



Heating, ventilating and Air conditioning systems depending on your building or process, you may need a FCU, an Air Handling unit or Air Distribution products. And here Crystal is at a phone calls away.

Crystal Air Systems

(An ISO 9001-2008 CERTIFIED COMPANY)

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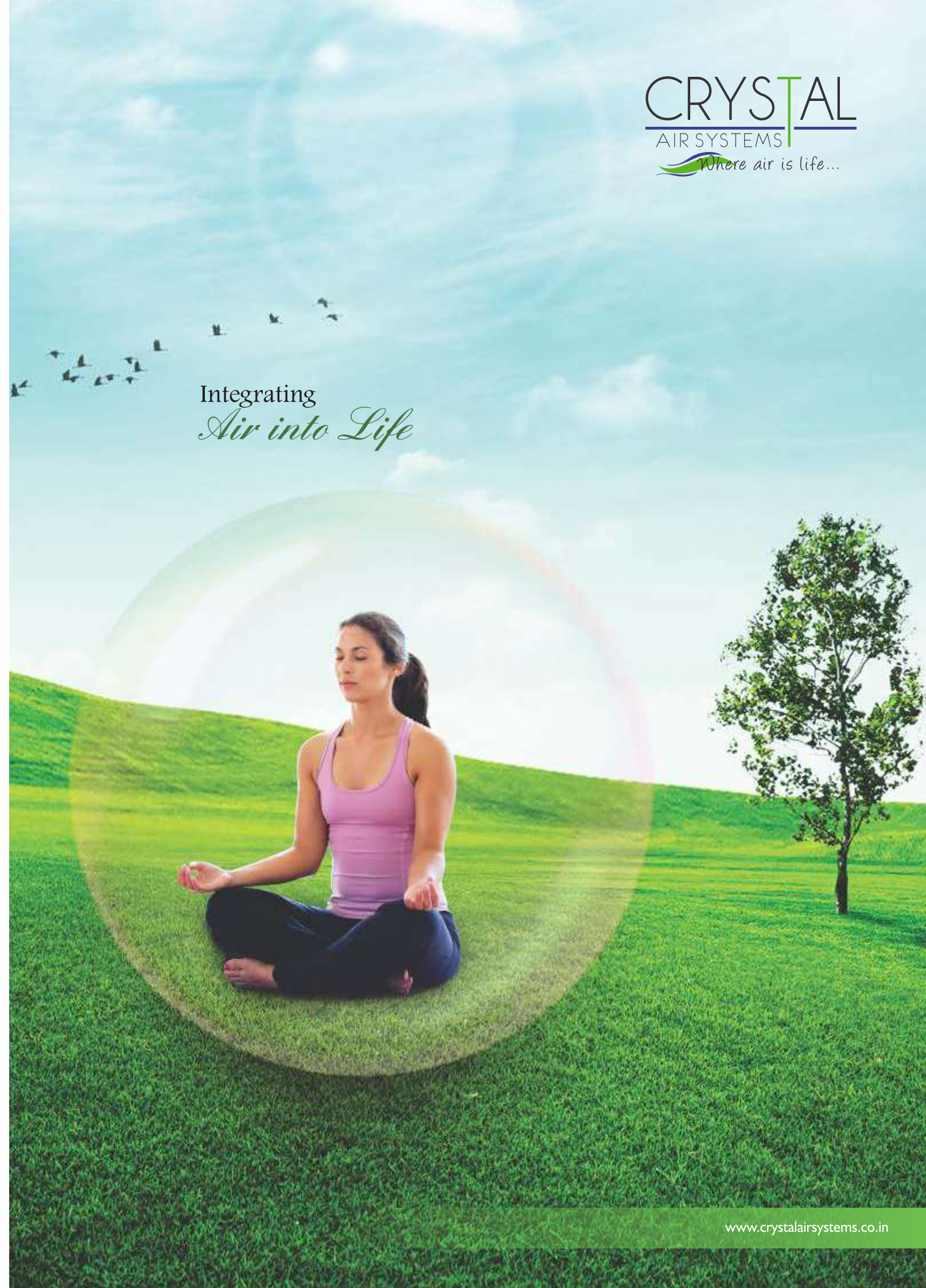
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Crystal's products are subject to continuous improvements. Crystal reserves the right to modify product design, specifications and information in this brochure without notice and without incurring any obligations.

CRYSTAL
AIR SYSTEMS
Where air is life...

Integrating
Air into Life



Life Become Better with
Crystal Air Systems!



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Our Growth Path

About Us

Crystal Air Systems as one of the leading manufacturer of HVAC equipment is committed to create environmentally responsible building solutions that deliver energy performance, reduce power consumption and decreases life cycle costs. We are committed to reduce our own impact on global climate change and motivate others do the same. In addition, we support green building initiatives by investing resources in the various industry committees and expertise in designing and manufacturing energy-efficient Air Handling products for HVAC applications.

Green Buildings Demand for environmentally responsible buildings are growing as realized by users and hence it is no more considered as a cost but as an investment. Green buildings are designed keeping energy efficiency, comfort, and sustainable materials in mind. At Crystal, we understand the importance of supplying our customers an Air Handling Systems that should meet and conform to environmental standards while focusing on green-build initiatives that contribute to a more sustainable work environment. With architects, designers, customers, suppliers and our employees, Crystal embraces environmental responsibility. As a leading supplier of HVAC systems and services, Crystal is prepared to help the stake holders achieve their green building goals.

Crystal custom made air handling units are specially designed to meet the most stringent project specifications for applications such as Hospitals, Pharmatuticals, Process Industries, Hospitality, Institutions and industry clean rooms. Crystal modular air handling units are based on a robust casing design and high quality components to provide the highest quality and reliability available in the market.

We, as one of the leading HVAC equipment manufacturers, can provide the exact solution. Our experience and expertise in designing, commissioning and maintaining HVAC systems not only guarantees a solution, it also gives you complete efficiency and peace of mind.

The Crystal air handling units delivers Superior performance, Highest quality and reliability, Customized design, Lower energy consumption & Lower installed costs. Our products are well tested for performance as per the design condition for longevity, sustainability and durability. Our AHUs are EN 1886-2007 certified for five critical tests i.e. mechanical strength, thermal bridging, thermal transmittance, Casing air leakage and filter by pass leakage. Our products are CE certified and conforms to relevant IS/BS standards.

“Crystal team believes if you are out of quality, you are out of business' and carries the same philosophy in its culture by offering its customers value for money.”

AHU - CEILING SUSPENDED UNIT

- Capacity Range
Applications
Features
- ▶ 800 CFM to 5000 CFM

▶ Comfort Air-Conditioning - For Shopping Malls, Multiplexes, and Small offices

▶ Compact, low height, with single / Twin centrifugal fan

Ceiling Suspended Ductable Units (Direct Drive)

Unit Model	CA-DD-12	CA-DD-15	CA-DD-20	CA-DD-30	CA-DD-40	CA-60
Air Qty (CFM)	1200	1500	2000	3000	4000	5000
Static Pressure	25-30 mm wg					
Pannel Thickness	25 mm					
Coil Face Area (Sq. Ft)	2.4	3	4	6	8	10
Row Deep	4/6					
Fan Type / Drive	DIDW Centrifugal Forward Curved / Direct Drive					
Fan Model	9/9	9/9	10/10	9/9	10/10	12/12
No of Fans	1	1	1	2	2	2
Watt	375	375	550	375*2	550*2	709*2
Motor Pole	6	6	4	6	4	6
RPM	950/925/900	950/925/900	1300/1200/1150	950/925/900	1300/1250/1150	950/925/900
Volt	220/240					
Filter Type/Thickness	Pre-Filter / 25mm					
Filter Media	Non Woven Synthetic					
Overall Dimension (mm)						
Depth	960	960	960	960	960	1000
Width	900	1050	1150	1550	1780	1925
Height	520	520	560	560	610	670

Above technical details refer to a static pressure of 25-30 mm WG Standard Models with 25 mm thick panels
For more details please contact our technical assistance department All dimensions are in mm



