

5. Fresh Air Ventilation Equipment details

Fresh Air Fan will be a Flakt Woods ePowerBox 50-355-1-

Data sheet enclosed, however system pressure estimated at 230pa, and will be re-calculated once final installation drawing completed.

Sound attenuators will be as manufactured by Northern Fans Ltd, and will be the equivalent to 2 x Diameter, (no internal pod) and indicated in the red box on the enclosed data sheets.

Heater Battery can be LPHW from the venues hot water boiler or mains electrical powered.

Data sheet not enclosed, as decision on power not yet made.

The heater should be sized to raise 0.5m³/s by 21°C which will allow for an ambient of -5°C

Filter Module will be manufactured to accommodate G4 filter panels as manufactured by Camfil Ltd.

Data sheet enclosed



RS Components

Statement of Conformity

The product detailed below complies with the specifications published by RS Components. Where applicable it provides assurance that electrostatic discharge sensitive devices have been handled and packed under conditions that meet the administrative and technical requirements of the ANSI/ESD S20.20:2014 and BS EN 61340-5-1:2007 Electrostatic Control Standards.

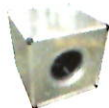
Compliant product details

RS stock number	887-2834
Product description:	Camfil AeroPleat Eco Pleated Panel Filter, Cotton, Synthetic Fibre Media, G4 Grade, 592 x 287 x 48mm, Media Area 0.5m²
Manufacturer/Brand:	Camfil
Manufacturer's part number:	1474.24.00

The foregoing information relates to product sold on, or after, the date shown below.

Date	26.10.2021
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RS Components Ltd, Birchington Road, Corby, Northamptonshire, NN17 9RS, UK



Northern Fan Supplies Ltd

Technical Data Sheet

ePowerBox AC



Quotation Number	: C661	Project Code	: BA-21622-3
Project Name	:	Customer	:
Item Reference:	: FRESH AIR FAN	Date:	: Thursday, October 14, 2021

Fan Code	ePowerBox 50-355-1-4 (5FA)
Fan Diameter / Size	355
Velocity	5.1 m/s
Form of Running	B (Horizontal)

Requested Duty (175V)	0.5m³/s @ 230 Pa (static)
Control Adjustment	175V
Outlet Dynamic Pressure	15 Pa

Duty Shaft Power	0.262 kW
Max Shaft Power	0.282 kW

Motor Frame	Integral [Class F]
Motor Rating	0.282 kW
Full Load Current	1.35 A
Starting Current	4.46 A
Electrical Supply	220-240 Volts 50 Hz 1 Phase
Start Type	Enquire
Motor Winding	Standard

Regulation 1253/2014	
UVU Efficiency	48.7%
UVU Target Efficiency	34.1%
Nominal Flow Rate	0.54 m³/s @ 256 Pa
Effective Input Power	0.280 kW
Nominal RPM	1410 rpm

SFP value	0.52 W/(l/s) @ Requested Duty
Power from mains	0.26 kW
Energy Consumption	787 kWh (3000 h/year)
Running Cost / Year	£71

Air Density	1.2 kg/m³ / 20 °C / 0 m / 50% RH
Smoke Venting	Non Smoke Venting
Product Number	BE355017

Acoustic figures for adjusted running speeds have been interpolated and are for reference only.

This Offer is made subject to the latest version of our A100-19 Terms and Conditions, a copy of which can be made available on request.

	Sound Spectrum (Hz)								Overall	
	63	125	250	500	1k	2k	4k	8k	Lw*	LpA @ 3 m**
Inlet*	49	53	58	57	50	48	44	41	62	37
Outlet*	57	61	68	64	57	51	44	42	70	44
Breakout*	55	55	51	36	27	20	<20	<20	59	24

* Lw dB re 10⁻¹² W

** dBA re 2x10⁻⁵ Pa

Sound data at requested duty.

