

University of Illinois
Department of Agricultural Engineering
Bioenvironmental and Structural Systems Lab
Fan Description Form

Project Number: 96237 Series/Test: ___/___

Test Date: September 24, 1996 File Name:

Fan

Make: Hired Hand

Model #: 6603-6020 w/cone

Serial #: -

Manufacturer: Hired Hand

Blade Size: 48.5"

Orifice Dia.: 49.3"

Blade

Number: 3

Shape: propeller

Material: galv. steel

Pitch: -

Clearance: 0.4"

Hub Diameter: -

Shutter

Material: aluminum

Number Doors: 12

Number Rows: 2

Door Length: 25.6"

Location: intake

Other Attachments

Discharge cone 32.3" deep, 59" o.d., 49.3" i.d.

Motor

Make: Magnetek

Model #: C782

Serial #: -

H.P.: 1

Amps: 4.3/8.6

Volts: 230/115

RPM: 1725

S.F.: 1.40

Drive Pulley Dia.: AK41

Axle Pulley Dia.: AK104

Center Spacing: -

Housing

Material: Fiberglass

Intake Area: 52.5"x52.5"

Discharge Area: 49.3" dia.

Depth: 32" top
30" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

HIRED HAND 6603-6020 w/cone

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 96237	0.00	661	27300	21.8
Fan description:	0.05	658	26100	19.6
48" belt drive, 1 hp c782 Magnetek	0.10	655	24700	17.6
motor, fiberglass housing, aluminum shutter	0.15	652	23200	15.7
# 6611-5006, guard and discharge cone	0.20	648	21300	13.7
	0.25	644	19300	11.8
	0.30	642	16000	9.4
