

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number:01342

Test Date: November 6, 2001

Fan

Make: Chore-Time

Model #: 46997-4822

Manufacturer: CTB Inc.

Blade Size: 48"

Orifice Dia.: 48.7"

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.4"

Shutter

Material: plastic

of Doors: 15 per column

of Columns: 2

Door Length: 25.9"

Location: intake

Other Attachments:

Discharge cone 24.4" deep, 48.7" i.d., 57.8" o.d.

Motor

Make: GE

Model #: 5K49TN4435

H.P.: 1.5

Amps: 4.8-4.6/2.3

Volts: 208-230/460 3 ph.
60 Hz

RPM: 1725

S.F.: 1.4

Drive

Drive Pulley Dia. 3.0" o.d.
AK30

Axle Pulley Dia.: 9.3" o.d.
AK94

Housing

Material: galvanized steel

Intake Area: 54.3" x 54.6"

Discharge Area: 48.7" dia.

Depth: 33" top
21" bottom

Guards

Description: wire

Spacing: 1" x 2"

Location: exhaust

TEST RESULTS

CHORE-TIME 46997-4842

- 3 phase

Test: 01342

Fan description:

48" belt drive, 1.5 hp GE 5K49TN4435
motor, galvanized steel slant housing,
plastic 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	552	24,500	20.9
0.05	551	23,400	19.1
0.10	550	22,100	17.3
0.15	549	20,500	15.5
0.20	549	18,800	13.7
0.25	548	16,900	12.0
0.30	547	13,900	9.4