

The logo for SINKO, featuring the word "SINKO" in a large, white, sans-serif font with a blue outline, set against a dark blue background. The background of the entire page is a blue sky with white clouds.

SINKO

AIR HANDLING UNIT

FE

COOL JOY series

High-efficiency, energy saving, and
highly reliable air handling units
built on Japanese technology

SINKO

SINKO's history is air handling units for Japanese business use

SINKO, leading the forefront of business-use air handling unit technology

SINKO Industries LTD., incorporated in 1950, has constantly maintained its leadership position in the central air conditioning system industry as Japan's top manufacturer of Air Handling Units for varied commercial and industrial applications.

SINKO has two major manufacturing plants in Japan, both equipped with the latest hi-tech manufacturing facilities, machinery, and testing technologies to satisfy the diversified

needs of the customers, both in Japan and abroad.

More recently, in order to meet with the overseas customer demand for the low-cost yet reliable and quality-assured AHU series, SINKO now offers COOL JOY Series AHUs from its manufacturing facility in Thailand, based on the full technical and engineering backup support extended from SINKO Japan.

SINKO advances the technology in the severe environments of Japan

Japan is located in a temperate region roughly 2000 km long from north to south, and it varies in height more than 3000 m from the mountain country to the plains, with the widest point from east to west being no more than 200 km. Because of this fact, the temperature and humidity change greatly from season to season. Japan's severely changing weather demands high performance Air Handling Units to maintain comfort year-round. SINKO has been at the forefront of business-use Air Handling Unit Technology as the top Japanese manufacturer for over 50 years. In various environments, SINKO proudly provides the world the reliability and comfort of our high-level, quality products.



Worldwide Installations



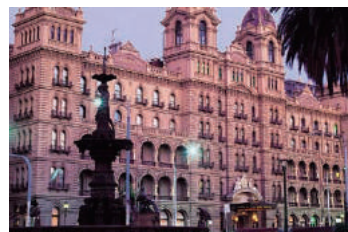
MEDINAT JUMEIRAH
(Dubai UAE)



THE VENETIAN MACAU
(Macau)



CENTRAL JAPAN
INTERNATIONAL AIRPORT
(Nagoya Japan)



HOTEL WINDSOR
(Australia)

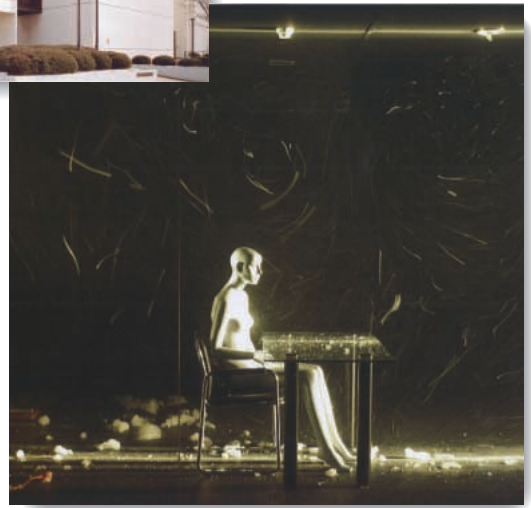
SINKO Research & Development

SINKO Laboratory is located in Neyagawa, Osaka, and it is recognized as one of the foremost industrial research centers in Japan's HVAC industry for developing and testing new systems.

Our laboratory features the most modern facilities comprising overall HVAC testing functions: an air movement test room, air purity test room, transparent air flow & velocity measurement room, calorimetry measurement room, temperature and humidity measurement room, sound-proof acoustic room, and reverberation room. Attached to SINKO's AHU factory in Hadano City, Kanagawa, is a branch Laboratory for product and system improvements. Here our research continues on air-conditioning systems and manufacturing technologies, including research for ways to expand improvements on existing product lines. Also included is a showroom that allows visitors to see, touch, and experience our products, so that we can foster greater understanding among customers visiting our facilities.

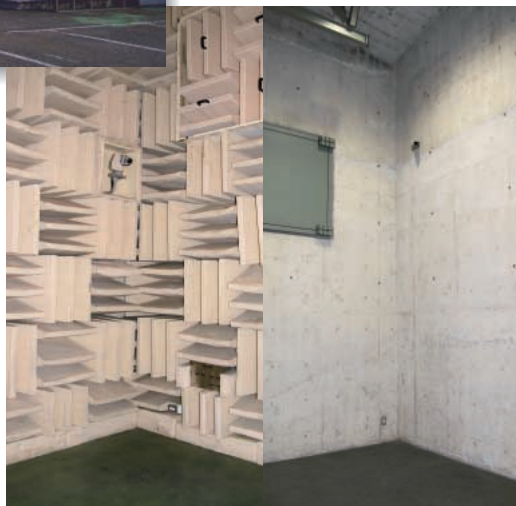


R & D Center
Located in Neyagawa, Osaka



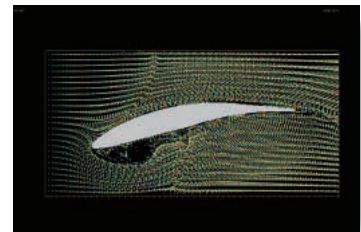
Visualized Airflow Test Room

R & D Center
Located in Hadano, Kanagawa

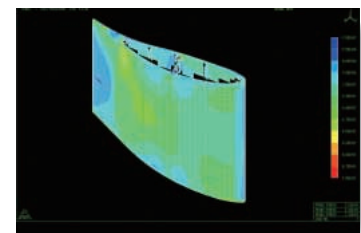


Insulated Acoustic Room
(Semi-Anechoic Wall)

Reverberation Chamber



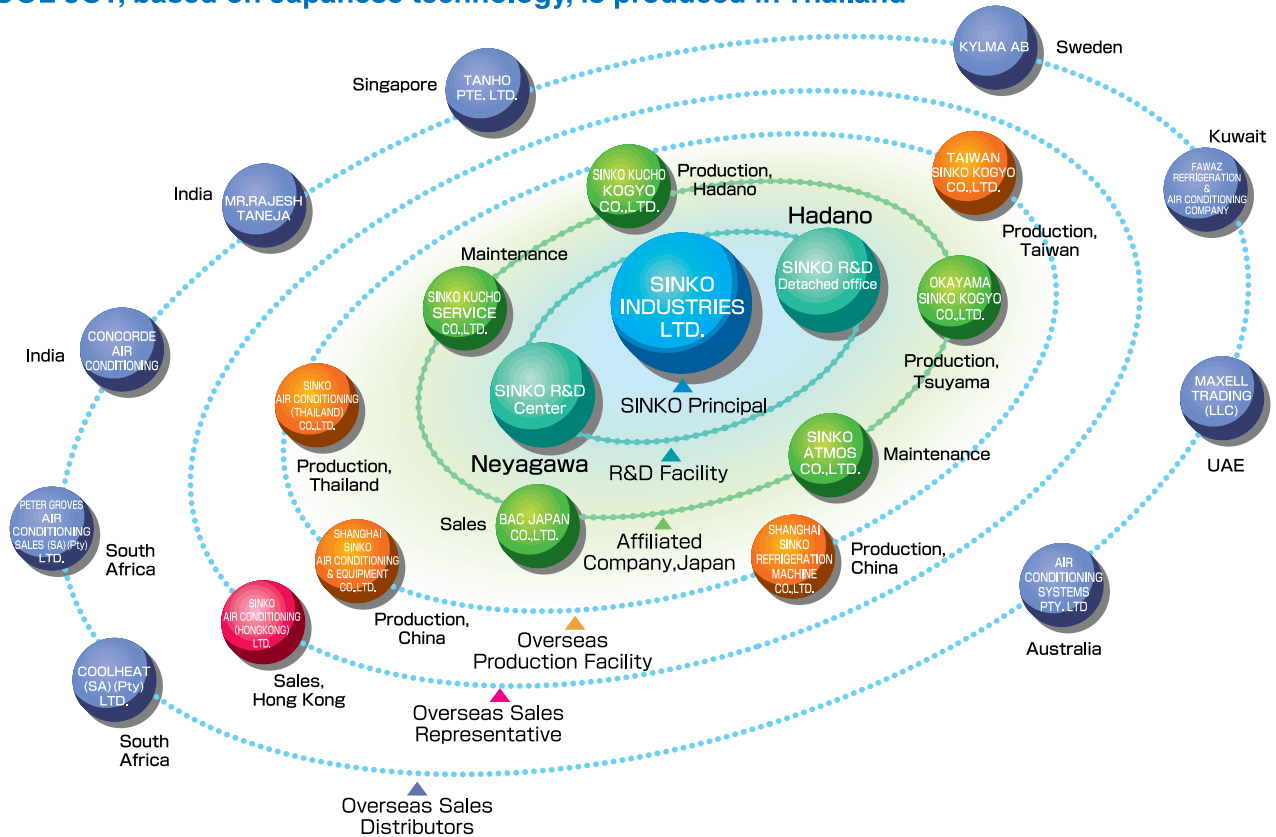
Fluid Analysis



Structure Analysis

SINKO Group Companies

COOL JOY, based on Japanese technology, is produced in Thailand



● SINKO Industries Ltd.

