MECHANICAL EXHAUST SYSTEM

APPLEJACK AT URBNSURF,
SYDNEY OLYMPIC PARK
(CHARCOAL SYSTEM)

Any deviation from this design and/or specified equipment will result in failure to comply with Electrical Safety Australian Standard AS/NZ 60335.1 and Fire Testing Clause 3.4 of AS1530.1 - 1994. It is an offence to supply or offer prescribed electrical equipment unless it is electrical certified to Australian Standard AS/NZ 60335.1 and Fire Testing Clause 3.4 of AS1530.1 - 1994.

NOTE :
EXHAUST FANS , UV OZONE UNITS, MIST-TEC , ELECTROSTATIC AIR CLEANERS AND MAKE UP AIR FAN TO BE INTERLOCKED TOGETHER

CHARCOAL HOOD LAYOUT

Scale 1 : 100 @ A2

ISS	AMENDMENT	DATE
A	FOR INFORMATION	18/10/2023

JC Ventilation and Engineering Pty Ltd
Consulting and Design
Stainless Steel Fabrication-Catering Equipment
ABN 42 099 952 879
Unit 20 / 55-61 Pine Rd,Yennora NSW 2161
Office : (02) 9892 4465
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PROJECT :	APPLEJACK AT URBNSURF, SYDNEY OLYMPIC PARK
DRAWING TITLE :	CHARCOAL HOOD LAYOUT
APPROVED :	G.Clark
DRAWN :	JC

SCALE :	1 : 100 @ A2
DATE :	18/10/23
JOB NO. :	2023-77
DRAWING NO. :	01
ISSUE :	A

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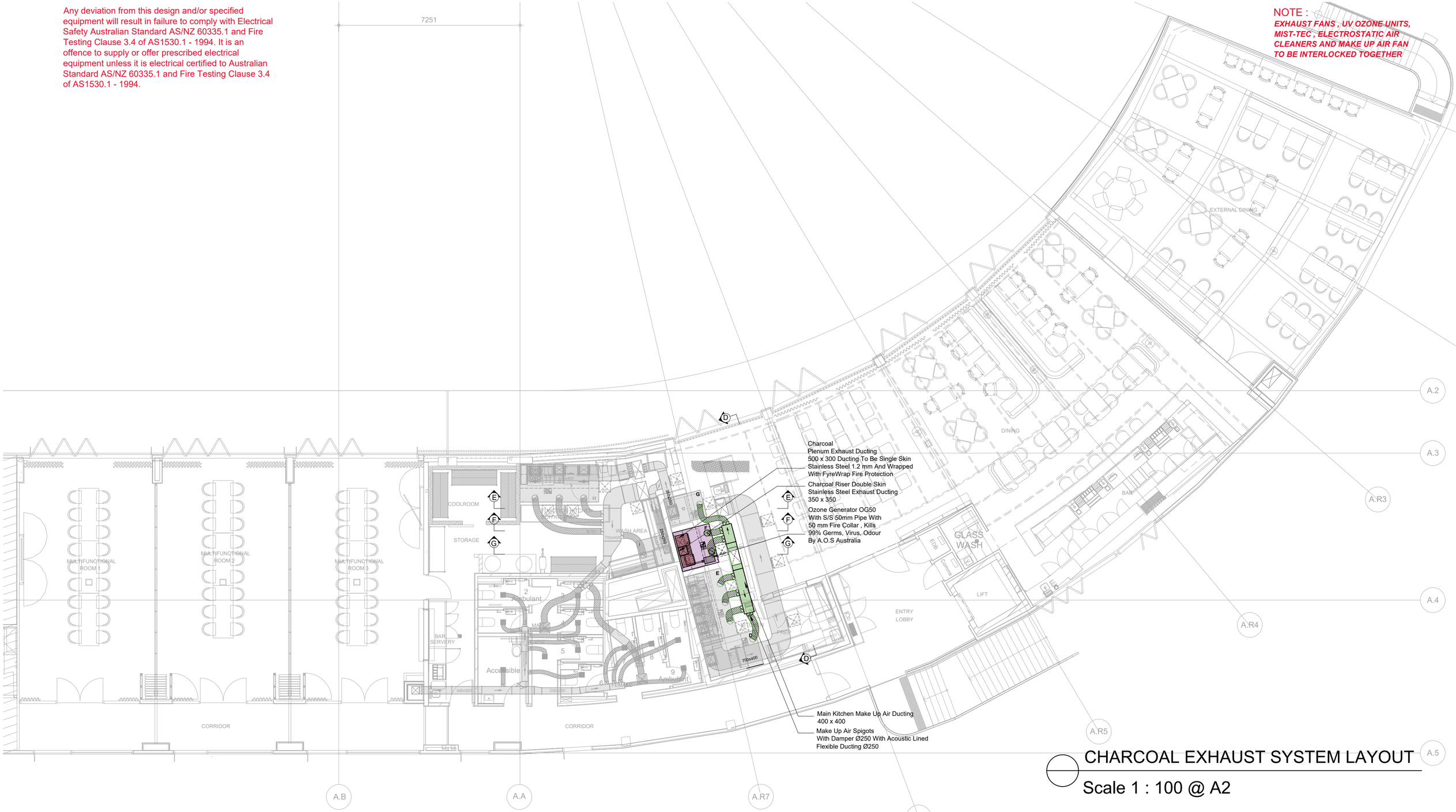
NOTE :
EXHAUST FANS , UV OZONE UNITS, MIST-TEC , ELECTROSTATIC AIR CLEANERS AND MAKE UP AIR FAN TO BE INTERLOCKED TOGETHER



CHARCOAL EXHAUST SYSTEM LAYOUT

Scale 1 : 100 @ A2

ISS	AMENDMENT	DATE
A	FOR INFORMATION	18/10/2023

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PROJECT :	APPLEJACK AT URBNSURF, SYDNEY OLYMPIC PARK
DRAWING TITLE :	CHARCOAL EXHAUST SYSTEM LAYOUT
APPROVED :	G.Clark
DRAWN :	JC

SCALE :	1 : 100 @ A2
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JOB NO. :	2023-77
DRAWING NO. :	02
ISSUE :	A

