



CRYSTAL
AIR SYSTEMS
Where air is life...

Fans & Accessories

INTEGRATING AIR INTO LIFE

*"Flowing
Air through fans"*

Ventilation Fans
& Accessories

www.crystalairsystems.co.in





About us

- CRYSTAL AIR SYSTEMS a known name in HVAC industry since 2007 having manufacturing facility for the products such as Air handling unit, Fan coil unit, Air washer, Air scrubber (wet/dry), Axial fans and other air distribution products with having the required certificates such as AMCA, EN 1886-2007, CE, Fire certificate for Axial fan, ISO and AHRI delivering the promise to the market.
- We at Crystal understand the requirements of the clients and believe to full fill the same by adding on others products in our product range and accordingly we have introduce Rectangular ducts in 2020 and now Crystal has move towards another milestone in 2021 by introducing its other products likes :-

• Jet Fans	• Propeller Fans	• VAV Boxes
• Circular Inline Fans	• Round to Square Ducts Connection	• UVGI Lamps
• Rectangular Inline Fans	• Flexible Ducts	• Filters
• Cabinet Inline Fans	• EAC Filters	• Coils
- We at Crystal seeks unconditional support from are valued customers for a new product range and inturn we ensure the best of the services in time to come

Jet Fans



Features

- Increased performance with maximum thrust.
- Low noise.
- Cost effective solutions.
- Professional system design, advice and simulation.
- For emergency and general use.

Electrical Supply

- 380-420V/50-60Hz/φ

Temperature Range

- Suitable for temperatures up to 300°C for 2 hours.

JET FANS

CJF Series

➤ Feature

Mounted with airfoil blades for great efficiency and low sound, the impellers of jet fans have hubs and blades made of high-strength die-cast aluminum alloys. Each impeller has undergone heat treatment, X-ray flaw detection, tensile test, metal processing and dynamic balancing tests to ensure reliable quality. The blade angles are statically adjustable.

➤ Motor

The motor is air cooled, squirrel cage and sealed type resistant to damp heat. It is IP55 rated with Class H insulation; Internationally famous bearing brands are used, such as SKF and NSK; The motor lead wire can be connected to the junction box on the fan stack; The grease tube leading all the way from the grease nipple to the fan housing makes greasing and maintenance much easier.

➤ Fan Housing and Mounting Brackets

The laser cutting and plasma cutting processes are used. The housing is automatically welded and formed by spinning. The surface is hot-dip galvanized or coated for better fan strength and corrosion resistance. The mounting brackets are designed based on actual field conditions.

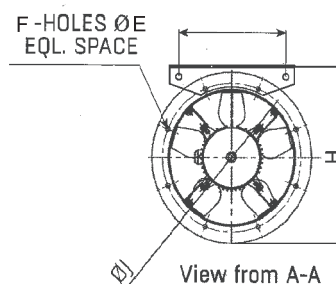
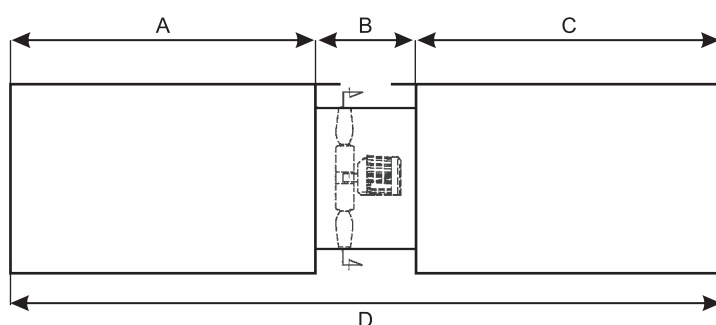
➤ Silencers

The jet fan has silencers of 1 times fan diameter mounted at both the inlet and outlet ends. If sound is a primary consideration, silencers of 2 times fan diameter is recommended. The outer shell is rolled and welded with quality steel sheets. Insulation material with super fine glass fiber is placed inside the silencers between the alkali-free fibrous glass cloth on the outside and a perforated steel inner liner. The streamlined nozzle helps improve flow filed and efficiency.

➤ High Temperature Resistance

The jet fan can run for a straight hour at 300 degrees without mechanical, electrical or structural failures and can be used for emergency smoke removal.

DIMENSIONS & TECHNICAL DATA



MODEL	FAN DIA (J)	CONFIGURATION*	A	B	C	D	E	F	TEMP RATING	INLET	OUTLET	WEIGHT (Kg)
CJF315	315	UNIDIRECTIONAL	630	295	630	1555	10	8	300°C/ 2 Hrs.	BM&GUARD	DEFLECTOR OR GUARD	≈70
CJF355	355	UNIDIRECTIONAL	710	295	710	1715	12	8	300°C/ 2 Hrs.	BM&GUARD	DEFLECTOR OR GUARD	≈75
CJF400	400	UNIDIRECTIONAL	800	295	800	1895	12	8	300°C/ 2 Hrs.	BM&GUARD	DEFLECTOR OR GUARD	≈90

Circular Inline Fans



Features

- Duct fan with circular connections.
- Proven performance and reliability.
- Compact with high capacity and efficiency.
- Low sound levels.
- Impeller with backward curves blades.
- The external rotor motor has maintenance-free sealed ball-bearings.
- Integrated motor protection.
- Junction box has enclosure class IP 54.
- Fan housing is manufactured from galvanized sheet steel.
- Easy installation in any position.

CIRCULAR INLINE FANS

CCI Series

Circular Cabinet Inline Fans		CCI-125A	CCI-125C	CCI-160B	CCI-160C	CCI-200A	CCI-200B	CCI-315B	CCI-315C
CFM		100,150	100,140,150	200,220	250,290,300	350,400,450	400,420,500	550,600,700	800,882
SP		10,12	10,12,15	10,12	12,16,20	10,12,20	12,15,16	10,12,20	10,15
Dimension	L	242	242	270	344	344	344	402	402
	W	242	242	270	344	344	344	402	402
	H	185	185	195	228	226	226	257	257
Speed 'Rpm'		2370	2260	2370	2567	2488	2284	2300	2277
Sound Pressure Level 'db (A)'		46	47	47	49	52	51	53	53
Current 'A'		0.26	0.3	0.43	0.6	0.65	0.8	1.1	1.35
Input 'W'		60	65	95	125	145	170	230	300
Net Weight 'Kg'		3.2	3.2	4.6	4.6	5.7	5.7	7	7

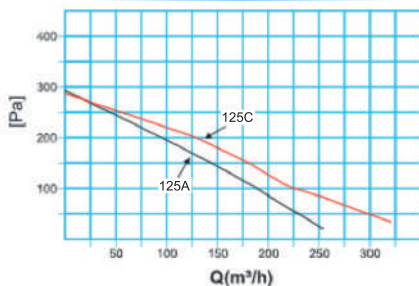
*Power Supply 220V - 240V, 1- ϕ , 50 Hz A. C.

*Motors have 1P-44 Enclosure with class F insulation.