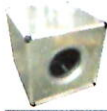
Description		Qty
Fan BE355017 - ePowerBox 50-355-1-4 (5FA)		1
Accessories		
Optional Controllers & Sensors		Optional Accessories
	EEDS (Switched - Electronic) [EA900103]	

Unit E1 Longford Trading Estate
 Thomas Street, Stretford, M320JT
 Tel: 01618641777 Fax: 01618642777

Website: <http://www.nfan.co.uk/>

Email: kylejr@nfan.co.uk

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Northern Fan Supplies Ltd

Combination Data Sheet
ePowerBox AC



Quotation Number : Project Code : BA-21622-3
Project Name : Customer :
Item Reference: : Date: Thursday, October 14, 2021

Fan Code ePowerBox 50-355-1-4 (5FA)
Fan Diameter / Size 355
Velocity 5.1 m/s
Form of Running B (Horizontal)

Requested Duty (175V) 0.5m³/s @ 230 Pa (static)
Control Adjustment 175V
Outlet Dynamic Pressure 15 Pa

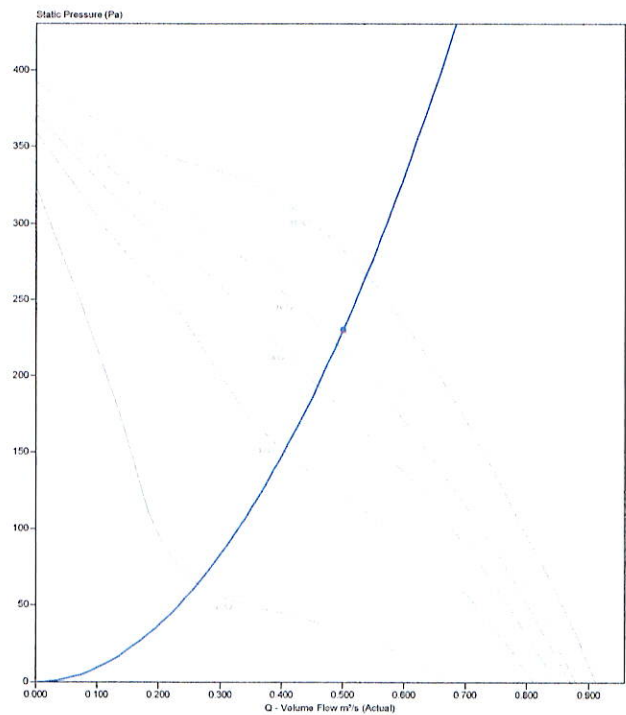
Duty Shaft Power 0.262 kW
Max Shaft Power 0.282 kW

Motor Frame Integral [Class F]
Motor Rating 0.282 kW
Full Load Current 1.35 A
Starting Current 4.46 A
Electrical Supply 220-240 Volts 50 Hz 1 Phase
Start Type Enquire
Motor Winding Standard

Regulation 1253/2014
UVU Efficiency 48.7%
UVU Target Efficiency 34.1%
Nominal Flow Rate 0.54 m³/s @ 256 Pa
Effective Input Power 0.280 kW
Nominal RPM 1410 rpm

SFP value 0.52 W/(l/s) @ Requested Duty
Power from mains 0.26 kW
Energy Consumption 787 kWh (3000 h/year)
Running Cost / Year £71

Air Density 1.2 kg/m³ / 20 °C / 0 m / 50% RH
Smoke Venting Non Smoke Venting
Product Number BE355017



	Sound Spectrum (Hz)								Overall	
	63	125	250	500	1k	2k	4k	8k	Lw*	LpA @ 3 m**
Inlet*	49	53	58	57	50	48	44	41	62	37
Outlet*	57	61	68	64	57	51	44	42	70	44
Breakout*	55	55	51	36	27	20	<20	<20	59	24

* Lw dB re 10⁻¹² W ** dBA re 2x10⁻⁵ Pa
Sound data at requested duty.

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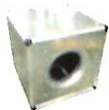
Description		Qty
Fan BE355017 - ePowerBox 50-355-1-4 (5FA)		1
Accessories		
Optional Controllers & Sensors		Optional Accessories
 EEDS (Switched - Electronic) [EA900103]		

