

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

Project Number:98246

Test Date: November 10, 1998

Fan

Make: Chore - Time

Model #: 42331-4822

Manufacturer: Chore - Time

Blade Size: 48"

Orifice Dia.: 48.5"

Blade

Number: 2

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.3"

Shutter

Material: plastic

of Doors: 15 per row

of Columns: 2

Door Length: 25.8"

Location: intake

Other Attachments:

Discharge Cone 24" deep, 48.5" i.d., 57" o.d.

Motor

Make: GE

Model #: K63ZZEDD-4539

H.P.: 1.0

Amps: 5.2

Volts: 230

RPM: 850

S.F. : 1.0

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: Drive

Housing

Material: Galvanized steel

Intake Area: 54.3' x 54.3"

Discharge Area: 48.5" dia

Depth: 29.5" top 25" bottom

Guards

Description: wire

Spacing: 1" x 2"

Location: exhaust

TEST RESULTS

CHORE-TIME 42331-4822

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98246	0.00	855	19400	24.3
Fan description:	0.05	850	18000	21.2
48" direct drive, 1 hp GE K63ZZEDD-4539	0.10	844	16700	18.6
motor, galvanized steel housing, plastic shutter,	0.15	837	14800	15.5
guard and discharge cone	0.20	831	12600	12.5
	0.25	825	10600	10.2
	0.30	817	7900	7.2
