

Mark 44 Series

Adjustable Cam Valve

The Mark 44 Adjustable Cam Valve is used to control the flow of fuel oil to a burner. It is ideally suited for process applications with frequent changes in fuel/air mixture because the valve can easily meet new requirements by simply readjusting the cam screws.

OPERATION

A signal from a control instrument is transmitted to the operation lever via a linkage. Movement of the lever controls the cam, which in turn, opens and closes the plug to determine the flow at any given position. By adjusting the series of 19 cam screws, the flow characteristic can be modified to meet the needs of your process. The cam screws are self-locking to precisely maintain the required flow characteristic. If process conditions change, the cam screws can easily be readjusted to meet your new requirements. The valve is designed for applications where tight shutoff is not required; when required, it must be provided by other means.

FEATURES

- Maintains the precise flow characteristic for your application with the simple adjustment of a series of cam screws.
- The valve is easily readjusted in the field to meet changes in your flow requirements. No special tools are required.
- Lever is fully adjustable to accommodate the linkage in any position.
- Spring-loaded stem maintains roller end contact with the cam surface to prevent possible backlash.
- For pressures up to 500 psi (34 bar) on fuel oils, gas, air and water.
- Standard with equal percentage flow characteristic.



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SPECIFICATIONS

Line Sizes: 1/2" (DN15), 3/4" (DN20), 1" (DN25)

End Connections: Threaded (NPT, BSPT, BSPP)

Body Material: Bronze

Bonnet Material: Brass

Plug Material: Stainless Steel

Guide/Seat Material: Brass

O-Ring: Viton

Cam Arm (Rocker): Cast Iron

Actuator:

- Adjustable cam
- 19 adjustable screws
- 72° travel
- 0 to 1/2" stroke adjustable with cam screws
- Rotation: clockwise or counterclockwise (determined by screw adjustment)

Plug Characteristic: Equal percentage, linear

Cv (Kv):

- Interchangeable 0.4 (0,35), 0.8 (0,71), 1.2 (1,1), 1.6 (1,4) (equal percentage)
- 0.43 (0,38), 0.87 (0,77), 1.3 (1,2), 1.7 (1,5) (linear)

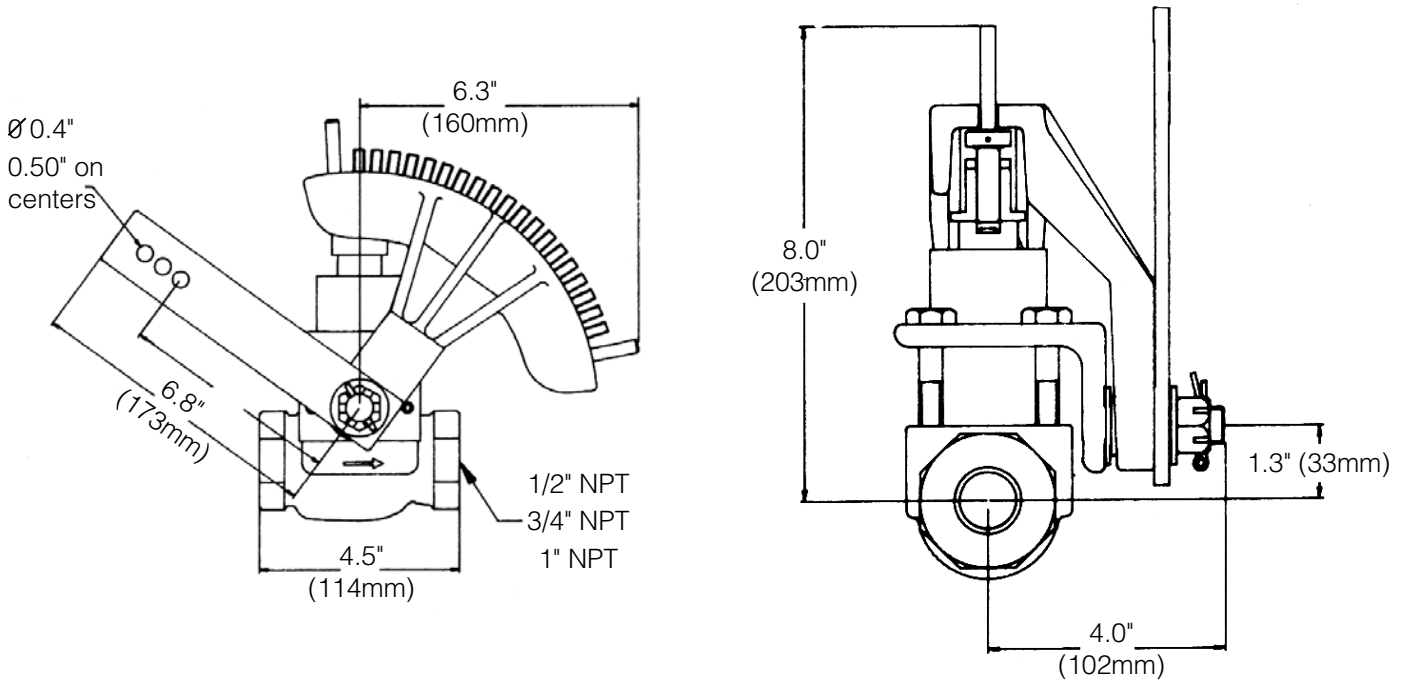
Maximum Pressure: 500 psig @ 100°F (34,5 bar @ 37,8°C)

