

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 03052bd

Test Date: April 30, 2003

Fan

Make: Big Dutchman

Model #: 60-36-5259

Manufacturer: Canarm

Blade Size: 36" dia.

Orifice Dia.: 37"

Blade

Number: 3

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: FHP

Model #: M099838

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: 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 60-36-5259

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	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
	0.00	855	10,720	21.5
Fan description:	0.05	851	10,050	19.3
36" direct drive, ½ FHP M099838 motor,	0.10	845	9,280	16.9
galvanized steel slant housing, plastic shutter	0.15	840	8,460	14.7
and guard	0.20	835	7,630	12.8
	0.25	827	6,460	10.3
	0.30	818	4,850	7.2