

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

Project Number: 98028

Test Date: February 18, 1998

Fan

Make: Aerotech

Model #: GB481V1CP

Manufacturer: Aerotech

Blade Size: 48" dia.

Orifice Dia.: 48.3"

Blade

Number: 3

Shape: propeller

Material: steel

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.: 3.8" o.d.
AK39

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 GB481V1CP

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98028	0.00	640	23,700	22.5
Fan description:	0.05	638	22,700	20.3
48" belt drive, 1 hp Aerotech 181416	0.10	636	21,600	18.3
motor, galv. steel housing, plastic	0.15	633	20,400	16.5
shutter, guard and discharge cone	0.20	631	19,200	15.0
	0.25	630	17,700	13.2
	0.30	626	15,300	10.8