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NOTE :
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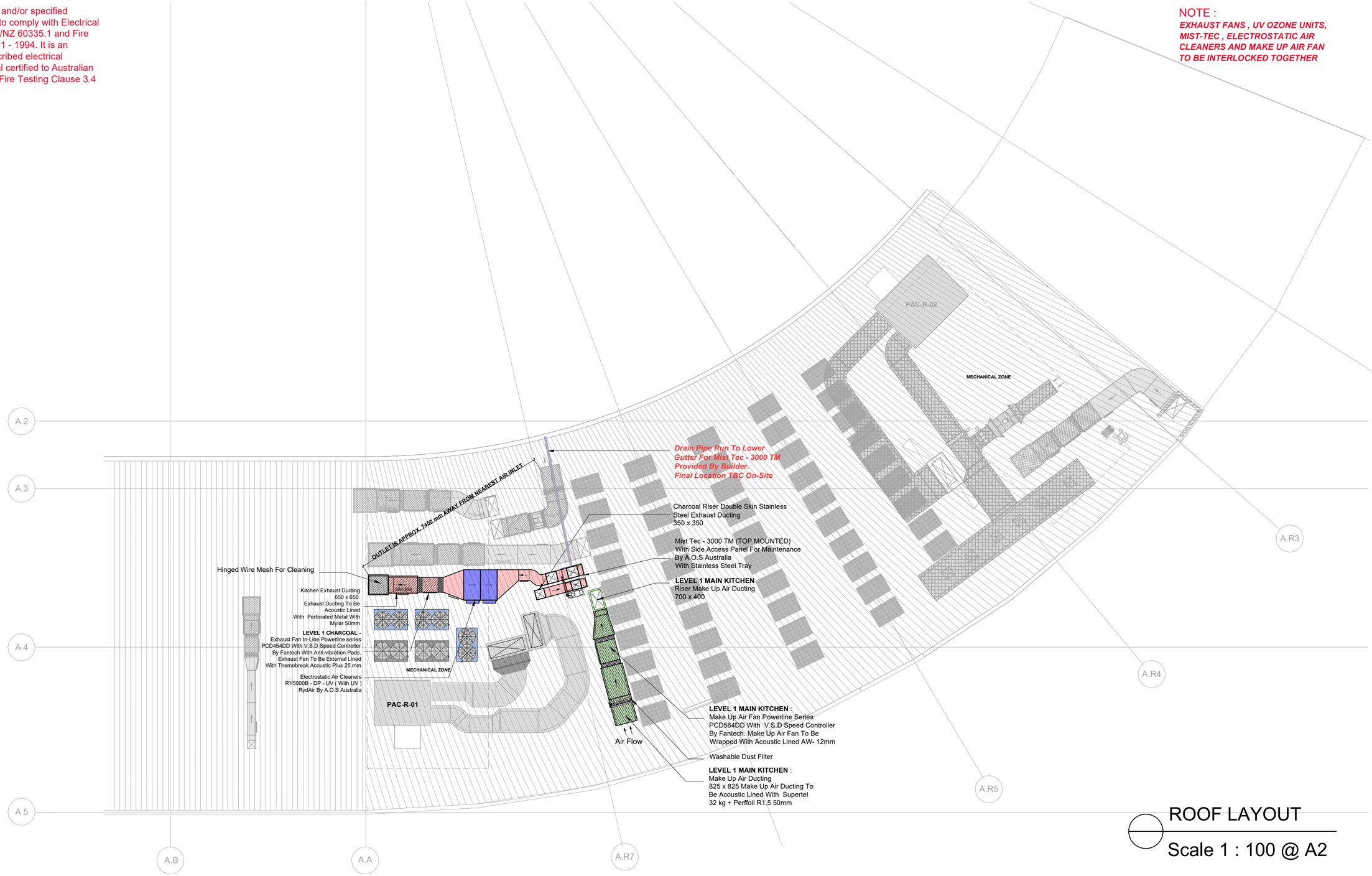

ROOF LAYOUT

Scale 1 : 100 @ A2

ISS	AMENDMENT	DATE
A	FOR INFORMATION	18/10/2023

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Web : www.jcvent.com.au

PROJECT :	APPLEJACK AT URBNSURF, SYDNEY OLYMPIC PARK
DRAWING TITLE :	ROOF LAYOUT
APPROVED :	G.Clark
DRAWN :	JC

SCALE :	1 : 100 @ A2
DATE :	18/10/23
JOB NO. :	2023-77
DRAWING NO. :	03
ISSUE :	A

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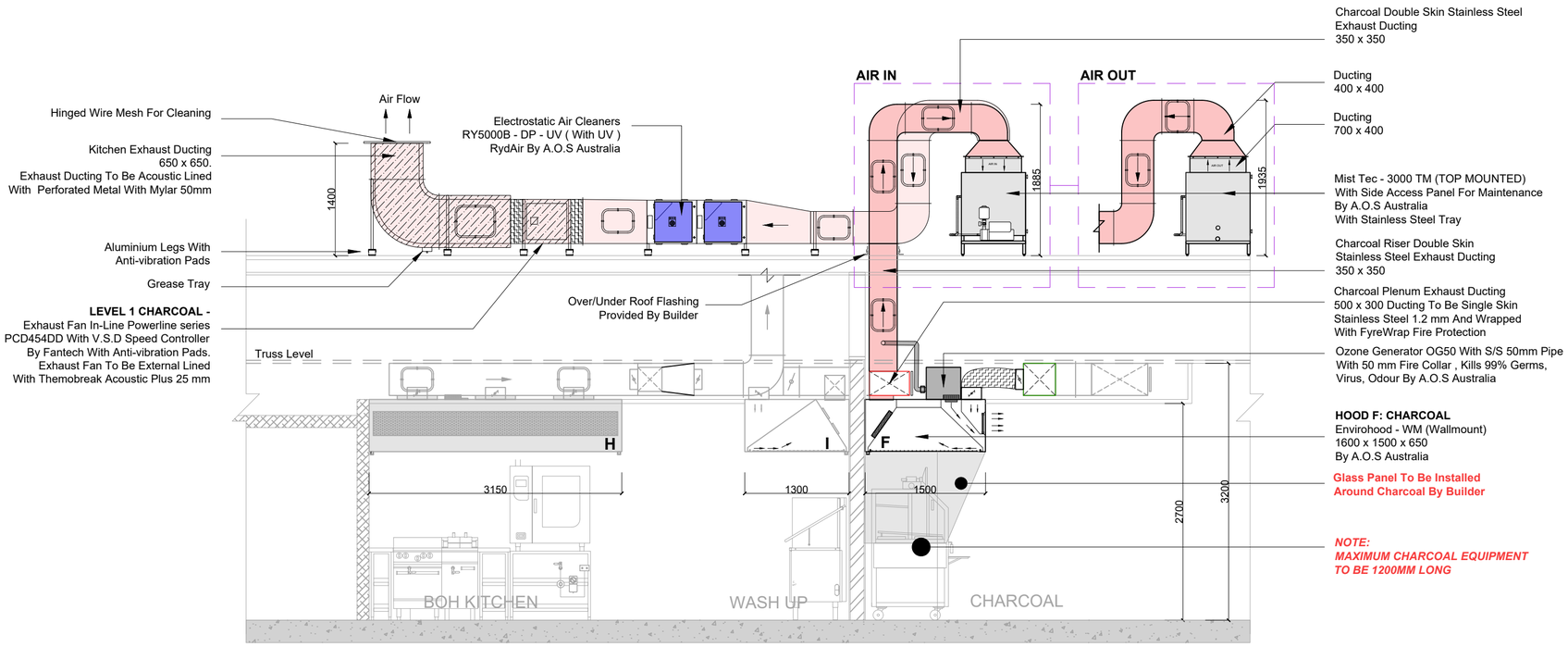
NOTE :
EXHAUST FANS , UV OZONE UNITS, MIST-TEC , ELECTROSTATIC AIR CLEANERS AND MAKE UP AIR FAN TO BE INTERLOCKED TOGETHER



