

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 03045bd

Test Date: 4/29/03

Fan

Make: Big Dutchman

Model #: 60-50-5206

Manufacturer: Canarm

Blade Size: 50"

Orifice Dia.: 50.8"

Blade

Number: 50"

Shape: 3

Material: galv. steel

Pitch: -

Clearance: 0.4"

Shutter

Material: plastic

of Doors: 16 per column

of Columns: 3

Door Length: 18"

Location: intake

Other Attachments:

Motor

Make: GE

Model #: 5K49PN4354

H.P.: 1

Amps: 3.9-3.5/2.2-2.0

Volts: 220-230/380-/415

RPM: 1725/1425

S.F.: 1.00

Drive

Drive Pulley Dia. 3.8" o.d.

Axle Pulley Dia.: 9" o.d.

Housing

Material: fiberglass

Intake Area: 54" x52.3"

Discharge Area: 55" dia.

Depth: 44" top
31" bottom

Guards

Description: wire

Spacing: 2"

Location: exhaust

TEST RESULTS

BIG DUTCHMAN 60-50-5206

Test: 03045bd

▲ 3 phase, 380V, 50Hz

Fan description:

50" belt drive, 1 hp GE 5K49PN4354 motor,
fiberglass housing, plastic shutter, guard
and discharge cone

Static Pressure
in. water

Speed
rpm

Airflow
cfm

Efficiency
cfm/Watt

0.00

570

23,300

21.7

0.05

568

21,900

19.9

0.10

566

20,100

17.2

0.15

564

18,500

15.6

0.20

563

16,800

13.8

0.25

561

14,200

11.4

0.30

559

9,600

7.5