

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

Project Number: 01127

Test Date: May 23, 2001

Fan

Make: American Coolair

Model #: MNCFC52K

Manufacturer: American Coolair

Blade Size: 52.8"

Orifice Dia.: 53.3"

Blade

Number: 6

Shape: propeller

Material: steel

Pitch: -

Clearance: 0.3"

Shutter

Material: plastic

of Doors: 16 per column

of Columns: 3

Door Length: 17.1"

Location: intake

Other Attachments:

belt tensioner

discharge cone 32.5" deep, 53.3" i.d., 63.5" o.d.

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. 3.0" o.d.
Browning AK30

Axle Pulley Dia.: 15.6" o.d.

Housing

Material: galvanized steel

Intake Area: 56.3" x 56.8"

Discharge Area: 53.3" dia.

Depth: 34.5" top
25.3" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

AMERICAN COOLAIR MNCFC52K

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01127	0.00	328	23,000	29.1
Fan description:	0.05	326	20,400	24.4
53" belt drive fan, 3/4 hp AO Smith 92GC868	0.10	326	17,700	20.3
motor, galvanized steel slant housing,	0.15	326	12,800	14.4
plastic shutter, guard and discharge cone	0.20	324	7,600	8.6
	0.25	323	3,700	3.9