SECTION G - LEVEL 1 CHARCOAL EXHAUST SYSTEM

Scale 1 : 50 @ A2

ISS	AMENDMENT	DATE
A	FOR INFORMATION	18/10/2023

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PROJECT :	APPLEJACK AT URBNSURF, SYDNEY OLYMPIC PARK
DRAWING TITLE :	SECTION G - LEVEL 1 CHARCOAL EXHAUST SYSTEM
APPROVED :	G.Clark
DRAWN :	JC

SCALE :	1 : 50 @ A2
DATE :	18/10/23
JOB NO. :	2023-77
DRAWING NO. :	04
ISSUE :	A

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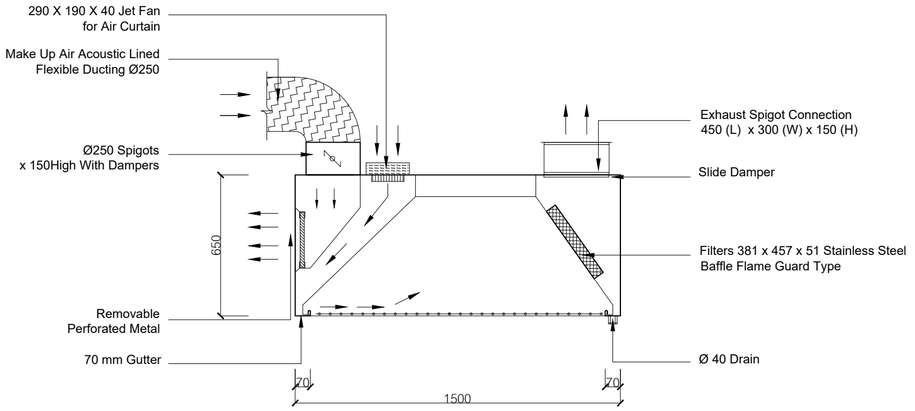
NOTE :

- EXHAUST FANS , UV OZONE UNITS, MIST-TEC , ELECTROSTATIC AIR CLEANERS AND MAKE UP AIR FAN TO BE INTERLOCKED TOGETHER

Specifications Charcoal Exhaust System

* **HOOD F :** Envirohood - WM (Wallmount) 1600 x 1500 x 650 By A.O.S Australia
* Filters 381 x 457 x 51 Stainless Steel Honeycomb Baffle Flame Guard Type CISRO Approved
* Led Downlights, 4000K, CRI 80, IP44 With Heat Resistance Glass
* Total Air Flow = 868 L/S
* Hood Velocity = 0.42 m/s
* Duct Velocity = 7.08 m/s
* Outlet Velocity = 2.86 m/s
* Static Pressure = 358 pa
* Duct Access Panels = 400 X 300
* Ceiling Access Panels = 450 x 450, 600 x 600 (Provided by Builder) Location TBC
* 1 Off Exhaust Fan Powerline Series PCD454DD With V.S.D Speed Controller By Fantech With Anti-vibration Pads. Exhaust Fan To Be External Lined With Themobreak Acoustic Plus 25 mm
* Exhaust Fan , Make Up Air Fan , Ozone Generator , Electrostatic Air Cleaners and Mist Tec To Be Interconnected
* Exhaust Ducting =
  - 400 X 400
  - 500 x 300 ; **Plenum Ducting To Be Single Skin Stainless Steel 1.2 mm And Wrapped With FyreWrap Fire Protection**
  - 350 x 350 ; **Riser Ducting From Hood To Mist Tec Unit To Be Double Skin Stainless Steel 1.2 mm**
  - 650 x 650 ; **Exhaust Ducting To Be Acoustic Lined With Perforated Metal With Mylar 50mm**
* Exhaust Fan Acoustic Level = 58 dBA At 3 Metres
* Electro Static Air Cleaners RY5000B - DP - UV (With UV) RydAir By A.O.S Australia (Total 2 Units)
* Mist Tec - 3000 TM (Top Mounted) By A.O.S Australia With Stainless Steel Tray ***- Electrical And Plumbing Requirement Refer To Manual Specifications***
  Note : Drain Pipe Run To Gutter To Be Provided By Builder
* 1 Off Ozone Genetator OG50 With 50 Stainless Steel Pipe With 50 mm Fire Collar To Kills 99% Germs, Virus, Odour By A.O.S Australia
* Power Requirement

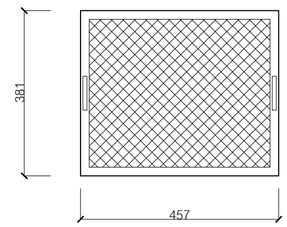
For Exhaust Fan (Each)	=	1.79 Amps - 0.75 kW - 3 Phase - 415 Volt With V.S.D Speed Controller
For Electrostatic Air Cleaner (Each)	=	2 Amps - 1 Phase - 240 Volt ***(Must Be Electrically Interlocked With Kitchen Exhaust Fan)***
For Ozone Generator OG50	=	2.90 AMPS - 1 Phase - 240 Volt ***(Must Be Electrically Interlocked With Kitchen Exhaust Fan)***
For Mist Tec Unit (Each)	=	0.83 Amps Water Solenoid And 3.45 Amps Water Pump



EXHAUST HOOD SECTION VIEW - HOOD F

Scale 1:20 @ A2

FLAME GUARD FILTERS BY A.O.S AUSTRALIA AS 1530
C.S.I.R.O APPROVED (REPORT NO. FNC11997)



This System Has Been Designed And Will Be Installed In Accordance To The Australian Standards As 1668 Parts 1 (2015 ed.) & part 2 (2012 ed.) Complies With section J5 Of The NCC Standards Amdt 1 (2019 edition.)

ISS	AMENDMENT	DATE
A	FOR INFORMATION	18/10/2023

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PROJECT : APPLEJACK AT URBNSURF, SYDNEY OLYMPIC PARK

DRAWING TITLE : SPECIFICATION SHEET 1

APPROVED : G.Clark

DRAWN : JC

SCALE :	1 : 20 @ A2
DATE :	18/10/23
JOB NO. :	2023-77
DRAWING NO. :	05
ISSUE :	A

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NOTE :

- EXHAUST FANS , UV OZONE UNITS, MIST-TEC , ELECTROSTATIC AIR CLEANERS AND MAKE UP AIR FAN TO BE INTERLOCKED TOGETHER

Specifications Charcoal Exhaust Fan

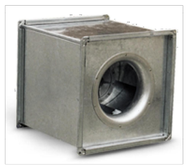
PowerLine Series – PCD454DD

Location

Designation

Project

Notes



Description

The PowerLine Series® of In-Line Centrifugal Fans is designed for a wide range of duct mounted applications. They are most suitable in commercial and industrial applications where medium to high air pressure is required. They are available in various speed options and 8 sizes, extending from 315 to 710mm diameter.

Features

- Robust, yet lightweight galvanised steel construction.
- Easy to fit 35mm TDF profile flange connections.
- Choice of external rotor or standard direct-drive TEFC motors.
- Large choice of speeds available.
- Most 3-phase external rotor motors fitted are 2-speed star/delta design.
- To improve energy efficiency, motors can be speed-controlled
- Motors complying with Ex d, Ex e, Ex nA and Ex tD Standards can be fitted.
- Can be mounted in any position.
- A range of matched ancillaries is also available.

