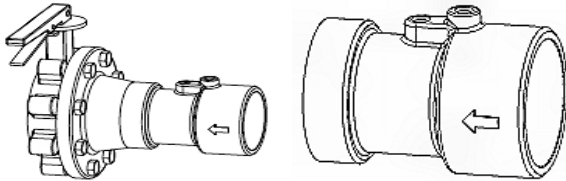


JOB:	REPRESENTATIVE:	
UNIT TAG:	ORDER NO.	DATE:
ENGINEER:	SUBMITTED BY:	DATE:
CONTRACTOR:	APPROVED BY:	DATE:



Model MVW and Model VW

Flange x weld venturi with Butterfly Valve
Combination and Weld x Weld Venturi

DESCRIPTION

The Bell & Gossett VW venturi flow tube weld x weld style is a carbon steel Venturi flow measurement section with weld end inlet and outlet connections. The Model MVW is a carbon steel Venturi flow measurement section connected with lug type Butterfly Valve⁺⁺ for throttling with weld inlet and flanged outlet end connections. Butterfly Valve connects to 150 lb. ANSI flanges and comes with 10 position memory stop and EPDM liner standard. Venturi on both Model VW and Model MVW includes two 1/4" accessory taps.

CONSTRUCTION

Venturi
Body: Carbon steel
Butterfly Valve
Body: Nodular Cast Steel
ASTM: A536 65-45-12
Disc: Aluminum/Bronze
Stem: Stainless Steel
Liner: EPDM

MAXIMUM WORKING PRESSURE

150 psig (1,034 kPa)
TEMPERATURE RANGE
-4°F (-20°C) to 250°F(121°C) w/o Butterfly Valve
-4°F (-20°C) to 212°F(100°C) w/ Butterfly Valve

++Suitable For Dead-End Service

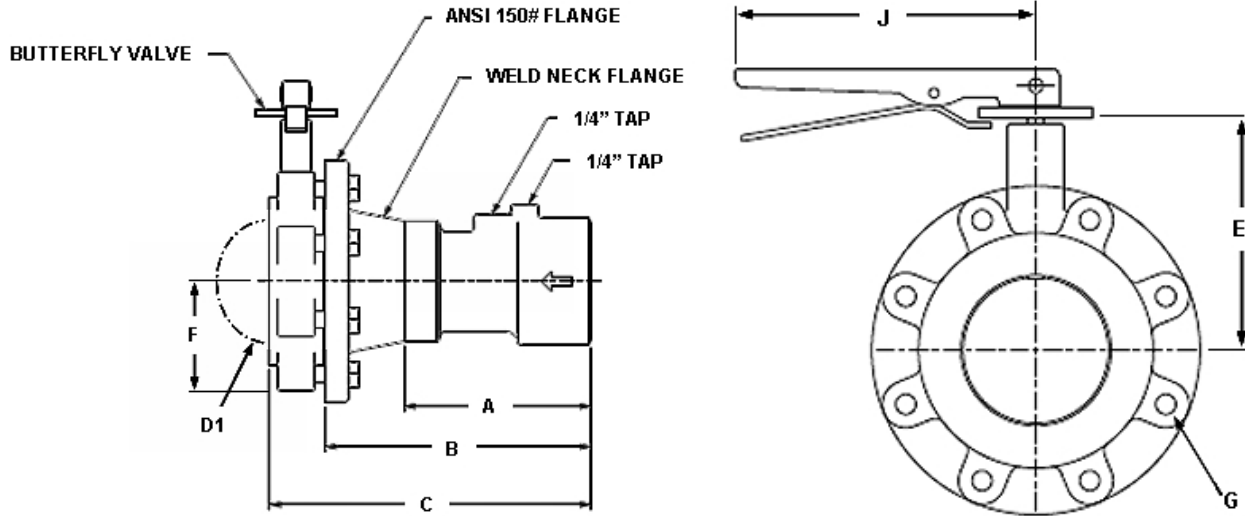
SCHEDULE

MODEL NUMBER (w/o Butterfly Valve)	TAGGING INFORMATION	QUANTITY
VW-2-1/2L		
VW-2-1/2H		
VW-3L		
VW-3H		
VW-4L		
VW-4H		
VW-5		
VW-6		
VW-8		
VW-10		
VW-12		

