

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 02414

Test Date: October 24, 2002

Fan

Make: BSM Agri

Model #: 719-136732-1 w/cone

Manufacturer: BSM Agri

Blade Size: 36"

Orifice Dia.: 36.8"

Blade

Number: 3

Shape: propeller

Material: stainless steel

Pitch: -

Clearance: 0.4

Shutter

Material: plastic

of Doors: 12 per column

of Columns: 2

Door Length: 20.1"

Location: intake

Other Attachments:

discharge cone 26" deep, 40.3" i.d., 47" o.d.,

Motor

Make: Marathon

Model #: 9WD48A8T85A

H.P.: 1/2

Amps: 6/3

Volts: 115/230

RPM: 850

S.F.: 1.0

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: drive

Housing

Material: fiberglass

Intake Area: 39" x 40"

Discharge Area: 40.3" dia.

Depth: 36" top
26" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

Test Results

BSM AGRI 719-136732-1

Test: 02414

Fan description:

36" direct drive, 1/2 hp Marathon9WD48A8T85A,
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

851

844

839

833

826

816

807

Airflow

cfm

11,630

10,720

9,980

9,110

8,090

6,570

4,520

Efficiency

cfm/Watt

21.6

19.0

16.8

14.7

12.6

9.8

6.5