

Bioenvironmental and Structural Systems Lab Final Report

Project Number: 06271
Test Date: November 16, 2006

Fan:

Make- *Mutifan*
Model- *MF36F*
Blade dia.- *36"*
Orifice dia.- *36.3"*

Blade:

Number- *3*
Shape- *propeller*
Material- *plastic*
Pitch- *-*
Clearance- *0.2"*

Drive Sheaves:

Drive dia.- *direct*
Axle dia.- *drive*

Motor:

Make- *Vostermans*
Model- *8E92Q*
Hp- *0.7 kW*
RPM- *800*
Volts- *240*
Amps- *3.2*
Hz- *60*
Phase- *1*
S. F.- *-*

Housing:

Material- *fiberglass*
Intake area- *42.5" x 43.1"*
Discharge- *36.3" dia.*
Depth- *19"*

Shutter:

Material- *plastic*
Doors- *13 per column*
Columns- *2*
Door length *21.4"*
Location- *intake*

Guards:

Description- *wire*
Spacing- *2" concentric*
Location- *exhaust*

Discharge Cone:

Depth- *28.4"*
Minor dia.- *36.3"*
Major dia.- *47"*

Notes: *0*

Test Conditions:

T(wb):	60	Barometric pressure, recorded	28.94
T(db):	80	Barometric Pressure, corrected	28.81

Static						
Pressure	Airflow					
(in.H2O)	(cfm)	rpm	Volts	Amps	Watts	cfm/Watt
0.00	11700	803	229.7	2.99	612	19.2
0.05	10800	792	229.9	3.11	640	16.9
0.10	9700	778	229.5	3.27	671	14.4
0.15	8500	768	230.1	3.35	690	12.3
0.20	7300	768	230.1	3.36	689	10.6
0.25	6100	773	229.8	3.30	680	9.0
0.30	4700	783	230.3	3.20	665	7.0