

**Bioenvironmental and Structural Systems Lab
Fan Description Form**

Project Number: 96288 Series/Test: / Test Date: October 23, 1996 File Name: **Fan**

Make: Canarm

Model #: PBF24 w/slant kit

Serial #: -

Manufacturer: Canarm

Blade Size: 24"

Orifice Dia.: 24.7"

Blade

Number: 3

Shape: propeller

Material: plastic

Pitch: 42

Clearance: 0.4"

Hub Diameter: -

Shutter

Material: plastic

Number Doors: 7

Number Rows: 1

Door Length: 28.5"

Location: intake

Other Attachments**Motor**

Make: Marathon

Model #: 3WC48A17T271AP

Serial #: -

H.P.: 1/2

Amps: 5.4/2.7

Volts: 115/230

RPM: 1625

S.F.: 1.0

Drive Pulley Dia.: direct

Axle Pulley Dia.: drive

Center Spacing: -

Housing

Material: Plastic/ss

Intake Area: 27.3"x27.7"

Discharge Area: 27" dia.

Depth: 31.5"top
26.5" bottom

Guards

Description: wire mesh

Spacing: 2"x2"

Location: exhaust

Note: same as 96269 but blade placed completely back in orifice

TEST RESULTS

CANARM PBF24 w/slant kit

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 96288	0.00	1591	6840	11.3
Fan description:	0.05	1590	6490	10.7
24" direct drive, ½ hp Marathon	0.10	1591	6130	10.2
3WC48A17T271AP motor, plastic slant	0.15	1593	5720	9.6
housing, plastic shutter and guard	0.20	1600	5270	9.0
	0.25	1604	4920	8.6
	0.30	1612	4400	7.9
