

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 03001

Test Date: January 14, 2003

Fan

Make: Chore-Time

Model #: 48483-21

Manufacturer: CTB, Inc.

Blade Size: 51.8" dia.

Orifice Dia.: 52.8"

Blade 48125

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.5"

Shutter Butterfly damper

Material: Galvanized steel

of Doors: 2

of Columns: na

Door Length: na

Location: exhaust

Other Attachments:

Discharge cone 35" deep, 52.8" i.d., 64" o.d.

Motor

Make: AO Smith

Model #: K56A77C58

H.P.: 1.5

Amps: 13.8/6.9

Volts: 115/230

RPM: 1725/1425

S.F.: 1.1

Drive

Drive Pulley Dia. 3.0" o.d.
AK30

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

Housing

Material: galvanized steel housing

Intake Area: 55.5" x 55.5"

Discharge Area: 52.8" dia.

Depth: 10.5"

Guards

Description: wire

Spacing: 2" x 4" (intake)
2" concentric (exhaust)

Location: intake/exhaust

TEST RESULTS

CHORE-TIME 48483-21	Static Pressure	Speed	Airflow	Efficiency
Test: 03001	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
	0.00	-	-	-
Fan description:	0.05	554	29,400	20.8
52" belt drive, 1.5 hp AO Smith K56A77C58	0.10	552	27,300	18.3
motor, galvanized steel housing, galvanized	0.15	550	24,800	15.8
steel butterfly damper, guard and discharge cone	0.20	548	22,600	13.9
	0.25	546	20,100	11.9
	0.30	545	16,200	9.4