AHU - CEILING SUSPENDED UNIT

- Capacity Range
Applications
Features
- ▶ 800 CFM to 12000 CFM

▶ Comfort Air-Conditioning - For Shopping Malls, Multiplexes, and Small offices

▶ Compact, low height, with single / Twin centrifugal fan

Ceiling Suspended Ductable Units (Belt Drive)

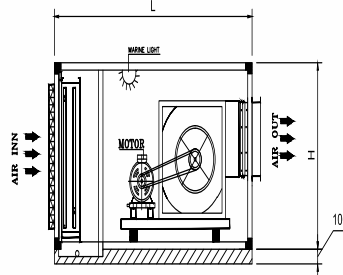
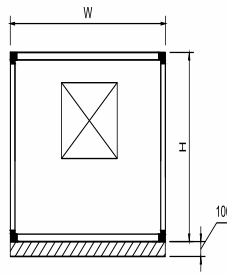
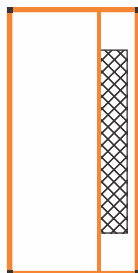
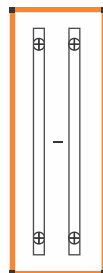
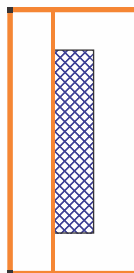
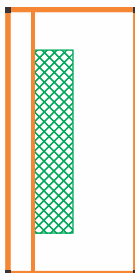
Model	AirVolume (CFM)	Fan Model	Fan Outlet Velocity (M/s)	Coil Area (Sq./Ft)	RPM/MOTOR KW at a Static Pressure		Overall Dimensions		
					30 mm wg	40 mm wg	Depth	Width	Height
CA-BD-12	1200	9*9*1	7.3	2.4	1166/0.37	1368/0.75	900	900	550+50
CA-BD-15	1500	9*9*1	9.1	3	1152/0.75	1338/0.75	900	940	550+50
CA-BD-20	2000	10*10*1	9.9	4	1017/0.75	1177/1.1	950	1040	610+50
CA-BD-25	2500	12*12*1	8.8	5	872/0.75	1021/1.1	1010	1116	670+50
CA-BD-30	3000	9*9*2	9.1	6	1210/1.1	1405/1.5	900	1563	550+50
CA-BD-35	3500	10*10*2	8.6	7	1070/1.1	1246/1.5	950	1588	610+50
CA-BD-40	4000	10*10*2	9.9	8	1068/1.5	1236/2.2	950	1778	610+50
CA-BD-45	4500	12*12*2	7.9	9	925/1.5	1085/2.2	1010	1778	610+50
CA-BD-50	5000	12*12*2	8.8	10	916/1.5	1072/2.2	1010	1930	670+50
CA-BD-55	5500	12*12*2	9.6	11	911/2.2	1062/2.2	1010	2096	670+50
CA-BD-60	6000	12*12*2	10.5	12	911/2.2	1055/3.7	1010	2260	670+50
CA-BD-70	7000	15*15*2	8.7	14	765/2.2	893/3.7	1200	2353	760+50
CA-BD-80	8000	15*15*2	9.9	16	765/3.7	884/3.7	1200	2440	800+50
CA-BD-90	9000	18*18*2	8	18	643/3.7	748/3.7	1250	2502	900+50
CA-BD-100	10000	18*18*2	8.9	20	641/3.7	743/5.5	1250	2743	900+50
CA-BD-110	11000	18*18*2	9.7	22	642/3.7	741/5.5	1250	2880	960+50
CA-BD-120	12000	18*18*2	10.6	24	646/5.5	741/5.5	1300	3006	960+50

Above technical details refer to a static pressure of 30-40 mm WG Standard Models with 25 mm thick panels
For more details please contact our technical assistance department All dimensions are in mm



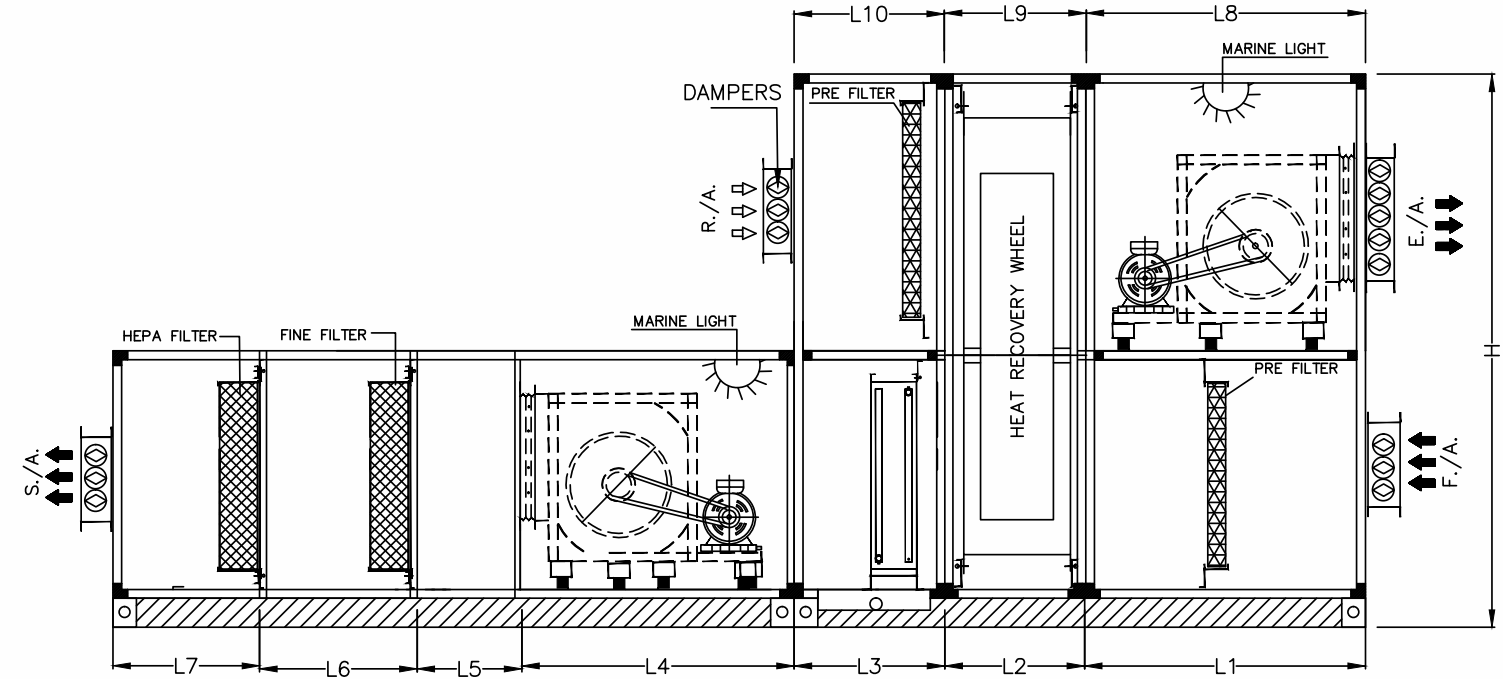
HORIZONTAL FLOOR MOUNTED AIR HANDLING UNIT

Capacity Range	▶ 1000 CFM to 40000 CFM	Options	▶ Single/Double Tier Construction ▶ Thermal break profile with 25/43/50mm panel thickness ▶ Filter sections for EU-5, EU-7, EU-13 in Rigid/Bag construction ▶ Heat recovery Wheel/Heat Pipe ▶ Humidification, Pre/ Reheat Package ▶ Mixing Box with Fresh/Return Air Dampers ▶ Weatherproof Light, Limit switch, View glass ▶ Plug Fan ▶ VFD Drive
Applications	▶ Comfort Air Conditioning for Schools, Multiplexes, Hotels, Operation Theater/ICU/ICCU, Pharma, Laboratories & Clean room Application		
Features	▶ The Unit is manufactured as per the customer's requirements.		