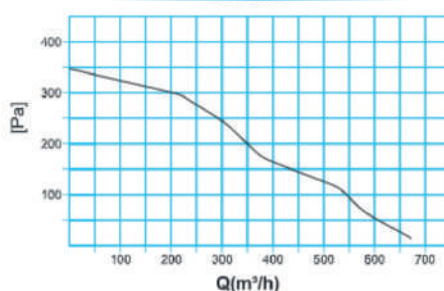
*Weighted Sound pressure level in dB (A) is at a distance of 3 meters.

*Noise data given is at lab test condition.

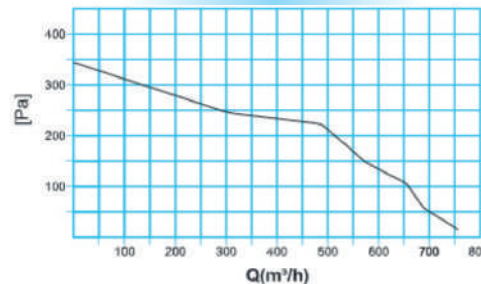
CCI-125A & CCI-125C



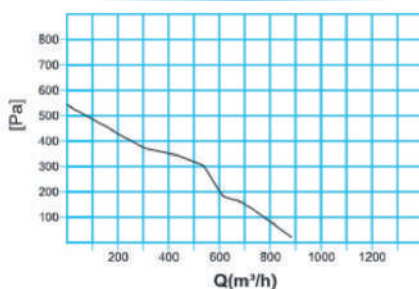
CCI-160B



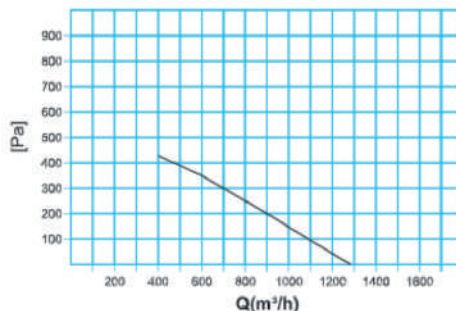
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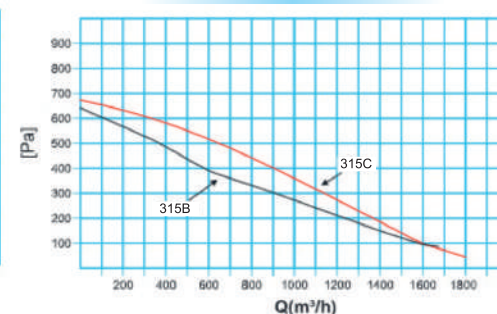
CCI-200A



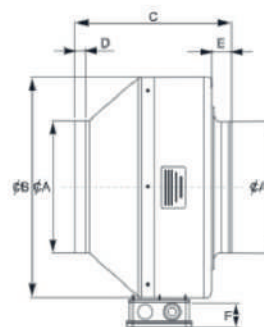
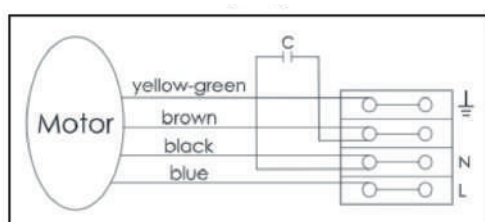
CCI-200B



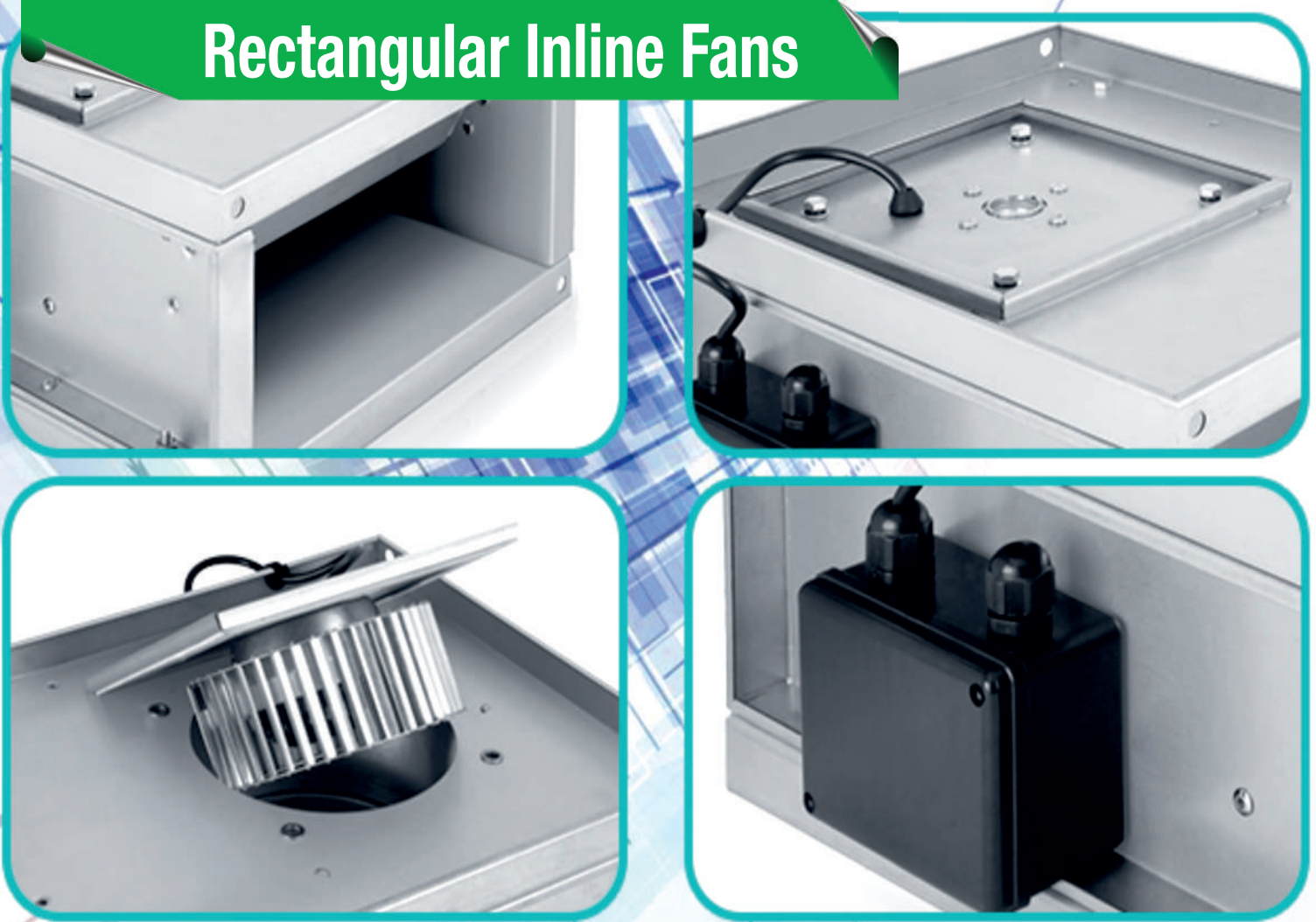
CCI-315B & CCI-315C



Wiring diagram



Rectangular Inline Fans



Features

- Rust Resistant All GI Casing.
- Light Weight Dynamically Balanced Aluminum Impeller.
- Direct Driven.
- High Quality Long Life Motor.
- Vibration-Free and Silent Operation.
- Quick and Easy Installation & Service.

