

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

Project Number: 01198

Test Date: August 22, 2001

Fan

Make: American Coolair

Model #: MNEF52K

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: AO Smith

Model #: 92GC868

H.P.: 3/4

Amps: 6.8/3.4

Volts: 115/208-230

RPM: 1725

S.F.: 1.3

Drive

Drive Pulley Dia. 2.3"
AK23

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 MNEF52K

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01198	0.00	405	20,500	27.3
Fan description:	0.05	404	18,700	23.7
52" belt drive, 3/4 hp AO Smith 92GC868	0.10	402	16,300	19.9
motor, galvanized steel slant housing,,	0.15	400	13,500	16.0
plastic shutter and guard	0.20	400	10,100	11.7
	0.25	398	6,400	7.1
