

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 01230

Test Date: August 23, 2001

Fan

Make: American Coolair

Model #: MNEFC52L

Manufacturer: American Coolair

Blade Size: 53"

Orifice Dia.: 53.4"

Blade

Number: 4

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.2"

Shutter w/ bell mouth inlet

Material: plastic

of Doors: 16

of Columns: 3

Door Length: 17.1"

Location: intake

Other Attachments:

Discharge cone, 32.5" deep, 53.4" i.d., 64" o.d.
Belt tensioner

Motor

Make: Emerson

Model #: T63ZZBBA-800

H.P.: 1

Amps: 11.0/5.5

Volts: 115/208-230

RPM: 1725

S.F.: 1.3
13.2/6.6 SFA

Drive

Drive Pulley Dia. 2.6"
AK26

Axle Pulley Dia.: 9.5"

Housing

Material: galvanized steel

Intake Area: 56" x 57"

Discharge Area: 53.4" dia.

Depth: 30.3" top
21.3" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

AMERICAN COOLAIR MNEFC52L

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01230	0.00	463	25,000	23.9
Fan description:	0.05	462	23,200	21.1
53" belt drive, 1 hp Emerson T63ZZBBA-800	0.10	460	21,000	18.2
motor, galvanized steel slant housing,	0.15	458	18,700	15.5
plastic bell mouth shutter, guard	0.20	457	16,100	13.1
and discharge cone	0.25	457	11,400	9.4
	0.30	454	8,300	6.4
