

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

Project Number: 98214

Test Date: October 21, 1998

Fan

Make: Hired Hand

Model #: 6603-6193

Manufacturer: Hired Hand

Blade Size: 9.3"

Orifice Dia.: 10"

Blade

Number: 4

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.3"

Shutter

Material: Plastic

of Doors: 5

of Columns: 1

Door Length: 12.5"

Location: intake

Other Attachments:

Discharge cone 10.3" deep, 10" i.d., 12.3" o.d.

Motor

Make: Emerson

Model #: K37HXBJA-0565

H.P.: 1/6

Amps: 3.2/1.6

Volts: 115/230

RPM: 3400

S.F.: -

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: drive

Housing

Material: plastic

Intake Area: 13.5"x13.6"

Discharge Area: 10" dia.

Depth: 16.5" top
15.5" bottom

Guards

Description: wire

Spacing: 1.4" concentric

Location: exhaust

TEST RESULTS

HIRED HAND 6603-6193

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98214	0.00	3404	1620	5.6
Fan description:	0.05	3397	1580	5.3
10" direct drive, 1/6 hp Emerson K37HXBJA-0565	0.10	3392	1530	5.1
motor, plastic housing, plastic shutter,	0.15	3387	1490	4.8
guard and discharge cone	0.20	3381	1450	4.6
	0.25	3377	1410	4.4
	0.30	3371	1360	4.2