

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

Project Number: 98008

Test Date: January 13, 1998

Fan

Make: Chore-Time

Model #: 40452-1822

Manufacturer: Chore-Time

Blade Size: 18"

Orifice Dia.: 18.3"

Blade

Number: 4

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.2"

Shutter

Material: plastic

of Doors: 6

of Columns: 1

Door Length: 19.9"

Location: intake

Other Attachments:

Discharge cone 23.5" deep, 25.5" o.d., 18.3" i.d.

Motor

Make: GE

Model #: C605AS

H.P.: 1/4

Amps: 1.50

Volts: 230

RPM: 1625

S.F.: -

Drive

Drive Pulley Dia.: direct drive

Axle Pulley Dia.: -

Housing

Material: fiberglass

Intake Area: 21.5"x21.5"

Discharge Area: 18.3" o.d.

Depth: 18" top
17" botto,

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

CHORE-TIME 40452-1822

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98008	0.00	1653	4180	15.2
Fan description:	0.05	1642	4010	14.1
18" direct drive, 1/4 hp GE C605AS	0.10	1633	3870	13.0
motor, fiberglass housing, plastic shutter,	0.15	1626	3670	12.0
guard and discharge cone	0.20	1618	3500	11.3
	0.25	1609	3300	10.2
	0.30	1601	3030	9.3