

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 00080bd

Test Date: April 27, 2000

Fan

Make: Big Dutchman

Model #: 60-36-5201

Manufacturer: Canarm

Blade Size: 36"

Orifice Dia.: 36.6"

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -.

Clearance: 0.3"

Shutter

Material: plastic

of Doors: 11 per column

of Columns: 2

Door Length: 20"

Location: intake

Other Attachments:

discharge cone 22" deep, 39.3" i.d., 44.5" o.d.

Motor

Make: FHP/ Leeson

Model #: P1170-36DP

H.P.: 1/2

Amps: 6.0/3.0

Volts: 115/230

RPM: 850

S.F.: 1.15

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: drive

Housing

Material: fiberglass

Intake Area: 39.5" x 39.8"

Discharge Area: 39.3" dia.

Depth: 32.5" top
23" bottom

Guards

Description: wire

Spacing: 2"

Location: exhaust

Test Results

BIG DUTCHMAN 60-36-5201

Test: 00080bd

Fan description:

36" direct drive, 1/2 hp FHP P1170-36DP
motor, fiberglass housing, plastic shutter,
guard and discharge cone

Static Pressure

in. water

0.00

0.05

0.10

0.15

0.20

0.25

0.30

Speed

rpm

860

853

846

838

830

817

784

Airflow

cfm

12,210

11,300

10,450

9,420

8,050

6,300

4,060

Efficiency

cfm/Watt

26.1

22.5

19.5

16.3

13.0

9.6

5.4