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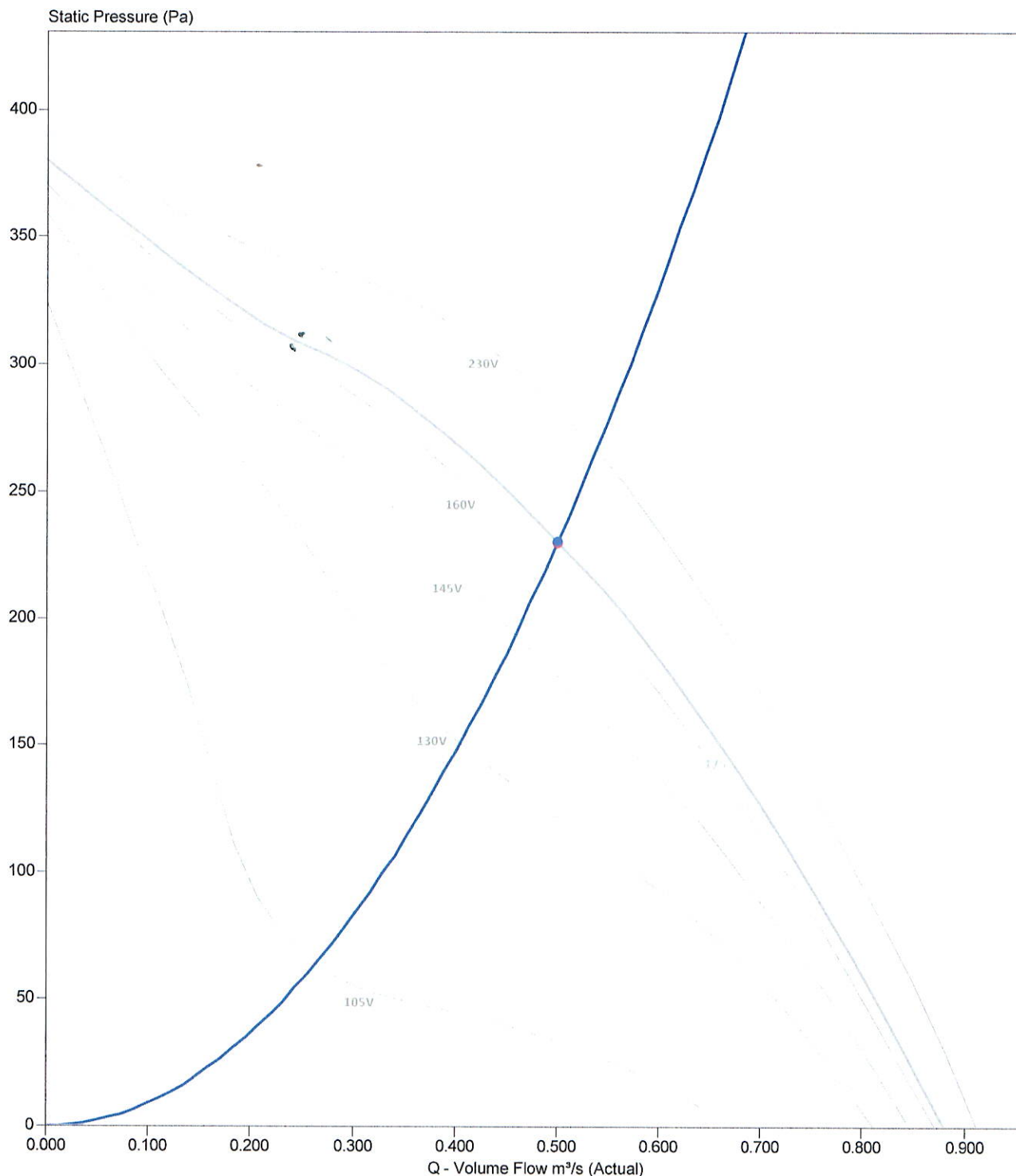
Website: <http://www.nfan.co.uk/>

