

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

Project Number: 98030

Test Date: February 18, 1998

Fan

Make: Aerotech

Model #: AX481V1CA

Manufacturer: Aerotech

Blade Size: 48" dia.

Orifice Dia.: 48.3"

Blade

Number: 3

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.2"

Shutter

Material: Aluminum

of Doors: 12 per column

of Columns: 2

Door Length: 25.5"

Location: intake

Other Attachments:

Discharge cone 25.5" deep, 48.3" i.d., 60"o.d.

Motor

Make: Aerotech

Model #: 181416

H.P.: 1.0

Amps: 4.3/8.6

Volts: 230/115

RPM: 1725

S.F.: 1.30

Drive

Drive Pulley Dia.: 3.5" o.d.
AK34

Axle Pulley Dia.: 10.3" o.d

Housing

Material: galv. Steel

Intake Area: 54" x 54"

Discharge Area: 48.3" dia.

Depth: 24"

Guards

Description: wire

Spacing: 2.3" concentric

Location: exhaust

TEST RESULTS

AEROTECH AX481V1CA

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98030	0.00	583	25,000	22.7
Fan description:	0.05	580	23,500	20.5
48" belt drive, 1 hp Aerotech 181416	0.10	579	21,800	18.4
motor, galv. steel housing, aluminum	0.15	578	19,900	16.5
shutter, guard and discharge cone	0.20	577	17,600	14.4
	0.25	578	13,800	11.4
	0.30	579	9,500	8.2