Maximum Temperature: 400°F @ 375 psig (204,4°C @ 25,9 bar)

Service: fuel oils, gas, air and water

MARK 44 ADJUSTABLE CAM VALVE

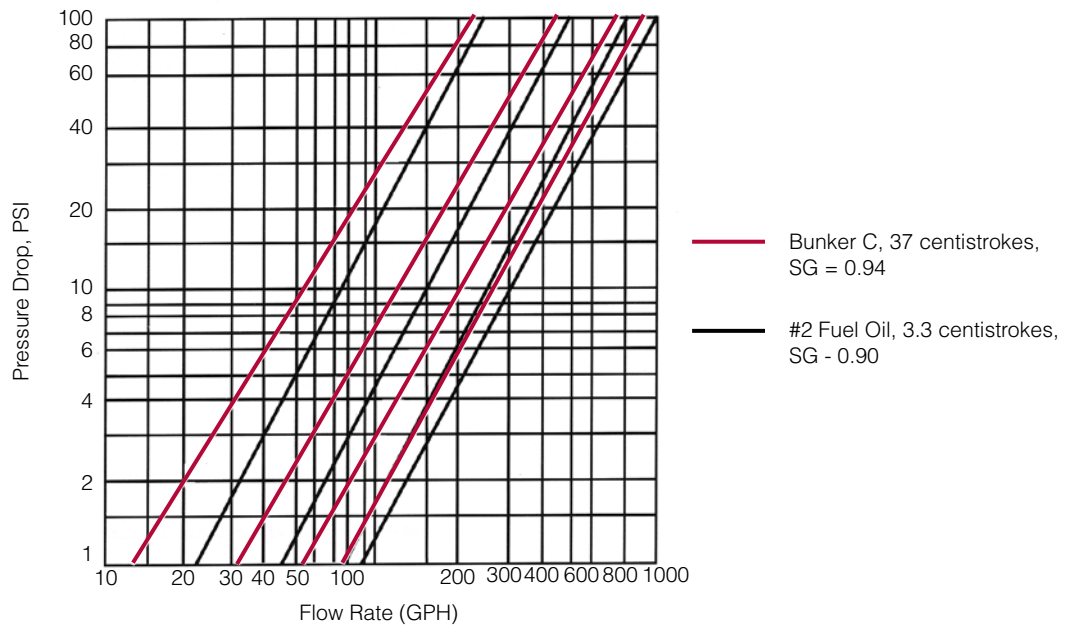
DIMENSIONS



Notes:

- The angle/rocker assembly can be rotated in 180° increments about the bonnet.
- Total angular rocker travel is 72°.
- The adjustable stroke of the valve is between 0.000 and 0.500".
- The motor arm is adjustable in 30° increments.

FLOW CAPACITY



ORDERING SCHEMATIC

1	—	2	—	3	/	4	5	6	7

1	Model	
44	Standard	

2	Size	
050	1/2" (DN15)	
075	3/4" (DN20)	
100	1" (DN25)	

3	Body Material	
BR	Bronze	

4	End Connections	
PT	NPT	
BT	BSPT	
BP	BSPP	
F5	150#FE FE	
F3	300#FE FE	
ZZ	Non-Standard	

5	Trim (Bonnet / O-Ring)	
BV	Brass / Viton	
ZZ	Non-Standard	

6	Seats			
	Characteristic		Cv (Kv)	
	L	Linear	1	0.40 (0,35)
	E	Equal Percentage	2	0.43 (0,38)
			3	0.80 (0,71)
			4	0.87 (0,77)
			5	1.2 (1,1)
			6	1.3 (1,2)
			7	1.6 (1,4)
			8	1.7 (1,5)
	ZZ	Non-Standard		

7	Actuator	
	SD	Standard
	ZZ	Non-Standard