

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 99075

Test Date: April 28, 1999

Fan

Make: Pruden Ventilation

Model #: PFFG48C

Manufacturer: Pruden

Blade Size: 48"

Orifice Dia.: 48.5"

Blade

Number: 4

Shape: propeller

Material: stainless steel

Pitch: -

Clearance: 0.3"

Shutter

Material: aluminum

of Doors: 14

of Columns: 2

Door Length: 25.8"

Location: intake

Other Attachments:

discharge cone 24.5" deep, 48.5" i.d., 58" o.d.

Motor

Make: Marathon

Model #: 56WF56B17T5529A

H.P.: 1

Amps: 8.6/4.3

Volts: 115/230

RPM: 1725

S.F.: 1.4

Drive

Drive Pulley Dia. 3" o.d.

Axle Pulley Dia.: 11" o.d.
AL114

Housing

Material: fiberglass

Intake Area: 51" x 54.5"

Discharge Area: 48.5"

Depth: 26" top, 12" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

PRUDEN PFFG48C Test: 99075 Fan description: 48" belt drive, 1 hp Marathon 56WF56B17T5529A motor, fiberglass housing, aluminum shutter, guard and discharge cone	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
	0.00	468	21,800	25.2
	0.05	466	20,700	22.8
	0.10	466	19,300	20.1
	0.15	466	17,800	17.8
	0.20	465	15,900	15.7
	0.25	465	13,900	13.5
	0.30	465	8,300	8.1