

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 98207

Test Date: October 20, 1998

Fan

Make: Hired Hand

Model #: 6603-6034
with 6611-5016 shutter
Manufacturer: Hired Hand

Blade Size: 48.5"

Orifice Dia.: 49.1"

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.3"

Shutter

Material: Plastic

of Doors: 15 per column

of Columns: 2

Door Length: 26.1"

Location: intake

Other Attachments:

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

Motor

Make: Magnetek

Model #: 8-194005

H.P.: 1

Amps: 3.9-3.41.7

Volts: 208-230/460
3 phase
RPM: 1725

S.F.: 1.00

Drive

Drive Pulley Dia.: AK34

Axle Pulley Dia.: 10.4" o.d.

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

Location: exhaust

TEST RESULTS

HIRED HAND 6603-6034	Static Pressure	Speed	Airflow	Efficiency
Test: 98207	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
▲ 3 phase	0.00	589	23,800	27.1
Fan description:	0.05	588	22,500	23.9
48" belt drive, 1 hp Magnetek 8-194005	0.10	586	20,900	20.9
motor, fiberglass housing, plastic	0.15	585	19,200	18.2
shutter 6611-5016, guard and discharge cone #6650-1000	0.20	584	16,800	15.0
	0.25	584	12,000	10.6
	0.30	581	7,800	6.3