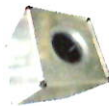
Email: kylejr@nfan.co.uk

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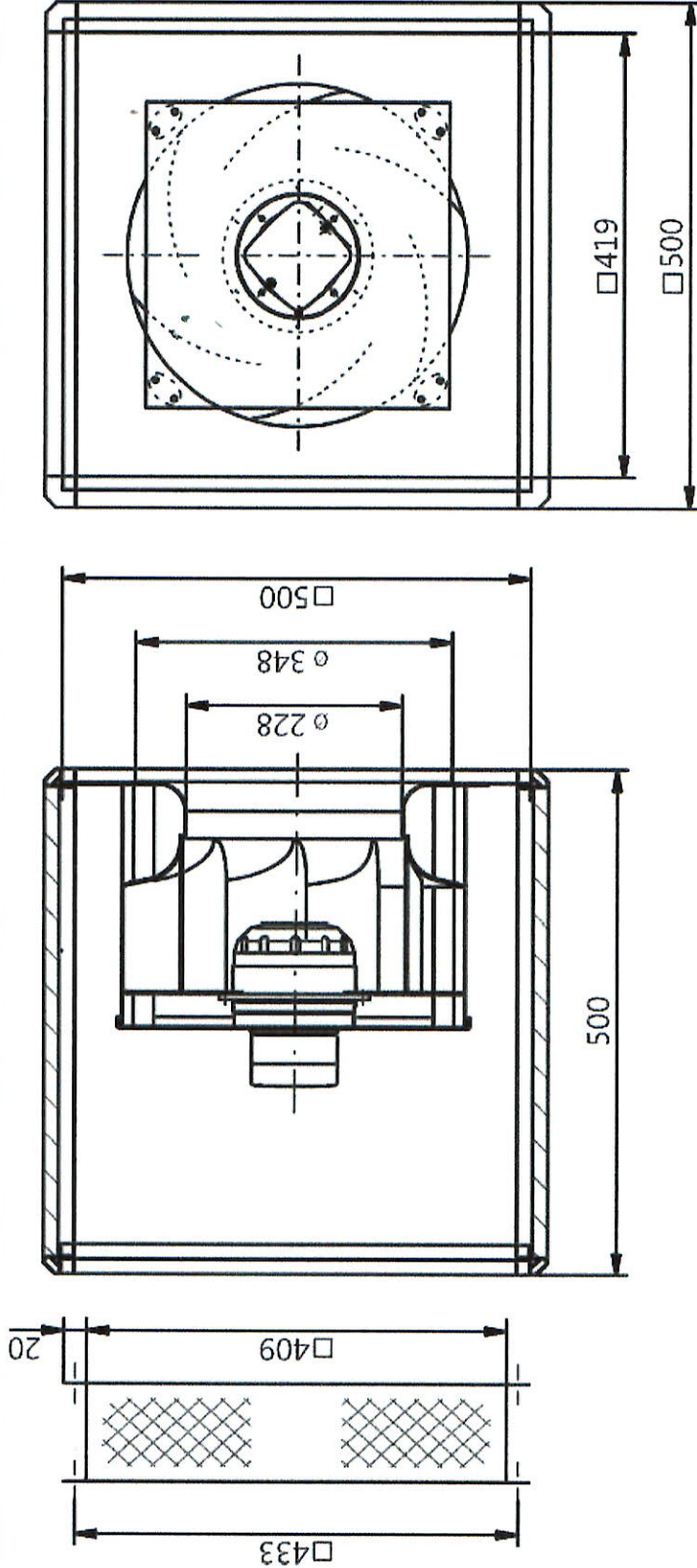
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Project Name	:	Customer	:	
Item Reference:	:	Date:	:	Thursday, October 14, 2021
		Fan Code	:	ePowerBox 50-355-1-4 (5FA)





Quotation Number :
Project Name :
Item Reference :

Fan Code : ePowerBox 50-355-1-4 (SFA)
Customer :
Date: Thursday, October 14, 2021



Notes : Dimensions shown in mm / Weight in kg

This drawing shows dimensions that should be used as a guide only and are subject to change. Certified drawings are available on request.

Reference : Catalogue drawing

Unit E1 Longford Trading Estate

Thomas Street, Stretford, M320JT

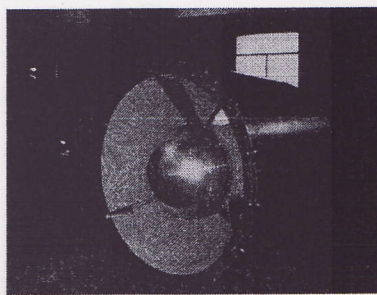
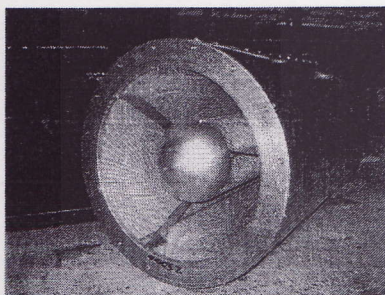
Tel: 01618641777 Fax: 01618642777

