

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 03044bd

Test Date: 4/29/03

Fan

Make: Big Dutchman

Model #: 60-50-5206 w/cone

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:

Discharge cone 28" deep, 55" i.d., 61.5" o.d.

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 W/CONE

Test: 03044bd

▲ 3 phase, 380V, 50Hz

Fan description:

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

Static Pressure	Speed	Airflow	Efficiency
<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
0.00	572	24,700	24.2
0.05	570	23,100	21.8
0.10	567	21,400	19.3
0.15	566	19,900	17.3
0.20	563	17,500	14.6
0.25	561	14,600	11.8
0.30	559	9,600	7.6