Model	CFM	FAN MODEL	FAN OUTLET VELOCITY (m/s)	Coil Area (Sq.Ft)	RPM/Motor KW AT A Static Pressure		OverAll Dimensions			Mixing Section With PRE Filter	Chilled Water Coil Section 1-6 Rows Deep	Hot Water Coil Section 1-2 Rows Deep	Electric Heater Section	Discharge Plenum With Fine Filte	Discharge Plenum with HEPA Filter	Filter Quantity 1 / 2 / 3
					40 MM	50 MM	Length	Width	Height							
CA-FMU -15	1500	9*9*1	9.1	3.0	1338/0.75	1511/0.75	1310	850	830	500	450	200	200	1400	875	1/0/0
CA-FMU -20	2000	10/10*1	9.9	4.0	1177/0.75	1325/1.1	1360	950	850	500	450	200	200	1400	875	1/0/0
CA-FMU -25	2500	12/12*1	8.8	5.0	1021/1.1	1156/1.5	1440	1120	850	500	450	200	200	1400	875	1/1/0
CA-FMU -30	3000	15*15*1	10.5	6.0	1005/1.1	974/1.5	1440	1200	880	500	450	200	200	1400	875	1/1/0
CA-FMU -40	4000	15*15*1	9.9	8.0	842/1.5	949/2.2	1530	1370	950	500	450	200	200	1400	875	2/0/0
CA-FMU -45	4500	18*18*1	8.0	9.0	713/2.2	804/2.2	1670	1630	1050	500	450	200	200	1400	875	2/1/0
CA-FMU -50	5000	18*18*1	8.9	10.0	708/2.2	797/2.2	1670	1640	1050	500	450	200	200	1400	875	2/1/0
CA-FMU -60	6000	450*1	8.7	12.0	724/3.7	821/3.7	1800	1560	1200	550	450	200	200	1400	875	2/2/0
CA-FMU -65	6500	450*1	9.5	13.0	718/3.7	812/3.7	1800	1665	1200	550	450	200	200	1400	875	2/3/1
CA-FMU -75	7500	500*1	8.7	15.0	659/3.7	741/3.7	1925	1680	1275	550	450	200	200	1400	875	2/3/1
CA-FMU -80	8000	500*1	9.3	16.0	658/3.7	738/5.5	1925	1950	1275	550	450	200	200	1400	875	3/3/0
CA-FMU -90	9000	560*1	8.3	18.0	586/3.7	661/5.5	2050	1780	1500	550	450	200	200	1400	875	4/2/0
CA-FMU -100	10000	560*1	9.2	20.0	584/3.7	656/5.5	2050	1780	1500	550	450	200	200	1400	875	4/2/0
CA-FMU -110	11000	560*1	10.2	22.0	584/5.5	653/5.5	2050	2100	1500	550	450	200	200	1400	875	6/0/0
CA-FMU -120	12000	630*1	8.8	24.0	511/5.5	577/7.5	2220	2060	1600	550	550	200	200	1400	875	6/0/0
CA-FMU -130	13000	630*1	9.6	26.0	508/5.5	573/7.5	2270	2300	1600	550	550	200	200	1400	875	6/2/0
CA-FMU -140	14000	710*1	8.2	28.0	459/5.5	516/7.5	2450	2100	1850	550	550	200	200	1400	875	6/3/0
CA-FMU -150	15000	710*1	8.8	30.0	457/5.5	514/7.5	2450	2150	1850	600	550	200	200	1400	875	6/3/0
CA-FMU -160	16000	710*1	9.4	32.0	457/7.5	512/7.5	2450	2350	1850	600	550	200	200	1400	875	6/5/1
CA-FMU -180	18000	800*1	8.4	36.0	399/7.5	448/9.3	2650	2350	2150	600	550	200	200	1400	875	6/5/1
CA-FMU -200	20000	800*1	9.3	40.0	398/7.5	446/9.3	2650	2560	2150	600	550	200	200	1400	875	9/3/0
CA-FMU -220	22000	800*1	10.2	44.0	399/9.3	445/11.0	2650	2800	2150	600	550	200	200	1400	875	12/0/0
CA-FMU -240	24000	900*1	8.9	48.0	360/9.3	406/15.0	2780	2900	2200	600	550	200	200	1400	875	12/0/0
CA-FMU -250	25000	900*1	9.2	50.0	359/11.0	405/15.0	2780	3050	2200	600	550	200	200	1400	875	12/3/0
CA-FMU -280	28000	1000*1	8.2	56.0	322/11.0	365/15.0	3110	3110	2500	600	550	200	200	1400	875	12/4/0
CA-FMU -300	30000	1000*1	8.8	60.0	320/11.0	362/15.0	3110	3260	2350	600	550	200	200	1400	875	15/0/0
CA-FMU -320	32000	1000*1	9.4	64.0	319/15.0	360/15.0	3110	3260	2500	600	550	200	200	1400	875	15/5/0
CA-FMU -350	35000	1000*1	10.3	70.0	318/15.0	357/18.5	3110	3360	2810	600	550	200	200	1400	875	20/0/0
																FILTER SIZES 1- 610 X 610 2- 610 X 305 3- 305 X 305

AIR HANDLING UNIT WITH HEAT RECOVERY WHEEL

Capacity Range	▶ 1000 CFM to 30000 CFM
Applications	▶ Operation Theater/ICU/CCU, Pharma, Laboratories & Clean room Application
Features	▶ The Unit is manufactured as per the customer's requirements. ▶ Thermal break profile with 25/43/50mm panel thickness
Options	▶ Filter sections for EU-5, EU-7, in Rigid/Bag construction ▶ Heat recovery Wheel/Heat Pipe ▶ Humidification, Pre/ Reheat Package ▶ Mixing Box with Fresh/Return Air Dampers ▶ Weatherproof Light, Limit switch, View glass ▶ Plug Fan ▶ VFD Drive



Model	CFM	HRW DIA	Fan Model	Coil Area (Sq Ft)	Overall Dimensions											
					H	W	PLENUM L1	HRW L2	CWC L3	SA FAN L4	MV L5	HF L6	PLENUM L7	EA FAN L8	HRW L9	PLENUM L10
CA-HRU-10	1000	700	225	2.0	1700	1100	850	500	450	850	875	875	550	850	500	550
CA-HRU-12	1200	700	225	2.4	1800	1200	850	500	450	850	875	875	550	850	500	550
CA-HRU-15	1500	800	225	3.0	1800	1200	850	500	450	850	875	875	550	850	500	550
CA-HRU-20	2000	900	250	4.0	1900	1400	900	500	450	900	875	875	550	900	500	550
CA-HRU-25	2500	1000	250	5.0	2100	1450	900	500	450	900	875	875	550	900	500	550
CA-HRU-30	3000	1100	315	6.0	2100	1500	900	500	450	900	875	875	550	900	500	550
CA-HRU-40	400	1200	355	8.0	2300	1700	1000	500	450	1000	875	875	550	1000	500	550
CA-HRU-45	4500	1300	355	9.0	2500	1800	1000	500	450	1000	875	875	550	1000	500	550
CA-HRU-50	5000	1400	400	10.0	2500	1925	1150	500	450	1150	875	875	550	1150	500	550
CA-HRU-60	6000	1500	450	12.0	2700	2025	1250	500	450	1250	875	875	550	1250	500	550
CA-HRU-70	7000	1600	450	14.0	2900	2125	1250	500	450	1250	875	875	550	1250	500	550
CA-HRU-75	7500	1700	450	15.0	2900	2175	1250	500	450	1250	875	875	550	1250	500	550
CA-HRU-80	8000	1700	500	16.0	3300	2225	1350	500	450	1350	875	875	550	1350	500	550
CA-HRU-85	8500	1800	500	17.0	3300	2275	1350	500	450	1350	875	875	550	1350	500	550
CA-HRU-90	9000	1800	500	18.0	3300	2375	1350	650	450	1350	875	875	550	1350	650	550
CA-HRU-95	9500	1900	560	19.0	3300	2375	1450	650	450	1450	875	875	550	1450	650	550
CA-HRU-100	10000	2000	560	20.0	3500	2425	1450	650	450	1450	875	875	550	1450	650	550
CA-HRU-120	12000	2200	630	24.0	3500	2425	1550	650	450	1550	875	875	550	1550	650	550
CA-HRU-130	13000	2200	630	26.0	3500	2500	1550	650	550	1550	875	875	550	1550	650	550
CA-HRU-150	15000	2400	710	30.0	3900	2625	1725	650	550	1725	875	875	550	1725	650	550
CA-HRU-180	18000	2600	710	36.0	3900	2775	1725	650	550	1725	875	875	550	1725	650	550
CA-HRU-200	20000	2800	800	40.0	4100	2975	1850	650	550	1850	875	875	550	1850	650	550
CA-HRU-250	25000	3000	900	50.0	5000	3175	2050	650	550	2050	875	875	550	2050	650	550