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Selection Engine: 3.1.3.49p



STANDARD CIRCULAR SILENCER INSERTION LOSS DATA

@ +20°C and 5m/sec FACE VELOCITY

SILENCER SIZE	CODE	P.A	OCTAVE BAND CENTRE FREQUENCIES (Hz)							
			63	125	250	500	1K	2K	4K	8K
200-550 dia	CDA.1D	ALL	2	4	6	10	14	10	7	8
		A	4	8	13	17	23	17	12	11
		B	4	8	12	17	23	17	12	10
	CDA.2D	C	4	7	10	15	19	16	12	9
		A	4	6	8	12	21	21	18	15
		B	4	6	8	11	18	19	17	14
	CDAP.1D	C	4	6	8	11	14	16	11	10
		A	7	10	12	24	29	29	27	23
		B	7	10	12	21	26	26	24	22
	CDAP.2D	C	7	10	11	18	21	20	17	15
		A	3	4	9	15	15	8	7	6
		B	6	8	13	22	23	14	13	9
600-800 dia	CDA.1D	C	6	8	12	20	18	13	11	9
		A	4	6	8	17	25	21	18	11
		B	4	6	8	17	23	20	18	10
	CDA.2D	C	4	6	8	16	18	16	13	10
		A	8	11	16	30	35	31	29	22
		B	8	11	16	27	32	31	29	19
	CDAP.1D	C	8	11	16	24	23	22	21	17
		A	3	4	9	14	13	7	7	6
		B	6	8	13	22	20	13	12	9
	CDA.2D	C	6	8	12	19	16	11	10	7
		A	4	6	11	21	20	16	13	11
		B	4	6	11	20	18	15	13	11
1000-1500 dia	CDA.1D	C	4	6	11	17	16	14	12	10
		A	8	11	18	30	32	30	24	16
		B	8	11	18	26	27	26	22	16
	CDA.2D	C	8	11	18	21	20	22	20	16
		A	4	5	10	14	11	6	6	5
		B	8	9	14	19	18	12	11	9
	CDAP.1D	C	8	9	13	18	14	10	9	8
		A	5	7	12	21	20	13	12	9
		B	5	7	12	19	18	13	11	9
	CDAP.2D	C	5	7	12	15	16	12	10	8
		A	10	14	21	26	29	28	18	15
		B	10	14	21	25	27	25	16	14
1600-2000 dia	CDA.1D	C	10	14	21	21	20	20	15	14
		A	8	9	14	19	18	12	11	9
		B	8	9	14	19	17	11	10	9
	CDA.2D	C	8	9	13	18	14	10	9	8
		A	5	7	12	21	20	13	12	9
		B	5	7	12	19	18	13	11	9
	CDAP.1D	C	5	7	12	15	16	12	10	8
		A	10	14	21	26	29	28	18	15
		B	10	14	21	25	27	25	16	14
	CDAP.2D	C	10	14	21	21	20	20	15	14

P.A = Fan Impeller Pitch Angle.

A = upto 12 degrees

B = upto 20 degrees

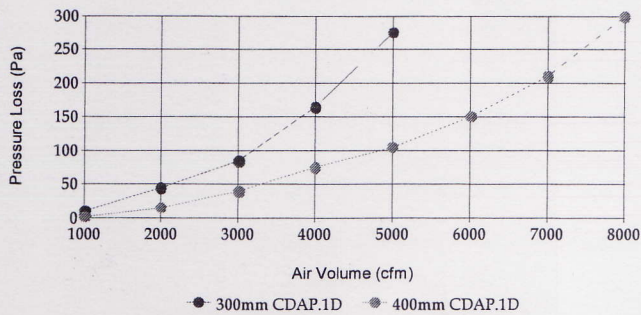
C = upto 45 degrees

The Above Data Is Offered As Being Indicative Only

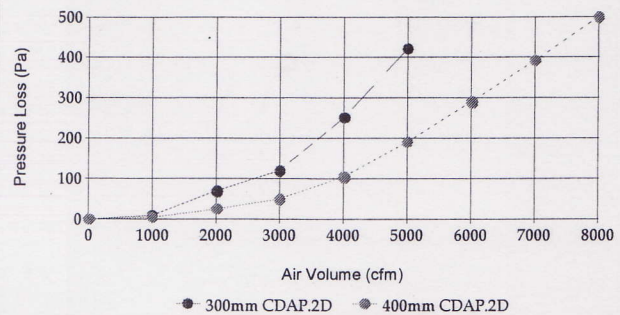
For Guaranteed Data (when applicable) Please Consult With (DBA) Technical Services Ltd.

