

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

Project Number: 98176

Test Date: September 30, 1998

Fan

Make: Acme

Model #: DDPS361G8-C

Manufacturer: Acme Eng. & Mfg.

Blade Size: 36"

Orifice Dia.: 36.8"

Blade

Number: 4

Shape: propeller

Material: Stainless steel

Pitch: -

Clearance: 0.4"

Shutter

Material: aluminum

of Doors: 11 per row

of Columns: 2

Door Length: 20.5"

Location: intake

Other Attachments:

discharge cone 25.8" deep, 36.8" i.d., 48" o.d.

Motor

Make: Fasco

Model #: 7128-0221

H.P.: 1/2

Amps: 7.5/3.8

Volts: 115/230

RPM: 825

S.F.: -

Drive

Drive Pulley Dia. direct

Axle Pulley Dia.: drive

Housing

Material: fiberglass

Intake Area: 42.8"x45.8"

Discharge Area: 36.8" dia.

Depth: 26" top
14.5" bottom

Guards

Description: wire

Spacing: 2.1" concentric

Location: exhaust

TEST RESULTS

ACME DDPS361G8-C

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98176	0.00	856	11270	23.5
Fan description:	0.05	850	10580	20.7
36" Direct drive ½ hp Fasco 7128-0221 motor,	0.10	844	9780	18.1
fiberglass housing, aluminum shutter,	0.15	836	8910	15.5
guard and discharge cone	0.20	827	7420	12.0
	0.25	814	4540	6.8
	0.30	784	3170	4.2