

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

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**Project Number:** 98295

**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 Greenheck**

*Material:* aluminum

*# of Doors:* 4

*# of Columns:* 1

*Door Length:* 19.8"

*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 AT18ZCA

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98295	0.00	1672	4620	12.4
Replaces 92227				
Fan description:	0.05	1663	4440	11.4
18" direct drive, 1/3 hp Magnetek HF2J029	0.10	1659	4240	10.8
motor, plastic housing, aluminum shutter,	0.15	1653	4080	10.1
guard and discharge cone	0.20	1649	3880	9.3
	0.25	1644	3670	8.8
	0.30	1643	3410	7.9

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