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- A range of matched ancillaries is also available.

Construction

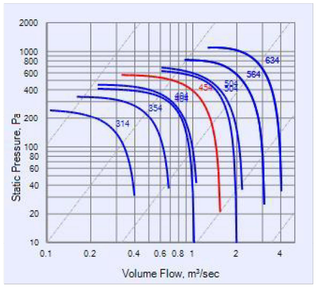
Galvanised steel housings with 35mm TDF profile flange connections.
Backward-curved centrifugal impellers. DD impellers are made from aluminium, ER impellers made from high performance injection moulded composite plastic.

Motor

Type - can be supplied with direct-driven external rotor or standard direct-drive TEFC motors.
Electricity supply - single or three-phase to suit a wide range of voltages and frequencies.
Bearings - sealed-for-life, ball.
External rotor motors are fully speed-controllable using electronic or auto-transformer controllers, however Sinusoidal filters are required when a variable speed drive is used.
Standard direct-drive TEFC motors can be single or multi-speed and can be speed-controlled using a variable speed drive.

Testing

Air flow tests to ISO5801:2007
Noise tests to BS848:Part 2, 1985



Technical Data - PCD454DD

Speed [rps]	Avg. dBA @ 3m	kWatts (Input)	Amps	Max. °C	Approx. Weight [kg]
24	58	0.75	1.79	40	50

Sound Data

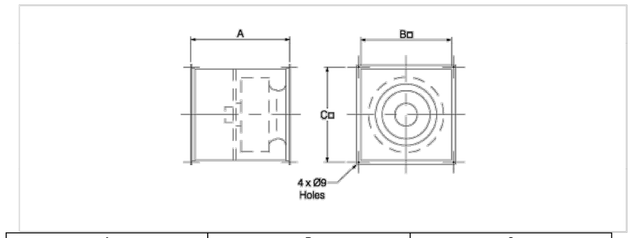
Type	63	125	250	500	1K	2K	4K	8K
Inlet	85	83	78	75	69	70	70	66

PowerLine Series – PCD454DD

Suggested Specification

The duct mounted fans shall be of the In-line Centrifugal PowerLine® Series as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.
They shall include galvanised steel housings with 35mm TDF profile flange connections.
The backward-curved centrifugal impellers shall be driven by external rotor or standard direct-drive TEFC motors as nominated.
All models shall be fully tested as a complete assembled unit to ISO5801: 2007 for air flow and BS848:Part 2, 1985 for noise.

Dimensions



A	B	C
600	550	583

*All dimensions in mm, unless otherwise stated

Contacts

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Intelligent Ventilation

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A	FOR INFORMATION	18/10/2023

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PROJECT :	APPLEJACK AT URBNSURF, SYDNEY OLYMPIC PARK
DRAWING TITLE :	SPECIFICATION SHEET 2
APPROVED :	G.Clark
DRAWN :	JC
SCALE :	NTS @ A2
DATE :	18/10/23
JOB NO. :	2023-77
DRAWING NO. :	06
ISSUE :	A

ENVIROHOOD

Type 7 Proprietary Kitchen Exhaust Hood

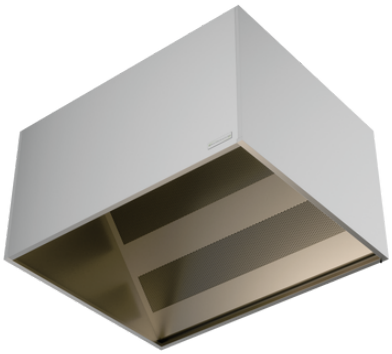
AOS
AIR ODOUR SOLUTIONS

Envirohood Models

Envirohood - WM (Wall Mount)

Envirohood - I (Island - V Bank)

Envirohood - LB (Low - Back)



Envirohood - DW (Dishwasher)

global-mark **Envirohood Type 7 proprietary independently certified by Global Mark Pty Ltd**

Features & Benefits

- Envirohood will be fully constructed from 1.2mm 304 Grade Stainless Steel and polished to a No 4 finish. Non exposed interior sections (including Tops) of the Envirohood shall also be manufactured from Stainless Steel and Australian engineered and manufactured.

- For longer continuous length hoods, the Envirohood shall be be manufactured in sections.

- The Envirohood shall have Brushed Stainless Steel, IP44 rated, Flush Mounted LED Lights with polycarbonate lens capable of being interchangeable from Cool White, Warm White or Daylight.

- Exhaust air spigots and Make Up air spigots are to be located on the top of the hood and are supplied with every manufactured Envirohood.

- Make Up air spigots are to be 250 mm diameter and connected via flexible ducts to supply a minimum of 80% of the exhausted air (as Make Up air) to the conditioned space as per the requirements of AS 1668.2.

- The Stainless Steel perforated front face Make Up air panel shall be removable without the need of tools (no screws).

- The Ansul fire suppression system can be integrated into the Envirohood. Pre-engineered fire suppression systems are intended to protect areas around exhaust hoods, duct plenums, and filters as well as safeguard kitchen appliances.

- UV ozone technology is available in all Envirohood models and which can be integrated into the exhaust hood to remove grease and odours in the kitchen exhaust system.

- Air Balancing will be achieved by built-in double skin slide dampers, accessible from within the hood, for the exhaust air and pivot volume control dampers in the spigots for the supply air.

- There will be a gutter of a minimum size of 70mm wide by 25mm high on all four sides of the hood for oil and grease collection. These shall be fitted with removable 40 diameter drain plugs, welded and polished, on the rear gutter for oil collection.

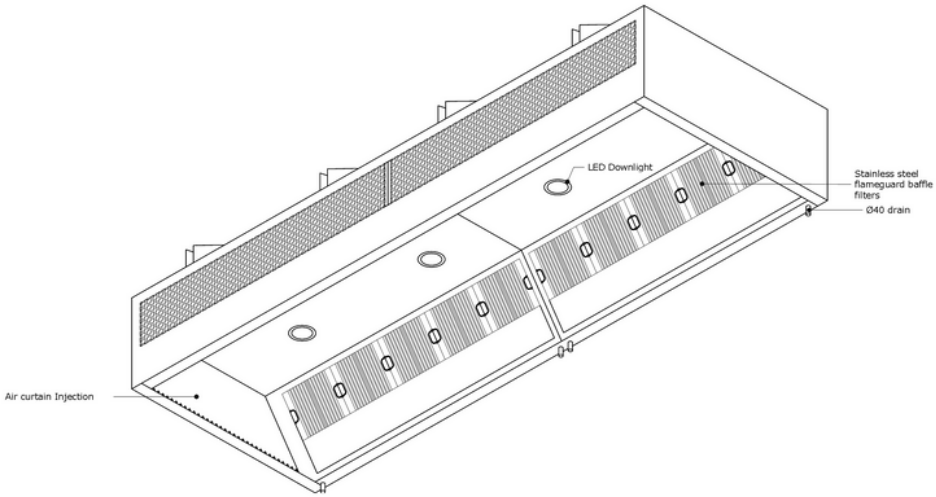
- The built in Air Curtain is to be independently pressurised with an integral, 10 speed, centrifugal jet fan/s (factory set). The Air Curtain delivers the air via small, engineered orifices around the inside perimeter of the hood to ensure the capture and containment efficiencies are met.

