

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

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**Project Number:** 97290

**Test Date:** October 29, 1997

**Fan**

*Make:* Canarm

*Model #:* FG24H0

*Manufacturer:* Canarm

*Blade Size:* 24"

*Orifice Dia.:* 24.5"

**Blade**

*Number:* 3

*Shape:* propeller

*Material:* galv. Steel

*Pitch:* -

*Clearance:* 0.3"

**Shutter**

*Material:* plastic

*# of Doors:* 7

*# of Columns:* 1

*Door Length:* 28.6"

*Location:* intake

**Other Attachments:**

**Motor**

*Make:* Marathon

*Model #:* 4WJ48A11T596A

*H.P.:* 1/2

*Amps:* 6.4/3.2

*Volts:* 115/230

*RPM:* 1075

*S.F.:* 1.0

**Drive**

*Drive Pulley Dia.:* direct

*Axle Pulley Dia.:* drive

**Housing**

*Material:* fiberglass

*Intake Area:* 29.8"x30"

*Discharge Area:* 27" dia.

*Depth:* 28" top  
21.4" bottom

**Guards**

*Description:* wire

*Spacing:* 2" concentric

*Location:* exhaust

TEST RESULTS

CANARM FG24HO

|                                               | Static Pressure  | Speed      | Airflow    | Efficiency      |
|-----------------------------------------------|------------------|------------|------------|-----------------|
|                                               | <u>in. water</u> | <u>rpm</u> | <u>cfm</u> | <u>cfm/Watt</u> |
| Test: 97290                                   | 0.00             | 1120       | 7420       | 12.9            |
| Fan description:                              | 0.05             | 1116       | 7150       | 12.0            |
| 24" direct drive, ½ hp Marathon 4WJ48A11T596A | 0.10             | 1111       | 6890       | 11.1            |
| motor, fiberglass housing, plastic shutter    | 0.15             | 1103       | 6610       | 10.2            |
| and guard                                     | 0.20             | 1099       | 6320       | 9.6             |
|                                               | 0.25             | 1093       | 6010       | 8.8             |
|                                               | 0.30             | 1084       | 5600       | 7.9             |

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