International Department

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Osaka Headquarter
Tokyo, Osaka, Nagoya, Sapporo, Sendai, Fukuoka

R&D Center : Osaka, Kanagawa
Manufacturing Plants: Kanagawa, Okayama

● Overseas Group Companies

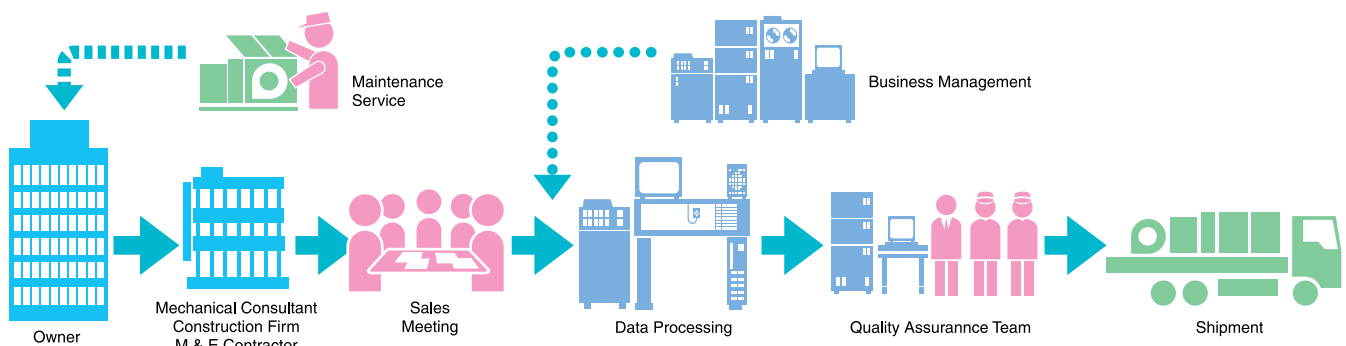
SINKO Air Conditioning (Thailand) Co., Ltd.

134/1 Moo 1, Hi-Tech Industrial Estate, Ban Po, Bangpa-In,
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Tel : (66) 3-531-4009
Fax : (66) 3-531-4013
Mail : marketing@sinko-thai.co.th
<http://www.sinko.co.jp/sti/>

SINKO Air Conditioning (HK)Ltd.(China)
Shanghai SINKO Air Conditioning Equipment Co., Ltd.(China)
Shanghai SINKO Refrigeration Machine Co., Ltd.(China)
Taiwan SINKO Kogyo Co., Ltd.(Taiwan)

Sales, Production, After Sales Service

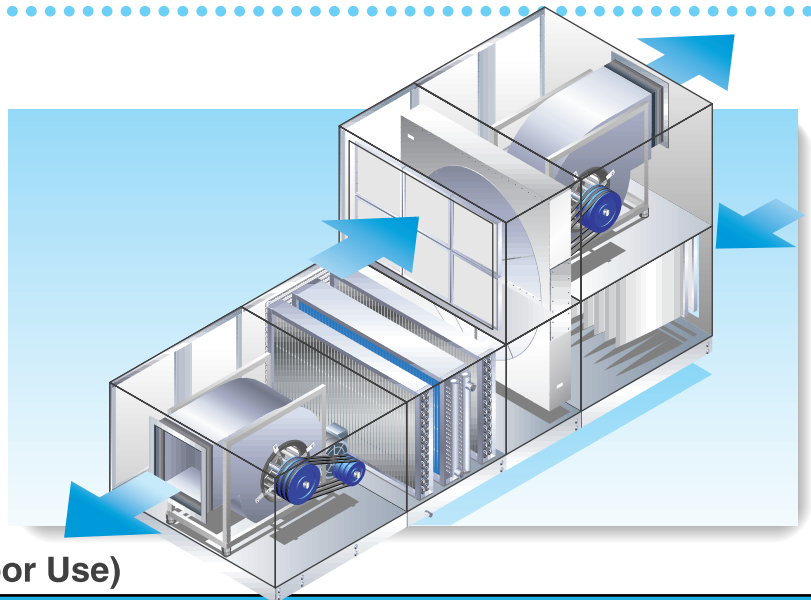
SINKO quickly responds to your various needs in the planning, production, and maintenance phases.



Fresh Air Intake,
Heat Recovery Type

FE

High efficiency and
energy-saving model with
built-in heat recovery wheel



Standard Specifications (Indoor Use)

Main Component	Main Part Name	Standard Specifications
Casing	Panel	50mm thick double skinned casing panel with foamed Urethane insulation ·Internal/external panel : 0.5mm thick pre-coated steel sheet ·Density of polyurethane foam : 40[kg/m³]
	Main Frame	Steel
	Access Door	50mm thick double skinned casing panel with foamed Urethane insulation ·Internal/external panel : 0.5mm thick pre-coated steel sheet ·Density of polyurethane foam : 40[kg/m³]
	Base	Steel , Epoxy paint finished
Drain Pan	Drain Pan	Stainless steel 304
Fan & Motor	Fan	Forward wheel
	Motor	TEFC type , IP55 , Class F
	Vibration Isolator	Spring Vibration Isolator
Coil	Water Coil	Max.working pressure : 0.98 [MPa] Maximum face velocity : 3.0 [m/s]"
	Main Tube	AHU Size FE-50~215 : 3/8"dia copper tube
		AHU Size FE-235~665 : 5/8"dia copper tube
	Fin	AHU Size FE-50~215 ·Aluminum , 0.115mm thickness , Bare surface ·Fin spacing : 11FPI
		AHU Size FE-235~665 ·Aluminum , 0.15mm thickness , Bare surface ·Fin spacing : 8 , 9 , 11FPI
	Header	Steel, Epoxy paint finished "Air vent with plug" and "Drain plug" is attached.
	Take-off pipe	20A~80A : Steel , MPT , Epoxy paint finished 100A , 125A : Steel , Steel pipe flanges , Epoxy paint finished
Casing	Steel , Epoxy paint finished	
Filter	Pre-filter	20mm panel type , Non-woven type EN779 Classification : G3 Size : (W)592×(H)592 , (W)592×(H)287 , (W)287×(H)592
	Main-filter	Bag type EN779 Classification : F6 , F7 , F8 Size : (W)592×(H)592 , (W)592×(H)287 , (W)287×(H)592

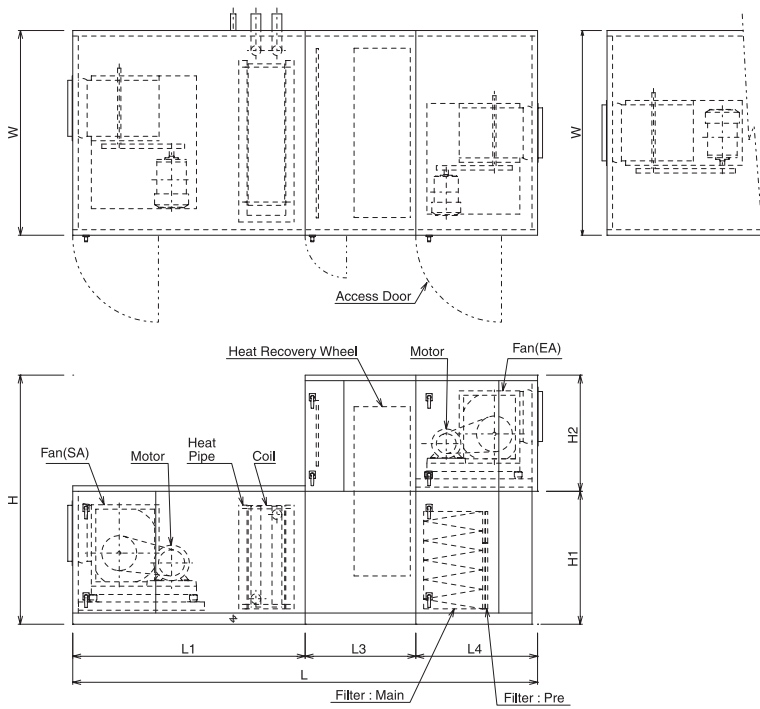
Optional Specifications

Main Component	Main Part Name	Optional Specifications
—	—	Use : Outdoor
Casing	Panel	Thicker pre-coated steel sheet available on request
	Access Door	Thicker pre-coated steel sheet available on request
Fan	Fan	Backward wheel
Coil	Water coil	Coil for higher working pressure available on request
	Fin	Pre-coated Aluminum Fin
	Header	Copper tube