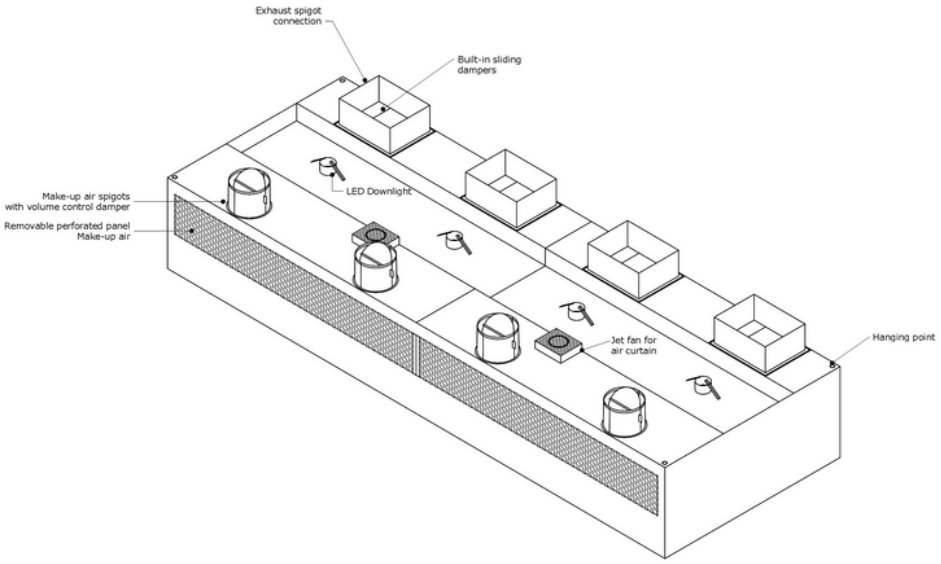
- Filtration is achieved through either certified CSIRO 1530.1 stainless steel honeycomb or baffle Filters or UL approved stainless steel baffle filters.

- All Envirohood models are independently certified by Global Mark Pty Ltd.

ENVIROHOOD

ISOMETRIC VIEW





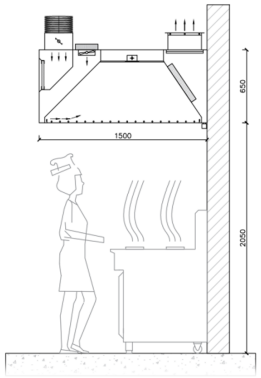
AOS
AIR ODOUR SOLUTIONS

Tel: (02) 9721 0020 * Email: info@aosaus.com.au * Web: www.aosaus.com.au

ENVIROHOOD QUICK COMMISSIONING GUIDE

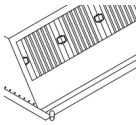
1. HOOD POSITION & LOCATION

- Check that each section of the Envirohood is level.
- Check Envirohood has the right amount overhang over the cooking equipment.
- Refer to Envirohood drawings and specification sheet for installation heights (Note 2000 mm – 2100mm installed from finished floor height to underside of the hood).



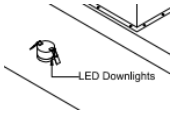
3. STAINLESS STEEL KITCHEN FILTERS / DRAIN PLUGS

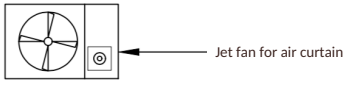
- Check all stainless steel kitchen filters have been installed correctly and are easily removable.
- Check all spacers are in the correct position of the hood & middle trim installed if hood in sections
- Check all drain plugs are secured properly.



4. POWER

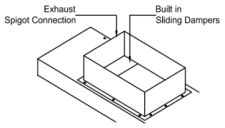
- Check if LED downlights for Envirohood and air curtain jet fan are connected together.
- Connections are connected together on top of the hood





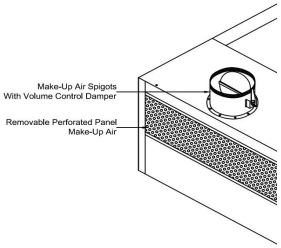
5. EXHAUST AIRFLOW

- Before measuring exhaust airflows make sure the kitchen exhaust fan is ON.
- Airflows for the exhaust can be adjusted inside by built in sliding dampers.
- Airflow can be easily balanced by sliding the damper across accordingly.



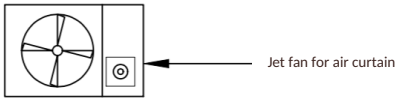
6. SUPPLY AIR

- Before measuring the supply air make sure the supply fan is ON.
- Airflows for the supply air can be adjusted via VCD on the make up air spigots.
- Make sure front face perforated panel is correctly inside the slots (push up and pull down).



7. JET FAN SETTINGS FOR AIR CURTAIN

- VSD control for the centrifugal backward curve air curtain is located on top of the hood.
- Jet fan is factory set and commissioned.
- Settings of 1 – 10 can be easily adjusted by using small screwdriver to adjust accordingly.



8. TROUBLESHOOTING

- If there any faults issues occur with the Envirohood please contact AOS.

Certificate of Test

Quote No.: NC7790 **REPORT No.: FNC11997**

COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994

TRADE NAME: The Sponsor identified the tested specimen as a stainless steel honeycomb grease filter.

SPONSOR: AOS Air & Odour Solutions Australia Pty Ltd
32 Chifley Street
SMITHFIELD NSW 2164
AUSTRALIA

DESCRIPTION OF TEST SAMPLE: The sponsor described the tested specimen as uncoated corrugated stainless steel honeycomb grease filters. The 45-mm diameter stainless steel discs were loose laid on each other and stacked up without adhesive to form the 50-mm height suitable for testing.

Nominal thickness:	0.15 mm (50-mm thick for the test)
Nominal density:	8000 kg/m³
Colour:	silver

TEST PROCEDURE: Five (5) samples were tested in accordance with Australian Standard 1530 Methods for fire tests on building materials, components and structures, Part 1- 1994: Combustibility Test for Materials.

An alternative suitable insulating material was used to fill the annular space between the furnace tubes, as specified in Clause 4.2 of ISO 1182:2010.

RESULTS:

Mean furnace thermocouple temperature rise..... 9.4°C

Mean specimen centre thermocouple temperature rise ....7.2°C

Mean specimen surface thermocouple temperature rise..... 2.4°C

Mean duration of sustained flaming..... .....0 seconds

Mean mass loss..... 0.07 %

DESIGNATION: The material is NOT deemed COMBUSTIBLE according to the test criteria specified in Clause 3.4 of AS 1530.1-1994.

These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.

DATE OF TEST: 17 July 2017

Issued on the 1st day of August 2017 without alterations or additions.

Heherson Alarde
Testing Officer

Brett Roddy
Team Leader, Fire Testing and Assessments

NATA Accredited Laboratory
Number: 165
Corporate Site No 3625
Accredited for compliance with ISO/IEC 17025 - Testing.