CDAP Type Silencer Flow Resistance's

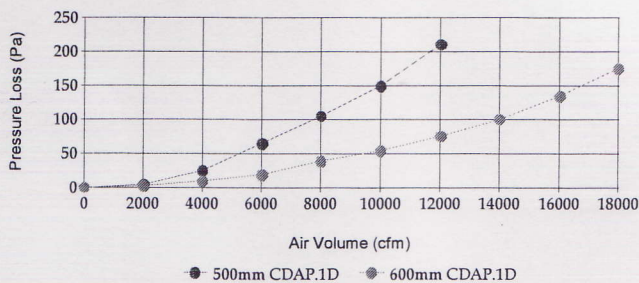
300mm/400mm CDAP.1D Pressure Loss's
@ 20oC With Uniform Airflow



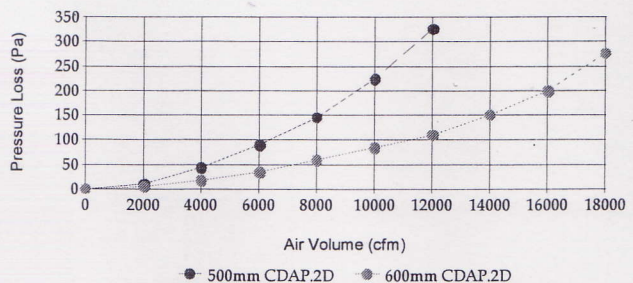
300mm/400mm CDAP.2D Pressure Loss's
@ 20oC With Uniform Airflow



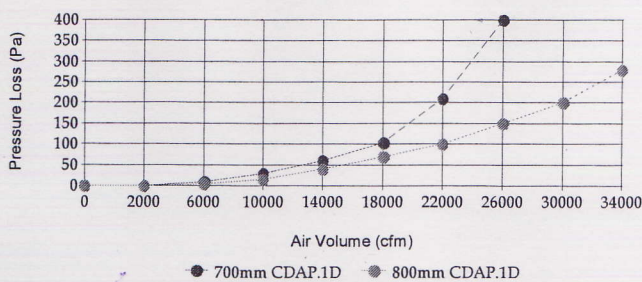
500mm/600mm CDAP.1D Pressure Loss's
@ 20oC With Uniform Airflow



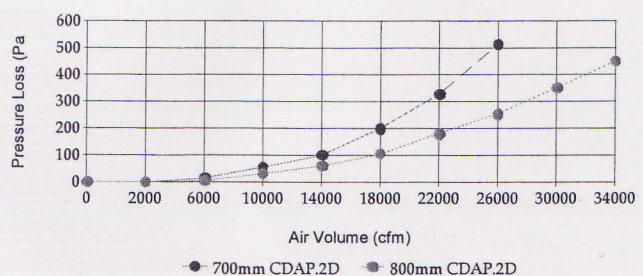
500mm/600mm CDAP.2D Pressure Loss's
@ 20oC With Uniform Airflow



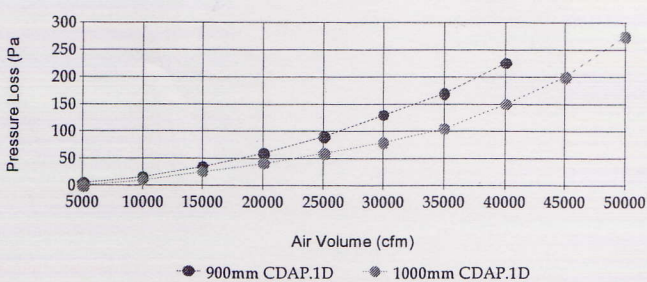
700mm/800mm CDAP.1D Pressure Loss's
@ 20oC With Uniform Airflow



700mm/800mm CDAP.2D Pressure Loss's
@ 20oC With Uniform Airflow



900mm/1000mm CDAP.1D Pressure Loss's
@ 20oC With Uniform Airflow



900mm/1000mm CDAP.2D Pressure Loss's
@ 20oC With Uniform Airflow

