

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

Project Number: 01227

Test Date: August 23, 2001

Fan

Make: American Coolair

Model #: MNEFEC52L

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. 2.5"
MA25

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 MNEFEC52L

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01227	0.00	449	24,300	25.4
Fan description:	0.05	448	22,300	22.0
53" belt drive, 1 hp Emerson T63ZZBBA-800	0.10	445	20,100	18.9
motor, galvanized steel slant housing,	0.15	444	17,700	16.0
plastic bell mouth shutter, guard	0.20	442	14,300	12.7
and discharge cone	0.25	444	10,000	8.7
	0.30	441	7,400	6.1