SCHEDULE

MODEL NUMBER (w/ Butterfly Valve)	TAGGING INFORMATION	QUANTITY
MVW-2-1/2L		
MVW-2-1/2H		
MVW-3L		
MVW-3H		
MVW-4L		
MVW-4H		
MVW-5		
MVW-6		
MVW-8		
MVW-10		
MVW-12		

Note: All MVW Models (models with butterfly valves) are supplied with mating bolts kit for 150 lb flanges.



DIMENSIONS AND WEIGHTS

Size (mm)	Model No.	DIMENSIONS* IN INCHES (mm)								Lower flow GPM (L/m)	Upper Flow GPM (L/m)	Flow Factor GPM (L/m)	Approx. Wt.lbs. (kg) (Model VW)	Approx. Wt.lbs. (kg) (Model MVW)
		A**	B	C	D1	E	F	G	J					
2-1/2" (63.5)	VW-2-1/2L	5.2 (132)	8.0 (203)	12.6 (320)	2.5 (64)	6.9 (175)	3.5 (89)	5/8"	10.5 (267)	20 (75)	140 (530)	147 (556)	4 (1.8)	36 (16.3)
2-1/2" (63.5)	MVW-2-1/2L	5.2 (132)	8.0 (203)	12.6 (320)	2.5 (64)	6.9 (175)	3.5 (89)	5/8"	10.5 (267)	20 (75)	140 (530)	147 (556)	4 (1.8)	36 (16.3)
2-1/2" (63.5)	VW-2-1/2H	5.2 (132)	8.0 (203)	12.6 (320)	2.5 (64)	6.9 (175)	3.5 (89)	5/8"	10.5 (267)	60 (227)	320 (1,211)	319 (1,208)	4 (1.8)	36 (16.3)
2-1/2" (63.5)	MVW-2-1/2H	5.2 (132)	8.0 (203)	12.6 (320)	2.5 (64)	6.9 (175)	3.5 (89)	5/8"	10.5 (267)	60 (227)	320 (1,211)	319 (1,208)	4 (1.8)	36 (16.3)
3" (76.2)	VW-3L	5.5 (140)	8.4 (213)	12.9 (328)	3.1 (79)	7.1 (180)	3.8 (97)	5/8"	10.5 (267)	30 (114)	220 (833)	227 (859)	8 (3.6)	39 (17.7)
3" (76.2)	MVW-3L	5.5 (140)	8.4 (213)	12.9 (328)	3.1 (79)	7.1 (180)	3.8 (97)	5/8"	10.5 (267)	30 (114)	220 (833)	227 (859)	8 (3.6)	39 (17.7)
3" (76.2)	VW-3H	5.5 (140)	8.4 (213)	12.9 (328)	3.1 (79)	7.1 (180)	3.8 (97)	5/8"	10.5 (267)	80 (303)	530 (2,006)	578 (2,188)	8 (3.6)	39 (17.7)
3" (76.2)	MVW-3H	5.5 (140)	8.4 (213)	12.9 (328)	3.1 (79)	7.1 (180)	3.8 (97)	5/8"	10.5 (267)	80 (303)	530 (2,006)	578 (2,188)	8 (3.6)	39 (17.7)
4" (101.6)	VW-4L	6.2 (157)	9.3 (236)	14.3 (363)	4.0 (102)	7.9 (201)	4.5 (114)	5/8"	10.5 (267)	80 (303)	600 (2,271)	611 (2,313)	8 (3.6)	58 (26.3)
4" (101.6)	MVW-4L	6.2 (157)	9.3 (236)	14.3 (363)	4.0 (102)	7.9 (201)	4.5 (114)	5/8"	10.5 (267)	80 (303)	600 (2,271)	611 (2,313)	8 (3.6)	58 (26.3)
