

Mark 40/46 Series

Float / Lever Operated Control Valves

The Mark 40 and Mark 46 are designed with the unique sliding gate seats for level control of tanks. Both valves utilize the same design with the exception of the actuator. The Mark 40 is supplied with a float actuator; the Mark 46 is supplied with a lever with a series of drilled holes for attachment to a customer supplied actuator.

Jordan's Sliding Gate Seats

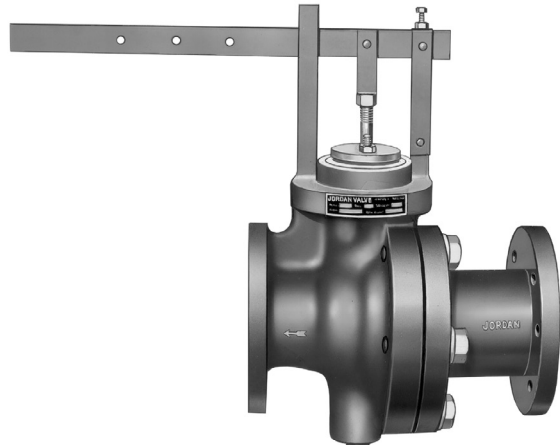
The MK40/46 features Jordan Valve's proven sliding gate seat technology, which is in service all over the world in control valves, pressure regulators and temperature regulators.

Sliding gate seats provide:

- Straight-through flow for reduced turbulence and quiet operation
- Short stroke for fast response and accurate control
- Easily interchangeable Cv's
- Tight shutoff
- Low maintenance trim
- Self cleaning/self lapping seats

FEATURES

- Sliding gate seats
- Compact design and simple construction
- Self-cleaning seats
- High differential pressure capabilities
- Extremely long packing life with short stroke
- Corrosion resistant configurations with complete 316 SST materials or alloys (upon request)



SPECIFICATIONS

Line Sizes: 1/4" (DN8) through 6" (DN150)
(Note: 1/4" (DN8) and 3/8" (DN12) sizes uses 1/2" (DN15) body with reducers)

End Connections:

- Sizes 1/4" - 2" (DN8 - DN50): threaded, union, flanged
- Sizes 2-1/2" - 6" (DN65 - DN150): integral flanges

Body Materials:

- Ductile Iron
- Bronze (1/2" (DN15) - 2" (DN50) only)
- Stainless Steel
- Carbon Steel
- Cast Iron (2-1/2" (DN65) - 6" (DN150) only)

Trim Materials:

- 303SS for Carbon steel, Cast Iron, Ductile Iron and Bronze bodied valves
- 316SS for Stainless Steel bodied valves

Seat Materials:

- Jorcote on SST — Standard

Yoke:

- 1/4" - 2" (DN8 - DN50): Bronze
- 2-1/2" - 6" (DN65 - DN150): Carbon Steel



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SPECIFICATIONS (CONT'D)

Float:

- Copper — Standard
- Stainless Steel — Optional

Note: 1/4-3/4 is 6" float; 1-2" is 8" float; 2-1/2"-6" is 12" float

Float Arm:

- Carbon Steel — Standard
- Stainless Steel or Bronze — Optional

Body Rating: Ductile Iron up to 988 psi (68 bar) and 450°F (232°C); Carbon Steel and Stainless Steel up to 1440 psi (99 bar) and 450°F (232°C); Bronze up to 500 psi (34 bar) and 450°F (232°C); Cast Iron up to 500 psi (34 bar) and 450°F (232°C) depending upon specific construction. -20°F (-29°C) temperature limit on all materials; consult factory for other temperatures.

Stem Packing: spring-loaded Teflon (to 450°F (232°C))

Shutoff: ANSI Class IV

Cv Ratings & Maximum Allowable Differential Pressure:

- Mark 40 Float Valve (with Copper Float)

