

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 03049bd

Test Date: April 29, 2003

Fan

Make: Big Dutchman

Model #: 60-36-5203

Manufacturer: Canarm

Blade Size: 35.9"

Orifice Dia.: 36.8"

Blade

Number: 4

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 36.8"

Shutter

Material: plastic

of Doors: 12 per column

of Columns: 2

Door Length: 20"

Location: intake

Other Attachments:

Motor

Make: Marathon

Model #: 9WD56S17T600E

H.P.: 1/2

Amps: 6.6/3.3

Volts: 115/230

RPM: 1725

S.F.: 1.25

Drive

Drive Pulley Dia. 3.3" o.d.

Axle Pulley Dia.: 10.0" o.d.

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 60-36-5203

Test: 03049bd

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
	0.00	539	10,720	20.5
Fan description:	0.05	536	9,590	17.1
36" belt drive, ½ hp Marathon 9WD56S17T600E	0.10	535	8,400	14.2
motor, fiberglass housing, plastic shutter and guard	0.15	533	6,390	10.5
	0.20	532	3,730	5.9
	0.25	526	2,560	3.7
	0.30	520	1,400	1.8