

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

Project Number: 97287

Test Date: October 29, 1997

Fan

Make: Canarm

Motor

Make: Marathon

Model #: PBF24GSWC

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:

Discharge cone 32.5" o.d., 16.5" deep

Location: exhaust

TEST RESULTS

CANARM PBF24GSWC

	Static Pressure	Speed	Airflow	Efficiency
Test: 97287	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
	0.00	1127	7890	15.2
Fan description:	0.05	1123	7670	14.3
24" direct drive, ½ hp Marathon 4WJ48A11T596A	0.10	1117	7380	12.9
motor, plastic housing w/slant kit, plastic shutter,	0.15	1110	7080	11.8
guard and discharge cone	0.20	1103	6780	11.0
	0.25	1097	6390	9.8
	0.30	1088	5970	8.8