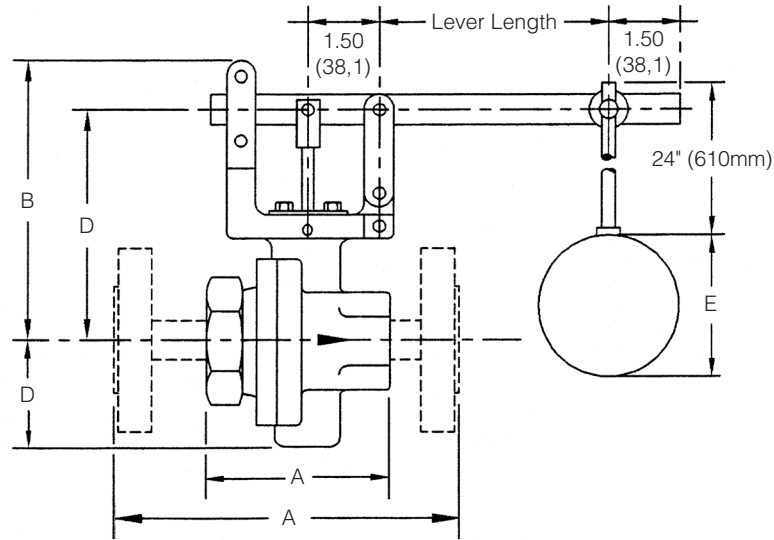
Size	Cv	Kv	Lever Length	Maximum ΔP (psi)		Maximum ΔP (bar)	
				SST	Jorcote	SST	Jorcote
1/2" - 3/4"	2.5	2,16	15" (381mm)	10	28	0,7	1,9
DN8 - DN20	4.4	3,79	24" (609,6mm)	10	30	0,7	2,1
1" & 1-1/4"	6.4	5,52	15" (381mm)	—	40	—	2,8
DN25 & DN32	9.5	8,19	24" (609,6mm)	10	80	0,7	5,5
1-1/2"	15	12,93	15" (381mm)	10	35	0,7	2,4
DN40			24" (609,6mm)	10	50	0,7	3,4
2"	25	21,55	15" (381mm)	10	35	0,7	2,4
DN50			24" (609,6mm)	10	50	0,7	3,4
2-1/2"	55	47,00	26" (660,4mm)	—	50	—	3,4
DN65			42" (1066,8mm)	—	90	—	6,2
3"	115	98,29	26" (660,4mm)	—	35	—	2,4
DN80			42" (1066,8mm)	—	75	—	5,2
4"	200	170,94	26" (660,4mm)	—	25	—	1,7
DN100			42" (1066,8mm)	—	45	—	3,1
6"	395	337,61	26" (660,4mm)	—	10	—	0,7
DN150			42" (1066,8mm)	—	20	—	1,4

- Mark 46 Lever Valve (with 100# force on end of lever)

Size	Cv	Kv	Lever Length	Maximum ΔP (psi)		Maximum ΔP (bar)	
				SST	Jorcote	SST	Jorcote
1/4" - 3/4"	2.5	2,16	15" (381mm)	175	700	12,1	48,3
DN8 - DN20	4.4	3,79	24" (609,6mm)	175	750	12,1	51,7
1" & 1-1/4"	6.4	5,52	15" (381mm)	150	425	10,3	29,3
DN25 & DN32	9.5	8,19	24" (609,6mm)	175	500	12,1	34,5
1-1/2" & 2"	15	12,93	15" (381mm)	125	350	8,6	24,1
DN40 & DN50			24" (609,6mm)	175	500	12,1	34,5
2-1/2" & 3"	55	47,01	26" (660,4mm)	—	275	—	19,0
DN65 & DN80			42" (1066,8mm)	—	400	—	27,6
4"	200	170,94	26" (660,4mm)	—	225	—	15,5
DN100			42" (1066,8mm)	—	325	—	22,4
6"	395	337,61	26" (660,4mm)	—	150	—	10,3
DN150			42" (1066,8mm)	—	225	—	15,5

MARK 40/46 FLOAT/LEVER CONTROL VALVES

DIMENSIONS



- Ductile Iron or Bronze — 1/4" to 2" (DN8 to DN50)

Size	Dimensions (inches)				
	A	B	C	D	E
1/4" - 3/4"	3.62	5.62	2.18	4.75	6.00
1" & 1-1/4"	4.12	5.87	2.62	5.00	8.00
1-1/2"	4.50	6.12	2.62	5.25	8.00
2"	4.50	6.37	2.62	5.37	8.00

Size	Dimensions (mm)				
	A	B	C	D	E
DN8-DN20	91,95	142,75	55,37	120,65	152,40
DN25 & DN32	104,65	149,10	66,55	127,00	203,20
DN40	114,30	155,45	66,55	133,35	203,20
DN50	114,30	161,80	66,55	136,40	203,20

- Carbon Steel — 1/2" to 2" (DN15 to DN50)

