

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

Project Number: 01181

Test Date: August 20, 2001

Fan

Make: American Coolair

Model #: FGBC52M

Manufacturer: American Coolair

Blade Size: 52.8

Orifice Dia.: 53.1"

Blade

Number: 3

Shape: propeller

Material: cast aluminum

Pitch: -

Clearance: 0.1"

Shutter w/ bell mouth inlet

Material: plastic

of Doors: 16

of Columns: 3

Door Length: 17.1"

Location: intake

Other Attachments:

Discharge cone 29" deep, 53.1" i.d., 62.5" o.d.
Belt tensioner

Motor

Make: Emerson

Model #: T63ZZCDZ-1257

H.P.: 1.5

Amps: 13.2/6.7

Volts: 115/230

RPM: 1725

S.F.: -

Drive

Drive Pulley Dia. 3.0"
MA30

Axle Pulley Dia.: 9.5"

Housing

Material: fiberglass

Intake Area: 56" x 56"

Discharge Area: 53.1" dia.

Depth: 24" top
21.5" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

AMERICAN COOLAIR FGBC52M

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01181	0.00	-	-	-
Fan description:	0.05	541	29,400	20.1
52" belt drive, 1.5 hp Emerson T63ZZCDZ-1257	0.10	540	27,400	18.1
motor, fiberglass housing, plastic shutter,	0.15	538	25,600	16.6
Guard and discharge cone	0.20	537	22,900	14.7
	0.25	538	19,100	12.4
	0.30	542	13,000	9.0