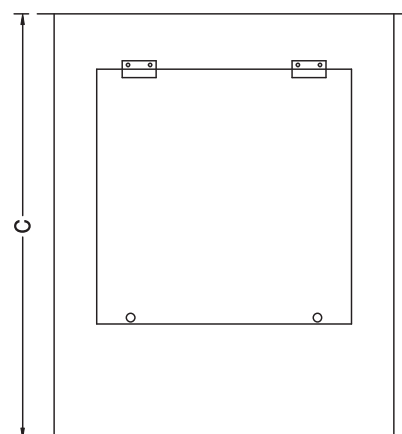
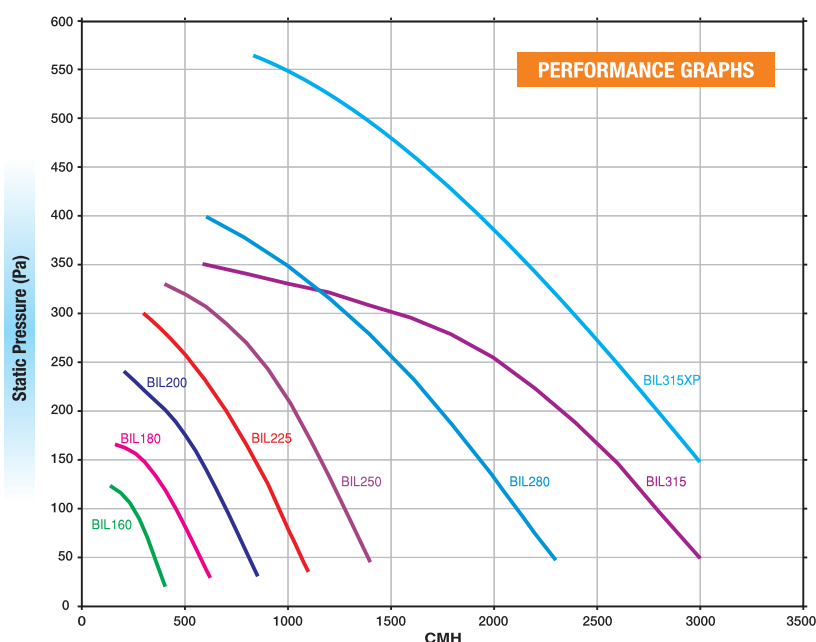
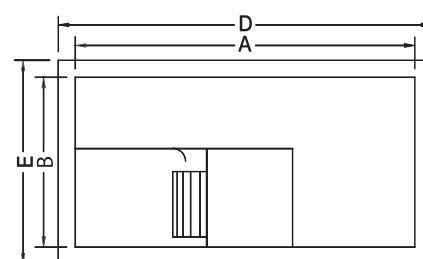
RECTANGULAR INLINE FANS

CRI Series

➤ **Crystal CRI Series** Direct Driven Rectangular Inline Fans are design for the use to intake & exhaust through ventilation system. Casing of inline fans are made of gi heavy gauge with aluminium impeller, wide range of models available are 160 mm to 315 mm all fans are dynamically balanced to ensure minimum and vibration free airflow the casing also have the provision of hinged access door for inspection and service purpose.

DIMENSIONS

MODEL	A	B	C	D	E
CRI160	265	150	305	307	192
CRI180	350	200	450	392	242
CRI200	400	200	500	442	242
CRI225	500	250	540	542	292
CRI250	500	300	560	542	342
CRI280	600	300	620	642	342
CRI315	600	350	680	642	392
CRI315XP	600	350	680	642	392



TECHNICAL DATA

MODEL	VOLTS	Hz	PHASE	INPUT WATTS	RPM	APPROX. WT(kg.)
CRI160	230	50	1	30	1300	5.8
CRI180	230	50	1	130	1350	10.5
CRI200	230	50	1	170	1250	12.0
CRI225	230	50	1	250	1300	17.0
CRI250	230	50	1	370	1200	21.0
CRI280	230	50	1	450	1200	26.0
CRI315	230	50	1	550	930	30.0
CRI315XP	230	50	1	850	1300	33.0

Propeller Fans



Features

- Strongly built.
- Rust resistance.
- Long operational life.

Specifications

- Flow rate up to : 10,800/- m³/h
- Single & 3-phase : IP 54
- Pressure up to : 300 Pa

PROPELLER FANS

CPF Series

➤ Crystal offers a wide range of Propeller Fans as technical below.

