

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 99215

Test Date: November 8, 1999

Fan

Make: Chore-Time

Model #: 44647-4822

Manufacturer: Chore-Time

Blade Size: 48"

Orifice Dia.: 48.6"

Blade

Number: 2

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.3"

Shutter

Material: plastic

of Doors: 15 per column

of Columns: 2

Door Length: 25.9"

Location: intake

Other Attachments:

Discharge cone 48.6" i.d., 57" o.d., 24.3" deep

Motor

Make: Emerson

Model #: K63ZZEDD-4539

H.P.: 1

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" x 54.3"

Discharge Area: 52" x 52"

Depth: 33.3" top
20.8" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

CHORE-TIME 44647-4822

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 99215	0.00	850	19,400	24.0
Fan description:	0.05	845	18,100	21.4
48" direct drive, 1 hp Emerson K63ZZEDD-4539	0.10	840	16,700	18.5
motor, galv. steel slant housing, plastic	0.15	831	14,600	15.3
shutter, guard and discharge cone	0.20	824	12,300	12.1
	0.25	816	10,300	9.7
	0.30	808	7,900	7.1
