



- + Reliable particle and gas control
- + Air volumes of up to 2'500 CMH
- + Multi-Purpose Application
- + Simple Retrofitting



- + Fire and Mechanical Safety
- + Mechanical Strength of Casing
- + Casing Air Leakage Safety
- + Filter By-Pass Leakage Safety
- + Thermal Performance of Casing
- + Acoustic Insulation of Casing



* The AirOworld Series is designed under consideration of AHU EuroVent Certification Criteria (EN1886), final certification in progress and pending

Key Features

Multi-Purpose Air Quality System

- ✦ The AirOworld™ Air Quality System has been designed for complex, medium-sized residential, commercial or mixed-use environments to reliably remove particles including airborne microorganisms as well as noxious chemical gases and odors to meet W.H.O. Indoor Air Quality Standards.

Dual Application Mode

- ✦ The AirOworld™ Air Quality System can be operated as stand-alone application on a mobile wheelbase or as an HVAC integrated, ceiling or wall mounted air filtration system – hence providing multiple and effortless usage options.

Non-Flammable

- ✦ The entire system is composed of fire retardant materials, structures and surface treatments to meet international and China PRC fire safety standards.

Infection Control

- ✦ This AirOworld™ system is leakage-proof, so that any trapped, airborne contaminants remain safely locked inside the filtration cartridges at any time – even during a power outage.

100% Proven and Non-Hazardous

- ✦ A range of different filter media are available, all of them absolutely non-hazardous to human health, creating zero toxic by-products.

Multiple Filter Options

- ✦ US-made, nanofiber-coated High Efficiency Particulate Adsorption Filters can be combined with a unique mix of Activated Carbon and Alumina to eliminate particulate and gaseous air pollutants effectively.

High Volume - Minimal Pressure Drop

- ✦ A maximum airflow of up to 2'500 cbm/h at a minimal pressure drop is guaranteed through an aerodynamically optimized, internal structure and a matching, German-made, fan module – ensuring utmost longevity paired with energy efficiency.

Compact Design - High Performance

- ✦ The AirOworld™ system is optimized for size and easily fits into suspended ceilings or cramped HVAC utility rooms whilst maintaining a high performance air handling capacity of up to 2,500 cbm/h at six fan speeds.

Low Maintenance and Cost of Ownership

- ✦ Once installed the AirOworld™ Air Quality System requires minimum servicing paired with maximized filter exchange intervals, therefore saving valuable resources.