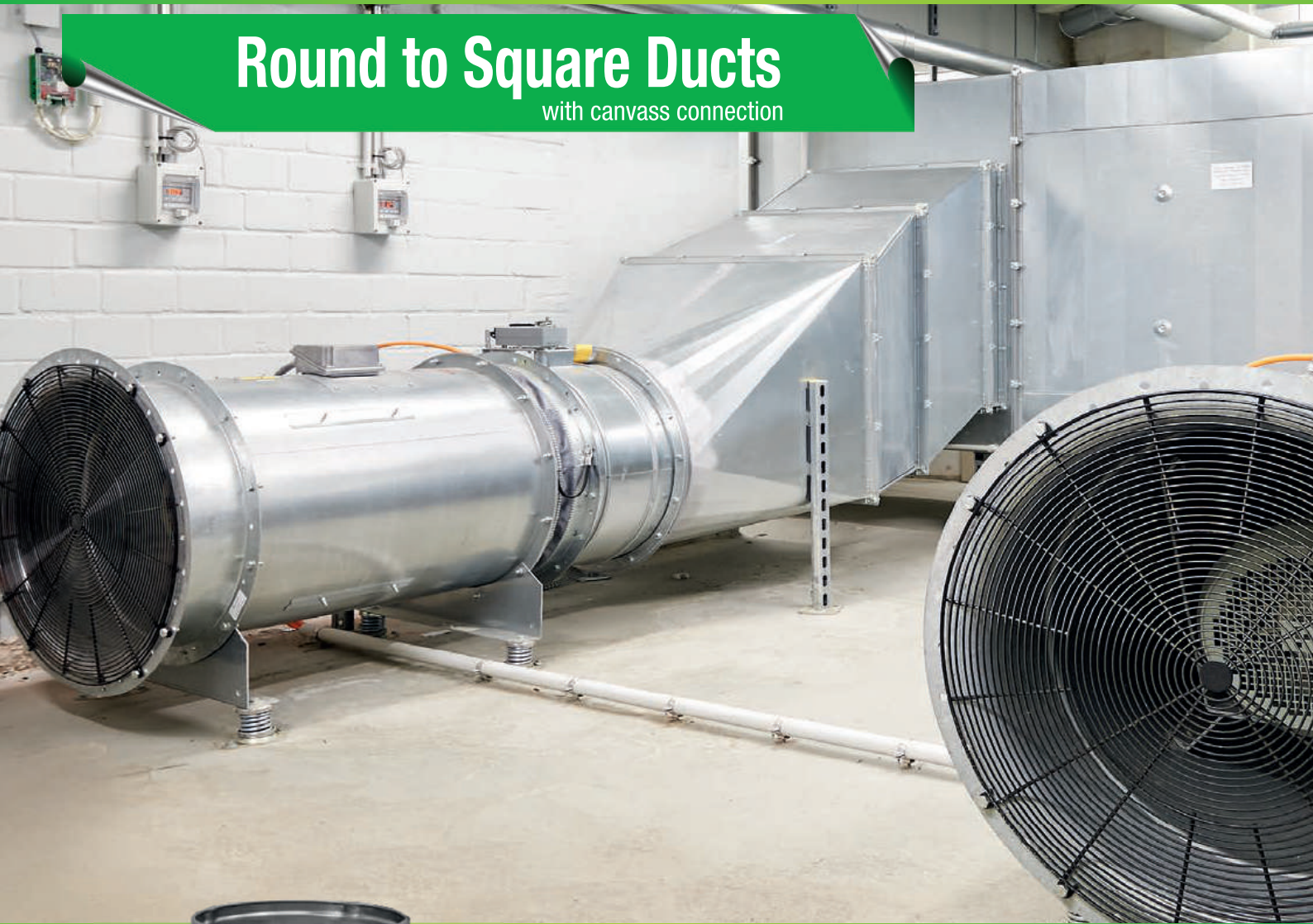
S.NO.	Model Name	Size (mm)	Power Volts	Frequency HZ	No. of Poles	Speed RPM	Air flow CMH	Power Watts	Current Amps	Capacitor Uf	Net wt. Kgs	Noise db(A)
1	CPF2F1-5D200	200	220	50	2	2450	745	50	0.23	2	3	52
2	CPF4F1-5D200	200	220	50	4	1400	425	27	0.12	1	3	45
3	CPF2F1-5D250	250	220	50	2	2480	1330	100	0.45	3	4	60
4	CPF4F1-5D250	250	220	50	4	1400	860	50	0.25	2	4	55
5	CPF2F1-5D300	300	220	50	2	2400	1800	125	0.55	4	5	60
6	CPF4F1-5D300	300	220	50	4	1350	1600	90	0.42	3	5	56
7	CPF4F1-5D350	350	220	50	4	1380	2670	135	0.6	4	6.5	61
8	CPF4F3-5D350	350	415	50	4	1350	2700	150	0.27	/	6.5	61
9	CPF6F1-5D350	350	220	50	6	950	1560	80	0.4	3	6.5	55
10	CPF6F3-5D350	350	415	50	6	920	1560	70	0.18	/	6.5	55
11	CPF4F1-5D400	400	220	50	4	1350	3800	190	0.9	6	8.5	65
12	CPF4F3-5D400	400	415	50	4	1370	3850	190	0.38	/	8.5	65
13	CPF6F1-5D400	400	220	50	6	950	2600	110	0.5	4	8.5	56
14	CPF6F3-5D400	400	415	50	6	930	2610	110	0.24	/	8.5	56
15	CPF4F1-5D450	450	220	50	4	1350	4500	230	1.1	7	9.5	65
16	CPF4F3-5D450	450	415	50	4	1380	4530	250	0.64	/	9.5	65
17	CPF6F1-5D450	450	220	50	6	920	2860	135	0.65	6	9.5	63
18	CPF6F3-5D450	450	415	50	6	920	2900	110	0.28	/	9.5	63
19	CPF4F1-5D500	500	220	50	4	1320	6200	420	2	10	14	71
20	CPF4F3-5D500	500	415	50	4	1350	6250	420	0.85	/	14	72
21	CPF6F1-5D500	500	220	50	6	920	4320	220	1.1	8	14	67
22	CPF6F3-5D500	500	415	50	6	920	4400	220	0.56	/	14	67
23	CPF4F1-7D500	500	220	50	4	1320	7800	550	2.5	12	14	71
24	CPF4F3-7D500	500	415	50	4	1350	7820	550	1.1	/	14	71
25	CPF6F1-7D500	500	220	50	6	920	5800	380	1.7	10	14	67
26	CPF6F3-7D500	500	415	50	6	920	5900	400	1	/	14	67
27	CPF4F1-5D550	550	220	50	4	1320	7500	530	2.5	12	16.5	75
28	CPF4F3-5D550	550	415	50	4	1330	7500	550	1.1	/	16.5	74
29	CPF6F1-5D550	550	220	50	6	910	6500	320	1.5	10	16.5	68
30	CPF6F3-5D550	550	415	50	6	910	6600	320	0.8	/	16.5	68
31	CPF4F1-7D550	550	220	50	4	1350	9700	750	2.6	16	16.5	74
32	CPF4F3-7D550	550	415	50	4	1350	9700	750	1.5	/	16.5	75
33	CPF6F1-7D550	550	220	50	6	900	7000	340	1.6	16	16.5	68
34	CPF6F3-7D550	550	415	50	6	930	7200	330	0.9	/	16.5	68
35	CPF4F1-5D630	630	220	50	4	1360	10800	800	3.7	16	24	76
36	CPF4F3-5D630	630	415	50	4	1350	10100	850	1.5	/	24	76
37	CPF6F1-5D630	630	220	50	6	880	9300	535	2.5	14	24	70
38	CPF6F3-5D630	630	415	50	6	900	9350	550	1.5	/	24	72

Notes :

- Noise data is @1m tested at lab test conditions.
- Fans from 200-300mm dia have IP-44 protection and from 350-630mm dia fans have IP-54 protection.
- Motor is external rotor type having Class 'F' insulation.

Round to Square Ducts

with canvass connection



Features

- Made of GI heavy gauge as required.
- Reduced man power at site.
- Fastest installation.
- Cost effective.

Options

- Stainless Steel.
- Fire reted canvass connection.

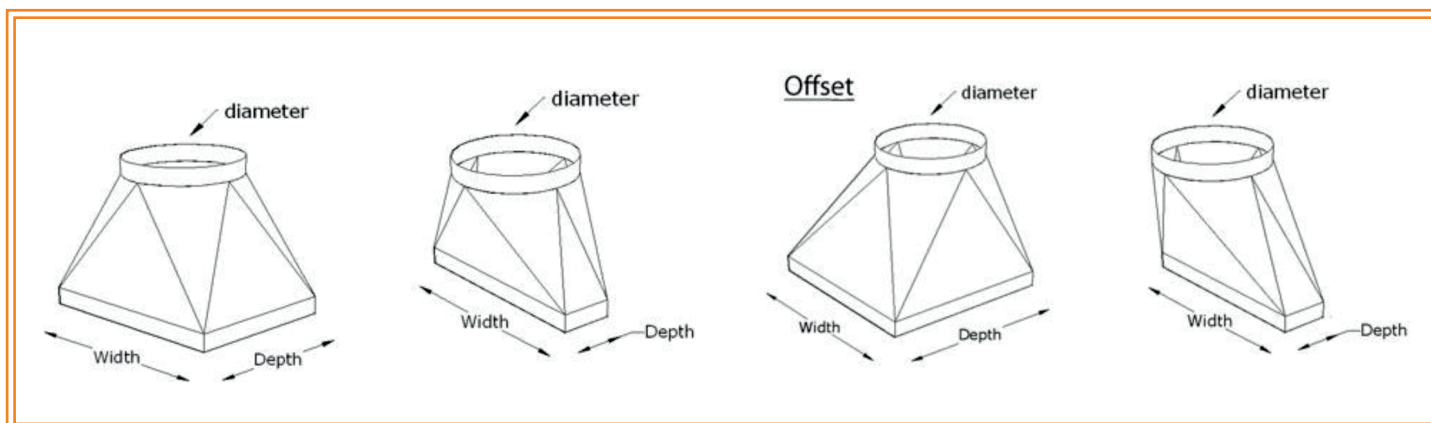
ROUNDS TO SQUARE DUCTS

- Square to rounds, as the name suggests, convert square or rectangular duct work to round wherever such a transition is required. This may be to connect rectangular duct work to ventilation equipment designed for a circular connection, or to change the duct shape to pass through a confined space. In confined areas such as ceiling voids (the space between the suspended and structural ceiling of a building) it's common to see duct work runs comprised of both rectangular and round spiral duct - the main duct and branches are rectangular as the equivalent sized round duct may not fit into the ceiling void. Square to rounds provide the means to make this transition.



