

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

Project Number: 01095

Test Date: May 21, 2001

Fan

Make: American Coolair

Model #: FGBR52M

Manufacturer: American Coolair

Blade Size: 53"

Orifice Dia.: 53.3"

Blade

Number: 4

Shape: propeller

Material: stainless steel

Pitch: -

Clearance: 0.2"

Shutter w/plastic bell mouth

Material: plastic

of Doors: 16 per column

of Columns: 3

Door Length: 17.1"

Location: intake

Other Attachments:

Discharge cone 27.1" deep, 53.3": i.d., 62" o.d.
belt tensioner

Motor

Make: Emerson

Model #: T63ZZCDZ-1257

H.P.: 1.5

Amps: 13.2/6.7//15.5/7.8

Volts: 115/230

RPM: 1725

S.F.: -

Drive

Drive Pulley Dia 3.0" o.d.
AK30

Axle Pulley Dia.: 9.8" o.d.

Housing

Material: fiberglass

Intake Area: 56" x 56"

Discharge Area: 53.3" dia.

Depth: 24" top
21.5" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

AMERICAN COOLAIR FGBR52M

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01095	0.00	-	-	-
Fan description:	0.05	538	29,300	19.5
53" belt drive fan, 1.5 hp Emerson T63ZZCDZ-1257	0.10	535	27,800	17.8
motor, fiberglass housing, plastic bell mouth	0.15	532	26,100	16.0
shutter, guard and discharge cone	0.20	530	24,300	14.3
	0.25	527	21,900	12.4
	0.30	522	17,800	9.5
