

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

Project Number: 00034

Test Date: March 31, 2000

Fan

Make: Exafan

Model #: EU-45

Manufacturer: Exafan

Blade Size: 17.9" dia.

Orifice Dia.: 18.2"

Blade

Number: 6

Shape: propeller

Material: plastic

Pitch: -

Clearance: .2"

Shutter

Material: plastic

of Doors: 11 / column

of Columns: 2

Door Length: 11.1"

Location: intake

Other Attachments:

discharge cone 21.5" deep, 18.6" i.d., 26.3" o.d.

Motor

Make: Agratec S.L.

Type #: EU-45

H.P.: .53

Amps: 1.9

Volts: 230

RPM: -

S.F.: -

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: drive

Housing

Material: plastic

Intake Area: 24.6" x 24.6"

Discharge Area: 18.6" dia.

Depth: 20"

Guards

Description: wire

Spacing: 2.3"

Location: exhaust

TEST RESULTS

EXAFAN EU45 w/ cone

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 00034	0.00	1711	4330	12.0
Fan description:	0.05	1705	4180	11.2
18" direct drive, 0.53 hp Agratec motor,	0.10	1701	4060	10.4
plastic housing, plastic shutter,	0.15	1696	3930	9.9
guard and discharge cone	0.20	1691	3820	9.3
	0.25	1684	3700	8.6
	0.30	1682	3550	8.3