

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

Project Number: 98029

Test Date: February 18, 1998

Fan

Make: Aerotech

Model #: AX481V1CP

Manufacturer: Aerotech

Blade Size: 48" dia.

Orifice Dia.: 48.3"

Blade

Number: 3

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.2"

Shutter

Material: plastic

of Doors: 15 per column

of Columns: 2

Door Length: 26.1"

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 AX481V1CP

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98029	0.00	581	24,100	21.0
Fan description:	0.05	580	22,600	19.0
48" belt drive, 1 hp Aerotech 181416	0.10	579	21,100	17.4
motor, galv. steel housing, plastic	0.15	578	19,500	15.8
shutter, guard and discharge cone	0.20	577	16,800	13.5
	0.25	578	13,900	11.2
	0.30	580	10,100	8.6