

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 98044

Test Date:

Fan

Make: Aerotech

Model #: GB481T1CP

Manufacturer: Aerotech

Blade Size: 48"

Orifice Dia.: 48.3"

Blade

Number: 3

Shape: propeller

Material: steel

Pitch: -

Clearance: 0.3"

Shutter PZ48

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

Amps: 4.3/8.6

Volts: 230/115

RPM: 1725

S.F.: 1.30

Drive

Drive Pulley Dia.: AK39
" o.d.

Axle Pulley Dia.: AK104
10.3"

Housing

Material: galv. Steel

Intake Area: 54" x 54"

Discharge Area: 48.6" o.d.

Depth: 38.5" top
24.5" bottom

Guards

Description: wire

Spacing: 2.3" concentric

Location: exhaust

TEST RESULTS

AEROTECH GB481T1CP

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98044	0.00	640	24,000	23.7
Fan description:	0.05	638	23,000	21.3
48" belt drive, 1 hp Aerotech 181416	0.10	635	21,900	19.0
motor, galv. steel slant housing, plastic	0.15	633	20,800	17.2
shutter, guard and discharge cone	0.20	631	19,400	15.2
	0.25	628	17,900	13.4
	0.30	625	15,200	10.8
