

University of Illinois Department of  
Agricultural Engineering  
BESS Lab

---

**Project Number:** 99113

**Test Date:** July 1, 1999

**Fan**

*Make:* Chore-Time

*Model #:* 45575-4822

*Manufacturer:* Chore Time

*Blade Size:* 48" dia.

*Orifice Dia.:* 48.5"

**Blade**

*Number:* 3

*Shape:* propeller

*Material:* galvanized steel

*Pitch:* -

*Clearance:* 0.3"

**Shutter**

*Material:* plastic

*# of Doors:* 15 per column

*# of Columns:* 2

*Door Length:* 25.9"

*Location:* intake

**Other Attachments:**

Discharge cone 24.3" deep, 56.8" o.d., 48.5" i.d.

**Motor**

*Make:* GE

*Model #:* 5KCR49UNO462T

*H.P.:* 1

*Amps:* 4.4/5.4

*Volts:* 230

*RPM:* 1725/1425

*S.F.:* 5.9/7.5 Amps

**Drive**

*Drive Pulley Dia.* AK28

*Axle Pulley Dia.:* 7.8" o.d.

**Housing**

*Material:* galvanized steel

*Intake Area:* 54.4" x 54"

*Discharge Area:* 52" x 52.3"

*Depth:* 33.3" top  
20.8" bottom

**Guards**

*Description:* welded wire

*Spacing:* 2" concentric

*Location:* exhaust

TEST RESULTS

CHORE-TIME 45575-4822

|                                           | Static Pressure  | Speed      | Airflow    | Efficiency      |
|-------------------------------------------|------------------|------------|------------|-----------------|
|                                           | <u>in. water</u> | <u>rpm</u> | <u>cfm</u> | <u>cfm/Watt</u> |
| Test: 99113                               | 0.00             | 600        | 23,900     | 22.4            |
| Fan description:                          | 0.05             | 599        | 22,800     | 20.4            |
| 48" belt drive, 1 hp GE 5KCR49UN0462T     | 0.10             | 597        | 21,400     | 18.3            |
| motor, galv. steel slant housing, plastic | 0.15             | 595        | 20,000     | 16.3            |
| shutter, guard and discharge cone         | 0.20             | 594        | 18,600     | 14.6            |
|                                           | 0.25             | 592        | 16,800     | 12.7            |
|                                           | 0.30             | 590        | 13,900     | 10.0            |

---