

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 98043

Test Date:

Fan

Make: Aerotech
Model #: AX481T1P
Manufacturer: Aerotech
Blade Size: 48"
Orifice Dia.: 48.6"

Blade

Number: 3
Shape: propeller
Material: aluminum
Pitch: -
Clearance: 0.3"

Shutter PZ48

Material: Plastic
of Doors: 15 per column
of Columns: 2
Door Length: 26.1"
Location: intake

Other Attachments:

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.: AK34
3.5" 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: 1" x 2"
Location: exhaust

TEST RESULTS

AEROTECH AX481T1P

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98043	0.00	576	21,700	18.5
Fan description:	0.05	575	20,300	17.0
48" belt drive, 1 hp Aerotech 181416	0.10	574	19,000	15.7
motor, galv. steel slant housing,	0.15	574	17,300	14.3
plastic shutter and guard	0.20	574	15,400	12.7
	0.25	574	12,400	10.4
	0.30	577	8,900	7.9