UNITARY / VERTICAL UNITS

Capacity Range
Applications
Features
Options

- ▶ 1000 CFM to 18000 CFM
- ▶ Comfort Air Conditioning -For Shopping Malls, Multiplexes , Small Offices & Hotels
- ▶ Customized Units available for space saving up to 18000 CFM
- ▶ Belt driven units available in Double / Single Skin with Single / multi centrifugal fan

Model	Air Volume (CFM)	Fan Model	Fan Outlet Velocity (M/S)	Coil Area SQ/Ft	Overall Dimensions			RPM /Motor KW At a Static Pressure		
					Depth	Width	Height	30 MM WG	40 MM WG	50 MM WG
CA-VU-12	1200	9*9*1	7.3	2.4	630	925	1150	1166/0.5	1368/0.75	1550/0.75
CA-VU-15	1500	9*9*1	9.1	3.0	630	1050	1200	1152/0.5	1338/0.75	1511/0.75
CA-VU-20	2000	10*10*1	9.9	4.0	670	1050	1350	1017/0.75	1177/0.75	1325/1.1
CA-VU-25	2500	12*12*1	8.8	5.0	740	1225	1450	872/0.75	1021/1.1	1156/1.5
CA-VU-30	3000	9*9*2	9.1	6.0	630	1540	1250	1210/0.75	1405/1.5	1586/1.5
CA-VU-40	4000	10*10*2	9.9	8.0	670	1750	1350	1068/1.5	1236/2.2	1391/2.2
CA-VU-50	5000	12*12*2	8.7	10.0	740	1960	1450	916/1.5	1072/2.2	1213/3.7
CA-VU-60	6000	12*12*2	10.5	12.0	740	2060	1550	911/2.2	1055/3.7	1190/3.7
CA-VU-70	7000	15*15*2	8.7	14.0	830	2160	1825	765/2.2	893/3.7	1009/3.7
CA-VU-80	8000	15*15*2	9.9	16.0	830	2210	1850	765/3.7	884/3.7	996/5.5
CA-VU-100	1000	18*18*2	8.9	20.0	990	2560	1950	641/3.7	743/5.5	837/5.5
CA-VU-120	12000	18*18*2	10.6	24.0	990	2825	2025	646/5.5	741/5.5	829/7.5
CA-VU-140	14000	450*2	10.2	28.0	1080	2625	2480	622/2.2*2	715/3.7*2	806/.07*2
CA-VU-160	16000	500*2	9.3	32.0	1230	3025	2580	572/3.7*2	658/3.7*2	738/5.5*2
CA-VU-180	18000	500*2	10.4	36.0	1200	3025	2680	580/3.7*2	660/3.7*2	736/5.5*2



CASSETTE UNIT

Capacity Range
Applications
Types

- ▶ 0.75 TR to 3.5 TR
- ▶ Comfort Air Conditioning - Multiplexes, Small Offices & Hotels
- ▶ 2 way / 4 way

Technical Specifications

Model			CA-CU-300	CA-CU-400	CA-CU-470	CA-CU-600	CA-CU-800	CA-CU-1000	CA-CU-1200	CA-CU-1400	CA-CU-1600
Nominal Cooling Capacity*		BTU/HR	9212	12283	14330	18425	24566	30708	36850	42991	49133
Nominal Heating Capacity*		W	4050	5400	6350	8100	10800	13500	16200	18900	21600
Air Flow Rate	High Speed	CFM	300	400	471	600	800	1000	1200	1400	1600
	Medium Speed	CFM	235	318	382	500	653	824	982	1147	1265
	Low Speed	CFM	171	235	294	400	506	647	765	894	941
Water Flow Rate		m ³/h	0.46	0.62	0.73	0.93	1.23	1.54	1.85	2.16	2.46
Water Pressure Drop		kPa	12.9	22.1	24.3	26.8	28.4	33.2	35.9	38.4	40
Evaporator	Fan	Type	Multi Blade Centrifugal Fan								
	Motor	Rated Input Watt	52	62	65	96	134	152	189	228	250
		Volt/Phase/Hz.	220/1/50								
	Coil	Type	high efficient copper pipe to wear Hydrophilic aluminum coil - 2 Row								
Thermostat Air Filter	Type		LCD Wireless Remote Control								
	Type		Washable PP.net								
Dimension	Unit WxLxH (mm)		570 X 570 X 290			730 X 730 X 290		930 X 930 X 290			
	Panel WxLxH (mm)		650 X 650 X 45			850 X 850 X 45		1050 X 1050 X 45			
Dimension with packing	Unit WxLxH (mm)		725 X 725 X 335			860 X 860 X 335		1060 X 1060 X 335			
	Panel WxLxH (mm)		745 X 745 X 100			910 X 910 X 100		1100 X 1100 X 100			
Weight	Unit (kg)		19	20	21	26	27	34	35	36	37
	Panel (kg)		2.2	2.2	2.2	4.2	4.2	6	6	6	6
Weight with packing	Unit (kg)		22	23	24	31	32	40	41	42	43
	Panel (kg)		4	4	4	6.5	6.5	9	9	9	9
Noise Level dB(A) at Hi/Medium/Low Speed			39/35/31	41/38/35	42/38/34	45/41/37	46/42/38	48/43/38	50/46/42	52/48/44	54/50/46
Water In/Out Connection Pipe			ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"
			ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"	ZG3/4"
Drain Pipe (mm)			ø 26	ø 26	ø 26	ø 26	ø 26	ø 26	ø 26	ø 26	ø 26



SINGLE & DOUBLE SKIN CEILING FAN COIL UNIT

Capacity Range	▶ 400 CFM (1 TR) to 1200 CFM (3 TR)
Types	▶ Chilled Water / Direct Expansion
Applications	▶ Comfort Air Conditioning for Hotel, Hospitals, offices, Class rooms, Studio, Shopping Malls
Features	▶ Casing Made out of Pre coated / Galvanized / Power coated sheets
	▶ Sandwiched insulated drain pan with expanded polystyrene
	▶ Vibration free, noise less, single phase direct driven motor with
Options	▶ Tree way Mixing / Diverting Valves
	▶ Ball Valve set

	Unit Model		CA-C-FCU-4	CA-C-FCU-6	CA-C-FCU-8	CA-C-FCU-10	CA-C-FCU-12
	Nominal Air Flow	CFM	400	600	800	1000	1200
	Nominal Cooling Capacity	Btu/Hr.	12200	19000	25893	32350	39400
		Tons	1.0TR	1.5TR	2.0TR	2.5TR	3.0TR
Fan	Type	Centrifugal Forward Curve, DIDW					
	Qty	Nos	2	2	2	2	2
Power Supply		V/Ph/Hz	230/1/50				
Motor	Power (For Normal Static)	Hp	1/20	1/12	1/12	1/12	1/4
	RPM/Speed		930/3	930/3	930/3	930/3	920/3
	Power (For High Static)	Hp	1/5	1/5	1/5	1/4	1/3
	RPM/Speed		1200/2	1200/2	1200/2	930/3	1200/2
	Qty	Nos	1	1	1	1	1
	Tube Material	Copper Tube					
	Tube O.D.	mm	9.52				
	Fin Material		Aluminium				
	Rows Deep		3				
	Face Area	Sq. ft	1.33	1.77	2.43	3	3.5
Air Filter		12mm Thick Rough Filters, Washable Type					
Overall Dimension	Height	mm	256	256	305	356	356
	Width	mm	950	1118	1193	1219	1371
	Depth	mm	576	576	598	598	653
Operating Wt		kg	35/43	39	44	48	66

Nominal Cooling Capacities are based on 80°F (DB) & 67°F (WB) Air Entering Temperature, 45°F & 53°F Water Inlet/Outlet Temperatures