CSIRO INFRASTRUCTURE TECHNOLOGIES
14 Julius Avenue, Riverside Corporate Park, North Ryde NSW 2113 AUSTRALIA
Telephone: 61 2 9490 5444 Facsimile: 61 2 9490 5555 www.csiro.au

Certificate of Approval

This certificate confirms that the company below complies with the following standard(s):

Company Name	**AOS Air Odour Solutions Pty Ltd**	*Client ID*	**104074**
Company Other Name	**AOS Air & Odour Solutions Australia Pty Ltd**	*Type of Certification*	**Product Certification; System 5**
Certification Standard	**AS 1668.2-2012 : The use of ventilation and air-conditioning in buildings - Appendix E Kitchen exhaust hoods – design, construction and installation**		
Scheme	**No Scheme**		
Certification Review Date	**23/02/2017**	*Certification Expiry Date*	**23/02/2027**
Certificate Issue Date	**3/09/2017**	*Certificate Last Update Date*	**8/04/2022**

APPROVED COMPANY/SITE ADDRESS(ES):
32 Chifley Street Smithfield NSW 2164 Australia

This certification remains valid until the above mentioned expiry date and subject to the organisation's continued compliance with the certification standard, and Global-Mark's Terms and Conditions. This Certificate of Approval remains the property of Global-Mark Pty Ltd, Company Number: ACN.108-087-654. The use of the Accreditation Mark indicates accreditation by the Joint Accreditation System of Australia and New Zealand in respect to those activities covered by JAS-ANZ accreditation. Refer to www.jas-anz.org/register for verification.

Certification Manager

Unique Certificate Code: 395EB7D9BC85E900CA2587F10006BAA4

Global-Mark.com.au®

WWW.JAS-ANZ.ORG/REGISTER

Model(s) on which the Global-Mark logo may be applied by the certificate holder as a declaration of compliance by the certificate holder:

In placing the authorised mark on the product, the certificate holder makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein. In issuing this Certificate of Approval Global-Mark has relied on the expertise of external bodies (laboratories, and technical experts).

Model Identification	Model Name	Brand Name	Product Description/Attributes	Date Approved
Envirohood-IH	Envirohood	AOS	Proprietary Type 7 exhausthood (Island hood) with or without make – up air.	8/08/2017
Envirohood-LB	Envirohood	AOS	Proprietary Type 7 exhausthood (Low back hood) with or without make – up air.	8/08/2017
Envirohood-WM	Envirohood	AOS	Proprietary Type 7 exhausthood (Wall mounthood) with or without make – up air.	8/08/2017

Comments:

Conditions:

1. Each appliance design must be approved and certified by the manufacturer in accordance with the AOS procedures,
2. Each appliance must be type tested by the manufacturer in accordance with the AOS procedures,
3. Must be installed and commissioned in accordance with AOS Installation Manual 09/2017 and by AOS trained and approved installers,
4. Each model can incorporate the following devices fundctioning as grease remover, flame & spark arrestor:
   a) MIST TEC 2500-AF-SA having flow rate between 300L/s and 600L/s,
   b) MIST TEC 3000-AF-SA having flow rate between 600L/s and 1,100L/s,
   c) MIST TEC 4000-AF-SA having flow rate between 1,100L/s and 1,500L/s.

End of the document

Certification Manager

MIST TEC

AOS
AIR ODOUR SOLUTIONS

MIST TEC

PRODUCT OVERVIEW

Mist Tec units are manufactured from 1.2 mm stainless steel 304 grade and are designed to extinguish live sparks and embers during solid fuel and charcoal cooking applications, as well as to reduce fire risk in commercial kitchen exhaust systems. Mist Tec units have also been installed in coffee roasters, fire testing labs, and plasma cutting factories.

Mist Tec models include the 2500, 3000, and 4000, with standard airflow ranging from 300 L/s to 1500 L/s. Custom engineered, designed, and manufactured Mist Tec models are also available.

The Mist Tec unit's duct intake point has a stainless steel perforated pre filter as the first step of filtration to capture large soot and ashes particles. The stainless steel perforated pre filter is intended to gather soot and embers, which are washed away by a continuous water spray and mist from the spray nozzles that also clean and cool the airstream.

The second stage of filtering contains a stainless water baffle filter located inside the Mist Tec, which retains a small quantity of water to prevent flame penetration while also acting as a spark arrestor. The final level of filtration is the after filter, which captures any remaining soot and grease particulates in the airstream. All stainless steel perforated pre and after filters are washable and reusable.

The temperature of the burning timber in the woodfired pizza oven was around 400-450 degrees Celsius once filtered by mist and water and entering through the water stainless steel baffler and exiting the mister at 35 degrees Celsius. The ductwork temperature is also reduced due to the constant water spray and mist is cooling inside the Mist Tec unit.

The Mist Tec unit is considered as an engineered solution or alternative solution as per AS 1668 which allows the cooking process to be exhausted back into the common ductwork.

