

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

Project Number: 97260

Test Date: October 24, 1997

Fan

Make: Canarm

Model #: FG48BDI

Manufacturer: Canarm

Blade Size: 48"

Orifice Dia.: 49.1"

Blade Lau

Number: 3

Shape: propeller

Material: galv. steel

Pitch: 35 deg.

Clearance: .5"

Shutter

Material: plastic

of Doors: 14

of Columns: 2

Door Length: 25.9"

Location: intake

Other Attachments:

Discharge cone 57" o.d., 26" deep

Motor

Make: Crompton Greaves

Model #: KFD1304

H.P.: 1

Amps: 12.6/6.3

Volts: 115/230

RPM: 1725

S.F.: 1.25

Drive

Drive Pulley Dia.: 2.8" o.d.

Axle Pulley Dia.: 9" o.d.

Housing

Material: fiberglass

Intake Area: 54.3" x 54.3"

Discharge Area: 51" o.d.

Depth: 35" top
22.5" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

CANARM FG48BDI

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 97260	0.00	531	24200	22.8
Fan description:	0.05	529	22400	20.1
48" belt drive, 1 hp Crompton Greaves KFD1304	0.10	527	20400	17.5
motor, fiberglass housing, plastic shutter,	0.15	525	17900	14.7
guard and discharge cone	0.20	525	12300	10.2
	0.25	516	6200	4.6
