

**University of Illinois Department of
Agricultural Engineering
BESS Lab**

Project Number: 90123

Test Date: June 27, 1990

Fan

Make: Osborne

Model #: FM 3611

Manufacturer: Osborne Industries

Blade Size: 35.8" dia.

Orifice Dia.: 35.9"

Blade

Number: 3

Shape: propeller

Material: Polypropylene

Pitch: 32.5" deg

Clearance: 0.4"

Shutter

Material:

of Doors: 10

of Columns: 2

Door Length: 18"

Location: intake

Other Attachments:

Motor

Make: Magnetek

Model #: Part#: 8-176499-01

H.P.: 1/2

Amps: 3.3

Volts: 230

RPM: 850

S.F.: 1.15

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: drive

Housing

Material: fiberglass

Intake Area: 1207 sq. inches

Discharge Area: 35.9" dia.

Depth: 36" top
27" bottom

Guards

Description: wire

Spacing: 1" concentric

Location: exhaust

TEST RESULTS

OSBORNE FM3611

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 90123	0.00	860	9400	19.2
Fan description:	0.05	860	8600	17.3
36" direct drive, 1/2 hp Magnetek 8-176499-01	0.10	860	7900	15.5
motor, fiberglass housing, shutter	0.15	860	7000	13.7
and guard	0.20	860	6000	11.8
	0.25	860	4800	9.3
