

University of Illinois Department of
Agricultural and Biological Engineering
BESS Lab

Project Number: 05200

Test Date: June 15, 2005

Fan

Make: Val-Co

Model #: HGS48G340MGA

Manufacturer: Val-Co

Blade Size: 48.2"

Orifice Dia.: 48.6"

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.2"

Shutter

Material: aluminum

of Doors: 14 per column

of Columns: 2

Door Length: 26.8"

Location: intake

Other Attachments:

Discharge cone 34.4" deep, 48.6" i.d., 60" o.d.

Motor

Make: Raydot

Model #: K56B06D27

Phase: 1

H.P.: 1

Amps: 9.6/4.8

Volts: 115/230

RPM: 1725

S.F.: 1.40

Drive

Drive Pulley Dia. 3.3" o.d.

Axle Pulley Dia.: 9.3" o.d.

Housing

Material: galvanized steel

Intake Area: 52.6" x 53"

Discharge Area: 48.6" dia.

Depth: 27.5" top

Guards

Description: wire

Spacing: 2"

Location: exhaust

TEST RESULTS

VAL-CO HGS48G340MGA	Static Pressure	Speed	Airflow	Efficiency
Test: 05200	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
	0.00	612	24,900	25.9
Fan description:	0.05	611	23,600	22.8
48" belt drive, 1 hp Raydot K56B06D27 motor,	0.10	609	22,200	20.3
galvanized steel slant housing, aluminum shutter,	0.15	607	20,800	17.9
discharge cone and guard	0.20	605	19,100	15.6
	0.25	603	17,200	13.4
	0.30	601	15,200	11.2