- There are many possible shapes and sizes of square to rounds. Most are symmetrical but some may be offset to one side or two sides. We are able to manufacture any square to round required if a clearly dimensioned drawing is supplied to us. Otherwise it is possible to order them online but with limitations to the size and general design (symmetrical and offset to one side - one side is flat - can be defined on the website). Square to rounds offset to two sides and/or with a larger offset will require a drawing.
- In accordance with DW144 we manufacture square to rounds with a maximum slope angle of 22.5° . We use a maximum of 30° for offset square to rounds. If there is a substantial difference in size between the square and round ends it can mean that the square to round is quite long. For example a 750x600 down to will 125 dia will be approx. 850mm total length. You can provide your own overall length in the "Any other info" box if required.

SYMMETRICAL



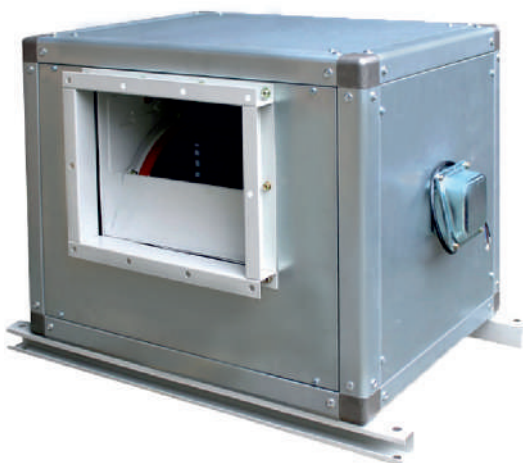
Cabinet Inline Fans

Welcome to Crystal Air Systems



CRYSTAL
AIR SYSTEMS
Where air is life...

Pharma AHU



Features

- High Efficiency DIDW impeller with GI scroll.
- High quality GI cabinet, with inlet and outlet spigots & mounting brackets.
- Access Panels for easy maintenance and inspections.
- Single phase, Squirrel cage induction motors with long life bearings.
- Multi speed motors with speed regulator.
- Inlet is equipped with a provision for slide in filters.

CABINET INLINE FANS

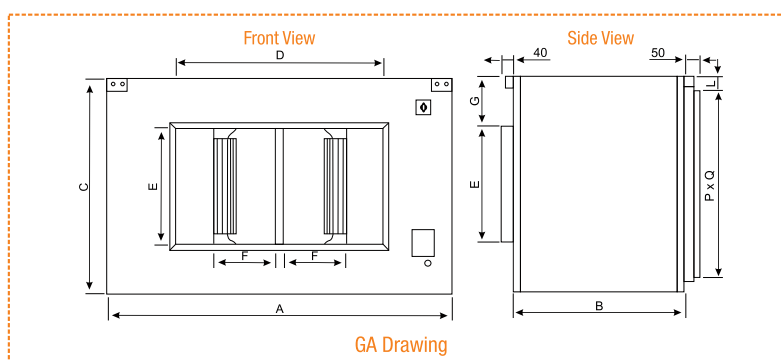
CCF Series

TECHNICAL DATA

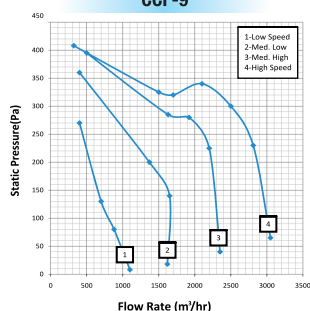
Model	No. of Poles	Power W	Frequency Hz	Insulation Class	Voltage V	Max. Amp.	Noise Data (dBA) ST*/IS (@3m)
CCF-09/09 (IS)	4	370	50	B	220/240	3.5	51/49
CCF-10/10 (IS)	4	500	50	B	220/240	3.2	49/47
CCF-12/12 (IS)	6	736	50	B	220/240	7.5	41/39
CCF-20/20 (IS)	4	500x2	50	B	220/240	3.2x2	51/49
CCF-24/24 (IS)	6	736x2	50	B	220/240	7.5x2	43/41

DIMENSIONS

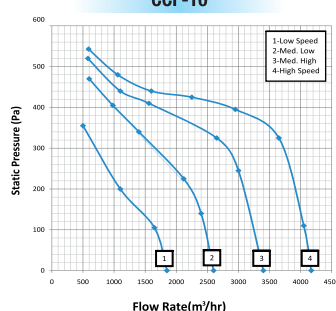
Model	A	B	C	D	E	F	G	L	P	Q	Weight (kg) ST*/IS
CCF-09/09 (IS)	584	465	490	298	262	160	50	50	486	392	29/30
CCF-10/10 (IS)	644	510	550	331	289	179	50	50	546	452	36/37
CCF-12/12 (IS)	744	575	630	404	348	214	50	50	646	532	50/52
CCF-20/20 (IS)	1040	535	650	624	339	179	155	50	942	552	63/65
CCF-24/24 (IS)	1200	600	750	724	404	214	173	50	1102	652	93/96



