

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 98212

Test Date: October 21, 1998

Fan

Make: Hired Hand

Model #: 6603-6163

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:

Discharge cone 14.5" deep, 14.5" i.d., 18.5" 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: 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 6603-6163

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98212	0.00	1719	2630	8.6
Fan description:	0.05	1717	2550	8.1
14" direct drive, 1/4 hp Magnetek HF2J070N	0.10	1715	2470	7.7
motor, plastic housing, plastic shutter,	0.15	1712	2380	7.3
guard and discharge cone	0.20	1709	2280	6.8
	0.25	1707	2150	6.3
	0.30	1705	2020	5.9