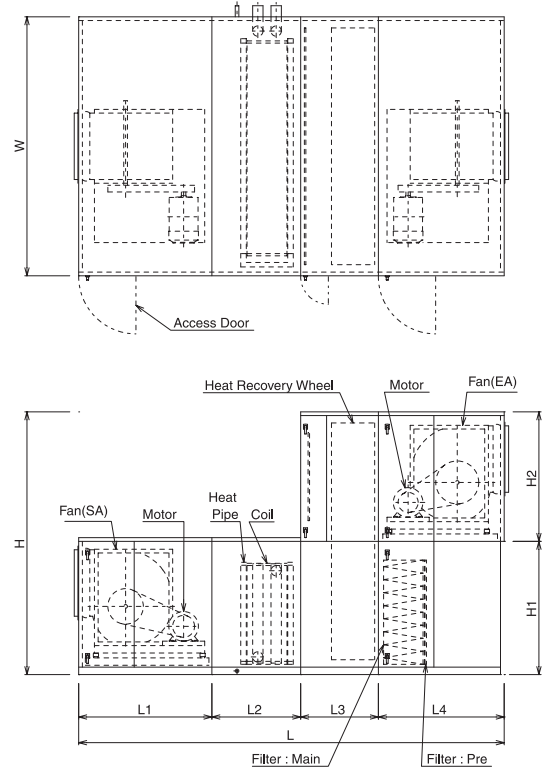
Note : Selection of optional components is subject to change in dimension from the standard.

Dimensions

FE-50~215 (Type1)



FE-235~665 (Type1)



Model	Dimensions [mm]										Supply Side		Exhaust Side	
	W	H	L	H1	H2	L1	L2	L3	L4	Type	Maximum	Maximum	Maximum	Maximum
											Fan Model	Motor Size	Fan Model	Motor Size
FE- 50	1350	1700	3750	900	800	1700	-	1000	1050	1	FDA 250	5.5 kW	FDA 225	3 kW
FE- 65	1450	1800	3800	950	850	1750	-	1000	1050	1	FDA 280	7.5 kW	FDA 250	3 kW
FE- 85	1550	1850	3800	950	900	1750	-	1000	1050	1	FDA 280	7.5 kW	FDA 280	4 kW
FE-100	1650	1950	4100	1000	950	2050	-	1000	1050	1	FDA 315	11 kW	FDA 315	4 kW
FE-120	1750	2150	4150	1100	1050	2050	-	1000	1100	1	FDA 355	11 kW	FDA 355	5.5 kW
FE-135	1850	2250	4200	1200	1050	2100	-	1000	1100	1	FDA 400	11 kW	FDA 355	5.5 kW
FE-150	1850	2250	4200	1200	1050	2100	-	1000	1100	1	FDA 400	15 kW	FDA 355	5.5 kW
FE-165	1950	2350	4250	1200	1150	2100	-	1000	1150	1	FDA 400	15 kW	FDA 400	5.5 kW
FE-185	2050	2400	4250	1250	1150	2100	-	1000	1150	1	FDA 450	15 kW	FDA 400	5.5 kW
FE-200	2150	2450	4350	1250	1200	2100	-	1000	1250	1	FDA 450	15 kW	FDA 450	7.5 kW
FE-215	2150	2450	4350	1250	1200	2100	-	1000	1250	1	FDA 450	15 kW	FDA 450	7.5 kW
FE-235	2250	2650	5100	1350	1300	1450	1200	1000	1450	2	FDA 500	15 kW	FDA 500	11 kW
FE-250	2250	2650	5150	1350	1300	1500	1200	1000	1450	2	FDA 500	18.5 kW	FDA 500	11 kW
FE-285	2450	2650	5150	1350	1300	1500	1200	1000	1450	2	FDA 500	18.5 kW	FDA 500	11 kW
FE-335	2700	2950	5250	1500	1450	1550	1200	1050	1450	2	FDA 560	18.5 kW	FDA 560	15 kW
FE-365	2700	2950	5350	1500	1450	1550	1200	1050	1550	2	FDA 560	22 kW	FDA 560	15 kW
FE-415	2900	3250	5350	1650	1600	1550	1200	1050	1550	2	FDA 630	22 kW	FDA 630	15 kW
FE-450	3100	3250	5450	1650	1600	1650	1200	1050	1550	2	FDA 630	30 kW	FDA 630	15 kW
FE-500	3100	3250	5550	1650	1600	1650	1200	1050	1650	2	FDA 630	30 kW	FDA 630	18.5 kW
FE-535	3300	3550	5750	1800	1750	1800	1200	1050	1700	2	FDA 710	30 kW	FDA 710	18.5 kW
FE-585	3300	3550	5750	1800	1750	1800	1200	1050	1700	2	FDA 710	37 kW	FDA 710	22 kW
FE-665	3500	3550	5750	1800	1750	1800	1200	1050	1700	2	FDA 710	37 kW	FDA 710	22 kW



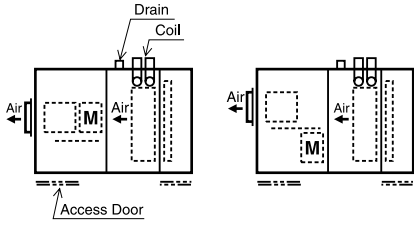
Cooling Capacity

On coil air temperature : DB32.2 [°C] / WB25.0 [°C] On coil water temperature : 7 [°C] Water temperature difference : 5 [K]

