

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

Project Number: 01417

Test Date: December 7, 2001

Fan

Make: Chore-Time

Model #: 46997-4822

Manufacturer: Chore-Time

Blade Size: 48" dia.

Orifice Dia.: 48.6"

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -.

Clearance: 0.3"

Shutter

Material: plastic

of Doors: 15 per column

of Columns: 2

Door Length: 25.8"

Location: intake

Other Attachments:

Discharge cone 24.5" deep, 48.6" i.d., 58" o.d.

Motor

Make: AO Smith

Model #: 98GC158C

H.P.: 1.5

Amps: 13.8/6.9

Volts: 115/230

RPM: 1725

S.F.: 1.0

Drive

Drive Pulley Dia. 3.0" o.d.
AK30

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

Housing

Material: galvanized steel

Intake Area: 53" x 51.8"

Discharge Area: 48.6" dia.

Depth: 33" top
21" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

CHORE-TIME 46997-4822

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01417	0.00	550	24,900	21.6
Fan description:	0.05	548	23,500	19.4
48" belt drive, 1.5 hp AO Smith 98GC158C	0.10	547	22,000	17.4
motor, galvanized steel slant housing,	0.15	546	20,400	15.5
plastic shutter, guard and discharge cone	0.20	544	18,600	13.6
	0.25	542	16,600	11.8
	0.30	541	13,200	9.0
