



Clean Air Conditioner

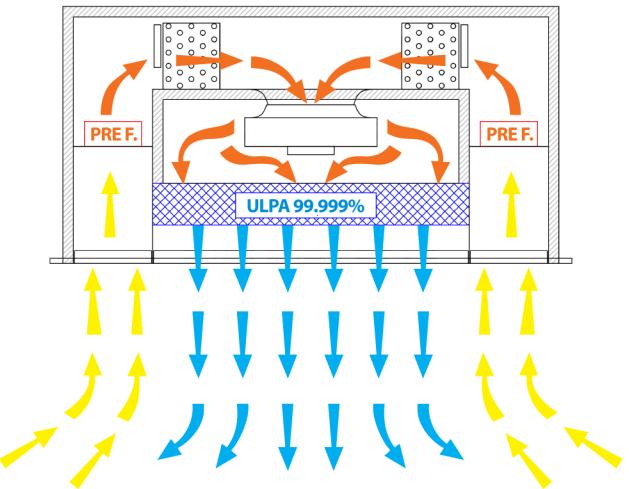
Healthy & Hygienic Breeze

CEILING CASSETTE with ULPA Filter



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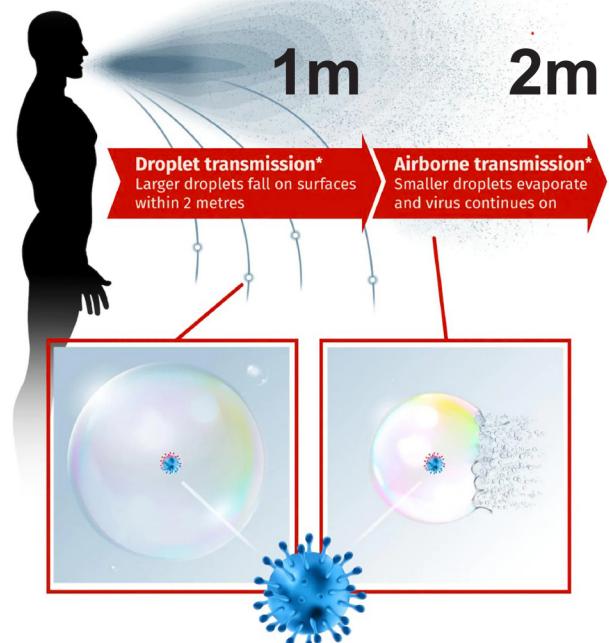
Clean Air-Conditioner will provide a hygienic environment with excellent air quality for workplaces. People who do activities mostly indoors (such as office building, hospitals, restaurants, malls, etc.) are more prone to have their health compromised due to viruses and bacteria in the air circulation. Therefore, cleaner and safer air quality should be top priority.

Air Particles Transmission

Most viruses and bacteria that are infectious to the respiratory system are airborne transmitted. Based on WHO Standard, "Airborne transmission is defined as the spread of an infectious agent caused by the dissemination of droplet nuclei (aerosols) that remain infectious when suspended in air over long distances and time".

Human exert droplets when they do any activities that involves using their mouth and nose (breathing, talking, sneezing and coughing) which potentially carries various infectious agents to other human nearby.

What Happens When Someone Coughs?



In a respiratory behaviours test with optical particle counter method, 12 patients infected with influenza from air particles size range 0.15 to 0.19 µm (COVID 19 - 0.125µm)

Diameter Range (µm)	Numbers of Particles in a Cough	Numbers of Particles in a Sneeze
1-2	50	26.000
2-4	290	160.000
4-8	970	350.000
8-16	1600	280.000
16-24	870	97.000
24-32	420	37.000
32-40	240	17.000
40-50	110	9.000
50-75	140	10.000
75-100	85	4.500
100-125	48	2.500
125-150	38	1.800
150-200	35	2.000
200-250	29	1.400
250-500	34	2.100
500-1000	12	1.000
1000-2000	2	-

How does clean air conditioner unit work?

By applying the new filter air conditioning for commercial use, clean air will be circulated within a room. The filter that will be used is ULPA 15 (U15) with 0.12 micron standard particle size. Most of viruses, bacteria, dust and other common particles will be filtered by this ULPA. Our Research and Development Team has done particle count inside the conditioned room and data has shown that the particle size will be significantly reduced.

Having said that, we can proudly confirm that the total particles standard in non-clean room will be the same as the total particle standard in clean room class E during at rest condition
(Based on CPOB standard or ISO 8 on ISO-14644 Standard)

Who can build the customized clean air conditioner unit?

ATS products are the answer to build customized clean air conditioner unit. We support delivery throughout global market and do installation completely.

Type	Scale Unit	AFU01	AFU02	AFU03	AFU05
Cooling capacity	Btuh/Kw	10.000 / 2.94	20.000 / 5.88	30.000 / 8.82	40.000 / 11.75
		15.000 / 4.41	25.000 / 7.35	35.000 / 10.30	50.000 / 14.70
Dimension	L x W x H (mm)	1020 x 800 x 500	1020 x 1020 x 500	1320 x 1120 x 500	1320 x 1120 x 500
Material Body		Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel
Power Consumption	Watts	135	210	280	375
Refrigerant		R407C, R410A, Chiller	R407C, R410A, Chiller	R407C, R410A, Chiller	R407C, R410A, Chiller
Dimension ULPA Filter	L x W x H (mm)	600 x 600 x 70	600 x 900 x 70	600 x 1200 x 70	600 x 1200 x 70
Class ULPA Filter		ULPA 15	ULPA 15	ULPA 15	ULPA 15
Type ULPA Filter		Disposable	Disposable	Disposable	Disposable
Class Pre Filter		G4 / Pre Filter			
Type Pre Filter		Disposable/Washable	Disposable/Washable	Disposable/Washable	Disposable/Washable
Dimension Pre Filter	L x W x H (mm)	600 x 200 x 70			
Operational		Remote	Remote	Remote	Remote
Weight	Kg	50	55	64	65
Coverage Vol.* (max)	M ³	60	100	140	200

* Must be calculated based on heat load and coefficient due to ULPA Filter