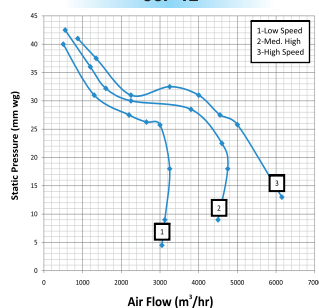
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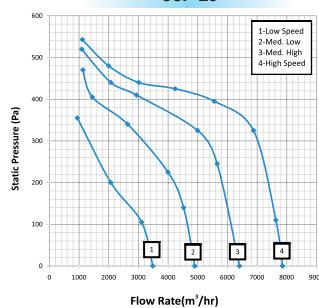
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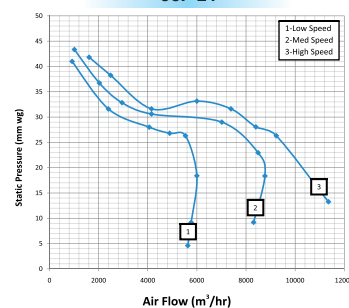
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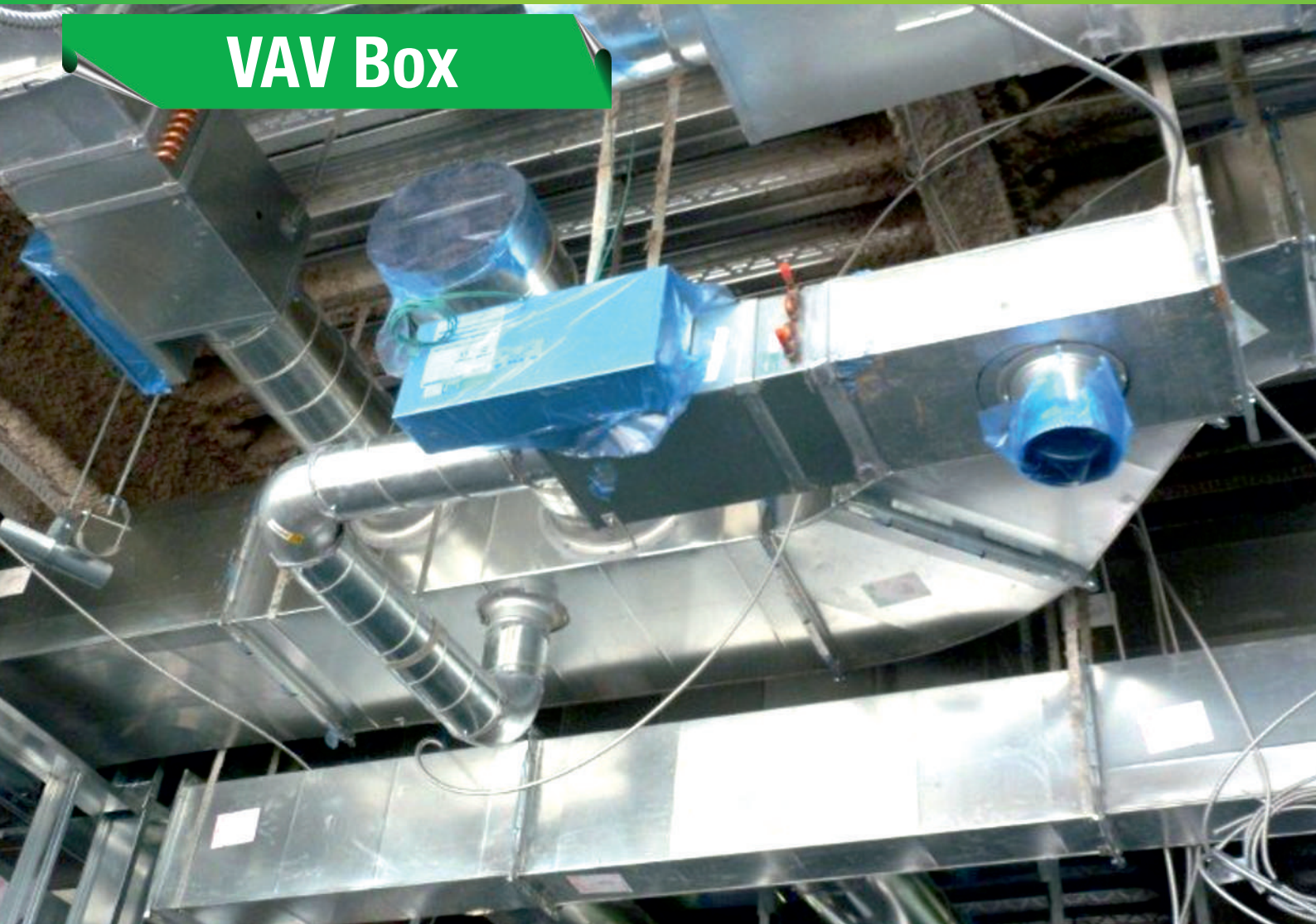
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CCF-24

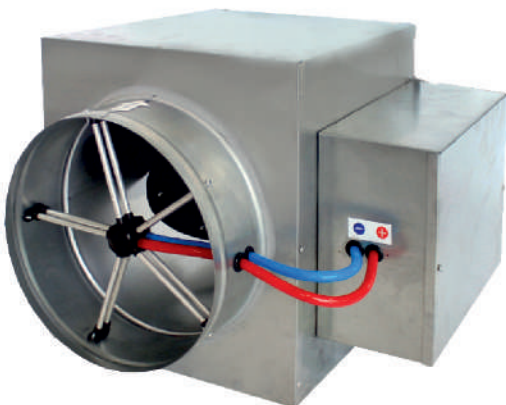


VAV Box



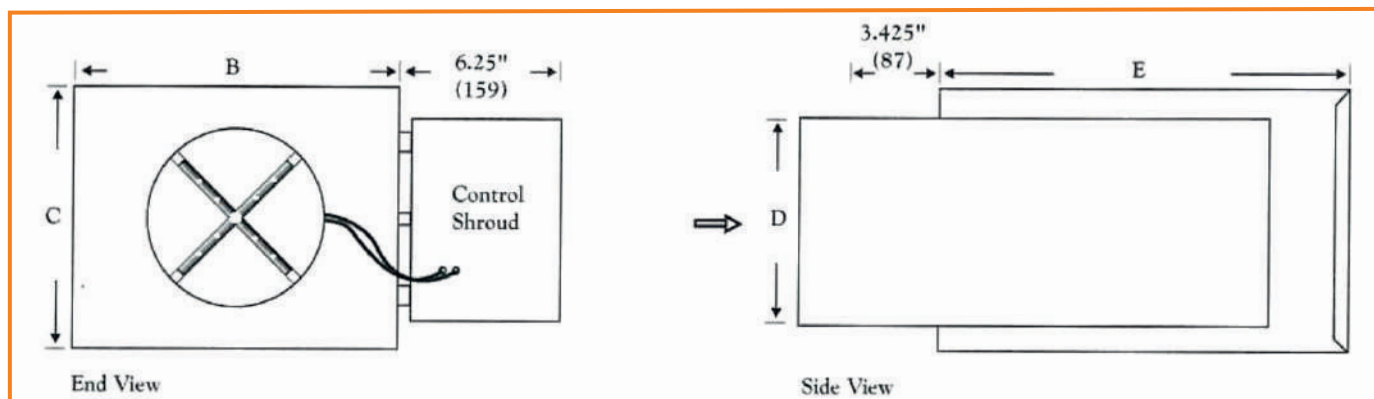
Features

- Oval shape damper for better flow management.
- Neoprene peripheral gasket to prevent leakage.
- Multi-point averaging inlet velocity sensor.
- Round inlet with beading for good inlet connection.
- Square damper shaft for better grip mounting of actuator.
- Shaft indicator for damper position.
- Double layer heavy gauge damper blade.
- Protective metal shroud for control mounting.
- Self-lubricating nylon bearing for low friction long life operation.
- Low pressure drop construction with round inlet and rectangular outlet - static regain.



VAV BOX

CVB - 5000 Dimension



Units	SI				Imperial			
Size	mm				Inches			
4	305	203	149	394	12	8	5.875	15.531
5	305	203	149	394	12	8	5.875	15.531
6	305	203	149	394	12	8	5.875	15.531
7	305	254	175	394	12	10	6.875	15.531
8	305	254	200	394	12	10	7.875	15.531
9	356	318	225	394	14	12.5	8.875	15.531
10	356	318	251	394	14	12.5	9.875	15.531
12	406	381	302	394	16	15	11.875	15.531
14	508	445	352	496	20	17.5	13.875	19.531
16	610	457	403	496	24	18	15.875	19.531
24 x 16	965	460	606 x 403	394	38	18	23.906 x 15.906	15.531

CVB-5000 Includes:

- DDC controller, factory mounted.
- Damper Actuator, factory mounted.
- Room thermostat (Supplied loose).
- 12VA Transformer, 240V to 24V, Factory mounted.
- Velocity sensor, factory mounted.
- Note : Load capacity is one actuator per transformer.

