

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 02411

Test Date: October 24, 2002

Fan

Make: BSM Agri

Model #: 719-150831-1

Manufacturer: BSM Agri

Blade Size: 50"

Orifice Dia.: 50.9"

Blade

Number: 3

Shape: propeller

Material: stainless steel

Pitch: -

Clearance: 0.5"

Shutter

Material: plastic

of Doors: 16 per column

of Columns: 3

Door Length: 18"

Location: intake

Other Attachments:

Motor

Make: GE

Model #: 5KCR48WN0513X

H.P.: 1.0

Amps: 9.6/4.8

Volts: 115/230

RPM: 1725

S.F.: 1.40

Drive

Drive Pulley Dia. 3.0" o.d.

Axle Pulley Dia.: 9" o.d.

Housing

Material: fiberglass

Intake Area: 54" x 52.3"

Discharge Area: 55" dia.

Depth: 44" top
31" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

Test Results

BSM AGRI 719-150831-1

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Fan description:

50" belt drive, 1 hp GE 5KCR48WN0513X motor,
fiberglass housing, plastic shutter and guard

Static Pressure

in. water

0.00

0.05

0.10

0.15

0.20

0.25

0.30

Speed

rpm

558

556

555

555

554

552

552

Airflow

cfm

23,800

22,300

20,700

19,000

17,000

14,100

9,600

Efficiency

cfm/Watt

23.5

21.0

18.7

16.5

14.4

11.4

7.7