

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 98042

Test Date:

Fan

Make: Aerotech

Model #: AX481T1A

Manufacturer: Aerotech

Blade Size: 48"

Orifice Dia.: 48.6"

Blade

Number: 3

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.3"

Shutter AS48

Material: aluminum

of Doors: 12 per column

of Columns: 2

Door Length: 25.5"

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 AX481T1A

	Static Pressure	Speed	Airflow	Efficiency		
Test: 98042			<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
			0.00	577	22,000	18.9
Fan description:			0.05	575	20,600	17.4
48" belt drive, 1 hp Aerotech 181416			0.10	576	19,100	15.9
motor, galv. steel slant housing,			0.15	576	17,500	14.5
aluminum shutter and guard			0.20	575	15,600	12.9
			0.25	576	12,400	10.5
			0.30	577	8,000	7.1