

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number:02201bd

Test Date: June 18, 2002

Fan

Make: Big Dutchman

Model #: 60-36-5206

Manufacturer: Canarm

Blade Size: 36"

Orifice Dia.: 36.7"

Blade3

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.4"

Shutter

Material: plastic w/s.s. frame

of Doors: 12 per column

of Columns: 2

Door Length: 20.3"

Location: intake

Other Attachments:

Discharge cone 19.5" deep, 36.7" i.d., 44" o.d.

Motor

Make: FHP

Model #: P1170-48D6

H.P.: 1

Amps: 4.6

Volts: 230

RPM: 850

S.F.: -

Drive

Drive Pulley Dia. direct

Axle Pulley Dia.: drive

Housing

Material: fiberglass

Intake Area: 39.3" x 40"

Discharge Area: 39" dia

Depth: 31" top
27.5" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

Test Results

BIG DUTCHMAN 60-36-5206

Test: 02201bd

Fan description:

36" direct drive, 1 hp FHP P1170 -48D6
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

855

852

847

841

837

832

827

Airflow

cfm

17,010

16,200

15,330

14,380

13,440

12,320

11,000

Efficiency

cfm/Watt

18.5

17.1

15.6

14.1

12.7

11.2

9.7