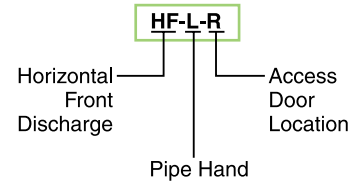
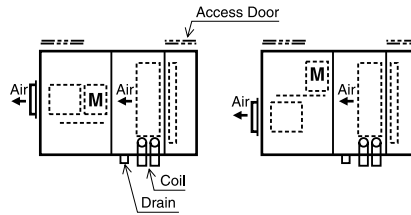
Model	Coil Face Area [m ²]	Air Volume			6 Rows			8 Rows			12 Rows		
		[l/s]	[m ³ /h]	[CFM]	Capacity		Water Side Pressure Drop [kPa]	Capacity		Water Side Pressure Drop [kPa]	Capacity		Water Side Pressure Drop [kPa]
					Sensible [kW]	Total [kW]		Sensible [kW]	Total [kW]		Sensible [kW]	Total [kW]	
FE- 50	0.280	700	2520	1487	15.23	30.45	23.5	17.18	35.79	40.2	19.53	40.68	24.5
		833	3000	1770	17.19	34.37	28.4	19.05	38.87	7.8	22.82	47.54	32.4
FE- 65	0.372	931	3350	1977	20.24	40.48	24.5	22.84	47.58	44.1	25.96	54.08	27.5
		1111	4000	2360	22.94	45.88	31.4	25.52	52.08	7.8	30.43	63.39	35.3
FE- 85	0.465	1164	4190	2472	25.61	51.22	34.3	27.59	57.48	8.8	32.63	67.97	37.3
		1389	5000	2950	29.08	58.15	43.2	32.37	66.06	10.8	38.20	79.59	49.0
FE- 100	0.554	1386	4990	2944	29.98	61.18	43.2	33.04	68.84	10.8	39.02	81.29	46.1
		1667	6000	3540	34.25	67.15	16.7	39.09	79.78	13.7	45.42	94.62	27.5
FE- 120	0.653	1633	5880	3469	35.48	70.95	21.6	39.20	81.66	16.7	45.78	95.38	32.4
		1944	7000	4130	40.10	80.20	26.5	46.12	94.13	21.6	53.49	111.43	42.2
FE- 135	0.743	1858	6690	3947	40.43	80.85	24.5	44.93	93.61	18.6	52.09	108.52	36.3
		2222	8000	4720	45.83	91.66	29.4	51.72	107.74	23.5	61.13	127.35	47.1
FE- 150	0.822	2056	7400	4366	44.72	89.43	25.5	49.88	103.92	19.6	57.62	120.04	38.2
		2500	9000	5310	51.56	103.12	32.4	59.25	120.91	26.5	67.48	140.58	16.7
FE- 165	0.939	2350	8460	4991	50.47	103.00	30.4	57.03	118.81	23.5	66.16	137.83	45.1
		2778	10000	5900	58.19	116.37	37.3	66.63	135.97	29.4	75.58	157.46	18.6
FE- 185	1.012	2531	9110	5375	54.73	111.70	37.3	61.78	128.70	28.4	70.29	146.43	17.7
		3056	11000	6490	63.01	123.54	44.1	73.26	149.50	37.3	83.27	173.47	23.5
FE- 200	1.123	2808	10110	5965	60.74	123.96	40.2	68.56	142.83	31.4	78.00	162.51	19.6
		3333	12000	7080	67.45	132.26	45.1	80.25	163.78	40.2	91.08	189.74	25.5
FE- 215	1.218	3047	10970	6472	65.91	134.51	42.2	74.39	154.98	33.3	84.81	176.69	20.6
		3611	13000	7670	72.08	141.33	46.1	87.08	177.71	41.2	98.89	206.02	26.5
FE- 235	1.299	3247	11690	6897	66.80	130.99	27.5	76.89	156.92	49.0	88.09	183.52	31.4
		3889	14000	8260	75.11	147.28	33.3	84.60	169.20	8.8	102.09	212.68	41.2
FE- 250	1.363	3408	12270	7239	69.10	138.20	31.4	77.89	158.96	7.8	92.46	192.62	36.3
		4167	15000	8850	80.93	155.64	38.2	90.64	181.28	9.8	109.12	227.34	48.1
FE- 285	1.533	3833	13800	8142	78.41	156.82	43.2	88.20	180.01	10.8	104.46	217.62	50.0
		4722	17000	10030	89.63	172.36	16.7	102.14	208.44	14.7	122.41	255.02	30.4
FE- 335	1.835	4589	16520	9747	93.56	183.45	17.7	106.27	216.88	14.7	124.48	259.34	29.4
		5556	20000	11800	107.06	205.88	21.6	121.05	247.04	17.7	145.50	303.12	38.2
FE- 365	2.038	5097	18350	10827	104.17	204.26	18.6	118.33	241.49	15.7	138.27	288.07	31.4
		6111	22000	12980	118.31	227.51	22.6	134.06	273.59	19.6	160.39	334.15	40.2
FE- 415	2.303	5758	20730	12231	115.90	231.79	21.6	134.22	273.91	17.7	156.65	326.36	35.3
		6944	25000	14750	134.44	258.53	26.5	152.70	311.64	21.6	182.44	380.08	46.1
FE- 450	2.493	6233	22440	13240	128.47	251.90	26.5	146.01	297.98	21.6	169.86	353.88	44.1
		7500	27000	15930	146.47	281.68	32.4	165.71	338.18	27.5	194.02	404.21	18.6
FE- 500	2.758	6897	24830	14650	139.70	279.39	29.4	161.82	330.24	23.5	187.95	391.57	48.1
		8333	30000	17700	160.96	315.60	36.3	184.12	375.76	29.4	215.72	449.42	20.6
FE- 535	2.961	7406	26660	15729	151.49	302.97	36.3	173.85	354.79	28.4	199.90	416.45	18.6
		8889	32000	18880	171.84	336.95	43.2	197.80	403.67	36.3	230.82	480.87	24.5
FE- 585	3.221	8053	28990	17104	164.73	329.45	38.2	189.35	386.42	30.4	217.37	452.85	19.6
		9722	35000	20650	187.96	368.54	46.1	216.34	441.51	38.2	252.34	525.70	25.5
FE- 665	3.685	9214	33170	19570	188.48	376.95	46.1	217.48	443.84	37.3	248.71	518.14	24.5
		11111	40000	23600	207.03	398.13	7.8	247.82	505.75	47.1	290.89	606.02	31.4

Piping / Access Door Arrangement

HF-L-R



HF-R-L



Note : R , L is decided facing air discharged from the unit.

Sound Power Level

On coil air temperature : DB32.2 [°C] / WB25.0 [°C] Off coil air temperature : DB14.5 [°C] / WB14.0 [°C] Ext Static pressure : 350[Pa]

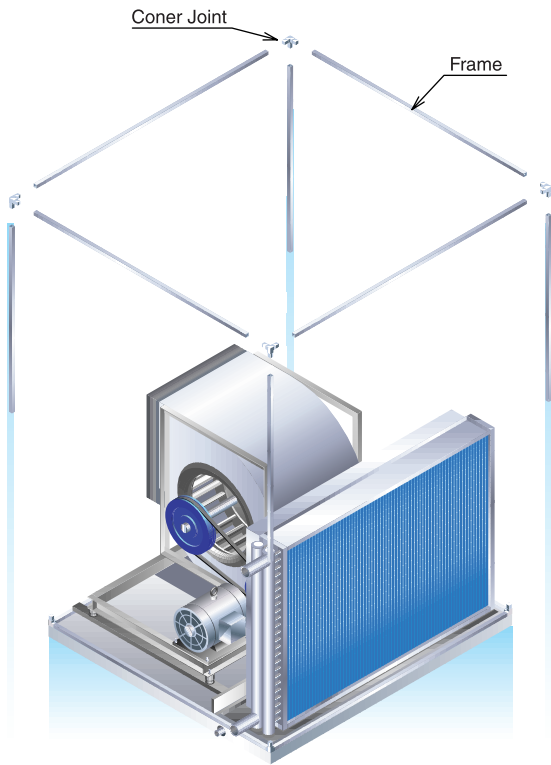
Model	Air side	Air Volume			Fan Model	Motor Size	Estimated PWL*							
		[l/s]	[m³/h]	[CFM]			Octave Band Center Frequency [Hz]							
							63	125	250	500	1000	2000	4000	8000
FE- 50	Supply	833	3000	1770	FDA 250	4 kW	96	94	93	88	83	82	79	75
	Exhaust	667	2400	1416	FDA 200	1.5 kW	91	87	85	80	80	74	71	69
FE- 65	Supply	1111	4000	2360	FDA 250	5.5 kW	96	94	94	89	84	83	80	76
	Exhaust	889	3200	1888	FDA 225	1.5 kW	91	88	86	81	79	77	75	73
FE- 85	Supply	1389	5000	2950	FDA 280	7.5 kW	95	93	95	93	92	94	95	94
	Exhaust	1111	4000	2360	FDA 250	2.2 kW	91	88	83	77	74	71	67	61
FE- 100	Supply	1667	6000	3540	FDA 315	7.5 kW	98	95	98	94	97	97	97	95
	Exhaust	1333	4800	2832	FDA 280	2.2 kW	85	87	84	78	80	79	79	75
FE- 120	Supply	1944	7000	4130	FDA 315	7.5 kW	98	95	98	94	97	96	96	94
	Exhaust	1556	5600	3304	FDA 280	3 kW	84	86	82	76	78	75	74	70
FE- 135	Supply	2222	8000	4720	FDA 355	11 kW	101	98	100	93	95	92	89	87
	Exhaust	1778	6400	3776	FDA 315	3 kW	93	90	87	85	86	83	82	78
FE- 150	Supply	2500	9000	5310	FDA 355	11 kW	101	98	100	93	95	91	89	86
	Exhaust	2000	7200	4248	FDA 315	4 kW	93	91	88	85	86	84	82	78
FE- 165	Supply	2778	10000	5900	FDA 400	11 kW	105	102	101	91	87	83	80	76
	Exhaust	2222	8000	4720	FDA 355	4 kW	95	93	87	83	82	78	74	69
FE- 185	Supply	3056	11000	6490	FDA 400	11 kW	103	100	101	91	90	85	83	79
	Exhaust	2444	8800	5192	FDA 355	4 kW	96	93	86	83	81	76	73	67
FE- 200	Supply	3333	12000	7080	FDA 450	11 kW	100	97	99	95	97	95	94	92
	Exhaust	2667	9600	5664	FDA 400	4 kW	90	90	85	86	83	81	79	74
FE- 215	Supply	3611	13000	7670	FDA 450	15 kW	100	97	99	95	97	94	93	91
	Exhaust	2889	10400	6136	FDA 400	4 kW	90	90	85	86	83	80	78	73
FE- 235	Supply	3889	14000	8260	FDA 450	11 kW	99	96	98	93	96	91	90	88
	Exhaust	3111	11200	6608	FDA 400	5.5 kW	89	89	84	85	82	79	77	72
FE- 250	Supply	4167	15000	8850	FDA 500	15 kW	105	102	98	88	88	82	80	75
	Exhaust	3333	12000	7080	FDA 450	5.5 kW	92	90	88	85	86	82	80	76
FE- 285	Supply	4722	17000	10030	FDA 500	15 kW	103	100	99	92	96	89	89	85
	Exhaust	3778	13600	8024	FDA 450	5.5 kW	91	89	87	84	84	80	79	75
FE- 335	Supply	5556	20000	11800	FDA 560	15 kW	102	99	98	94	97	91	89	85
	Exhaust	4444	16000	9440	FDA 500	5.5 kW	95	92	86	84	82	79	76	71
FE- 365	Supply	6111	22000	12980	FDA 560	18.5 kW	102	100	98	93	96	90	88	84
	Exhaust	4889	17600	10384	FDA 500	7.5 kW	96	92	87	85	83	79	77	72
FE- 415	Supply	6944	25000	14750	FDA 630	22 kW	97	94	94	95	88	80	73	65
	Exhaust	5556	20000	11800	FDA 560	7.5 kW	96	92	87	86	83	79	76	70
FE- 450	Supply	7500	27000	15930	FDA 630	22 kW	100	97	95	95	89	83	77	71
	Exhaust	6000	21600	12744	FDA 560	7.5 kW	95	91	87	85	83	79	76	69
FE- 500	Supply	8333	30000	17700	FDA 630	22 kW	103	100	96	95	90	85	81	76
	Exhaust	6667	24000	14160	FDA 630	11 kW	96	92	87	85	79	75	71	65
FE- 535	Supply	8889	32000	18880	FDA 710	30 kW	110	107	97	92	89	89	84	78
	Exhaust	7111	25600	15104	FDA 630	11 kW	96	92	87	84	78	75	70	64
FE- 585	Supply	9722	35000	20650	FDA 710	30 kW	108	106	96	90	86	86	81	75
	Exhaust	7778	28000	16520	FDA 630	11 kW	96	93	87	85	79	76	71	65
FE- 665	Supply	11111	40000	23600	FDA 710	30 kW	106	103	93	86	82	82	77	70
	Exhaust	8889	32000	18880	FDA 710	11 kW	100	91	82	77	73	71	65	55