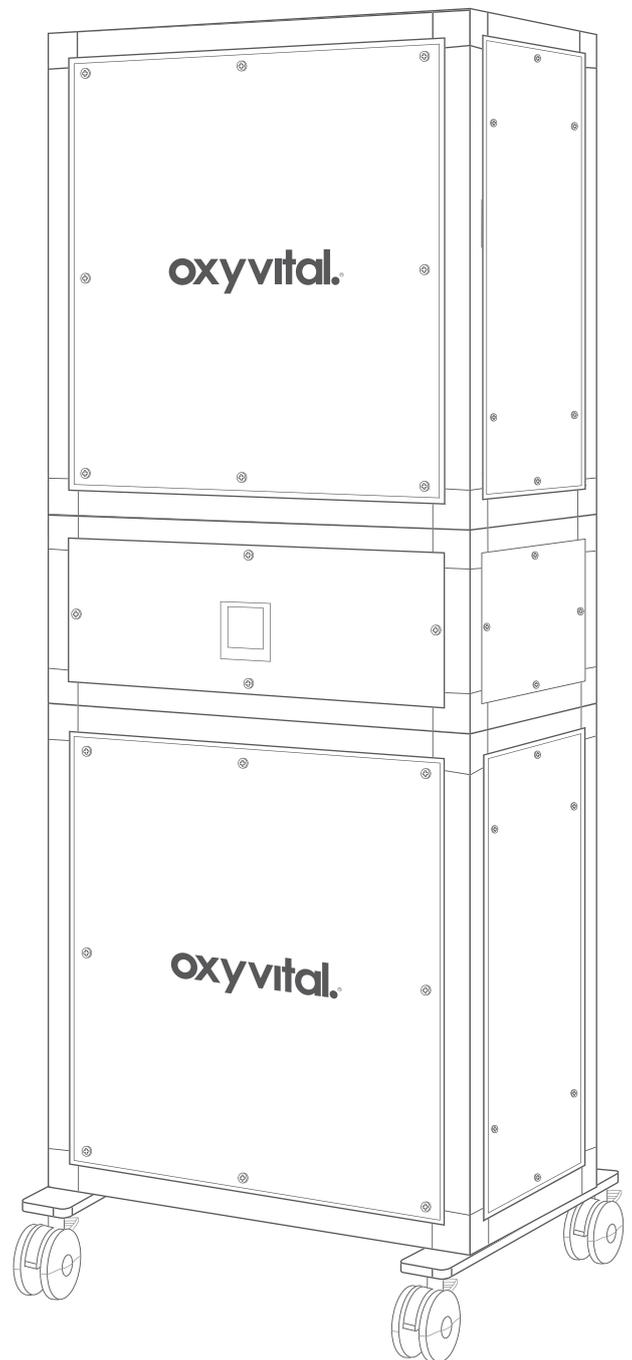
Filter Life Sensor

- ✦ As an option, an automatic filter life sensor can be integrated into the AirOworld system, indicating in a reliable fashion, when each filter cartridge needs to be exchanged. Sensor for CO2 and dust are also available and can be connected to the system.

Modular Intelligence: Application Flexibility

The modular design of the AirOworld™ Series allows for a range of different usage and installation configurations from stand-alone to integrated operation. Rapid, space-saving mounting within a suspended ceiling or on walls make the AirOworld Series a perfect candidate for retrofitting, allowing for simple servicing and continual room air cleaning.

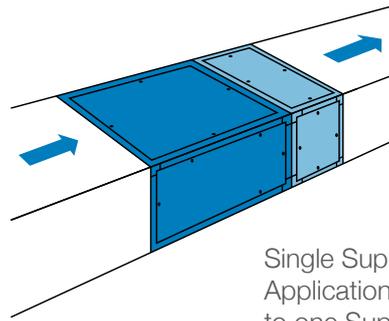
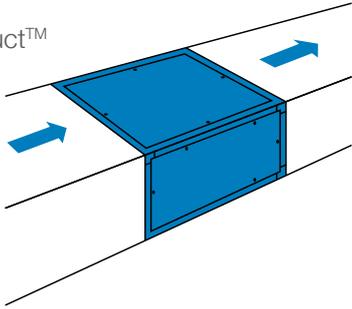
Stand-Alone Operation



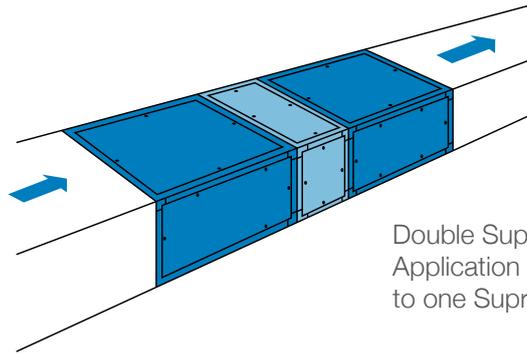
Modular and Integrated Usage

Duct-Integrated Configurations

Single SupraDuct™ Application

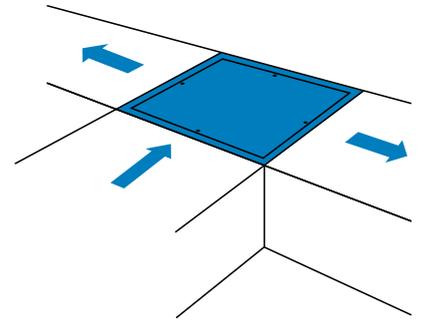
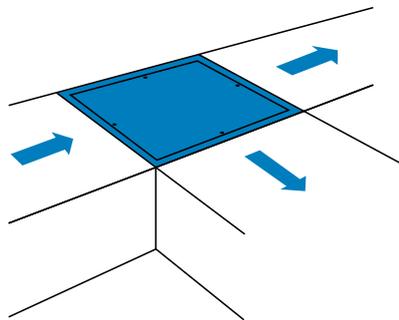
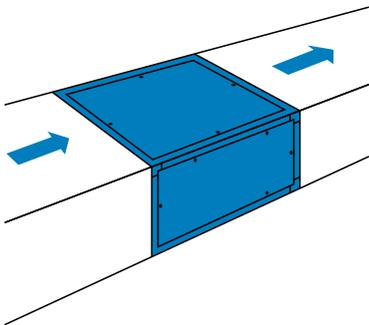


