

<i>Airmaster "F" Performance data</i>												
Metric												
Vol. Flow (m ³ /hr)	5	6	7	8	9	10	11	12	13	14	15	16
Air flow (m ³ /hr)	2.1	2.3	2.6	2.8	3.1	3.4	3.7	4.0	4.2	4.4	4.7	4.9
Pressure loss (bar)	0.19	0.22	0.27	0.35	0.44	0.56	0.7	0.81	0.98	1.08	1.25	1.55
Oxygen delivery (g/hr)	87	104	122	139	157	174	192	209	226	244	261	279
Imperial- UK												
Vol. Flow (gals/hr)	1100	1320	1540	1752	1971	2190	2409	2628	2847	3066	3285	3504
Air flow (ft ³ /hr)	74.2	81.2	91.8	100.2	111.8	122.4	133.2	144	151.2	152.4	163.2	170.4
Pressure loss (psi)	2.76	3.19	3.92	5.08	6.38	8.12	10.15	11.75	14.21	15.66	18.31	22.48
U.S.												
Vol. Flow (gals/hr)	1321	1585	1849	2113	2378	2642	2906	3170	3434	3698	3963	4226
Air flow (ft ³ /hr)	74.2	81.2	91.8	100.2	111.8	122.4	133.2	144	151.2	152.4	163.2	170.4
Pressure loss (psi)	2.76	3.19	3.92	5.08	6.38	8.12	10.15	11.75	14.21	15.66	18.31	22.48
Note The above data was generated under controlled conditions in the fluids laboratory of the Technische Universität Hamburg-Harburg Germany												

PERFORMANCE DATA O₂
 Operating within a flow range 5-16m³/hr the 40mm Aquafoil will induce between 1.5- 4.9 m³/hr of air on a constant basis. This performance is achieved with negligible backpressure compared to other methods. In controlled tests over the full range, a pressure loss of 0.19 - 1.55 bars was observed. Circulation systems usually require continuous pump operation. The efficient design of the Aquafoil mechanism reduces back pressure to negligible proportions essentially providing penalty free oxygen to the aquatic system.

Extensive testing in the Fluids Department of Hamburg-Harburg University has shown that the patented 40mm Aquafoil mechanism can transfer oxygen into the water at a rate of 174 grams per hour at 10m³/hr flow rate with 0.56 bar pressure drop. While operational circumstances differ from application to application, this rating outperforms all other aeration devices and compares most favourably with the economics of direct oxygen dosing.

Oxygenation rates vary dependent upon flow, temperature and water chemistry however, in normal operating conditions a single 40mm Aquafoil operating at 10m³/hr flow rate can be expected to provide 4.1 kilograms of oxygen per day, Typically we run the WMS floating island at 15m³/hr giving up to 6.2kg oxygen delivered per 24hr period.

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