

**University of Illinois Department of
Agricultural Engineering
BESS Lab**

Project Number: 92061

Test Date: March 9, 1992

Fan

Make: Future Products

Model #: SBF-54

Manufacturer: Future Products

Blade Size: 54" dia.

Orifice Dia.: 55"

Blade

Number: 6

Shape: propeller

Material: galv. Steel

Pitch: 24 deg.

Clearance: 0.5"

Shutter

Material: aluminum

of Doors: 13 per column

of Columns: 2

Door Length: 29.6"

Location: intake

Other Attachments:

Note: This fans intake area was 60.3"x59". A transition was made to attach this to the test chamber opening (54"x54").

Motor

Make: Marathon

Model #: XVF56B17T10B

H.P.: 1

Amps: 16/8

Volts: 115/230

RPM: 1725

S.F.: 1.0

Drive

Drive Pulley Dia. 3.2"

Variable

Axle Pulley Dia.: 12.3" o.d.

Housing

Material: galv. Steel

Intake Area: 60.3" x 59"

Discharge Area: 59" x 58.3"

Depth: 37" top
27" bottom

Guards

Description: wire mesh

Spacing: 1" x 2"

Location: exhaust

TEST RESULTS

FUTURE PRODUCTS SBF-54

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 92061	0.00	315	20900	22.9
Fan description:	0.05	313	18900	19.9
54" belt drive, 1 hp Marathon XVF56b17T10B	0.10	312	16300	16.6
motor, galvanized steel slant housing,	0.15	312	13000	12.9
aluminum shutter and guard	0.20	312	9100	8.4