4" (101.6)	VW-4H	6.2 (157)	9.3 (236)	14.3 (363)	4.0 (102)	7.9 (201)	4.5 (114)	5/8"	10.5 (267)	140 (530)	1,000 (3,785)	1,029 (3,895)	8 (3.6)	58 (26.3)
4" (101.6)	MVW-4H	6.2 (157)	9.3 (236)	14.3 (363)	4.0 (102)	7.9 (201)	4.5 (114)	5/8"	10.5 (267)	140 (530)	1,000 (3,785)	1,029 (3,895)	8 (3.6)	58 (26.3)
5" (127.0)	VW-5	6.3 (160)	9.9 (252)	15.5 (394)	4.8 (122)	8.4 (213)	5.0 (127)	3/4"	10.5 (267)	160 (605)	1,250 (4,732)	1,267 (4,796)	15 (6.8)	75 (34.0)
5" (127.0)	MVW-5	6.3 (160)	9.9 (252)	15.5 (394)	4.8 (122)	8.4 (213)	5.0 (127)	3/4"	10.5 (267)	160 (605)	1,250 (4,732)	1,267 (4,796)	15 (6.8)	75 (34.0)
6" (152.4)	VW-6	7.3 (186)	11.3 (387)	17.0 (432)	6.1 (155)	8.9 (226)	5.5 (140)	3/4"	10.5 (267)	200 (757)	1,500 (5,678)	1,551 (5,871)	22 (10.0)	95 (43.1)
6" (152.4)	MVW-6	7.3 (186)	11.3 (387)	17.0 (432)	6.1 (155)	8.9 (226)	5.5 (140)	3/4"	10.5 (267)	200 (757)	1,500 (5,678)	1,551 (5,871)	22 (10.0)	95 (43.1)
8" (203.2)	VW-8	8.7 (221)	12.8 (325)	19.3 (490)	8.0 (203)	10.2 (259)	6.9 (175)	3/4"	***	450 (1,703)	2,800 (10,600)	2,824 (10,690)	34 (15.4)	173 (78.5)
8" (203.2)	MVW-8	8.7 (221)	12.8 (325)	19.3 (490)	8.0 (203)	10.2 (259)	6.9 (175)	3/4"	***	450 (1,703)	2,800 (10,600)	2,824 (10,690)	34 (15.4)	173 (78.5)
10" (254.0)	VW-10	12.3 (312)	16.4 (417)	22.9 (582)	9.8 (249)	11.5 (292)	8.0 (203)	7/8"	***	600 (2,271)	4,150 (15,710)	4,164 (15,762)	94 (42.6)	303 (137.4)
10" (254.0)	MVW-10	12.3 (312)	16.4 (417)	22.9 (582)	9.8 (249)	11.5 (292)	8.0 (203)	7/8"	***	600 (2,271)	4,150 (15,710)	4,164 (15,762)	94 (42.6)	303 (137.4)
12" (304.8)	VW-12	17.0 (432)	21.5 (546)	29.0 (737)	12.2 (310)	13.3 (338)	9.5 (241)	7/8"	***	950 (3,596)	9,700 (36,718)	9,670 (36,605)	110 (50.0)	350 (159.8)
12" (304.8)	MVW-12	17.0 (432)	21.5 (546)	29.0 (737)	12.2 (310)	13.3 (338)	9.5 (241)	7/8"	***	950 (3,596)	9,700 (36,718)	9,670 (36,605)	110 (50.0)	350 (159.8)

*All dimensions +/- 0.125 (3.2 mm) tolerance. Dimensions are subject to change. Not to be used for construction purposes unless certified.