MIST TEC

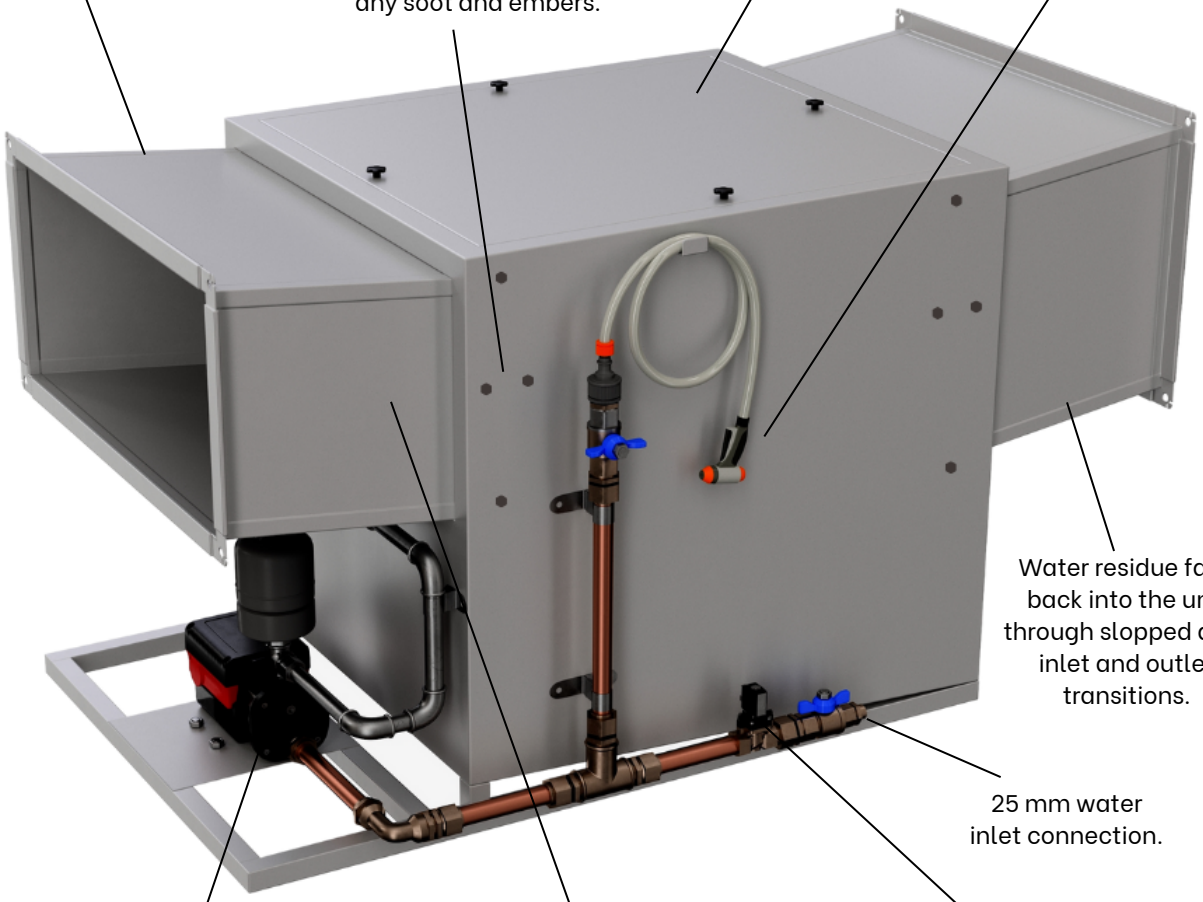
FEATURES & BENEFITS

According to the client's specifications, inlet and outlet duct transition connections can be square or circular.

To capture large grease, soot, and ashes, there are stainless steel perforated pre and after filters that are accessible through a removable side access panel on the inlet and outlet sides. These filters also get a water spray to wash and clear away any soot and embers.

Top and side access panels are removable for filter maintenance. If the top is obstructed, a side access panel is provided.

For maintenance purposes, a spray hose is attached to the side of the Mist Tec unit.



Water residue falls back into the unit through slopped duct inlet and outlet transitions.

25 mm water inlet connection.

Water pump 1- 10 bar with VSD control that is not dependent on mains water pressure. For water pump status, a remote monitor with a wall panel is available, as is bluetooth for remote connection / information.

Integration of spray nozzles for constant water spray and mist and located inside a stainless steel water baffle filter that retains water. The continuous water spray also keeps the ductwork temperature cool.

Open and close solenoid valve designed for water costs savings.

MIST TEC

Technical Data

Model : Mist Tec 3000

Litres per second: 600 L/s - 1100 L/s

Unit size : 1400 mm long x 800 mm wide x 740 mm high

Cabinet : 1.2 mm 304 stainless steel No 4 finish

Pressure : 130 Pa

Power : x 2 240 Volt connections (Plug / play)

Amps : 3.45 A

Water pump : Grundfos CMBE 1 - 44

Bar pressure : 1 - 10 VSD Speed Control

Weight : 100 Kg

Safety overflow connection : Yes

Maintenance spray hose : Yes

Water Solenoid : Yes

Inlet and outlet connections : Square standard or circle optional

Inlet connection size : 25 mm

Outlet connection size : 40 mm

Remote Monitor available : Yes

Bluetooth connection : Wireless connection available to alter pump settings and gather real time data through Grundfos GO app.

Certified To : Product certification - Global Mark Pty Ltd

Watermark certification and approvals

Electrical certification and approvals

Notes Below:

Inlet and outlet duct connections must have 3 degrees fall back to into the unit.

Safety overflow tray must be installed and water solenoid to be connected.

Plumbing instructions must be followed.

Allow for suitable access top and side access panels for service and maintenance.

Inlet and outlet connections to be sealed with fire rated sealant.

MIST TEC

MIST TEC MODELS

Mist Tec models are certified independently by

Mist Tec Model	Dimensions	Pressure Drop	Power	L/S
Mist Tec 2500	1166 mm long 600 mm wide 740 mm high	130 Pa	x 2 - 240V connections (Plug & Play) 3.45 Amps	300 - 600 L/s
Mist Tec 3000	1400 mm long 800 mm wide 885 mm high	130 Pa	x 2 - 240V connections (Plug & Play) 3.45 Amps	600 - 1100 L/s
Mist Tec 4000	1607 mm long 952 mm wide 1035 mm high	130 Pa	x 2 - 240V connections (Plug & Play) 3.45 Amps	1100 - 1500 L/s

Note: Over 1500 L/s Mist Tec custom manufactured and engineered.

AOS
AIR ODOUR SOLUTIONS

Tel: (02) 9721 0020 * Email: info@aosaus.com.au * Web: www.aosaus.com.au

MIST TEC

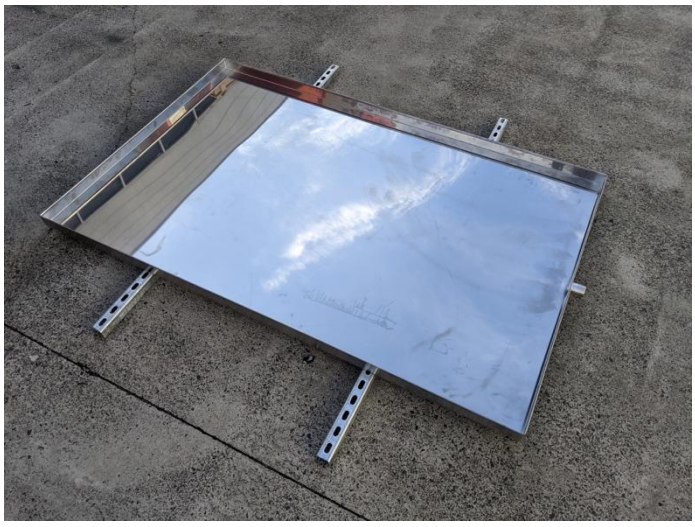
Installation instructions

Notes:

- **Plumbing works must be undertaken by a licensed plumber AOS takes no responsibility.**
- **Electrical works must be undertaken by a licensed electrician.**
- **Stainless steel overflow tray and U channel parts are supplied by AOS.**
- **Plumbing connections and drainage parts are not supplied by AOS.**
- **Please allow space for access panel on top and sides panels for service and maintenance**
- **Inlet and outlet ducts must be seal correctly with fire rated sealant.**
- **Inlet and outlet transitions must be 3 – 5 degrees fall back into to the unit.**
- **Plumbing instructions must be followed carefully.**

***** Follow the manual instructions carefully *****

1. Install stainless steel overflow tray with U channel angle.
   (stainless steel overflow tray only required for indoor installation).



2. Use (x 4) threaded rod to slide in the U channel holes to hang using nuts and washers to secure correctly and check fixings and structures before installing.

(STAINLESS STEEL OVERFLOW TRAY AND U CHANNEL PARTS SUPPLIED BY AOS)

Threaded rod

U channel

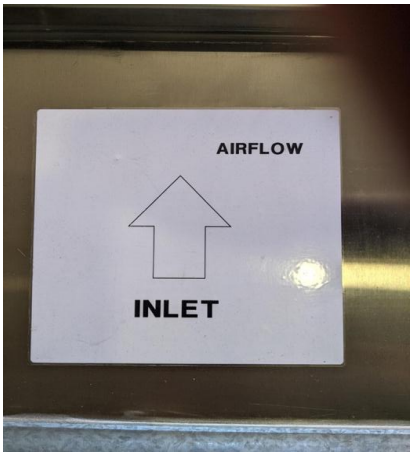
M10 or M12 Washer.

