

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

Project Number: 98231

Test Date: October 28, 1998

Fan

Make: Hired Hand

Model #: 6603-6002
with 6611-5016 shutter
Manufacturer: Hired Hand

Blade Size: 48.5"

Orifice Dia.: 49.1"

Motor

Make: Magnetek

Model #: 8-194083

H.P.: 1

Amps: 4.3/8.6

Volts: 230/115

RPM: 1725

S.F.: 1.40

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.3"

Drive

Drive Pulley Dia.: AK34

Axle Pulley Dia.: 10.4" o.d.

Shutter

Material: Plastic

of Doors: 15 per column

of Columns: 2

Door Length: 26.1"

Location: intake

Housing

Material: Fiberglass

Intake Area: 54" x 54.5"

Discharge Area: 49.1"

Depth: 30.5" top
27.5" bottom

Guards

Description: wire

Spacing: 2" concentric

Other Attachments:

Discharge cone 31.5" deep, 49.1" i.d., 59.8" o.d.

Location: exhaust

TEST RESULTS

HIRED HAND 6603-6002 w/cone

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98231	0.00	584	23600	27.1
Fan description:	0.05	581	22300	23.9
48" belt drive, 1 hp Magnetek 8-194083	0.10	580	20700	20.8
motor, fiberglass housing, plastic shutter	0.15	577	18800	17.8
# 6611-5016, guard and discharge cone	0.20	576	16000	14.4
	0.25	575	9000	7.8