

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

Project Number: 98053

Test Date: February 19, 1998

Fan

Make: Aerotech

Model #: AT14Z1CP

Manufacturer: Aerotech

Blade Size: 14"

Orifice Dia.: 14.4"

Blade

Number: 7

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.2"

Shutter

Material: plastic

of Doors: 4

of Columns: 1

Door Length: 15.8"

Location: intake

Other Attachments:

Discharge cone 19.3" deep, 21" o.d., 14.4" i.d.

Motor

Make: Aerotech

Model #: HF2EO26N

H.P.: 1/8

Amps: 1.25/0.66

Volts: 115/230

RPM: 1625

S.F.: 1.00

Drive

Drive Pulley Dia.: direct

Axle Pulley Dia.: drive

Housing

Material: plastic

Intake Area: 17.3" x 17.3"

Discharge Area: 14.4" dia.

Depth: 17"

Guards

Description: wire

Spacing: 1.5" concentric

Location: exhaust

TEST RESULTS

AEROTECH AT14ZCP

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98053	0.00	1671	2020	13.8
Fan description:	0.05	1664	1910	12.6
14" direct drive, 1/8 hp Aerotech HF2EO26N	0.10	1655	1790	11.6
motor, plastic housing, plastic shutter,	0.15	1650	1660	10.5
guard and discharge cone. FP1031SS blade	0.20	1642	1440	8.9
	0.25	1658	910	6.0
	0.30	1645	720	4.5