

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 03058bd

Test Date: April 29, 2003

Fan

Make: Big Dutchman

Model #: 60-36-5202 w/cone

Manufacturer: Canarm

Blade Size: 35.9"

Orifice Dia.: 36.8"

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: .5"

Shutter

Material: plastic

of Doors: 12 per column

of Columns: 2

Door Length: 20"

Location: intake

Other Attachments:

Discharge cone 19.5" deep, 40.3" i.d., 44.5" o.d.

Motor

Make: FHP

Model #: M099839

H.P.: 1/2

Amps: 2.4/1.2

Volts: 208-230/460

RPM: 850

S.F.: 1.0

Drive

Drive Pulley Dia. direct

Axle Pulley Dia.: drive

Housing

Material: fiberglass

Intake Area: 42" x 41"

Discharge Area: 40.3" dia.

Depth: 36" top
26" bottom

Guards

Description: wire

Spacing: 2"

Location: exhaust

TEST RESULTS

BIG DUTCHMAN 60-36-5202 w/cone

Test: 03058bd

▲ *3 phase*

Fan description:

36" direct drive, ½ hp FHP M099839 motor,
fiberglass housing, plastic shutter, guard
and discharge cone

Static Pressure
in. water

Speed
rpm

Airflow
cfm

Efficiency
cfm/Watt

0.00

820

11,560

25.9

0.05

810

10,660

21.9

0.10

800

9,700

18.6

0.15

789

8,610

15.3

0.20

779

7,140

12.1

0.25

766

5,280

8.3

0.30

743

3,760

5.4