

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

Project Number: 97256

Test Date: October 24, 1997

Fan

Make: Canarm

Model #: FG48HEBD

Manufacturer: Canarm

Blade Size: 48"

Orifice Dia.: 49.1"

Blade Lau

Number: 3

Shape: propeller

Material: galv. steel

Pitch: 35 deg.

Clearance: .5"

Shutter

Material: plastic

of Doors: 14

of Columns: 2

Door Length: 25.9"

Location: intake

Other Attachments:

Discharge cone 26" deep, 57" o.d.

Motor

Make: Marathon

Model #: 17T5303

H.P.: 1

Amps: 9.2/4.6

Volts: 115/230

RPM: 1725

S.F.: 1.25

Drive

Drive Pulley Dia.: 2.8" o.d.

Axle Pulley Dia.: 9" o.d.

Housing

Material: fiberglass

Intake Area: 54.3" x 54.3"

Discharge Area: 51" o.d.

Depth: 35" top
22.5" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

CANARM FG48HEBD

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 97256	0.00	539	24400	24.6
Fan description:	0.05	539	22700	21.7
48" belt drive, 1 hp Marathon 17T5303	0.10	535	20800	19.0
motor, fiberglass housing, plastic shutter,	0.15	535	18500	16.3
guard and discharge cone	0.20	533	15300	13.2
	0.25	530	7300	5.8