

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

Project Number: 98103

Test Date: May 15, 1998

Fan

Make: Canarm

Model #: PBF48 w/cone

Manufacturer: Canarm

Blade Size: 48"

Orifice Dia.: 49"

Blade Lau

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.5"

Shutter

Material: plastic

of Doors: 14 per column

of Columns: 2

Door Length: 25.9"

Location: intake

Other Attachments:

Discharge cone 51" i.d., 57" o.d., 25.6" deep

Motor

Make: Marathon

Model #: 5WB56B17T5528A

H.P.: 1

Amps: 8.6/4.3

Volts: 230/115

RPM: 1725

S.F.: 1.4

Drive

Drive Pulley Dia.: 2.6" o.d.

Axle Pulley Dia.: 9" o.d.

Housing

Material: plastic/s.s.

Intake Area: 51.8" x 52"

Discharge Area: 51" o.d.

Depth: 27" top
36" bottom

Guards

Description: wire

Spacing: 2" x 2"

Location: exhaust

TEST RESULTS

CANARM PBF48 w/cone

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98103	0.00	511	24300	26.4
Fan description:	0.05	510	22000	22.6
48" belt drive, 1 hp Marathon 5WB56B17T5528A	0.10	508	19500	19.3
motor, plastic housing, plastic shutter,	0.15	506	16200	15.7
guard and discharge cone	0.20	506	8600	8.3
	0.25	504	5100	4.5
