

University of Illinois Department of  
Agricultural Engineering  
BESS Lab

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**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**

Test: 03001

	Static Pressure <u>in. water</u>	Speed <u>rpm</u>	Airflow <u>cfm</u>	Efficiency <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

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