** Dimension A is for VW (without Butterfly Valve)

*** Denotes gear operated valve

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Let's Solve Water

B&G Model MV - Manual Venturi Balance Chart (Differential Pressure Measured Across the Venturi)

GPM	LPM	2-1/2" L Venturi			2-1/2" H Venturi			3" L Venturi			3" H Venturi			4" L Venturi			4" H Venturi		
		ΔP (In. W.C.)	ΔP (PSID)	CV	ΔP (In. W.C.)	ΔP (PSID)	CV	ΔP (In. W.C.)	ΔP (PSID)	CV	ΔP (In. W.C.)	ΔP (PSID)	CV	ΔP (In. W.C.)	ΔP (PSID)	CV	ΔP (In. W.C.)	ΔP (PSID)	CV
30	113.6	12.5	0.45	45	2.6	0.09	97	5.2	0.19	69									
40	151.4	22.2	0.80	45	4.7	0.17	97	9.3	0.34	69									
50	189.3	34.6	1.3	45	7.4	0.27	97	14.5	0.52	69	2.2	0.08	176						
60	227.1	49.9	1.8	45	10.6	0.38	97	20.9	0.76	69	3.2	0.12	126	2.9	0.10	186			
70	265	67.9	2.5	45	14.4	0.52	97	28.5	1.03	69	4.4	0.16	176	3.9	0.14	186			
80	302.8	88.6	3.2	45	18.8	0.68	97	37.2	1.3	69	5.7	0.21	176	5.1	0.18	186			
90	340.7	112	4.0	45	23.8	0.86	97	47	1.7	69	7.3	0.26	176	6.5	0.23	186	2.3	0.08	313
100	378.5	139	5.0	45	29.4	1.1	97	58.1	2.1	69	9	0.33	176	8	0.29	186	2.8	0.10	313
110	416.4	168	6.1	45	35.6	1.3	97	70.3	2.5	69	10.8	0.39	176	9.7	0.35	186	3.4	0.12	313
120	454.2	199	7.2	45	42.4	1.5	97	83.6	3.0	69	12.9	0.47	176	11.5	0.42	186	4.1	0.15	313
130	492.1	234	8.5	45	49.7	1.8	97	98.2	3.5	69	15.1	0.55	176	13.5	0.49	186	4.8	0.17	313
140	530	271	9.8	45	57.6	2.1	97	114	4.1	69	17.6	0.64	176	15.7	0.57	186	5.5	0.20	313
150	567.8				66.2	2.4	97	131	4.7	69	20.2	0.73	176	18	0.65	186	6.4	0.23	313
160	606				75.3	2.7	97	149	5.4	69	22.9	0.83	176	20.5	0.74	186	7.2	0.26	313
170	644				85	3.1	97	168	6.1	69	25.9	0.94	176	23.2	0.94	186	8.2	0.30	313
180	681				95.3	3.4	97	188	6.8	69	29	1.05	176	26	0.94	186	9.2	0.33	313
190	719				106	3.8	97	210	7.6	69	32.3	1.2	176	28.9	1.04	186	10.2	0.37	313
200	757				118	4.3	97	232	8.4	69	35.8	1.3	176	32.1	1.2	186	11.3	0.41	313
210	795				130	4.7	97	256	9.2	69	39.5	1.4	176	35.4	1.3	186	12.5	0.45	313
220	833				142	5.1	97	281	10.2	69	43.4	1.6	176	38.8	1.4	186	13.7	0.49	313
230	871				156	5.6	97				47.4	1.7	176	42.4	1.5	186	15	0.54	313
240	908				169	6.1	97				51.6	1.9	176	46.2	1.7	186	16.3	0.59	313
250	946				184	6.6	97				56	2.0	176	50.1	1.8	186	17.7	0.64	313
260	984				199	7.2	97				60.6	2.2	176	54.2	2.0	186	19.1	0.69	313
270	1022				214	7.7	97				65.3	2.4	176	58.4	2.1	186	20.6	0.74	313
280	1060				231	8.3	97				70.2	2.5	176	62.9	2.3	186	22.2	0.80	313
290	1098				247	8.9	97				75.3	2.7	176	67.4	2.4	186	23.8	0.86	313
300	1136				265	9.6	97				80.6	2.9	176	72.2	2.6	186	25.4	0.92	313