SINGLE & DOUBLE SKIN VERTICAL FAN COIL UNIT

Capacity Range	▶ 400 CFM (1 TR) to 1200 CFM (3 TR)
Types	▶ Chilled Water / Direct Expansion
Applications	▶ Comfort Air Conditioning for Hotel, Hospitals, offices, Class rooms, Studio, Shopping Malls
Features	▶ Casing Made out of Pre coated / Galvanized / Power coated sheets
	▶ Sandwiched insulated drain pan with expanded polystyrene
	▶ Vibration free, noise less, single phase direct driven motor with
Options	▶ Tree way Mixing / Diverting Valves
	▶ Ball Valve set

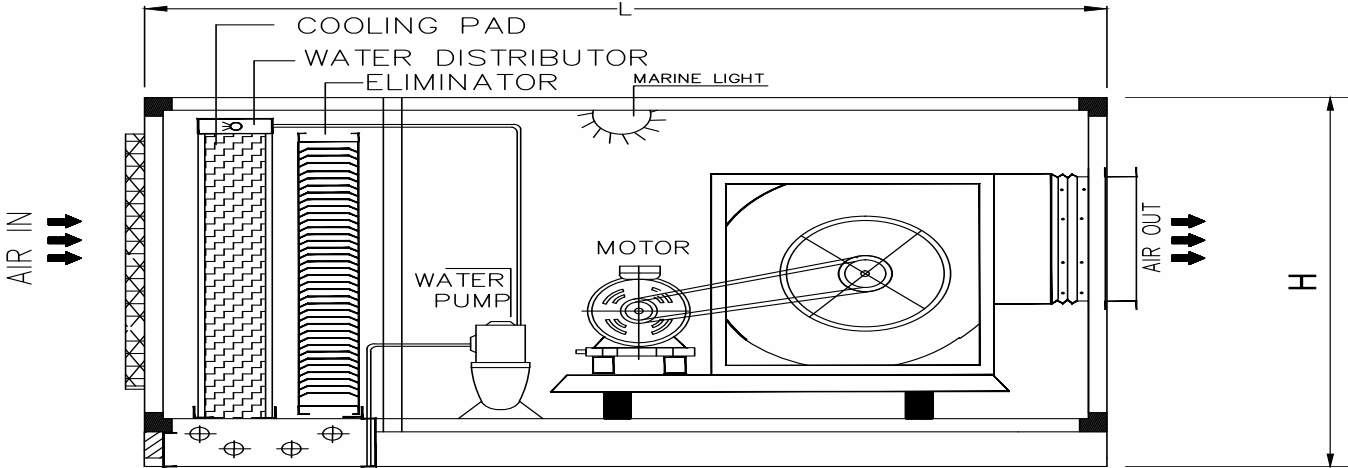
Model	CA-V-FCU-4	CA-V-FCU-6	CA-V-FCU-8	CA-V-FCU-10	CA-V-FCU-12
Capacity(TR)	1	1.5	2	2.5	3
Air Qty.CFM	400	600	800	1000	1200
Blower					
	160*140	160*140	160*200	160*200	160*200
Size in MM	2	2	2	2	2
230 Volts 50 Hz Single Phase					
Cooling Coil					
Face Area Sq. Ft	1.33	1.77	1.9	2.22	2.66
No of Row	3	3	4	4	4
CU Tube DIA (OD)	9.52	9.52	9.52	9.52	9.52
Water Conn In /Out	5/8"	5/8"	5/8"	3/4"	3/4"
FIN Spacing Per Inch	11-12 FINS Per Inch				
Drain PAN	G I Sanwich Type Powder Coated /SS-304				
Unit Construction	Plane G I Finish / Powder Coated				
Filter					
Pre Filter	Synthetic / Alum.	Synthetic / Alum.	Synthetic / Alum.	Synthetic / Alum.	Synthetic / Alum.
Thickness	12mm	12mm	12mm	12mm	12mm
Overall Dimension in MM					
Width	1066	1166	1206	1320	1320
Depth	273	273	298	298	312
Height	572	572	635	635	660



AIRWASHER

Capacity Range	▶ 1000 CFM upto 100000 CFM
Types	▶ Pad Type Air washer
Applications	▶ Hotel, Hospital, Industry, Colleges, Theater
Features	▶ Fill Type system can attain very high saturation efficiencies as against conventional system. Compact pre-fabricated design to take less space, consuming only 40% of conventional systems. Power consumption negligible as compared to spray machine due to low pump power and low pressure drop. Quick installation as machine is factory fabricated and tested and has flexibility in regard to re-location at a later date.
Options	▶ Double/Single skin Masonry type Water Tank in Stainless Steel-202/304 Cooling Pad 200/300mm PVC Eliminator Water Pump Intake louvers and bird screen

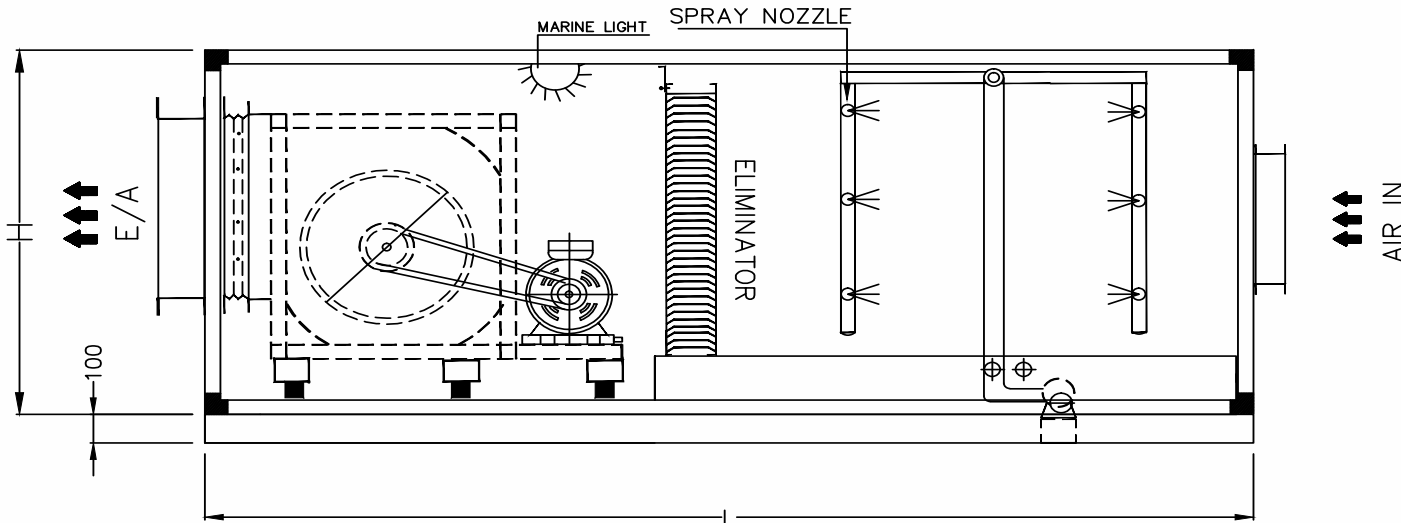
Model	CFM	Fan Model	Pad Area (Sq./ Ft)	RPM/ Motor KW Static Pressure		Overall Dimensions		
				40 mm wg	50 mm wg	Length	Width	Height
CA-AW-30	3000	15 X 1	6.00	1005/1.1	974/1.5	1690	1100	970+100
CA-AW-50	5000	18 X 1	10.00	708/2.2	797/2.2	1920	1700	970+100
CA-AW-60	6000	450 X 1	12.00	724/3.7	821/3.7	2090	1400	1290+100
CA-AW-80	8000	500 X 1	16.00	658/3.7	738/5.5	2300	1800	1290+100
CA-AW-100	10000	560 X 1	20.00	584/3.7	656/5.5	2300	1700	1590+100
CA-AW-120	12000	630 X 1	24.00	511/5.5	577/7.5	2470	2000	1590+100
CA-AW-140	14000	710 X 1	28.00	459/5.5	516/7.5	2600	1990	1890+100
CA-AW-150	15000	710 X 1	30.00	457/5.5	514/7.5	2600	2000	1890+100
CA-AW-160	16000	710 X 1	32.00	457/7.5	512/7.5	2600	2130	1890+100
CA-AW-180	18000	800 X 1	36.00	399/7.5	448/9.3	2900	2400	1890+100
CA-AW-200	20000	800 X 1	40.00	398/7.5	446/9.3	2900	2620	1890+100
CA-AW-220	22000	800 X 1	44.00	399/9.3	445/11	2900	2870	1890+100
CA-AW-240	24000	900 X 1	48.00	360/9.3	406/15	3100	2640	2200+100
CA-AW-250	25000	900 X 1	50.00	359/11.0	405/15	3100	2750	2200+100
CA-AW-280	28000	1000 X 1	56.00	322/11.0	365/15	3300	3090	2240+100
CA-AW-300	30000	1000 X 1	60.00	320/11.0	362/15	3300	3300	2240+100
CA-AW-320	32000	1000 X 1	64.00	319/15.0	360/15	3300	3500	2240+100
CA-AW-350	35000	1000 X 1	70.00	318/15.0	357/18.5	3300	3810	2240+100
CA-AW-400	40000	800 X 2	80.00	398/7.5 X 2	446/9.3 X 2	2940	5160	1920+100
CA-AW-450	45000	800 X 2	90.00	399/9.3 X 2	445/11 X 2	2940	4850	2240+100
CA-AW-500	50000	900 X 2	100.00	359/11.0 X 2	405/15 X 2	3100	5400	2240+100
CA-AW-600	60000	1000 X 2	120.00	320/11.0 X 2	362/15X2	3300	4850	2810+100



