

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

Project Number: 00033

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:

wind hood 36" deep

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/ hood

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 00033	0.00	1688	3790	9.0
Fan description:	0.05	1683	3680	8.6
18" direct drive, 0.53 hp Agratec motor,	0.10	1682	3570	8.3
plastic housing, plastic shutter,	0.15	1679	3470	8.0
guard and wind hood	0.20	1674	3360	7.6
	0.25	1674	3250	7.1
	0.30	1671	3130	6.8