

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

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**Project Number:** 99059

**Test Date:** April 16, 1999

**Fan**

*Make:* Multifan

*Model #:* MF36A-C

*Manufacturer:* Multifan

*Blade Size:* 36"

*Orifice Dia.:* 36.6"

**Blade**

*Number:* 3

*Shape:* propeller

*Material:* aluminum

*Pitch:* -

*Clearance:* 0.3"

**Shutter**

*Material:* clear plastic  
s.s. frame

*# of Doors:* 13 per column

*# of Columns:* 2

*Door Length:* 21"

*Location:* intake

**Other Attachments:**

Discharge cone 26.5" deep, 36.6" i.d., 46.8" o.d.

**Motor**

*Make:* Vostermans

*Model #:* 8E92-3PP-21NE

*H.P.:* 0.71 kW

*Amps:* 3.9

*Volts:* 230

*RPM:* 800

*S.F.:* -

**Drive**

*Drive Pulley Dia.* Direct

*Axle Pulley Dia.:* drive

**Housing**

*Material:* plastic

*Intake Area:* 45.4" x 45.4"

*Discharge Area:* 36.6"

*Depth:* 19.5"

**Guards**

*Description:* wire

*Spacing:* 2.3" concentric

*Location:* exhaust

TEST RESULTS

MULTIFAN MF36A-C

|                                                    | Static Pressure  | Speed      | Airflow    | Efficiency      |
|----------------------------------------------------|------------------|------------|------------|-----------------|
|                                                    | <u>in. water</u> | <u>rpm</u> | <u>cfm</u> | <u>cfm/Watt</u> |
| Test: 99059                                        | 0.00             | 795        | 12,570     | 19.6            |
| Fan description:                                   | 0.05             | 784        | 11,680     | 17.4            |
| 36" direct drive, 0.71 kW Vostermans 8E92-3PP-21NE | 0.10             | 772        | 10,630     | 15.1            |
| motor, plastic housing, plastic shutter,           | 0.15             | 762        | 9,510      | 13.2            |
| guard and discharge cone                           | 0.20             | 754        | 7,990      | 10.7            |
|                                                    | 0.25             | 757        | 6,520      | 8.9             |
|                                                    | 0.30             | 764        | 4,260      | 6.0             |