AIR SCRUBBER

Capacity Range	▶ 10000 CFM upto 100000 CFM
Types	▶ Wet Type / Dry Type
Applications	▶ Hospital, Hotel Kitchen, College, Industry and other
Features	▶ Corrosion resistant AMCA rated fan on the inlet or outlet side of the scrubber Corrosion resistant recirculating pumps for scrubber liquid re-circulation Non-plugging spray nozzles for wetting packing in a wide range of corrosion resistant materials Moisture eliminators with chevron, mist pad or loose fill type designs
Options	▶ Double / Single Skin Water Tank in Stainless Steel 202/304 Eliminator section, PVC /GI Elimanators Backward curved blower Double bank filter section Single / Double bank spray chamber

Model	CFM	Fan Model	Elimator Area (Sq /Ft)	RPM/Motor KW Static Pressure		Overall Dimensions		
				60 MM	80 MM	Length	Width	Height
CA-AS- 30	3000	315 X 1	6.00	1243/2.2	2429/2.2	2800	1070	960+100
CA-AS - 40	4000	355 X 1	8.00	1108/3.7	2174/3.7	2850	1380	960+100
CA-AS - 50	5000	400 X 1	10.00	990/3.7	1930/3.7	3000	1680	960+100
CA-AS - 60	6000	450 X 1	12.00	911/5.5	1672/3.7	3150	1380	1260+100
CA-AS - 80	8000	500 X 1	16.00	813/5.5	1532/5.5	3250	1780	1260+100
CA-AS- 100	10000	560 X 1	20.00	723/7.5	1359/7.5	3400	1680	1560+100
CA-AS- 120	12000	630 X 1	24.00	638/7.5	1177/7.5	3550	1990	1560+100
CA-AS - 150	15000	710 X 1	30.00	566/9.3	1037/9.3	3800	1990	1860+100
CA-AS - 180	18000	710 X 1	36.00	561/11.0	1103/11.0	4000	2380	1860+100
CA-AS - 200	20000	800 X 1	40.00	491/11.0	939/11.0	4000	2610	1860+100
CA-AS - 220	22000	800 X 1	44.00	488/15.0	969/15.0	4000	2860	1860+100
CA-AS - 250	25000	900 X 1	50.00	447/15.0	836/15.0	4150	2780	2200+100
CA-AS - 280	28000	900 X 1	56.00	443/18.5	869/18.5	4450	3090	2200+100
CA-AS - 300	30000	1000 X 1	60.00	401/18.5	749/18.5	4450	3290	2200+100
CA-AS - 350	35000	1000 X 1	70.00	394/18.5	788/22.0	4450	3810	2200+100
CA-AS - 400	40000	800 X 2	80.00	491/11.0 X 2	939/11.0 X 2	4000	5090	1860+100
CA-AS - 450	45000	800 X 2	90.00	488/15.0 X 2	977/15.0 X 2	4000	4850	2200+100
CA-AS - 500	50000	900 X 2	100.00	447/15.0 X 2	836/15.0 X 2	4150	5400	2200+100



FRESH AIR UNIT

Capacity Range	▶ 1000 CFM to 100000 CFM
Types	▶ Coiling Type Floor Mounted
Applications	▶ Hospital, Hotel, Colleges and many other uses
Features	▶ Highly suitable for fresh air Specially designed for pharmaceutical Available with pre-filters
Options	▶ Cowl, Fine Filters, Hepa Filters, Dampers

Model	Air Volume (CFM)	Fan Model	Fan Outlet Velocity (m/s)	Filter Area (Sq/Ft)	RPM / Motor KW At a Static Pressure		Overall Dimensions		
					30 MM	40 MM	Length	Width	Height
CA-FAU-12	1200	9*9*1	7.3	2.0	1166/0.37	1368/0.75	940	760	650+100
CA-FAU-15	1500	9*9*1	9.1	4.0	1152/0.75	1338/0.75	890	760	650+100
CA-FAU-20	2000	10*10*1	9.9	4.0	1017/0.75	1177/0.75	990	900	670+100
CA-FAU-25	2500	12*12*1	8.8	4.0	872/0.75	1021/1.1	1000	950	725+100
CA-FAU-30	3000	15*15*1	7.4	6.0	737/1.1	863/1.1	1150	1100	825+100
CA-FAU-40	4000	15*15*1	9.9	6.0	728/1.1	842/1.5	1150	1100	825+100
CA-FAU-60	6000	450*1	9.5	8.0	620/2.2	724/3.7	1400	1285	1050+100
CA-FAU-80	8000	500*1	9.3	12.0	572/3.7	658/3.7	1480	1400	1125+100
CA-FAU-100	10000	560*1	9.2	16.0	507/3.7	584/3.7	1550	1400	1260+100
CA-FAU-120	12000	630*1	8.8	16.0	439/3.7	511/5.5	1680	1550	1450+100
CA-FAU-160	16000	710*1	9.4	20.0	397/5.5	457/7.5	1980	1700	1600+100
CA-FAU-200	20000	800*1	9.3	30.0	346/7.4	398/7.5	2125	1900	1750+100
CA-FAU-250	25000	900*1	9.2	36.0	310/7.4	359/11.1	2360	2100	2000+100
CA-FAU-300	30000	1000*1	8.8	42.0	275/9.2	320/11.1	2550	2400	2100+100
CA-FAU-350	35000	1000*1	10.3	48.0	276/11.1	318/15.0	2550	2400	2100+100

All dimension unless otherwise specified are in mm
Due to continuos improvement the dimensions are subject to change without any prior notice