*Sound data is discharge sound PWL of independent fan assembly.



Rigid and easy-to-assemble frame

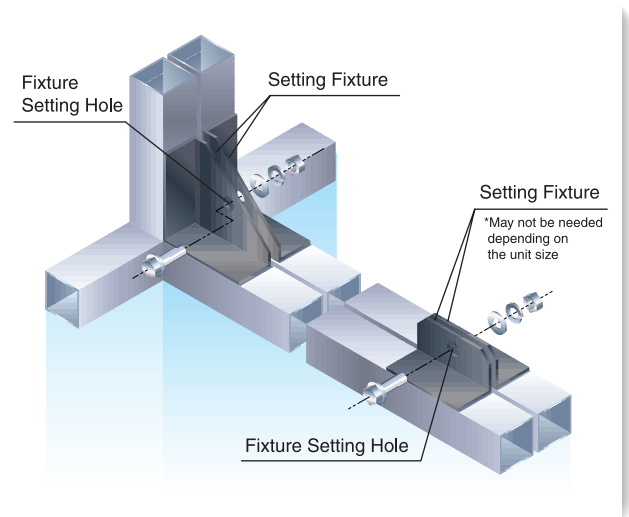
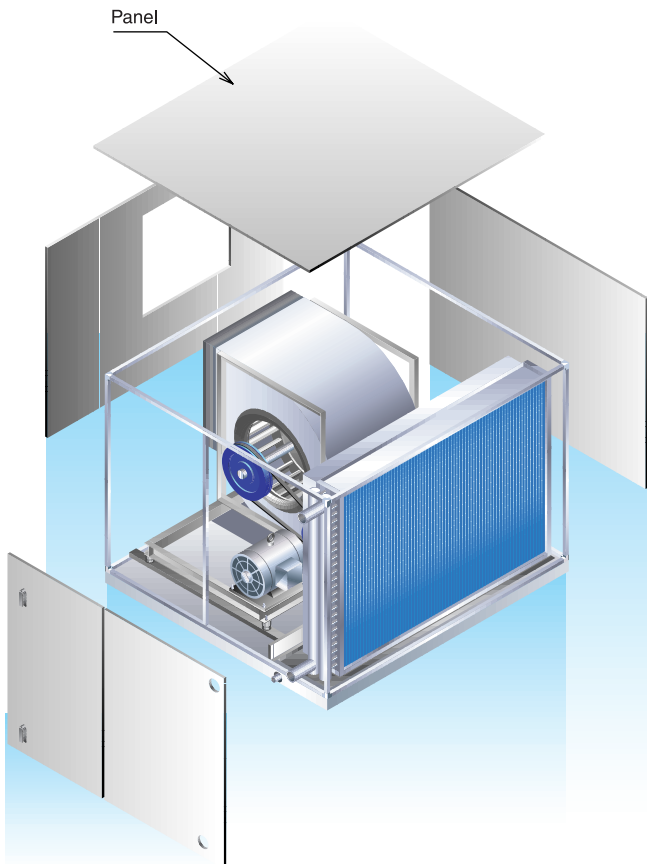
● **Main Frame**



Features of COOL JOY Frame

- The frame is constructed from the main frame and corner joint
- Easy to assemble at job site via knock-down transportation
- The main frame materials vary depending on the thickness of the casing panel
 - For 25mm thick panel : Aluminum frame
 - For 50mm thick panel : Steel frame
- Using triangular metal fittings for corner joints, the units can be assembled easily with nuts and bolts

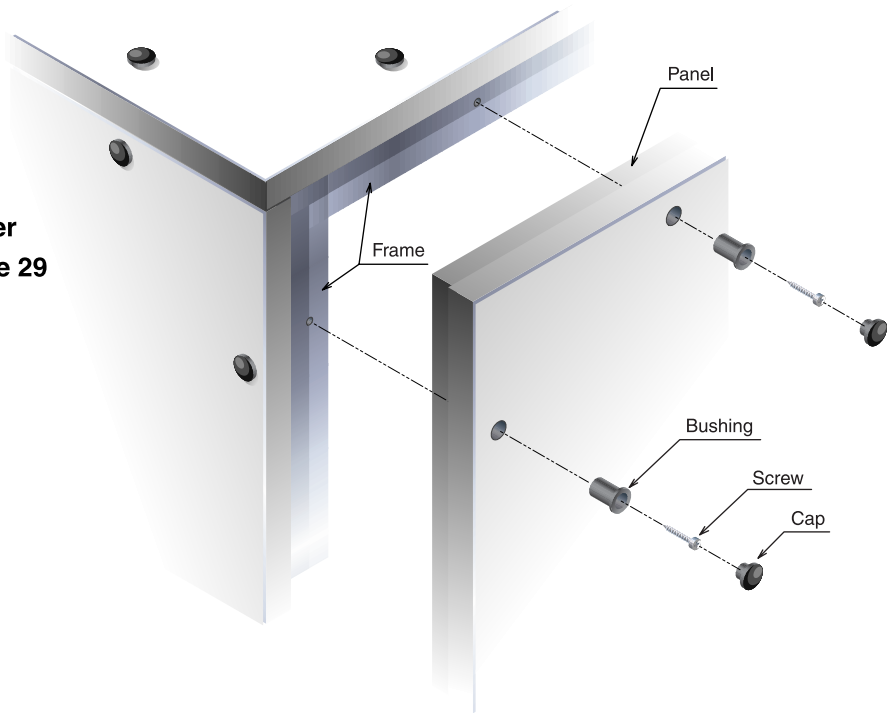
● **Setting Fixture**



The panel uses an external screw structure that shows great resistant-to-condensation performance in severe environments

