

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

Project Number: 98210

Test Date: October 20, 1998

Fan

Make: Hired Hand

Model #: 6603-6133

Manufacturer: Hired Hand

Blade Size: 17.5"

Orifice Dia.: 18.1"

Blade

Number: 3

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.3"

Shutter

Material: Plastic

of Doors: 6

of Columns: 1

Door Length: 19.8"

Location: intake

Other Attachments:

Discharge cone 18.5" deep, 18.1" i.d., 23.5" o.d.

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: 21.3"x21.6"

Discharge Area: 18.1" dia.

Depth: 21.5" top
20.5" bottom

Guards

Description: wire

Spacing: 1.4" concentric

Location: exhaust

TEST RESULTS

HIRED HAND 6603-6133

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98210	0.00	1674	4270	10.3
Fan description:	0.05	1669	4180	9.7
18" direct drive, 1/4 hp Magnetek HF2J070N	0.10	1663	4050	9.2
motor, plastic housing, plastic shutter,	0.15	1657	3910	8.6
guard and discharge cone	0.20	1652	3790	8.2
	0.25	1646	3650	7.6
	0.30	1639	3490	7.1