

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 98199

Test Date: October 20, 1998

Fan

Make: Hired Hand

Model #: 6603-6034
with 6621-0350 roll seal
Manufacturer: Hired Hand

Blade Size: 48.5"

Orifice Dia.: 49.1"

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.3"

Shutter roll seal 6621-0350

Material: poly cloth

of Doors: 1

of Columns: 1

Door Length: 54"

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

Test: 98199

▲ 3 phase

Fan description:

48" belt drive, 1 hp Magnetek 8-194005

motor, fiberglass housing, roll seal

shutter 6621-0350, guard and discharge cone #6650-1000

Static Pressure

in. water

0.00

0.05

0.10

0.15

0.20

0.25

0.30

Speed

rpm

591

589

588

587

585

584

583

Airflow

cfm

24,900

23,500

22,000

20,300

18,500

16,200

8,800

Efficiency

cfm/Watt

30.4

26.2

22.9

19.9

17.2

14.3

7.5