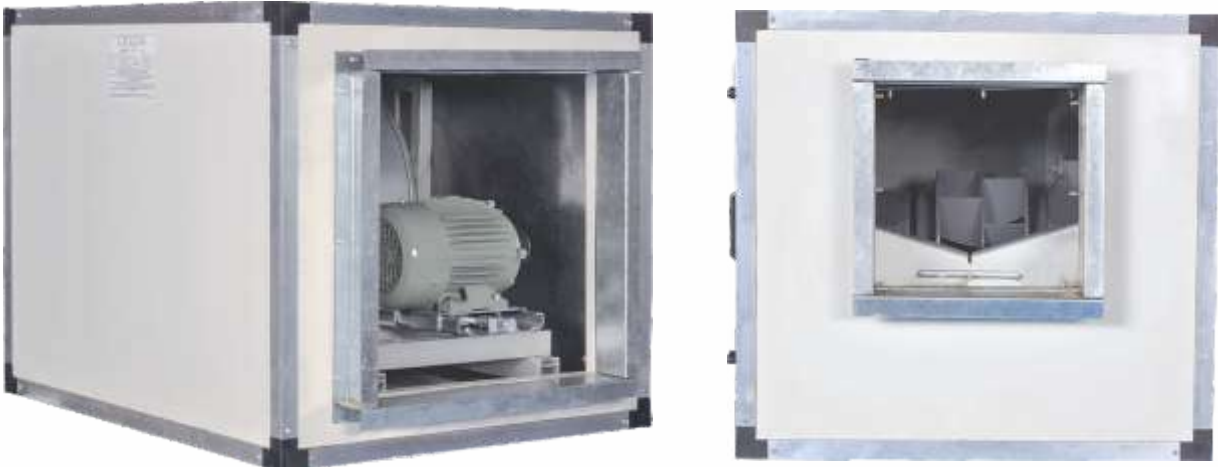


AIR EXHAUST

Capacity Range	▶ 1000 CFM to 100000 CFM
Types	▶ Ceiling Suspended Floor Mounted
Applications	▶ Hospital, Hotel Kitchens, Colleges and many other uses application
Features	▶ Highly suitable for the exhaust Specially designed for pharmaceutical
Options	▶ Cowl Dampers

Model	Air Volume (CFM)	Fan Model	Fan Outlet Velocity (m/s)	RPM / Motor KW At a Static Pressure		Overall Dimensions		
				40 MM	50 MM	Length	Width	Height
CA-EAU-12	1200	9*9*1	7.3	1368/0.75	1550/0.75	940	760	650+100
CA-EAU-15	1500	9*9*1	9.1	1338/0.75	1511/0.75	890	760	650+100
CA-EAU-20	2000	10*10*1	9.9	1177/0.75	1325/1.1	990	900	670+100
CA-EAU-25	2500	12*12*1	8.8	1021/1.1	1156/1.1	1000	950	725+100
CA-EAU-30	3000	15*15*1	7.4	863/1.1	974/1.5	1150	1100	825+100
CA-EAU-40	4000	15*15*1	9.9	842/1.5	949/2.2	1150	1100	825+100
CA-EAU-60	6000	450*1	9.5	724/3.7	821/3.7	1400	1285	1050+100
CA-EAU-80	8000	500*1	9.3	658/3.7	738/5.5	1480	1400	1125+100
CA-EAU-100	10000	560*1	9.2	584/3.7	656/5.5	1550	1400	1260+100
CA-EAU-120	12000	630*1	8.8	511/5.5	577/7.5	1680	1550	1450+100
CA-EAU-160	16000	710*1	9.4	457/7.5	512/7.5	1980	1700	1600+100
CA-EAU-200	20000	800*1	9.3	398/7.5	446/9.3	2125	1900	1750+100
CA-EAU-250	25000	900*1	9.2	359/11.1	405/15	2360	2100	2000+100
CA-EAU-300	30000	1000*1	8.8	320/11.1	362/15	2550	2400	2100+100
CA-EAU-350	35000	1000*1	10.3	318/15.0	357/18.5	2550	2400	2100+100

All dimension unless otherwise specified are in mm
Due to continuos improvement the dimensions are subject to change without any prior notice



AXIAL FLOW FANS

Crystal Axial Flow fans are designed for air ventilation in commercial or industrial building and are available from 315 mm dia to 1800 mm dia that covers the cfm upto 100000
The blade pitch is field adjustable to accommodate system changes.
The casing design and construction are well suited for indoor or outdoor applications and can be easily installed inducted or non-ducted systems
Fans and blades are designed to reduce operating cost with improved efficiency design offers inherently lower sound level than other axial fans.

Types :

- Axial flow fan (Normal Series)
- Axial flow fan (High Temp. Series for 250 & 300 upto 2 hrs)

Application :

- General Ventilation
- Emergency Smoke and Heat Exhaust
- Car Ventilation / Basement
- Stairwell pressurization

Options :

- Pedestal Stand | Bird Screen | Sound Attenuator

Construction:

Fan casing is made of heavy gauge M.S. Sheet. It has flanges at both ends for easy fixing
Impellers is made of Die cast aluminium having Aerofoil design with adjustable pitch angle
Maintenance free reliable IEC motors



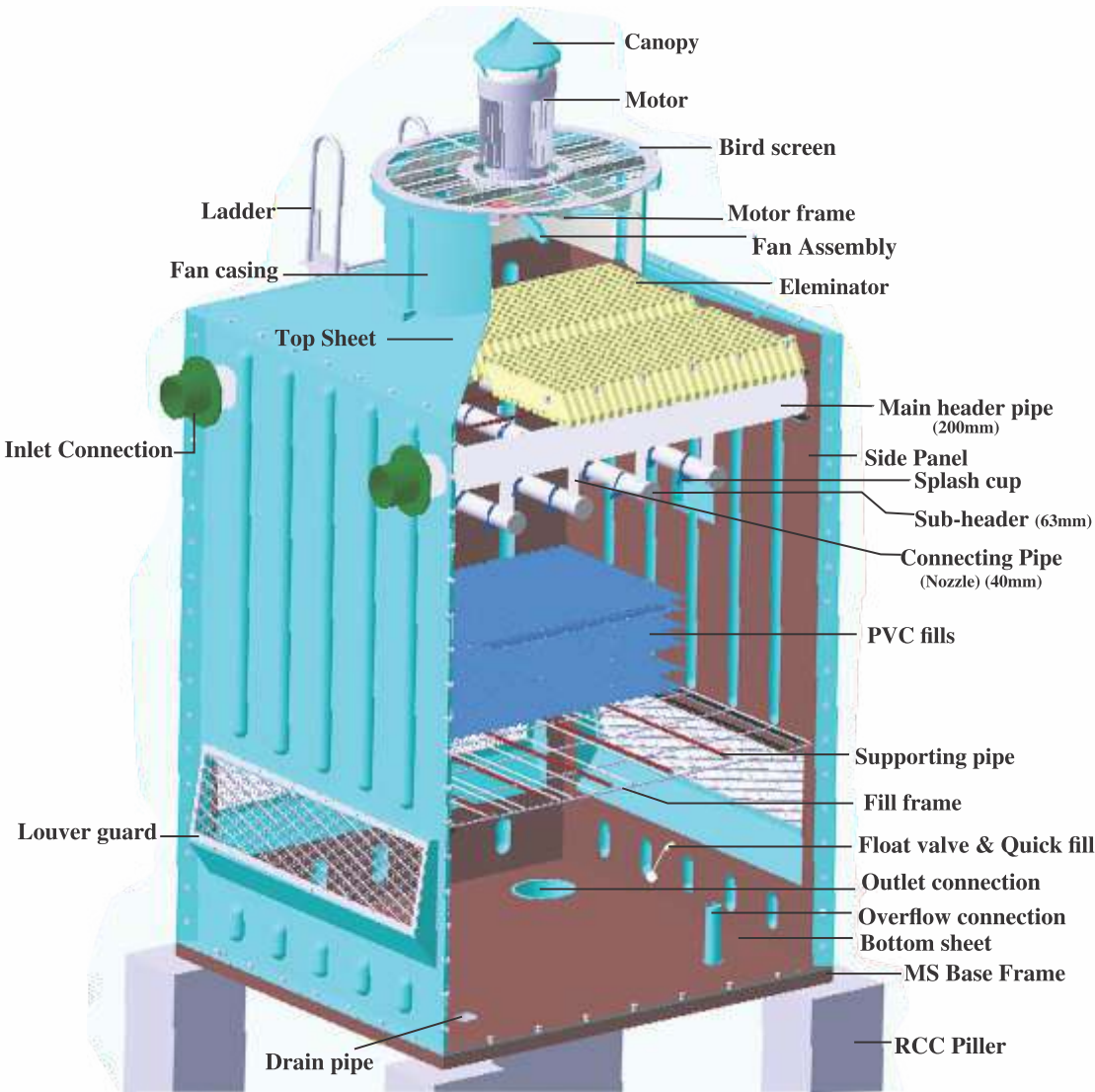
CRYSTAL AIR SYSTEMS FRP COOLING TOWERS

Crystal Air Systems has now the privilege of offering the complete range of FRP Induced Draft Counter Flow Cooling Towers for HVAC application and other process industries with unique features. Each Cooling Towers are designed for a particular requirement, facilitating the possible choice for the customer to get the performance with unique operating parameters and site conditions.

