

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

Project Number: 98230

Test Date: October 28, 1998

Fan

Make: Hired Hand

Model #: 6603-6012
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.: MA38

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 6603-6012 w/cone

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98230	0.00	635	25900	23.8
Fan description:	0.05	632	24600	21.2
48" belt drive, 1 hp Magnetek 8-194083	0.10	662	23100	18.7
motor, fiberglass housing, plastic shutter	0.15	626	21500	16.6
# 6611-5016, guard and discharge cone	0.20	624	19400	14.2
	0.25	621	16800	11.7
	0.30	618	9600	6.5