Single SupraDuct™ Application connected to one SupraVenter™

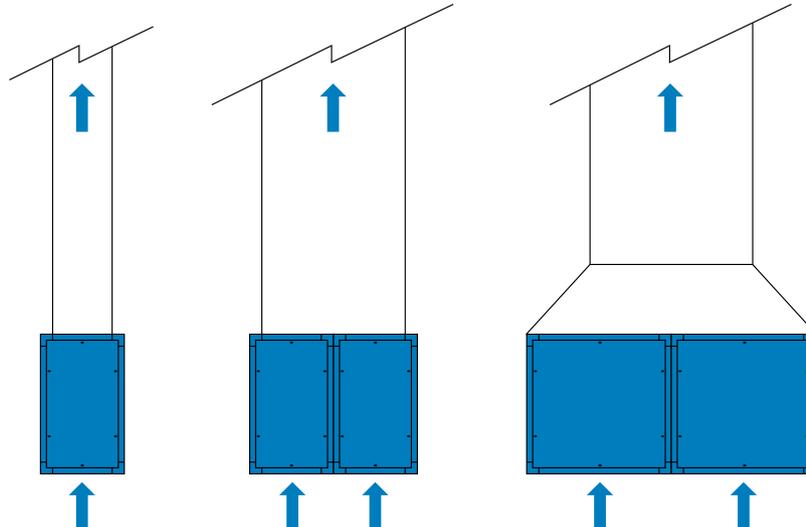


Double SupraDuct™ Application connected to one SupraVenter™

Airflow Routing Options



Flexible Air Volume Configurations



AirOworld™ System Components

The AirOworld™ Series is a modular High Performance Air Quality System and is sub-divided into the following component groups – CORE COMPONENTS, FILTERS, and ACCESSORIES.

Core Components

AirOworld™ CORE components are the structural back-bone of the system, comprising the SupraDuct™ air filtration module and SupraVenter™ fan module.

SupraDuct™ – Air Filtration Module



Product Code: AOW#1.1

Features

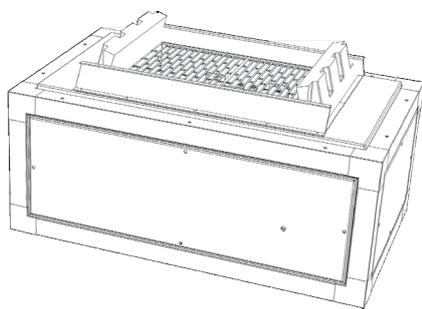
- + The SupraDuct™ filtration module is made of a rigid, extruded aluminum frame covered with sheet metal panels, all of which are powder-coated to increase corrosion resistance.
- + Panel and housing use a 1.6 mm thick, galvanized steel sheet covered by a 20 mm CFC-free PIR foam insulation on the inside providing excellent thermal insulation and sound silencing.
- + Housing panels are removable via simple Philips screws. A highly elastic foam seal between frame and panels eliminates any potential air leakage.
- + Filters can be changed swiftly by manually unlocking the lateral closure mechanism and sliding out the cartridges sideways.
- + The patented V-positioning of the filter cartridges allows for minimal pressure drop at maximum airflow.
- + Depending on the HVAC duct environment, purified supply air can be routed into multiple directions by applying Duct-Match™ connectors.

Technical Data

Dimension (mm)	740(W) x 440(D) x 770(H)
Weight (kg)	55.0 (excl. filter cartridges)
Material	Aluminum, galvanized steel, PR foam
Origin	China/US/Italy/Japan
Conformity	Eurovent 1886, Fire Safety BS476, Part 6, Class 0



SupraVenter™ – Air Fan Module



Product Code: AOW#1.2

Features

- + The SupraDuct™ filtration module can be connected to a SupraVenter™ fan module as to regulate pressure drops and help balancing a specific HVAC environment.
- + SupraVenter™ is using the latest German-made, 6-speed fan technology and complies with the international energy efficiency standards.
- + The SupraVenter™ fan module comes with a touch control panel, which can be attached directly onto the fan module or installed in a remote location. Optionally, a filter life sensor can be integrated into the control system.

Technical Data

Dimension (mm)	740(L) x 440(W) x 315(H)
Weight (kg)	40.0
Fan Type	backward centrifugal
Power Requirements	230V; 50Hz; 50-450 W
Operating Conditions	0 - 60 ° C, <99.9% R.H.
Origin	Germany/China
Conformity	EN 61000-6-2, EN61000-6-, EN 61800-5-1, ErP201, GOST CE, CC

Filter Options

The AirOworld™ Air Quality System is deploying state-of-the-art, high performance filter media by globally recognized market leaders. Three filter types can be combined:

Micro Particulate Filter Set™



This filter is a high-capacity EPA filter. The glass-fibre media is ideal for filtration applications before the final stage enabling very high efficiency final filtration in air conditioning systems, housings and diffusers.

