

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

Project Number: 98196

Test Date: October 20, 1998

Fan

Make: Hired Hand

Model #: 6603-6002 with cone
with 6621-0350 roll seal
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 roll seal

Material: poly cloth

of Doors: 1

of Columns: 1

Door Length: 54"

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: 98196	0.00	586	24800	30.4
Fan description:	0.05	584	23300	26.2
48" belt drive, 1 hp Magnetek 8-194083	0.10	582	21800	22.9
motor, fiberglass housing, roll seal shutter	0.15	580	20000	19.7
kit # 6621-0350, guard and discharge cone	0.20	578	18000	16.7
	0.25	576	15700	13.9
	0.30	574	8500	7.0
