

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

Project Number: 01192

Test Date: August 21, 2001

Fan

Make: American Coolair

Model #: MNBR52L

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: aluminum

of Doors: 14

of Columns: 1

Door Length: 54.6"

Location: intake

Other Attachments:

Belt tensioner

Motor

Make: AO Smith

Model #: 327P775

H.P.: 1

Amps: 11.0/5.5

Volts: 115/208-230

RPM: 1725

S.F.: 1.3

Drive

Drive Pulley Dia. 2.6"
MA26

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 MNBR52L

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01192	0.00	466	24,600	22.1
Fan description:	0.05	465	23,300	20.3
52" belt drive, 1 hp AO Smith 327P775	0.10	463	21,700	18.2
motor, galvanized steel slant housing,,	0.15	461	20,100	16.4
aluminum shutter and guard	0.20	460	18,200	14.4
	0.25	457	15,300	11.7
	0.30	454	10,400	7.7