General Notes:

- Internal insulation 25mm (1") 32kg (21b) density coated to prevent air erosion. Meet requirement of NFPA 90A and 90B and has passed Fire Test BS476 Parts 6 to meet Class "O".
- Galvanised steel housing.
- Mechanically sealed leak resistant construction.
- Rectangular discharge opening have drive and slip cleat duct connections as standard.
- Right hand control location standard, as shown above.

Units	I/S	CFM
Size	Min-Aux-Max	Min-Aux-Max
4	12-106	26-225
5	20-165	42-350
6	29-212	62-450
7	40-307	85-650
8	52-378	110-800
9	66-496	140-1050
10	85-637	180-1350
12	127-991	270-2100
14	189-1510	400-3200
16	269-1888	570-4000

EAC Filters

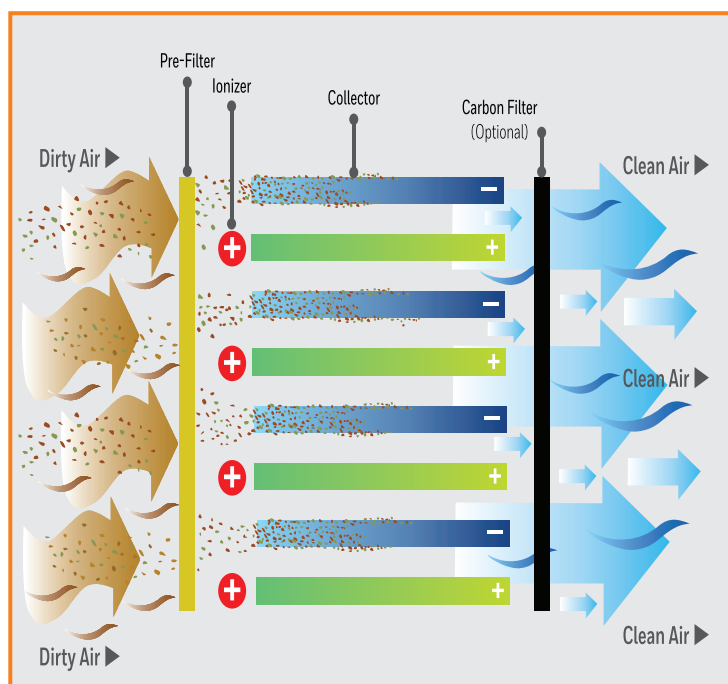


Features

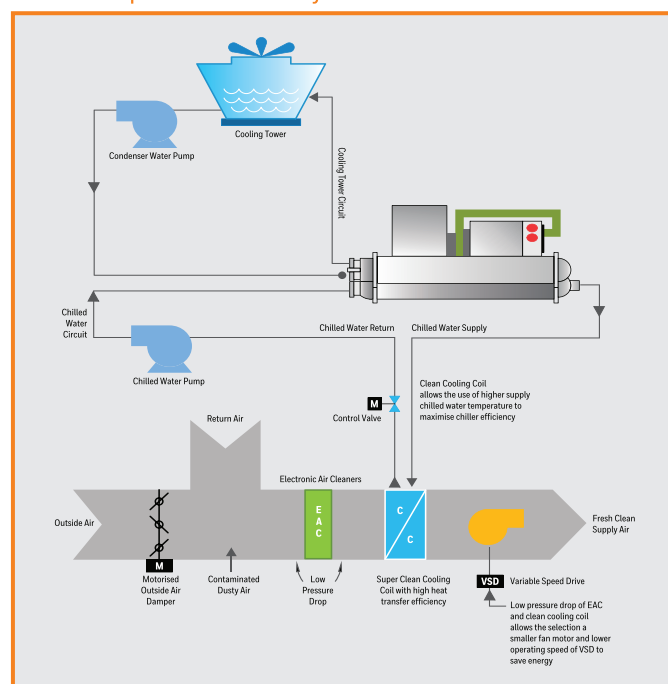
- Retrofittable and minimal system downtime.
- Easy to install and maintain.
- No filter replacement required.
- High air filtration efficiency and very low pressure drop.

EAC FILTERS

How Electronic Air Cleaners (EAC) Work



How Electronic Air Cleaners (EAC) Improve the Efficiency of Chiller Plants and AHUs



TECHNICAL INFORMATION

MODEL NO.	CEAC-1	CEAC-2
No. of Cells	1 Heavy Duty Commercial Cell	2 Heavy Duty Commercial Cells
Capacity	1000 cfm (1700 m3/hr)	2000 cfm (3400 m3/hr)
Mounting	Duct Mounted	
Housing	Galvanised Steel Cabinet	
Operating Ambient	4°C to 52°C	
Colour	Silver	
Dimensions	350 x 610 x 171 mm	670 x 610 x 171 mm
Weight	16.9 kg (Shipped)	19.1 kg (Shipped)
Electrical Ratings	Voltage and Frequency Power Supply : 220 - 240 Vac, 50 Hz Power Consumption : 36 W maximum Current Draw : 0.2 A Ionizer Voltage : 8150 Vdc Collector Voltage : 4075 Vdc	