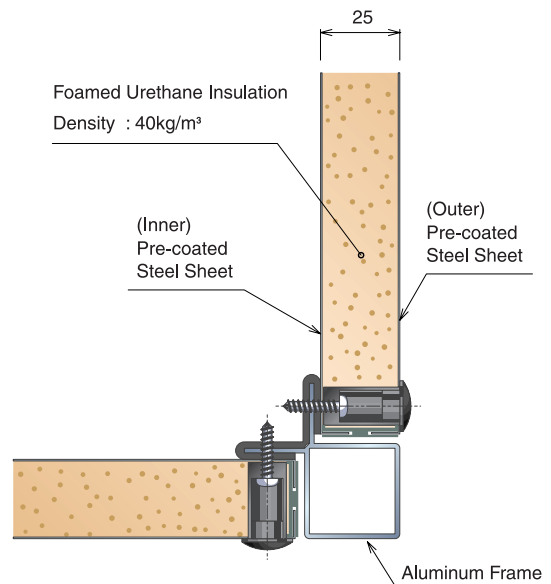
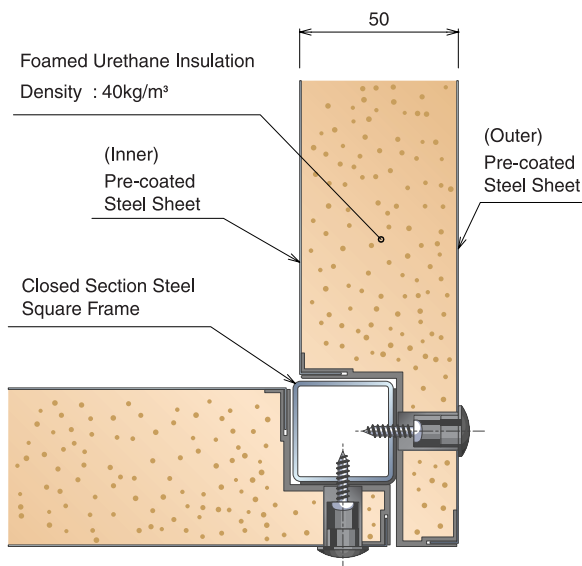
Features of COOL JOY Panel

- The panel can be disassembled easily from the outside using the external screws
- Since the top of the screws are not exposed, it is effective against dew condensation as per Insulation limit Diagram on Page 29



●PANEL : 50mm thick double skinned

●PANEL : 25mm thick double skinned



Each unit is manufactured with carefully selected parts and strict quality control

Fan Wheel

● Forward Fan

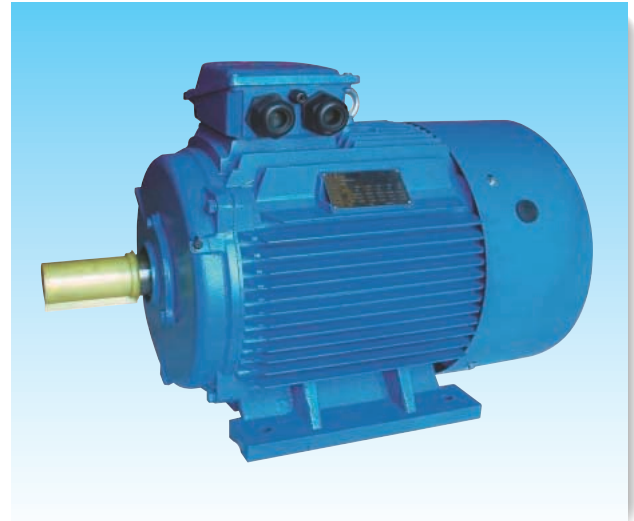
Special forward impeller, and AMCA-certified fan.



Motor

● Standard Motor

TEFC motor with waterproofing performance of IP55 ClassF.



● Backward Fan

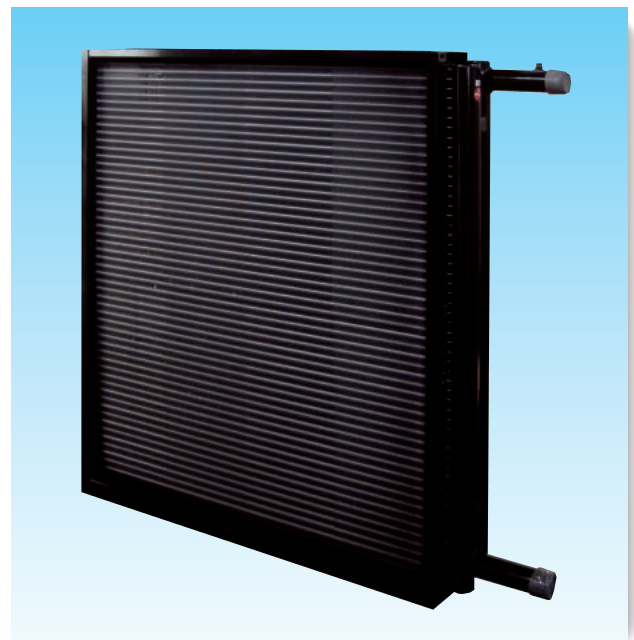
High efficiency, Low power consumption. With the special limit load characteristics, there is no concern of overloading. AMCA certified fan wheel.



Coil

● Cooling Coil

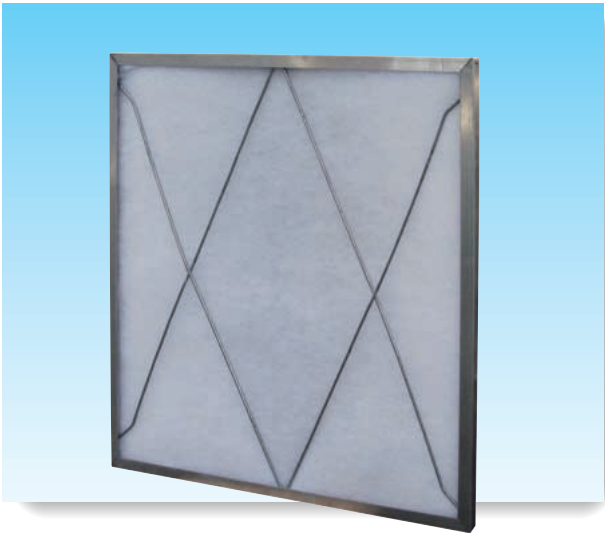
Copper tube and aluminum fin construction. Achieves a higher heat transfer coefficient and lower air resistance.



Filter

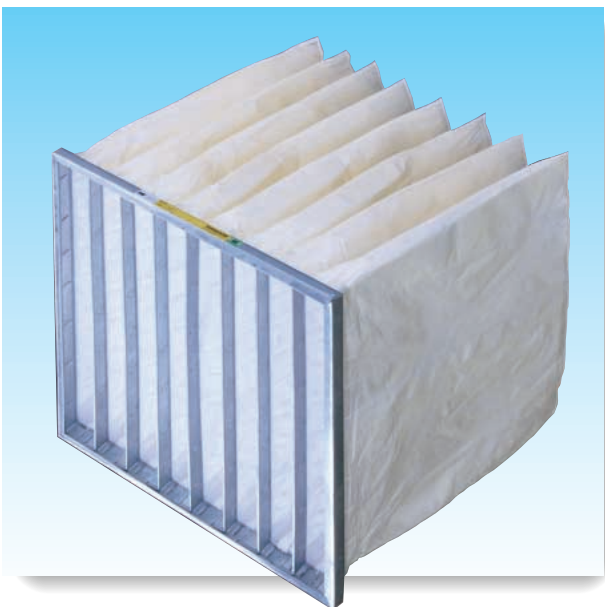
● **Panel Type**

Synthetic non-woven fiber or glass fiber is used as filter media. Both reusable and disposable types are available.



● **Bag Type**

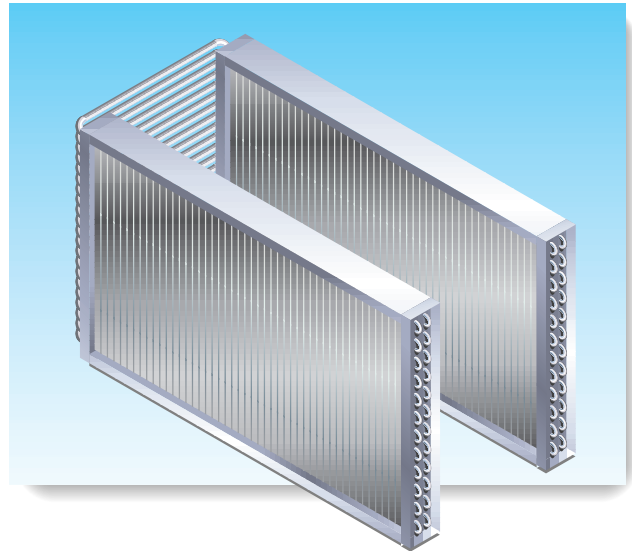
As the dust holding capacity is large, it requires less maintenance.



