

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

Project Number: 98211

Test Date: October 21, 1998

Fan

Make: Hired Hand

Model #: 6603-6162

Manufacturer: Hired Hand

Blade Size: 14.1"

Orifice Dia.: 14.5"

Blade

Number: 4

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.2"

Shutter

Material: Plastic

of Doors: 5

of Columns: 1

Door Length: 15.3"

Location: intake

Other Attachments:

Motor

Make: Magnetek

Model #: HF2J070N

H.P.: 1/4

Amps: 3.4/1.7

Volts: 115/230

RPM: 1725

S.F.: 1.0

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: drive

Housing

Material: plastic

Intake Area: 16.8"x16.4"

Discharge Area: 14.5" dia.

Depth: 19" top
18" bottom

Guards

Description: wire

Spacing: 1.4" concentric

Location: exhaust

TEST RESULTS

HIRED HAND 6603-6162

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98211	0.00	1714	2370	7.3
Fan description:	0.05	1713	2300	7.0
14" direct drive, 1/4 hp Magnetek HF2J070N	0.10	1711	2210	6.6
motor, plastic housing, plastic shutter	0.15	1709	2120	6.3
and guard	0.20	1708	2000	5.9
	0.25	1707	1860	5.4
	0.30	1704	1710	4.9