

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

Project Number: 98010

Test Date: January 13, 1998

Fan

Make: Chore-Time

Model #: 40453-1422

Manufacturer: Chore-Time

Blade Size: 14"

Orifice Dia.: 14.3"

Blade

Number: 4

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.2"

Shutter

Material: plastic

of Doors: 4

of Columns: 1

Door Length: 15.4"

Location: intake

Other Attachments:

Wind hood 26" deep

Motor

Make: GE

Model #: 5KCP39DG

H.P.: 1/8

Amps: 0.6

Volts: 230

RPM: 1625

S.F.: -

Drive

Drive Pulley Dia.: direct drive

Axle Pulley Dia.: -

Housing

Material: fiberglass

Intake Area: 17"x 17.3"

Discharge Area: 14.3" o.d.

Depth: 26.8"

Guards

Description: wire

Spacing: 1"x2"

Location: exhaust

TEST RESULTS

CHORE-TIME 40453-1422

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98010	0.00	1548	1580	9.7
Fan description:	0.05	1545	1500	9.2
14" direct drive, 1/8 hp GE 5KCP39DG	0.10	1550	1380	8.7
motor, fiberglass housing, plastic shutter,	0.15	1565	1200	7.9
guard and wind hood	0.20	1579	800	5.5
	0.25	1556	640	4.2