Size	Dimensions (inches)				
	A	B	C	D	E
1/2" & 3/4"	3.62	5.62	2.25	4.75	6.00
1" & 1-1/4"	4.25	5.87	2.50	5.00	8.00
1-1/2"	4.65	6.12	2.62	5.25	8.00
2"	5.50	6.37	2.75	5.37	8.00

Size	Dimensions (mm)				
	A	B	C	D	E
DN15 & DN20	91,95	142,75	57,15	120,65	152,40
DN25 & DN32	107,95	149,10	63,50	127,00	203,20
DN40	118,11	155,45	66,55	133,35	203,20
DN50	139,70	161,80	69,85	136,40	203,20

- All Materials — 2-1/2" - 6" (DN65 - DN150)

Size	ANSI Flange	Dimensions (inches)				
		A	B	C	D	E
2-1/2"	125/150	10.87	10.62	5.12	12.37	12.00
	250/300	11.50	10.62	5.12	12.37	12.00
3"	125/150	11.75	10.62	5.37	12.37	12.00
	250/300	12.50	10.62	5.37	12.37	12.00
4"	125/150	13.87	11.87	6.00	13.62	12.00
	250/300	14.50	11.87	6.00	13.62	12.00
6"	125/150	17.75	12.62	7.00	14.37	12.00
	250/300	18.62	12.62	7.00	14.37	12.00

Size	ANSI Flange	Dimensions (mm)				
		A	B	C	D	E
DN65	125/150	276	270	130	314	305
	250/300	292	270	130	314	305
DN80	125/150	298	270	136	314	305
	250/300	318	270	136	314	305
DN100	125/150	352	301	152	346	305
	250/300	368	301	152	346	305
DN150	125/150	451	321	178	365	305
	250/300	473	321	178	365	305

ORDERING SCHEMATIC

1		2		3	/	4	5	6	7	8	9	10	11	12

1	Model	
40	Float Operated	
46	Lever Operated	

2	Size					
		Inches	DN		Inches	DN
	025	1/4"	DN8	150	1-1/2"	DN40
	038	3/8"	DN10	200	2"	DN50
	050	1/2"	DN15	250	2-1/2"	DN65
	075	3/4"	DN20	300	3"	DN80
	100	1"	DN25	400	4"	DN100
	125	1-1/4"	DN32	600	6"	DN150

3	Body Material	
	DI	Ductile Iron
	BR	Bronze
	CS	Carbon Steel (WCB)
	S6	Stainless Steel (CF8M)
	CI	Cast Iron

4	End Connections			
	PT	NPT	I5	150# IFE
	BT	BSPT	F5	150# FE (except IFE)
	BP	BSPP	I2	250# IFE
	SW	FSW	F2	250# FE (except IFE)
	I1	125# IFE	I3	300# IFE
	F1	125# FE (except IFE)	F3	300# FE (except IFE)
	ZZ	Non-Standard		

5	Trim	
	T6	316SS/Teflon Packing
	ZZ	Non-Standard

6	Seat Material	
	V	303SS/Jorcote
	W	316SS/Jorcote

7	Cv (Kv)			
	1	0.21 (0,18)	9	15.0 (12,93)
	2	0.42 (0,36)	A	25.0 (21,55)
	3	0.84 (0,72)	B	30.0 (25,86)
	4	1.6 (1,38)	F	85.0 (72,65)
	5	2.5 (2,16)	H	130.0 (111,11)
	6	4.4 (3,79)	I	200 (170,94)
	7	6.4 (5,52)	J	395 (337,61)
	8	9.5 (8,19)		

8	Yoke			
	SD	Standard	ZZ	Non-Standard

9	Lever	
	15	15" (1/4 to 2")
	24	24" (1/4 to 2")
	26	26" (2-1/2 to 6")
	42	42" (2-1/2 to 6")
	ZZ	Non-Standard

10	Float Arm	
	Mark 40	
	CS	Steel Pipe
	S6	316SS Pipe
	BR	Brass Pipe
	ZZ	Non-Standard
Mark 46		
	00	None

11	Float	
	Mark 40	
	6C	6" Cu (1/4 to 3/4")
	6S	6" SST (1/4 to 3/4")
	8C	8" Cu (1 to 2")
	8S	8" SST (1 to 2")
	2C	12" Cu (2-1/2 to 6")
	2S	12" SST (2-1/2 to 6")
	ZZ	Non-Standard
Mark 46		
	00	None

12	Action	
	D	Direct
	R	Reverse

