

Bioenvironmental and Structural Systems Lab
Fan Description Form

Project Number: 91101V Series/Test: / Test Date: July 9, 1991 File Name: **Fan**

Make: Val

Model #: VAFW1013

Serial #:

Manufacturer: -

Blade Size: 9.6"

Orifice Dia.: 10"

Blade

Number: 4

Shape: propeller

Material: Stainless steel

Pitch: na

Clearance: .2"

Hub Diameter: na

Shutter

Material: plastic

Number Doors: 3

Number Rows: 1

Door Length: 9.6"

Location: intake

Other Attachments**Motor**

Make: Emerson

Model #: K37HXBBC-413

Serial #:

H.P.: 1/6

Amps: 1.6

Volts: 230

RPM: 3400

S.F.: 1.0

Drive Pulley Dia.: direct

Axle Pulley Dia.: drive

Center Spacing: na

Housing

Material: fiberglass

Intake Area: 10.9"x10.9"

Discharge Area: 10" dia.

Depth: 21.4" top
17.4" bottom

Guards

Description: plastic coated
wire

Spacing: 1" concentric

Location: exhaust

TEST RESULTS

VAL VAFW-1013

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 91101V	0.00	3421	1263	4.2
Fan description:	0.05	3420	1244	4.1
10" direct drive, 1/6 hp Emerson K37HXBBC-413	0.10	3417	1220	3.9
motor, fiberglass housing, plastic shutter	0.15	3415	1195	3.8
and guard	0.20	3409	1170	3.7
	0.25	3408	1140	3.6
	0.30	3402	1110	3.4
