

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 02424

Test Date: October 24, 2002

Fan

Make: BSM Agri

Model #: 719-124722-1

Manufacturer: BSM Agri

Blade Size: 23.8"

Orifice Dia.: 24.9"

Blade

Number: 6

Shape: propeller

Material: plastic

Pitch: -

Clearance: 0.6"

Shutter

Material: plastic

of Doors: 9 per column

of Columns: 2

Door Length: 14.1"

Location: intake

Other Attachments:

Discharge cone 20" deep, 28" i.d., 37" o.d.

Motor

Make: Marathon

Model #: 8WM48A11T573D P

H.P.: 1/3

Amps: 4.4/2.2

Volts: 115/230

RPM: 1075

S.F.: 1.0

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: drive

Housing

Material: fiberglass

Intake Area: 27.6"x27".

Discharge Area: 28" dia.

Depth: 30" top
24.5" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

Test Results

BSM AGRI 719-124722-1

Test: 02424

Fan description:

24" direct drive, 1/3 hp Marathon 8WM48A11T573DP
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

1108

1107

1107

1107

1109

1117

1113

Airflow

cfm

6,080

5,820

5,520

5,170

4,720

3,200

2,680

Efficiency

cfm/Watt

14.8

14.0

13.1

12.2

11.3

8.3

6.7