310	1173				283	10.2	97				86.1	3.1	176	77	2.8	186	27.2	0.98	313
320	1211				301	10.9	97				91.7	3.3	176	82.1	3.0	186	28.9	1.04	313
330	1249										97.6	3.5	176	87.3	3.2	186	30.8	1.1	313
340	1287										104	3.8	175	92.7	3.3	186	32.7	1.2	313
350	1325										110	4.0	176	98	3.5	186	34.6	1.3	313
360	1363										116	4.2	176	104	3.8	186	36.6	1.3	313
370	1401										123	4.4	176	110	4.0	186	38.7	1.4	313
380	1438										129	4.7	176	116	4.2	186	40.8	1.5	313
390	1476										136	4.9	176	122	4.4	186	43	1.6	313
400	1514										143	5.2	176	128	4.6	186	45.2	1.6	313
410	1552										151	5.5	176	135	4.9	186	47.5	1.7	313
420	1590										158	5.7	176	141	5.1	186	49.9	1.8	313
430	1628										166	6.0	176	148	5.3	186	52.3	1.9	313
440	1666										173	6.3	176	155	5.6	186	54.7	2.0	313
450	1703										181	6.5	176	162	5.9	186	57.2	2.1	313
460	1741										190	6.9	176	170	6.1	186	59.8	2.2	313
470	1779										198	7.2	176	177	6.4	186	62.4	2.3	313
480	1817										206	7.4	176	185	6.7	186	65.1	2.4	313
490	1855										215	7.8	176	192	6.9	186	67.9	2.5	313
500	1893										224	8.1	176	200	7.2	186	70.7	2.6	313
510	1931										233	8.4	176	209	7.6	186	73.5	2.7	313
520	1968										242	8.7	176	217	7.8	186	76.4	2.8	313
540	2044										261	9.4	176	234	8.5	186	82.4	3.0	313
560	2120										281	10.2	176	251	9.1	186	88.6	3.2	313
580	2196										301	10.9	176	270	9.8	186	95.1	3.4	313
600	2271												289	10.4	186	101.8	3.7	313	
620	2347															109	3.9	313	
640	2423															116	4.2	313	
660	2498															123	4.4	313	
680	2574															131	4.7	313	
700	2650															139	5.0	312	
720	2725															147	5.3	312	
740	2801															155	5.6	313	
760	2877															163	5.9	313	
780	2953															172	6.2	313	
800	3028															181	6.5	313	
820	3104															190	6.9	313	
840	3180															199	7.2	313	
860	3255															209	7.6	313	
880	3331															219	7.9	313	
900	3407															229	8.3	313	
950	3596															255	9.2	313	
1000	3785															283	10.2	313	

$$\Delta P \text{ (IN. W.C.)} = \left(\frac{\text{GPM} \times 17.3}{\text{FF}} \right)^2$$

<p>Accuracy:</p> <p>+/- 1% Between 10" W.C. & 70" W.C.</p> <p>+/- 3% Between 5" W.C. & 150" W.C.</p> <p>+/- 5% Less than 5" W.C.</p> <p>+/- 5% Greater than 150" W.C.</p>	<p>Flow Factor (FF):</p> <p>2-1/2" L _____ 147</p> <p>2-1/2" H _____ 319</p> <p>3" L _____ 227</p> <p>3" H _____ 578</p> <p>4" L _____ 611</p> <p>4" H _____ 1029</p>
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