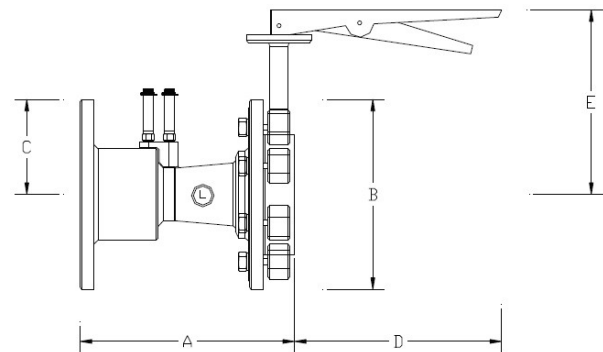


Model MBF Manual Balancing Valve features a cast steel venturi flow element. The precision machined throat provides measurement accuracy of $\pm 3\%$ of flow rate. Mounted on the discharge is a ductile iron lug type butterfly valve with adjustable flow positioning plate. ANSI 150# flanged end connections. Dual extended length Pressure/Temperature ports. Hanging I.D. Tag.



SPECIFICATIONS	
Pressure Ratings:	200 PSI (1380 kPa)
Temperature Ratings:	250°F (120°C)
Accuracy:	$\pm 3\%$ of flow rate
Body Material - Venturi:	ASTM A-216 Grade WCB
Butterfly Valve:	Ductile Iron A536 65-45-12
End Connections:	ANSI 125/150# Flanged
Flow Element:	Brass Venturi, Permanently installed
Disc:	Aluminum Bronze B148 C954
Stem:	Stainless Steel 416 A582
Seat:	EPDM with Phenolic Backing
Bushing:	Teflon/Fiberglass Backed
Seal:	EPDM
Metering Ports:	Extended Length Pressure/ Temperature test ports
Available Options:	"PTV" combination PT & Air Vent



MANUAL

NOMINAL DIMENSIONS & WEIGHTS										
MODEL	SIZE		A	B	C	D	E	Flow Range GPM (10"-100")	Weight	
									lbs	kg
MBF-250	in	2.5"	8.75	7.00	4.20	9.12	8.13	24.0 - 80.0	32.00	14.51
	mm	65	222.25	177.80	106.65	231.90	206.50			
MBF-300	in	3.0"	9.78	7.50	4.54	9.13	8.38	48.0 - 150.0	38.00	17.23
	mm	75	248.41	190.50	115.29	231.90	212.85			
MBF-400	in	4.0"	11.50	9.00	5.02	9.00	9.13	95.0 - 300.0	55.00	24.94
	mm	100	292.10	228.60	127.48	228.60	231.90			
MBF-500	in	5.0"	13.13	10.00	5.53	9.00	9.63	120.0 - 350.0	79.00	35.83
	mm	125	333.50	254.00	140.49	228.60	244.60			
MBF-600	in	6.0"	14.73	11.00	6.04	8.88	10.13	220.0 - 725.0	92.00	41.73
	mm	150	374.14	279.40	153.39	225.55	257.30			
Dimensions not for construction purposes unless certified by factory.										
STANDARD COMPONENTS										
		PT & PTE	Pressure / Temperature test port with brass body, dual durometer EPDM core, PTE Extender, brass cap with O-ring seal and neoprene retainer strap. Accepts standard 1/8" (4mm) gauge adapter or thermometer stem. Rated to 500 PSI (3450 kPa) and 275°F (135°C)							
Please reference data sheet #Bulletin-MB-Accessories for optional accessories.										

Differential Pressure Table - Model MBF - 2.50" to 6.00"

MANUAL

Model MBF / MF, MBG / MG, MP, VF, VG & VW Valves size 2.50" - 6.00"										
Differential Pressure: Inches W.C.										
Flow GPM	Model Size						Flow GPM	Model Size		
	250	300	400	500	600			400	500	600
24.0	10						300.0	103	69	18
26.0	11						325.0	121	81	21
28.0	13						350.0	141	94	24
30.0	15						375.0	161	108	27
32.0	17						400.0	184	122	31
34.0	19						425.0		138	35
36.0	22						450.0		155	39
38.0	24						475.0		173	44
40.0	27						500.0		191	49
42.0	29						525.0		211	54
44.0	32	8					550.0			59
46.0	35	9					575.0			64
48.0	38	10					600.0			70
50.0	43	11					625.0			76
55.0	51	13					650.0			82
60.0	60	15					675.0			89
65.0	71	18					700.0			96
70.0	82	21					725.0			102
75.0	94	24					750.0			110
80.0	107	27	7				775.0			117
85.0	121	31	8				800.0			125
90.0	135	35	9				825.0			133
95.0	151	39	10				850.0			141
100.0		43	11				900.0			158
110.0		52	14	9			925.0			167
120.0		62	17	11			950.0			176
130.0		72	19	13			975.0			185
140.0		84	22	15			1000.0			195
150.0		96	26	17			1100.0			
160.0		109	29	20			1200.0			
170.0		124	33	22			1300.0			
180.0		138	37	25	6		1400.0			
190.0		154	41	28	7		1500.0			
200.0		171	46	31	8					
220.0			56	37	9					
240.0			66	44	11					
260.0			78	52	13					
280.0			90	60	15					
Size	2.50"	3.00"	4.00"	5.00"	6.00"		Size	4.00"	5.00"	6.00"
FF	7.737	15.297	29.523	36.155	71.613		FF	29.523	36.155	71.613
Flow Formulas GPM = FF x ($\sqrt{\text{DP}}$) DP = $(\text{GPM}/\text{FF})^2$ PPL = DP x 0.12						Notes: 1) Accuracy $\pm$ 3% of flow rate. 2) Repeatability $\pm$ 0.25% of rate. 3) Values in BOLD type represents traditional 10" to 100" sizing range. 4) All valves will function above and below ranges shown. Pressure drop and readability should be taken into account.				