

## Bioenvironmental and Structural Systems Lab

### Fan Description Form

Project Number: 93443 Series/Test:     /    

Test Date: December 21, 1993 File Name: \_\_\_\_\_

## Fan

Make: Dayton

Model #: 3F527

Serial #:

Manufacturer: Lenexa

Blade Size: 36"

Orifice Dia.: 36.5"

## Blade

Number: 2

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: .3"

Hub Diameter: -

## Shutter

Material: aluminum

Number Doors: 9

Number Rows: 1

Door Length: 35.8"

Location: intake

## Other Attachments

## Motor

Make: Dayton

Model #: K55HXJRE-6056

Serial #: -

H.P.: 1/2

Amps: 3.0

Volts: 230

RPM: 850

S.F.: 1.25

Drive Pulley Dia.: direct

Axle Pulley Dia.: drive

Center Spacing: -

## Housing

Material: Galv. steel

Intake Area: 36.5"x36.5"

Discharge Area: 37" x 38"

Depth: 20"

## Guards

Description: Welded wire

Spacing: 1" x 2"

Location: exhaust

TEST RESULTS

DAYTON 3F527

|                                          | Static Pressure  | Speed      | Airflow    | Efficiency      |
|------------------------------------------|------------------|------------|------------|-----------------|
|                                          | <u>in. water</u> | <u>rpm</u> | <u>cfm</u> | <u>cfm/Watt</u> |
| Test: 93443                              | 0.00             | 865        | 10140      | 22.3            |
| Fan description:                         | 0.05             | 861        | 9340       | 19.7            |
| 36" direct drive, 1/2 hp Dayton K55HXJRE | 0.10             | 857        | 8460       | 17.0            |
| motor, galvanized steel housing,         | 0.15             | 853        | 7500       | 14.4            |
| aluminum shutter and guard               | 0.20             | 850        | 6120       | 11.3            |
|                                          | 0.25             | 845        | 4020       | 7.0             |

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