Heat Pipe

● **Heat Pipe**

No running cost. Heat circulation pump or motor are not required for Heat Pipe.



Heat Exchanger

● **Heat Recovery Wheel**

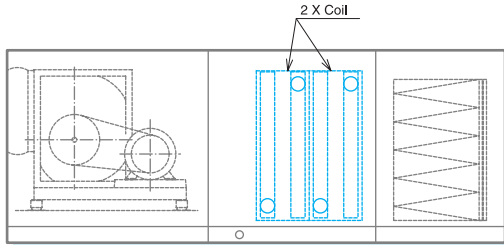
The rotor type heat wheel recovers heat from the exhaust air to the supply air. This system can be used in any air condition, and it decreases power consumption.



Optional arrangement of COOL JOY(RS, RG, FH, FE Series)

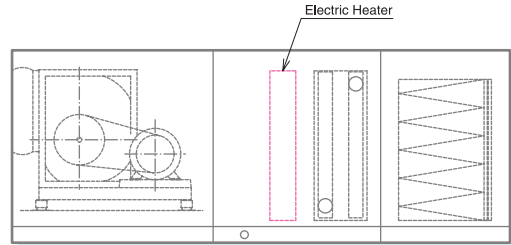
Two Coil Type

Unit is complete with several coils. Additional cooling coil can be installed when there is a requirement for larger cooling load.



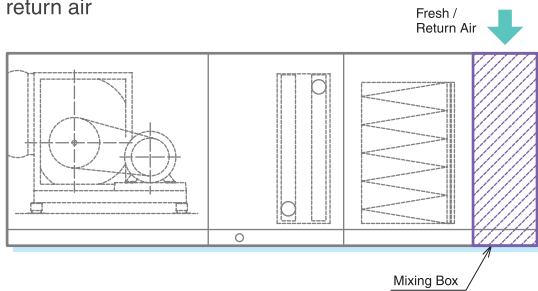
Electric Heater

Unit is complete with electric heater for heating or reheating



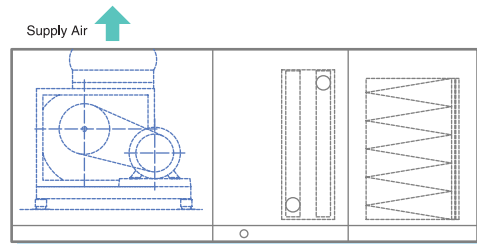
Mixing Box

Unit is complete with mixing box for taking in the fresh air and return air



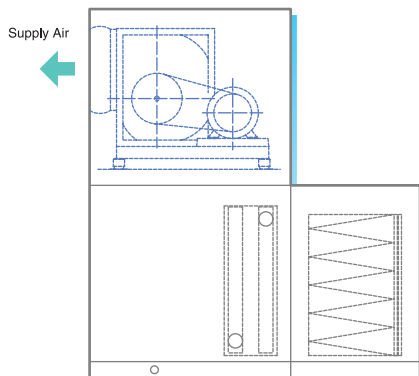
Upper Discharge

Designed to connect to SA duct from the upper side.



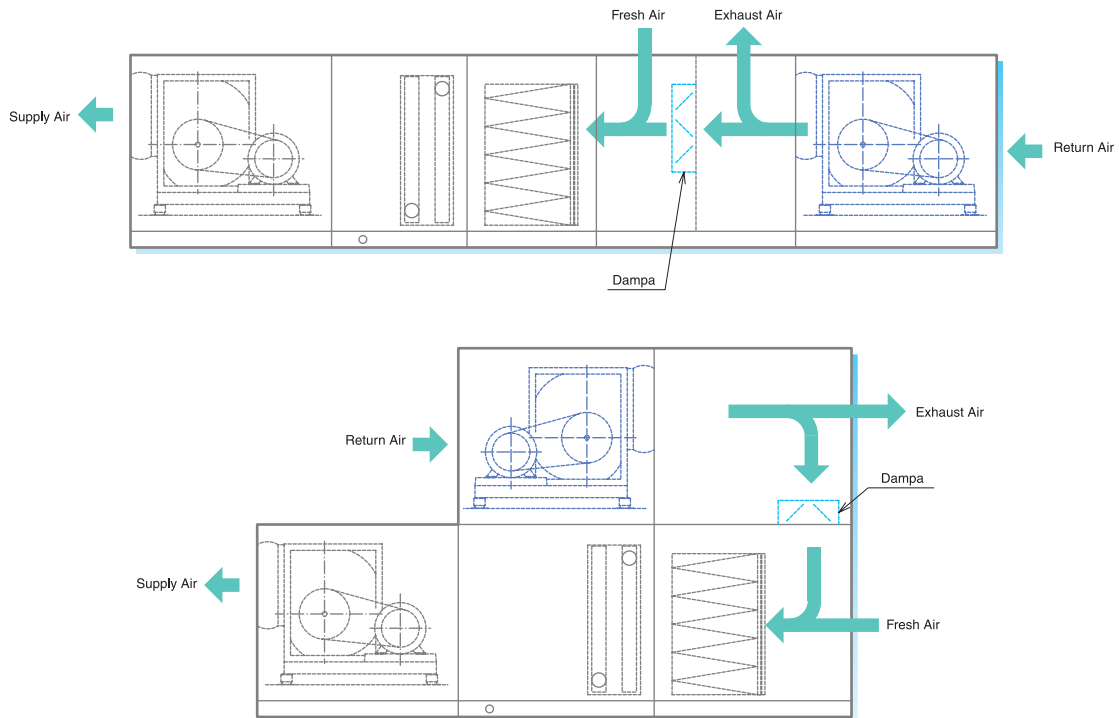
Vertical Mount

Saves space by setting the fan section on top of the coil section.



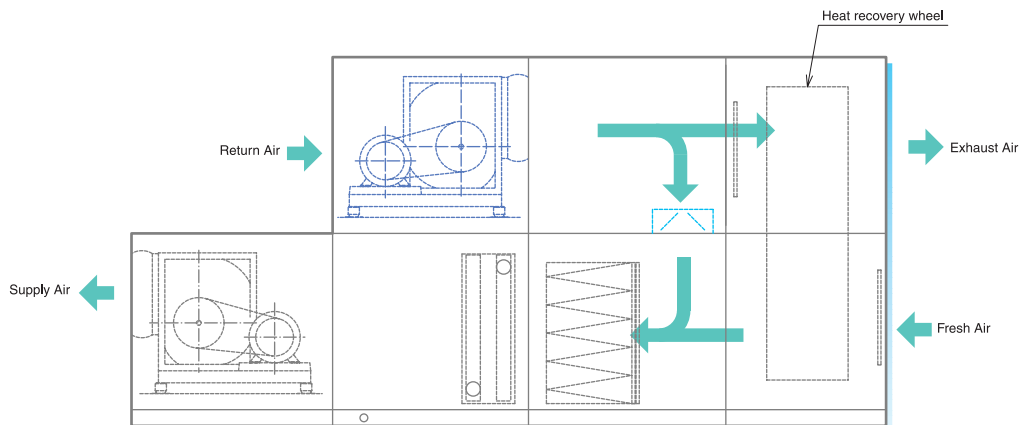
RA Fan Type

Unit is complete with RA fan OA and EA dampers can be added to balance the return and fresh air volume.



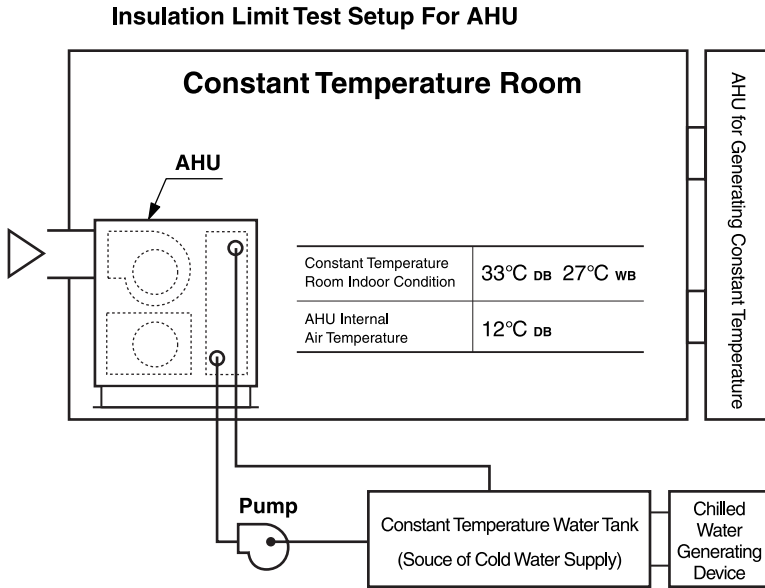
RA Fan and Heat Recovery Wheel

In addition to the RA fan, heat recovery wheel is added to recover heat energy of the fresh air and exhaust air effectively.



