

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

Project Number: 00072

Test Date: April 26, 2000

Fan

Make: Canarm

Model #: FGH50W27H31

Manufacturer: Canarm

Blade Size: 50.1 dia.

Orifice Dia.: 51" dia.

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.5"

Shutter

Material: plastic w/ galv. Frame

of Doors: 14 per column

of Columns: 2

Door Length: 27.5"

Location: intake

Other Attachments:

Motor

Make: GE

Model #: 5KCR48WN0513X

H.P.: 1.0

Amps: 9.6/4.8

Volts: 115/230

RPM: 1725

S.F.: 1.40

Drive

Drive Pulley Dia. 3.5" o.d.

Axle Pulley Dia.: 9.9" o.d.

Housing

Material: fiberglass

Intake Area: 56.3" x 56"

Discharge Area: 54" dia.

Depth: 43.3" x 31"

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

CANARM FGH50W27H31

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 00072	0.00	606	25,900	22.5
Fan description:	0.05	605	24,400	20.0
50" belt drive, 1hp GE 5KCR48WN0513X	0.10	602	22,800	17.7
motor, fiberglass housing, plastic shutter,	0.15	600	21,100	15.7
and guard	0.20	598	19,200	13.7
	0.25	595	16,800	11.7
	0.30	593	13,300	8.9