29.7	33
38 (33)	Linear	3.8	7.6	11.4	15.2	19.0	22.8	26.6	30.4	34.2	38
72 (62)	Linear	7.2	14.4	21.6	28.8	36.0	43.2	50.4	57.6	64.8	72
76 (66)	Linear	7.6	15.2	22.8	30.4	38.0	45.6	53.2	60.8	68.4	76
103 (89)	Linear	10.3	20.6	30.9	41.2	51.5	61.8	72.1	82.4	92.7	103
180 (155)	Linear	18	36	54	72	90	108	126	144	162	180
400 (345)	Linear	40	80	120	160	200	240	280	320	360	400
600 (510)*	Linear	60	120	180	240	300	360	420	480	540	600

* Consult Factory for 6" valves

Cv vs Travel curves represent projected performance based on file data. Actual results may vary from system to system.

Cv (Kv) VALUES

Size	DN	Linear Cv	Linear Kv	Equal Percentage Cv	Equal Percentage Kv
1"	DN25	9.5	8,2	5.7	4,9
1-1/2"	DN40	33	28	20	17
2"	DN50	38	33	43	37
		72	62		
2-1/2"	DN65	76	66	46	40
3"	DN80	103	89	62	54
4"	DN100	180	155	108	93
6"*	DN150	400	345	240	208

* Consult Factory for 6" valves

Note: EQP trim available to full linear Cv if programmed through MK16IQ positioner

SLIDING GATE FEATURES & BENEFITS

Jordan Valve's Sliding Gate Seats

Installed in the widest range of gas, chemical and steam applications the world over, our pressure regulators, temperature regulators and control valves have been providing the following benefits for over fifty years.

Shorter stroke length than globe or cage designs

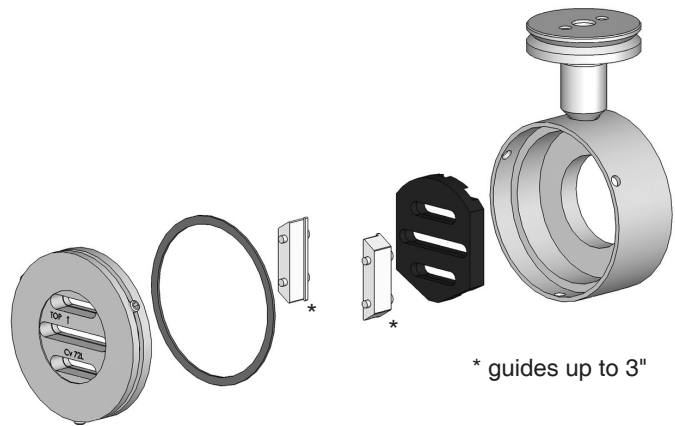
- Provides faster response to input signal changes
- Significantly extends packing and diaphragm life
- Allows for more compact valve/actuator assembly

Straight-through flow

- Significantly reduces turbulence, thereby reducing noise and erosion
- Markedly increases rangeability associated with "flow to open" and "flow to close" designs
- Eliminate valve "chatter" commonly observed when valve is partially open

Ease of maintenance

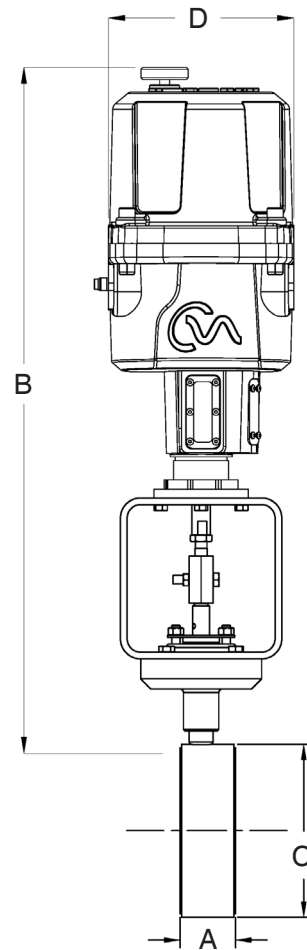
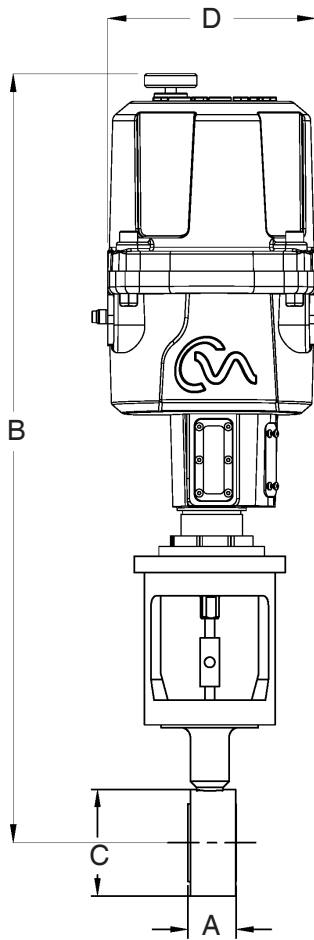
- During seat/Cv change (seats are not screwed or pressed in body)
- Attributable to lightweight, compact design
- Fewer trim components