Product Code: AOW#2.1

Filter Class EN 1822	E10
Material	Glassfiber
Efficiency	>PM0.3PM = 94.50% / >PM2.5 = 99.99%
Progressive Density	yes
Casing	Aluminium
Dimension (mm)	L608 x W310 x H125
Weight (kg)	Single cartridge ~4.5
Fire Safety	self-extinguishing class 2 as per UL900
Filter Life (months)	9 - 12
Pressure Drop at 1'000 cbm/h	50 Pa

Nano Particulate Filter Set™



This HEPA filter provides finest airborne particulate control to protect against contamination and to meet the requirements of today's high technology cleanrooms, clean benches and clean air devices.

Product Code: AOW#2.2

Filter Class EN 1822	H13
Material	Glassfiber
Efficiency	>PM0.3PM = 99.97% / >PM2.5 = 99.99%
Progressive Density	yes
Casing	Aluminium
Dimension (mm)	L608 x W310 x H125
Weight (kg)	Single cartridge ~4.5
Fire Safety	self-extinguishing class 2 as per UL900
Filter Life (months)	18 - 36
Pressure Drop at 1'000 cbm/h	100 Pa

PolyGas Combi Filter Set™

This gas removal chemical filter module is designed to efficiently remove gaseous contaminants from airstreams by adsorption, absorption, and chemical reaction. In this process gas is trapped within the pellet where oxidation changes the gases into harmless solids, thereby mitigating the problem of desorption.

Target contaminants include:
Formaldehyde, Hydrocarbons (VOC's),
Hydrogen Sulfide, Aldehydes, Nitric Oxide,
Nitrogen Dioxide, Sulfur Dioxide

Product Code: AOW#2.3

Filter Class EN 1822	E10
Material	Activated Carbon, Alumina, and Potassium
Efficiency	>PM0.3PM = 94.5% / >PM2.5 = 99.9%
Progressive Density	yes
Casing	Aluminium
Dimension (mm)	L608 x W310 x H125
Weight (kg)	Single cartridge ~9.0
Fire Safety	self-extinguishing class 2 as per UL900
Filter Life (months)	9 -12
Pressure Drop at 1'000 cbm/h	75 Pa

Accessories

The AirOworld™ Accessories complement the system and enable it for multi-purpose deployment and installation configurations.

In-System Joint™

This component is required for horizontal, ceiling mounted installation configurations as to allow for separate de-installation and maintenance of SupraDuct™ and SupraVenter™.

Product Code: AOW#3.1

Duct-Match™

This aperture mask is required to dock either SupraDuct™ and SupraVenter™ to a foreign HVAC duct or system.

Product Code: AOW#3.2

Mobility Base™

The Mobility Base™ kit is a sturdy and stylish wheel base for the AirOworld Stand-Alone System.

Product Code: AOW#3.3

Filter Life Sensor Kit™

This kit can be integrated into the touch control system of the SupraVenter™ module and will perform regular filter checks and indicate the need for a filter change based on pressure drop.

Product Code: AOW#3.4

Dispersion Hood™

This component can be mounted onto the AirOworld stand-alone system to optimize horizontal air dispersion into a given environment and reduce airflow sound.

Product Code: AOW#3.5

System Performance

Airflow and Sound Pressure										
SupraDuct™ + SupraVenter™						SupraDuct™ / SupraVenter™ / SupraDuct™				
Fan Speed	Micro Filter (E10)		Nano Filter (H13)		PolyGas Filter (F8/AC)		Micro (E10) + Nano (H13)		PolyGas F8/AC + Nano (H13)	
	m3/h	dB(a)*	m3/h	dB(a)*	m3/h	dB(a)*	m3/h	dB(a)*	m3/h	dB(a)*
1	450	58	500	56	500	58	300	50	300	50
2	850	61	900	59	900	61	600	53	600	53
3	1250	64	1300	63	1300	64	900	56	900	56
4	1650	67	1700	66	1700	67	1200	59	1200	59
5	2000	69	2100	68	2100	69	1500	65	1500	65
6	2400	72	2500	69	2400	72	1800	67	1800	67

* Sound Level in dB(a) at 1m distance of non-duct integrated open system; maximum tolerance of +/- 5%

Certification

- + Shanghai Institute of Quality Inspection and Technical Research (SQI)
- + China Quality Certification (CQC) (pending)
- + China Academy of Building Research (CABR)
- + Chinese Center for Disease Control and Prevention (CDC)
- + Institute for Environmental Health and Related Product Safety (IEHS)

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