



## Precision & Standard Flo-Wing® Wellheads

The Elkins Earthworks Wellhead incorporates the Flo-Wing® Meter developed by ENERGYneering Solutions Inc.® (ESI) to overcome the challenges of current wellhead technologies. This design was rigorous field tested and calibrated by a variety of industry experts, including Elkins Earthworks using the Envision™ Gas Meter.

Modeled on the Venturi effect, the Flo-Wing® design works exceptionally well measuring static and differential pressures of wet landfill gas without impeding flow. Condensate falls back into the well without hanging on a plate or accumulating in sample ports. The unique design also allows liquid level devices to be dropped in the well without completely disassembling the well-head. Incorporating ESI's patent pending Flo-Wing® technology the Elkins Earthworks Well-head is a durable, cost effective and accurate tool for any landfill gas extraction system.

Elkins Earthworks is an authorized manufacturer of the Flo Wing® design well-head. Standard configurations include vertical and horizontal configurations with quick-connect or hose-barb sample ports. Installation is quick and easy using Fernco® adapters and Kanaflex® hose. Other custom options are available including valves, flanges, unions, centralizing supports and other accessories.



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## SIZES:

	1" (Model #180)	2" (Model #264)	3" (Model #360)
Recommended Flow Measurement Range	0 to 10 scfm	3 to 120 scfm	100 to 300 scfm
Equivalent Orifice Size for use with GEM	0.55 in.	1.30 in	2.10 in
Pipe ID	0.92 in	1.91 in	2.86

## FLOW RATE REFERENCE TABLES:

For those who prefer to measure flow using a manometer or differential pressure gauge.

FLO-WING 1" (Model #180)				FLO-WING 2" (Model #264)				FLO-WING 3" (Model #360)			
Diff. Pressure (inH2O)	Flow Rate (SCFM)	Diff. Pressure (inH2O)	Flow Rate (SCFM)	Diff. Pressure (inH2O)	Flow Rate (SCFM)	Diff. Pressure (inH2O)	Flow Rate (SCFM)	Diff. Pressure (inH2O)	Flow Rate (SCFM)	Diff. Pressure (inH2O)	Flow Rate (SCFM)
0.01	0.38	6.50	9.69	0.01	2.8	6.50	72.1	0.01	6.7	6.50	171.3
0.02	0.54	7.00	10.05	0.02	4.0	7.00	74.8	0.02	9.5	7.00	177.7
0.03	0.66	7.50	10.40	0.03	4.9	7.50	77.5	0.03	11.6	7.50	184.0
0.04	0.76	8.00	10.75	0.04	5.7	8.00	80.0	0.04	13.4	8.00	190.0
0.05	0.85	8.50	11.08	0.05	6.3	8.50	82.5	0.05	15.0	8.50	195.9
0.10	1.20	9.00	11.40	0.10	8.9	9.00	84.9	0.10	21.2	9.00	201.5
0.20	1.70	9.50	11.71	0.20	12.7	9.50	87.2	0.20	30.0	9.50	207.1
0.40	2.40	10.00	12.01	0.40	17.9	10.00	89.5	0.40	42.5	10.00	212.4
0.60	2.94	10.50	12.31	0.60	21.9	10.50	91.7	0.60	52.0	10.50	217.7
0.80	3.40	11.00	12.60	0.80	25.3	11.00	93.8	0.80	60.1	11.00	222.8
1.00	3.80	11.50	12.88	1.00	28.3	11.50	95.9	1.00	67.2	11.50	227.8
1.20	4.16	12.00	13.16	1.20	31.0	12.00	98.0	1.20	73.6	12.00	232.7
1.40	4.50	12.50	13.43	1.40	33.5	12.50	100.0	1.40	79.5	12.50	237.5
1.60	4.81	13.00	13.70	1.60	35.8	13.00	102.0	1.60	85.0	13.00	242.2
1.80	5.10	13.50	13.96	1.80	38.0	13.50	103.9	1.80	90.1	13.50	246.8
2.00	5.37	14.00	14.22	2.00	40.0	14.00	105.8	2.00	95.0	14.00	251.4
2.20	5.64	14.50	14.47	2.20	42.0	14.50	107.7	2.20	99.6	14.50	255.8
2.40	5.89	15.00	14.71	2.40	43.8	15.00	109.6	2.40	104.1	15.00	260.2
2.60	6.13	15.50	14.96	2.60	45.6	15.50	111.4	2.60	108.3	15.50	264.5
2.80	6.36	16.00	15.20	2.80	47.3	16.00	113.1	2.80	112.4	16.00	268.7
3.00	6.58	16.50	15.43	3.00	49.0	16.50	114.9	3.00	116.4	16.50	272.9
3.20	6.80	17.00	15.66	3.20	50.6	17.00	116.6	3.20	120.2	17.00	277.0
3.40	7.01	17.50	15.89	3.40	52.2	17.50	118.3	3.40	123.9	17.50	281.0
3.60	7.21	18.00	16.12	3.60	53.7	18.00	120.0	3.60	127.5	18.00	285.0
3.80	7.41	18.50	16.34	3.80	55.1	18.50	121.7	3.80	131.0	18.50	288.9
4.00	7.60	19.00	16.56	4.00	56.6	19.00	123.3	4.00	134.4	19.00	292.8
4.20	7.79	19.50	16.78	4.20	58.0	19.50	124.9	4.20	137.7	19.50	296.7
4.40	7.97	20.00	16.99	4.40	59.3	20.00	126.5	4.40	140.9	20.00	300.4
4.60	8.15	20.50	17.20	4.60	60.7	20.50	128.1	4.60	144.1	20.50	304.2
4.80	8.32	21.00	17.41	4.80	62.0	21.00	129.6	4.80	147.2	21.00	307.9
5.00	8.50	21.50	17.62	5.00	63.3	21.50	131.2	5.00	150.2	21.50	311.5
5.20	8.66	22.00	17.82	5.20	64.5	22.00	132.7	5.20	153.2	22.00	315.1
5.40	8.83	22.50	18.02	5.40	65.7	22.50	134.2	5.40	156.1	22.50	318.7
5.60	8.99	23.00	18.22	5.60	66.9	23.00	135.7	5.60	159.0	23.00	322.2
5.80	9.15	23.50	18.42	5.80	68.1	23.50	137.1	5.80	161.8	23.50	325.7
6.00	9.31	24.00	18.61	6.00	69.3	24.00	138.6	6.00	164.6	24.00	329.1



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