

University of Illinois Department of  
Agricultural Engineering  
BEES Lab

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**Project Number:** 98206

**Test Date:** October 20, 1998

**Fan**

*Make:* Hired Hand  
  
*Model #:* 6603-6030  
with 6611-5016 shutter  
*Manufacturer:* Hired Hand  
  
*Blade Size:* 48.5"  
  
*Orifice Dia.:* 49.1"

**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:* 26.1"  
  
*Location:* intake

**Other Attachments:**

Discharge cone 31.5" deep, 49.1" i.d.,  
59.8" o.d.

**Motor**

*Make:* Magnetek  
  
*Model #:* 8-194005  
  
*H.P.:* 1  
  
*Amps:* 3.9-3.41.7  
  
*Volts:* 208-230/460  
3 phase  
*RPM:* 1725  
  
*S.F.:* 1.00

**Drive**

*Drive Pulley Dia.:* MA38  
  
*Axle Pulley Dia.:* 10.4" o.d.

**Housing**

*Material:* Fiberglass  
  
*Intake Area:* 54" x 54.5"  
  
*Discharge Area:* 49.1"  
  
*Depth:* 30.5" top  
27.5" bottom

**Guards**

*Description:* wire  
  
*Spacing:* 2" concentric  
  
*Location:* exhaust

## TEST RESULTS

### HIRED HAND 6603-6030

Test: 98206

▲ 3 phase

Fan description:

48" belt drive, 1 hp Magnetek 8-194005

motor, fiberglass housing, plastic

shutter 6611-5016, guard and discharge cone #6650-1000

Static Pressure

in. water

0.00

0.05

0.10

0.15

0.20

0.25

0.30

Speed

rpm

641

639

638

636

634

633

633

Airflow

cfm

26,100

24,800

23,500

22,000

20,100

18,000

13,200

Efficiency

cfm/Watt

23.8

21.1

19.0

16.8

14.6

12.6

9.2