Features

- Easy installation between flanges with wafer body
- High flow rates
- Self cleaning, self lapping seats
- Reduced noise compared to conventional globe/cage valves
- More resistant to cavitation / flashing with straight through, wafer design

DIMENSIONS – MK75MV WITH CML 100/250 MOTOR



INCHES

Valve Size	Motor Size	Dimensions				Weight Lbs
		A	B	C	D	
1"	CML 100/250	1.24	20.31	2.76	7.09	20
1-1/2"	CML 100/250	1.36	20.82	3.24	7.09	22
2"	CML 100/250	1.76	21.17	3.98	7.09	22

METRIC

Valve Size	Motor Size	Dimensions, mm				Weight Kgs
		A	B	C	D	
DN25	CML 100/250	31,5	516	70,1	180	9,1
DN40	CML 100/250	34,5	529	82,3	180	10,0
DN50	CML 100/250	44,7	538	102	180	10,0

Valve Size*	Motor Size	Dimensions				Weight Lbs
		A	B	C	D	
2-1/2"	CML250	1.81	23.66	4.36	7.09	32
3"	CML250	1.81	24.91	5.25	7.09	44
4"	CML250	2.06	25.96	6.46	7.09	53

Valve Size	Motor Size	Dimensions, mm				Weight Kgs
		A	B	C	D	
DN65	CML250	46,0	6.1	111	180	14,5
DN80	CML250	46,0	633	133	180	20,0
DN100	CML250	52,3	659	164	180	24,0

Note: Consult Factory for 6" MK75MV

MARK 75MV SERIES WAFER STYLE CONTROL VALVES

ORDERING SCHEMATIC MK75MV WITH MOTOR VALVE

Model No	Size	Body Mat'l	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

	Model
75MV	with Motor Valve

	Size
100	1"
150	1-1/2"
200	2"
250	2-1/2"
300	3"
400	4"

Note: Consult Factory for 6" MK75MV

	Body Material
CB	Carbon Steel Bar
SB	Stainless Steel Bar
CS	Carbon Steel Cast
S6	Stainless Steel Cast

1 & 2	End Connections
I3	150# / 300# IFE
ZZ	Non-Standard

3 & 4	Trim
T6	316SS / TEF Packing
I6	316SS / 287-I Packing
ZZ	Non-Standard

5 & 6	Seats		
	Material	Cv	
W	316SS / Jorcote	8	9.5
		A	33
		B	38
		E	72
		F	76
		H	103
		I	180
		J	400
ZZ	Non-Standard		

7 & 8	Range
42	4-20mA
41	4-12mA
12	12-20mA
NN	No Motor
ZZ	Non-Standard

9 & 10	Actuator/Yoke Feat
A3	CML100 - 120/240 VAC
A4	CML250 - 120/240 VAC
ZZ	Non-Standard

11 & 12	Accessory 1
00	None
SC	Clean for Oil Free
XC	Oxygen Clean

13 & 14	Action
DD	Direct
RR	Reverse
DP	Direct/Fail Open on LOS
RC	Reverse/Fail Closed on LOS

15	PED Compliance
0	Not Required
F	CE Category 1
Z	Non-Standard