For customers with special cooling operating requirements, Crystal can design a range of advance solution with low noise, energy efficient and life cycle cost which ensures high thermal performance complying to the green building initiatives.

FRP panels are UV stabilized thereby increasing life of FRP than the normal FRP panels. Fan casing are made of FRP rather than MS which reduces the weight and increases the life span. FRP water basin has 450 mm depth to avoid the air suction in pipe line, a common problem faced by customer. Sufficient lower height to avoid water spillage, even water distribution system and high efficiency uPVC fills are provided for proper heat transfer.

Crystal Cooling Towers are designed for safe, proper and continuous operations and they are easy to operate, maintain, repair and inspect. Cooling Tower structures have adequate strength to withstand wind velocity of 150 km/hr and have earthquake resistant structure.



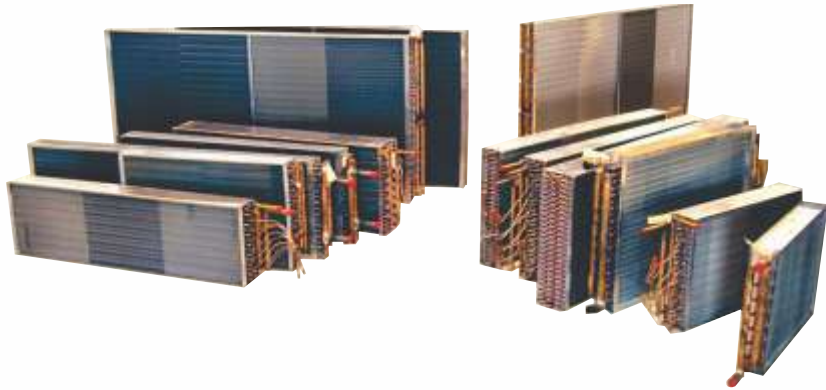
COILS

Crystal Manufacturer Coils in 1/2 & 3/8 for the commercial and industrial applications
These coils can be made from 2 row to 12 row deep
Crystal plays a very important role in procurement of copper tube and aluminium foil from across the globe to maintain the international standard.

Features :
Aluminum foils with or without hydrophilic coating
End plate stainless steel / Galvanized iron
Dimensions accuracy

Types :
Direct Expansion
Chilled Water
Heating

Options :
Copper header
Intertwined coil



FILTERS

HEPA Filters : The standard HEPA Filters enables better than Class 100 conditions. These filters can be directly installed in AHUs or mounted in banks in separate single skin plenums. Following are the construction features of our range:

- ▶ Efficiency 99.99% down to 0.3 u
- ▶ Filter media micro fiber glass
- ▶ Frame material aluminum /GI/SS/MS
- ▶ Frame type box / Flange

- ▶ Efficiency 95% down to 05 u
- ▶ Filter media synthetic non-woven deep pleated
- ▶ Frame material aluminum /GI/SS/MS
- ▶ Frame type box / Flange

Fine Filters are widely used in pharmaceutical, clean room, semi-conductor, biotechnology, photo film, optical, precision, mechanical, critical, O.T, defense, air handling units and air conditioning etc as secondary or final filter. These filters are resistant to chemicals & organic solvents. Following are the construction features of our range :

Pre Filters are widely used in air conditioning, Air Handling Units, pharmaceutical, clean room, semi-conductor, biotechnology, photo film, optical, precision mechanical, critical O.T, defense etc as Pre Filter and riser filters. Following are the construction features of our range:

- ▶ Efficiency 90% down to 10 u
- ▶ 90% down to 20 u
- ▶ Filter media synthetic non-woven / Al wiremesh
- ▶ Frame material aluminum / GI
- ▶ Thickness available 25mm / 50mm



AIR DISTRIBUTION RANGE

Crystal Air Distribution &Architectural Products refers Rectangular & Square ceiling diffusers, Linear Grills , Fresh Air Louvers & Fire & Smoke Control Dampers

- ▶ Aluminum Powder Coated Fixed Bar Linear Grills
- ▶ Aluminum Powder Coated Removal Core Type Grills
- ▶ Aluminum Powder Coated Single Louver Adjustable Grills
- ▶ Aluminum Powder Coated Double Louver Adjustable Grills
- ▶ Aluminum Powder Coated Rectangular/Square Ceiling Diffusers
- ▶ Aluminum Powder Coated Multi Slot Diffuser (with & without Hit & Damper)
- ▶ Aluminum Powder Coated Linear Diffuser (One /Tway Way)
- ▶ Aluminum Powder Coated Special Jointless Round Diffuser
- ▶ Aluminum Powder Coated Perforated Diffusers
- ▶ Aluminum Key Operated Volume Control Dampers
- ▶ Aluminum Powder Coated Fresh Air Assembly
- ▶ Aluminum Low Leakage (ABS Gear Drive) Volume Control Dampers
- ▶ G.I. Duct Volume Control Dampers
- ▶ G.I. Smoke & Fire Control Dampers

Finishes: Most of our products come with powder coated finish with any colour to suit the interiors. Anodized Aluminum finish is also available.

Fixing : The Grills & Diffusers are produced with concealed Screwor spring Action Clip, Fixing arrangement, Exposed screw type fixing can be made on special request

Material of Construction: All our products are made from high grade aluminum, extrusion for maximum strength, Corrosion Resistance, Light Weight & Dimensional Stability



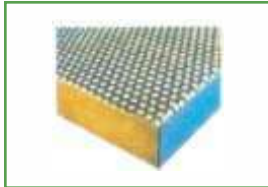
ACCESSORIES

Accessories are the most important parts in any product it can change look & finishing quality of products. Crystal takes the responsibility to use suitable genuine accessories placed in different machines & keep on upgrading all accessories through continuous improvement which makes our Products different from others. We can also provide customized accessories as per the needs.



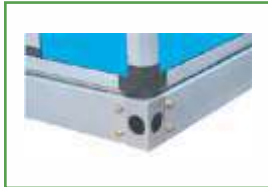
Frame Work

Corrosion resistant aluminum profile with specially designed 3-way corners. (thermal break on demand)



Frame Panels

Double skin sandwich panels fabricated from inside with 0.63mm (24 G) galvanized sheet steel and outside with 0.63mm (24 G) pre-coated galvanized sheet steel. The panels have infilled insulation of 40 Kg/m3 density puf injection/puf slab, resulting in high rigidity and sound attention characteristics.



Base Frame

Base frame is made of galvanised steel with die cast aluminum joints having lifting holes.



Condensate Drain Pan

Drain pan can be made of aluminium/ G.I / S.S with dual slope to facilitate immediate discharge of condensate. Specially designed drain pan with all round edges allow complete cleaning and averts microbial growth.



FAN Section

Nicotra or kruger centrifugal fans are used either SISW or DIDW type with forward curve or backward curved driven with belts as per static pressure requirements.



Celdek Pad

Cellulose pad is used in evaporative cooling unit. It is cross corrugated coated with anti rot, rigidifying & wetting resins makes the material stiff and self supporting.



Inspection Glass

Port Hole Used In Air Handling Unit Sight Window For Checking Operation In Machine



Hings and Locks

Access doors are provided with hinges and locks made of self extinguishing nylon for perfect air tightness.

CERTIFICATION

Crystal has practice of combining customer needs, engineering expertise, advanced technology and cutting edge innovation to provide superior product and systems that deliver exceptional performance. Crystal carries the legacy of best manufacturing practices with stringent quality control, safety and accuracy.



ASIA

CLIENTS

Readily adaptable with the customer's demand, Crystal has a long list of satisfied customers in every sector. Our clientele speaks the volume of acceptability and reliability, we enjoy in the prevailing market.



CLIENTS

Pharma, Hospitals, Institutions, buildings, industry, hospitality, Govt. defense, corporate houses, banks almost every sector, Crystal finds its presence.

