

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 03056bd

Test Date: April 30, 2003

Fan

Make: Big Dutchman

Model #: 60-36-5256

Manufacturer: Canarm

Blade Size: 36" dia.

Orifice Dia.: 37"

Blade

Number: 4

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.5"

Shutter

Material: plastic

of Doors: 13 per column

of Columns: 2

Door Length: 20.1"

Location: intake

Other Attachments:

Motor

Make: Marathon

Model #: 9WD56S17T600E P

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" o.d.

Housing

Material: galvanized steel

Intake Area: 40" x 42"

Discharge Area: 37" dia.

Depth: 34" top
25.5" bottom

Guards

Description: wire

Spacing: 2" x 2"

Location: exhaust

TEST RESULTS

BIG DUTCHMAN 60-36-5256

Test: 03056bd

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
	0.00	534	10,240	22.1
Fan description:	0.05	533	9,210	19.4
36" belt drive, ½ hp Marathon 9WD56S17T600E P	0.10	532	7,900	15.9
motor, galvanized steel slant housing, plastic shutter	0.15	530	5,900	11.1
and guard	0.20	529	3,840	7.0
	0.25	525	2,420	4.1
	0.30	521	1,190	1.8