Insulation Limit vs AHU Components

AHUs will be installed at various locations such as plant rooms, ceiling space, or outdoors. AHUs lined with certain insulation can have dew formation (while in cooling operation) on the outer surface of the unit, depending on the condition of the ambient air (such as temperature or humidity level). Through laboratory testing, SINKO's AHUs have been verified to have high insulation performance. Such performance is reported as "Insulation Limit vs AHU Components".



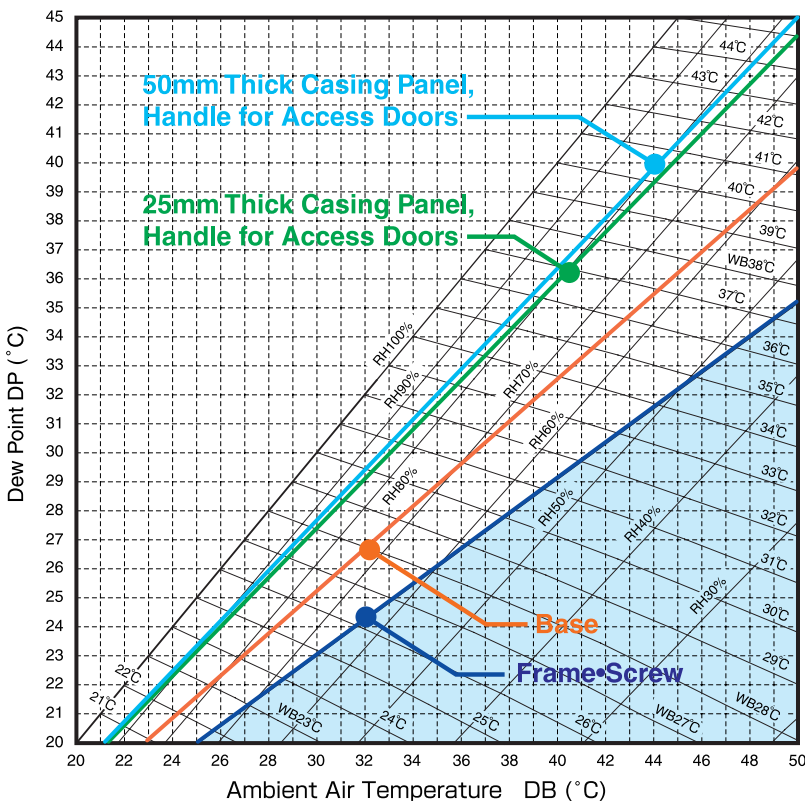
$$R' = \frac{DB1 - t_1}{DB1 - t_2}$$

- DB1** Constant temperature room indoor dry-bulb temperature(°C)
- t1** External surface temperature of component(°C)
- t2** AHU internal air temperature(°C)

Test Result

Component Name	Insulation Coefficient R'
External Panel (25mm)	0.15
External Panel (50mm)	0.13
Base	0.27
Frame	0.39
Screws	0.39
Handle For Access Doors	0.15

Insulation Limit AHU Components at 12°C AHU Internal Air Temperature



Note:
Condensation will not be generated if AHU is installed where the ambient air condition is within the range of .

AHU Specification Check Sheet

Please write a check mark in and fill in () with specification.

Date: _____

Project Name _____

Item No. _____ **Quantity()Units** _____

AHU Specifications

AHU Model <input type="checkbox"/> CJ-RS <input type="checkbox"/> CJ-MD <input type="checkbox"/> CJ-FH <input type="checkbox"/> CJ-FE	AHU Size ()
Discharge/ Pipehand <input type="checkbox"/> H-R <input type="checkbox"/> V-R <input type="checkbox"/> H-L <input type="checkbox"/> V-L	Location of Installation <input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor
Power Source ()v	Frequency <input type="checkbox"/> 50Hz <input type="checkbox"/> 60Hz

Air Supply Side Fan Specifications (Design conditions)

Air Volume () <input type="checkbox"/> m ³ /h <input type="checkbox"/> l/s <input type="checkbox"/> ft ³ /min	Static Pressure <input type="checkbox"/> Static Pressure () <input type="checkbox"/> Pa <input type="checkbox"/> inWg <input type="checkbox"/> External Static Pressure ()
Fan Type <input type="checkbox"/> Forward Wheel <input type="checkbox"/> Backward Wheel	Discharge Air Velocity <input type="checkbox"/> Yes () <input type="checkbox"/> No () <input type="checkbox"/> m/s <input type="checkbox"/> ft/min

Coil (Design conditions)

Entering Air Conditions	<input type="checkbox"/> Total Supply Air Volume	<input type="checkbox"/> Outside Air, Return Air Volume Specified		
	Total Supply Air Volume () <input type="checkbox"/> m ³ /h <input type="checkbox"/> l/s <input type="checkbox"/> ft ³ /min	Outside Air Volume () <input type="checkbox"/> m ³ /h <input type="checkbox"/> l/s <input type="checkbox"/> ft ³ /min	Return Air Volume () <input type="checkbox"/> m ³ /h <input type="checkbox"/> l/s <input type="checkbox"/> ft ³ /min	
	DB () <input type="checkbox"/> °C <input type="checkbox"/> °F	DB () <input type="checkbox"/> °C <input type="checkbox"/> °F	DB () <input type="checkbox"/> °C <input type="checkbox"/> °F	
	<input type="checkbox"/> WB () <input type="checkbox"/> °C <input type="checkbox"/> °F <input type="checkbox"/> RH () %	<input type="checkbox"/> WB () <input type="checkbox"/> °C <input type="checkbox"/> °F <input type="checkbox"/> RH () %	<input type="checkbox"/> WB () <input type="checkbox"/> °C <input type="checkbox"/> °F <input type="checkbox"/> RH () %	
Capacity	<input type="checkbox"/> Capacity () <input type="checkbox"/> kW <input type="checkbox"/> Btu•h	Leaving Air Temperature <input type="checkbox"/> WB () <input type="checkbox"/> °C <input type="checkbox"/> °F		
Chilled Water	Entering Temperature () <input type="checkbox"/> °C <input type="checkbox"/> °F	<input type="checkbox"/> Chilled Water Flow Rate () l/m		
	<input type="checkbox"/> Leaving Temperature () <input type="checkbox"/> °C <input type="checkbox"/> °F	<input type="checkbox"/> Temperature Rise () <input type="checkbox"/> °C <input type="checkbox"/> °F		
Face Air Velocity Requirement	<input type="checkbox"/> Yes () <input type="checkbox"/> No ()	<input type="checkbox"/> m/s <input type="checkbox"/> ft/min		

Heat Recovery Wheel

<input type="checkbox"/> Yes <input type="checkbox"/> No	Heat Exchange Efficiency Total Heat () %	Outside Air Volume () <input type="checkbox"/> m ³ /h <input type="checkbox"/> l/s <input type="checkbox"/> ft ³ /min	Return Air Volume () <input type="checkbox"/> m ³ /h <input type="checkbox"/> l/s <input type="checkbox"/> ft ³ /min
--	---	--	---

Heat Pipe (Precool/Reheat)

<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Pre-Cool Capacity <input type="checkbox"/> Reheat Capacity () <input type="checkbox"/> kW <input type="checkbox"/> Btu•h	Pre-Cool/Reheat Temperature Difference () <input type="checkbox"/> °C <input type="checkbox"/> °F
--	--	--

Return Air Fan

<input type="checkbox"/> Yes <input type="checkbox"/> No	Return Air Volume () <input type="checkbox"/> m ³ /h <input type="checkbox"/> l/s <input type="checkbox"/> ft ³ /min	Static Pressure <input type="checkbox"/> Static Pressure () <input type="checkbox"/> Pa <input type="checkbox"/> inWg <input type="checkbox"/> External Static Pressure ()
--	---	--

Filter

Bag Type <input type="checkbox"/> Yes <input type="checkbox"/> No	Efficiency <input type="checkbox"/> 60% <input type="checkbox"/> 80% <input type="checkbox"/> 90%	Panel Type <input type="checkbox"/> Yes <input type="checkbox"/> No
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The company is always improving and developing its products,
therefore the company reserves the right to make changes to the illustrated products.

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