

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

Project Number: 98297

Test Date: December 11, 1998

Fan

Make: Aerotech

Model #: AT18Z

Manufacturer: Aerotech

Blade Size: 17"

Orifice Dia.: 18.5"

Blade FP1008SS

Number: 5

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.7"

Shutter

Material: plastic

of Doors: 6

of Columns: 1

Door Length: 20.2"

Location: intake

Other Attachments:

Discharge cone 18" deep

Motor

Make: Magnetek

Model #: HF2J029

H.P.: 1/3

Amps: 4.1/2.0

Volts: 115/230

RPM: 1625

S.F.: -

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: drive

Housing

Material: Plastic

Intake Area: 22" x 22"

Discharge Area: 18.5" dia.

Depth: 17.5"

Guards

Description: wire

Spacing: 1" concentric

Location: exhaust

TEST RESULTS

AEROTECH AT18ZCP

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98297	0.00	1665	4450	11.5
Fan description:	0.05	1661	4300	11.0
18" direct drive, 1/3 hp Magnetek HF2J029	0.10	1655	4120	10.2
motor, plastic housing, plastic shutter,	0.15	1652	3940	9.6
guard and discharge cone	0.20	1646	3740	8.9
	0.25	1644	3530	8.4
	0.30	1644	3270	7.8
