

University of Illinois, Department of Agricultural Engineering
Bioenvironmental and Structural Systems Lab
Fan Description Form

Project Number: 96304

Test Date: November 6, 1996

Fan

Make: Multifan

Model #: 4E125Q-S3C

Serial #: -

Manufacturer: Multifan

Blade Size: 49.3"

Orifice Dia.: 49.6"

Blade

Number: 4

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.2"

Hub Diameter: -

Shutter with tie bar

Material: plastic

Number Doors: 17 per row

Number Rows: 3

Door Length: 18.1"

Location: intake

Other Attachments

Motor

Make: Magnetek

Model #: 8-186106-01

Serial #: -

H.P.: 1.0

Amps: 4.3/6.8

Volts: 230/115

RPM: 1725

S.F.: 1.40

Drive Pulley Dia.: 4.0"o.d.

Axle Pulley Dia.: 11.8"o.d.

Center Spacing: -

Housing

Material: plastic

Intake Area: 55.8"x55.8"

Discharge Area: 49.6" dia.

Depth: 28" top
15" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

MULTIFAN 4E125Q-S3C

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 96304	0.00	584	22,700	20.1
Fan description:	0.05	582	21,000	17.9
49" belt drive, 1 hp Magnetek 8-186106-01	0.10	580	19,300	16.0
motor, plastic housing, plastic shutter,	0.15	580	17,500	14.3
guard and discharge cone	0.20	580	15,100	12.3
	0.25	580	13,100	10.6
	0.30	580	9,800	8.1
