

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 98008p

Test Date: January 13, 1998

Fan

Make: Pro-Terra

Model #: A40452-1822

Manufacturer: CTB Inc.

Blade Size: 18"

Orifice Dia.: 18.3"

Blade

Number: 4

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.2"

Shutter

Material: plastic

of Doors: 6

of Columns: 1

Door Length: 19.9"

Location: intake

Other Attachments:

Discharge cone 23.5" deep, 25.5" o.d., 18.3"i.d.

Motor

Make: GE

Model #: C605AS

H.P.: 1/4

Amps: 1.50

Volts: 230

RPM: 1625

S.F.: -

Drive

Drive Pulley Dia.: direct drive

Axle Pulley Dia.: -

Housing

Material: fiberglass

Intake Area: 21.5"x21.5"

Discharge Area: 18.3" o.d.

Depth: 18"top
17" botto,

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

PRO-TERRA A40452-1822

Test: 98008p

Fan description:

18" direct drive, 1/4 hp GE C605AS
motor, fiberglass housing, plastic shutter,
guard and discharge cone

Static Pressure
in. water

Speed
rpm

Airflow
cfm

Efficiency
cfm/Watt

0.00

1653

4,180

15.2

0.05

1642

4,010

14.1

0.10

1633

3,870

13.0

0.15

1626

3,670

12.0

0.20

1618

3,500

11.3

0.25

1609

3,300

10.2

0.30

1601

3,030

9.3