CEAC - 2



CEAC - 1



**Sectional view of
CEAC - 2**

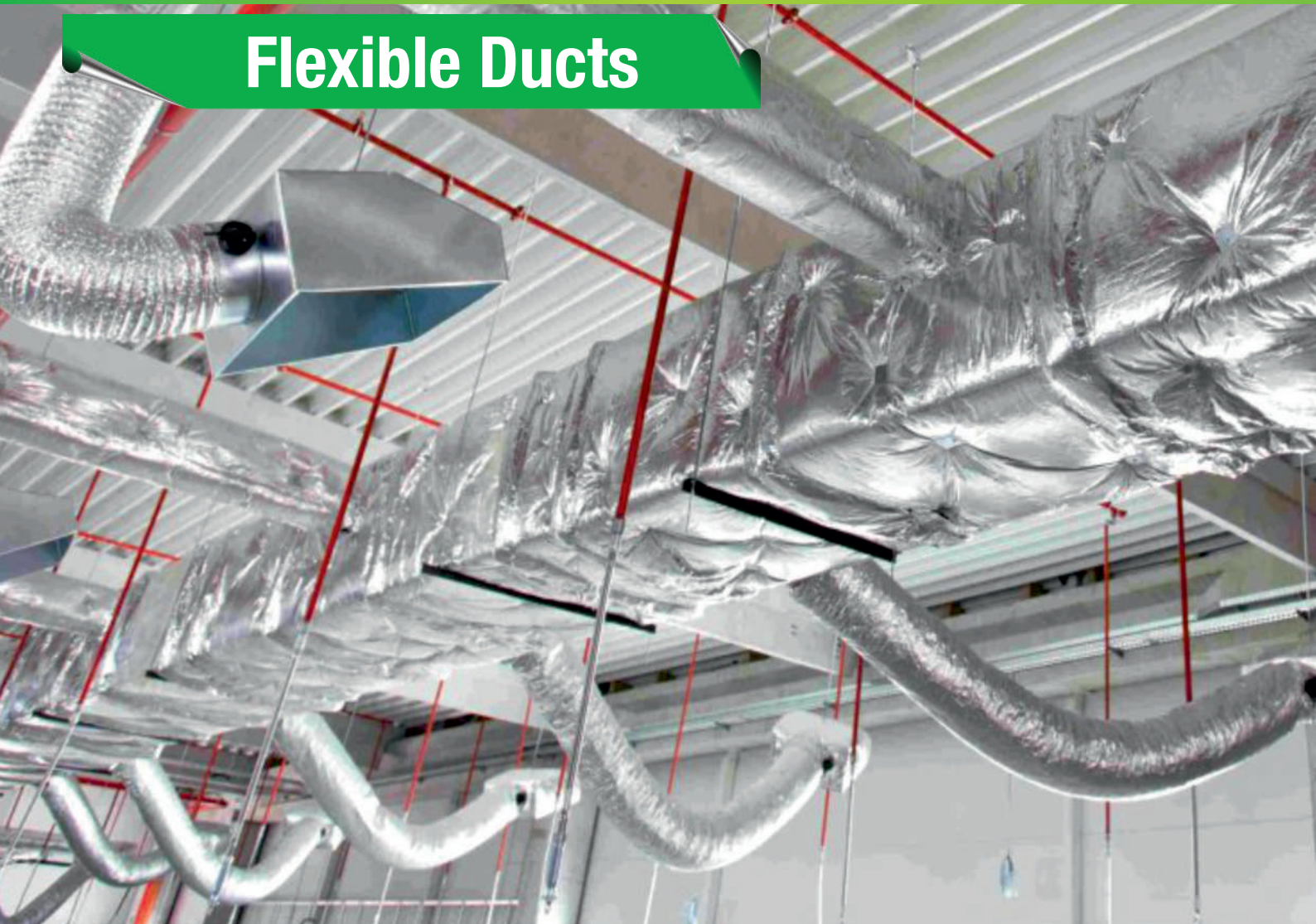


**Pull out view of
CEAC - 1**



**Illustration of a connected
CEAC - 1 & CEAC - 2**

Flexible Ducts



Features

- Supplied in standard 25 feet length.
- Individual box packaging.
- Low transportation and logistics cost.
- Easy installation.
- In case of fire, no toxic or hazardous gases are emitted.
- The vapor barrier prevents the condensation formation on the outside of the ducts.
- Fire Resistant.

FLEXIBLE DUCTS

➤ Insulated Flexible Duct

The Insulated Flexible Duct is a fully flexible duct which has been specially designed for the HVAC market and offers comprehensive solutions for all your duct needs. Its material core is the most durable core available which promotes superior airflow. The rigid wire is permanently bonded to the core. It is suitable for all pressure heating and cooling systems.

This Class 1 Air Duct is wrapped with a 25mm thick fiberglass wool blanket which has a density of 16 Kg/m³ / 24 Kg/m³ and is covered with a multi layer Metallized – Polyester Film jacket which also acts as a vapour barrier.



➤ Applications :-

Widely used in all air conditioning/ventilating systems for both industrial and residential purposes such as hospitals, office spaces, hotels and homes. Can be connected easily with the rectangular main ducts.

➤ Uninsulated Flexible Duct

The Class 1 Uninsulated Flexible Duct is made from double lamination of metallized polyester film, permanently bonded to corrosion resistant zinc coated steel wire helix.

➤ Applications :-

Widely used in all air conditioning/ventilating systems and other industrial or residential applications including hospitals, hotels, commercial and office spaces.

Fully flexible and easy to connect with rectangular main ducts.

Easy to install even in difficult to work areas where other ducts cannot reach.

PRODUCT RANGE

Diameter (inches)	4	6	8	10	12	14	16	18	20
Standard Length (feet)	25	25	25	25	25	25	25	25	25

SPECIFICATION	INSULATED FLEXIBLE DUCT	UNINSULATED FLEXIBLE DUCT
Performance Data	Temperature Range: -26°C to 110°C Maximum Velocity: 5000FPM	Temperature Range: -26°C to 110°C Maximum Velocity: 5000FPM
Recommended Operating Pressure	4" to 12" Diameter Static Pressure – positive: 6" W.G. Static Pressure – negative: 0.8" W.G. 14" to 20" Diameter Static Pressure – positive: 4" W.G. Static Pressure – negative: 0.8" W.G. Standard Length – 25'	4" to 12" Diameter Static Pressure – positive: 6" W.G. Static Pressure – negative: 0.8" W.G. 14" to 20" Diameter Static Pressure – positive: 4" W.G. Static Pressure – negative: 0.8" W.G. Standard Length – 25'

UVGI Lamps



Features

- Kills bacteria, viruses and germs.
- Reduce smell & odour.
- Maintain a cleaner ahu unit.
- Lower maintenance.
- Reduces maintenance required.
- Best to use in clear room application.

UVGI Lamps

Technical Data

S / No.	Content	Descriptions				
1	Product type	Watmizer	Watmizer	Watmizer	Watmizer	Watmizer
2	Product code	CUV221AH	CUV305AH	CUV424AH	CUV597AH	CUV775AH

S / No.	Content	UV Lamp Details				
1	Lamp Length (mm)	441	609	847	1194	1550
2	Wavelength (nm)	253.7	253.7	253.7	253.7	253.7
3	Wattage (W)	36	48	63	83	108
4	Effective Life (Hours)	9000	9000	9000	9000	9000
5	Average Life (Hours)	12000	12000	12000	12000	12000

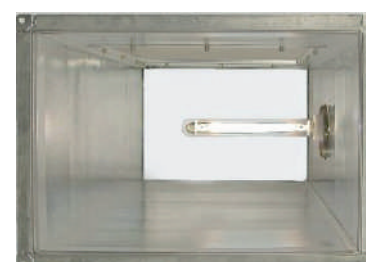
S / No.	Content	Ballast & Control Panel				
1	Power Factor	0.95	0.95	0.95	0.95	0.95
2	Current (MA)	800	800	800	800	800
3	Lamp on Indicator	Yes	Yes	Yes	Yes	Yes
4	Run Hour Meter	Yes	Yes	Yes	Yes	Yes
5	MCB	6 AMP	6 AMP	6 AMP	6 AMP	6 AMP



Control Panel



- Control panel with (MCB, Run-hour meter & Electronic ballast) fitted outside AHU.
- Maximum distance between UV Lamps & Control panel can be 5m.
- Control panel can be mounted on AHU room wall or on AHU wall, as per recommended by client.
- Client need to provide single phase 230V power supply to our control panel.



		
Jet Fan	Propeller Fan	VAV Box
		
Circular Inline Fan	Round to Square Duct	UVGI Lamp
		
Rectangular Inline Fan	Flexible Duct	Filter
		
Cabinet Inline Fan	EAC Filter	Coil

You may need many more products for heating, ventilating and Air conditioning systems, You may need Axial Fans Air Handling units or Air Distribution products. And here Crystal is at a phone calls away.

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(An ISO 9001-2008 CERTIFIED COMPANY)

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