

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

Project Number: 01203

Test Date: August 22, 2001

Fan

Make: American Coolair

Model #: MNEF52L

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:

Belt tensioner

Motor

Make: Emerson

Model #: 3T663ZZBBA-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" x 2"

Location: exhaust

TEST RESULTS

AMERICAN COOLAIR MNEF52L

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01203	0.00	465	23,700	21.4
Fan description:	0.05	464	22,200	19.3
53" belt drive, 1 hp Emerson T63ZZBBA-800	0.10	462	20,600	17.2
motor, galvanized steel slant housing,	0.15	461	18,600	15.3
plastic bell mouth shutter and guard	0.20	460	16,000	12.8
	0.25	459	13,200	10.2
	0.30	458	9,600	7.4
