

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

Project Number: 97286

Test Date: October 29, 1997

Fan

Make: Canarm

Motor

Make: Marathon

Model #: PBF24GSW

Model #: 4WJ48A11T596A

Manufacturer: Canarm

H.P.: 1/2

Blade Size: 24"

Amps: 6.4/3.2

Orifice Dia.: 24.6"

Volts: 115/230

Blade 61053501

RPM: 1075

Number: 3

S.F.: 1.0

Shape: propeller

Drive

Material: galv. Steel

Drive Pulley Dia.: direct

Pitch: -

Axle Pulley Dia.: drive

Clearance: 0.3"

Housing

Shutter

Material: plastic/stainles steel

Material: plastic

Intake Area: 27" dia.

of Doors: 7

Discharge Area: 27" dia.

of Columns: 1

Depth: 31" top
26" bottom

Door Length: 28.6"

Guards

Location: intake

Description: wire

Spacing: 2" x 2"

Other Attachments:

Location: exhaust

TEST RESULTS

CANARM PBF24GSW

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 97286	0.00	1120	7430	13.0
Fan description:	0.05	1116	7180	12.1
24" direct drive, ½ hp Marathon 4WJ48A11T596A	0.10	1110	6910	11.2
motor, plastic housing w/slant kit, plastic shutter	0.15	1104	6610	10.3
and guard	0.20	1096	6300	9.4
	0.25	1091	5980	8.7
	0.30	1080	5480	7.7