M10 or M12 Bolts

3. Make sure before positioning the Mist Tec unit on the stainless overflow tray the installer must check the airflow direction sticker on top of the Mist Tec unit. If the airflow direction is not correct the Mist Tec unit will not function correctly, and airflow directional stickers are located on top of the ductwork transition connections.

CHECK AIRFLOW DIRECTION

Inlet – Airflow



Outlet – Airflow

4. Once secured carefully sit the wet scrubber inside the stainless-steel overflow tray. (**stainless steel overflow tray only to be installed for indoor installation).**

5. Once the inlet and outlet stainless ductwork transitions and secured correctly and sealed properly for any smoke, water or air leaks or condensation escaping the Mist Tec Unit.

INLET TRANSITIONS

OUTLET TRANSITIONS

6. Plumbing Connections drainage connections – Mist Tec

NOTE: PLUMBING CONNECTIONS & DRAINAGE CONNECTIONS PARTS ARE NOT SUPPLIED BY AOS.

Please note: You will require 25 mm water inlet connection to the Mist Tec unit.

PART NO.	Product Code	Description	Supplier
1	1508020	Poly Threaded Nipple 4255 40mm	Reece Australia www.reece.com.au
2	1409033	Hepworth V/0 Waste Valve Waterless 40mm	Reece Australia www.reece.com.au
3	1400105	DWV PVC Pipe 40mm	Reece Australia www.reece.com.au
4	1404859	DWV Pipe Reducer 50 x 40mm	Reece Australia www.reece.com.au
5	1403120	DWV Bend 50x 85 Deg Plain	Reece Australia www.reece.com.au
6	1400110	DWV Pvc Pipe 50mm	Reece Australia www.reece.com.au
7	1404110	DWV Junction 50 x 85 Deg Plain	Reece Australia www.reece.com.au
8	1405645	DWV Coupling (Connector) 40mm DI	Reece Australia www.reece.com.au
9	505256	Dura Hose Clamp Stainless Steel 50-70mm	Reece Australia www.reece.com.au
10	00-600-051-CUT	PVC Clear Vinyl Tubing CVT – 50mm	Powell Industrial (02) 8786 7200 1/463 Victoria St, Wetherill Park; or Clark Rubber Australia www.clarkrubber.com.au
11	1405505	Dwv Adaptor Pvc X MI 40mm	Reece Australia www.reece.com.au

Please note: You will require 25 mm water inlet connection to the MIST TEC unit

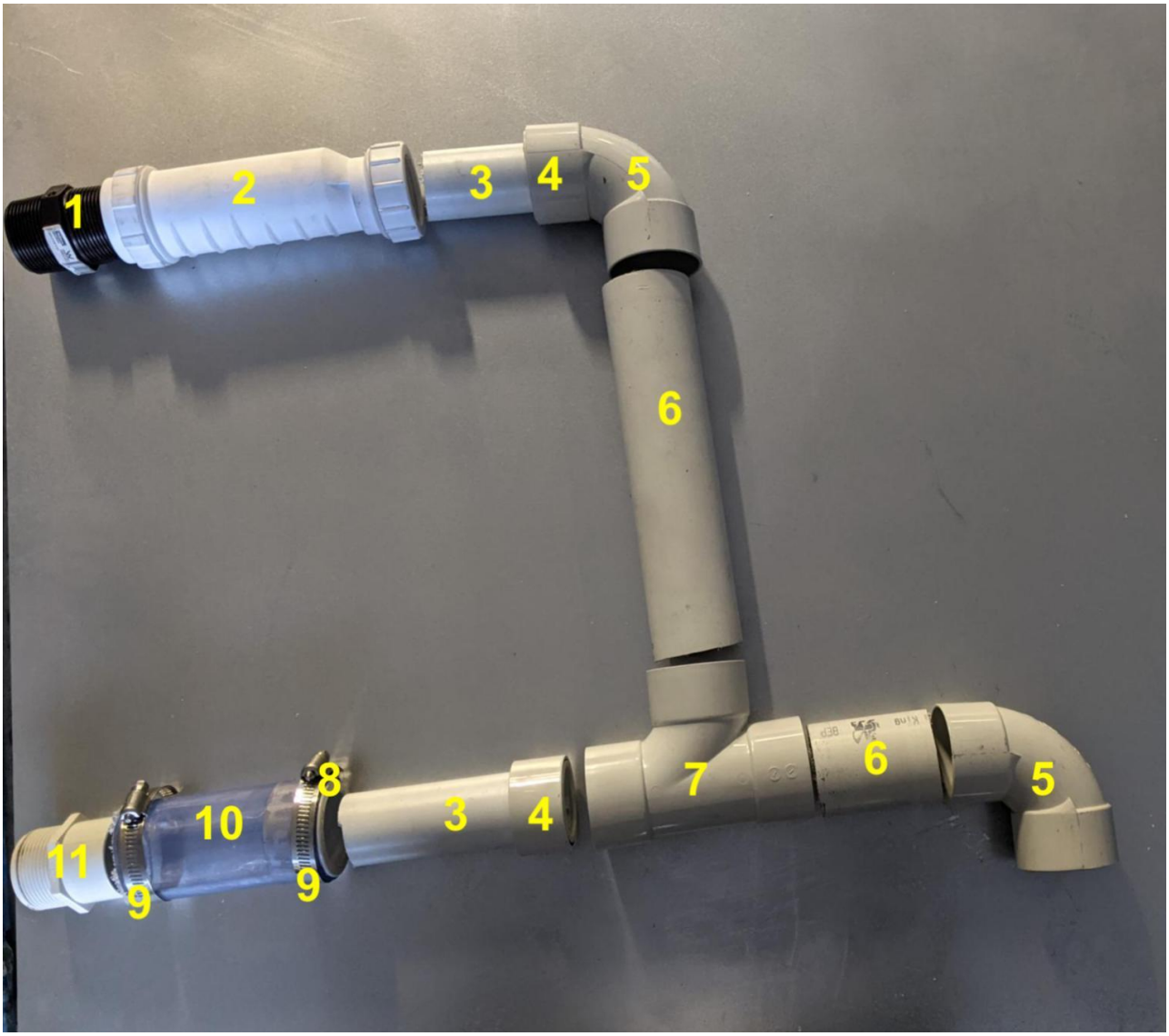
7. Mist Tec stainless steel overflow tray plumbing connections only

NOTE: STAINLESS OVERFLOW TRAY PLUMBING CONNECTIONS PARTS ARE NOT SUPPLIED BY AOS.

Part No.	Product Code	Description	Supplier
12	1502410	PVC Press Valve Socket #17 25p x 25mi	Reece Australia www.reece.com.au
13	1400605	Pressure Pipe PVC Class 12 25mm	Reece Australia www.reece.com.au
14	3801125	PVC Clear Reinforced Pressure Hose 25mm	Reece Australia www.reece.com.au
15	505254	Dura Hose Clamp S/Steel 25-40mm	Reece Australia www.reece.com.au
16	1502150	PVC Press Elbow #13 90 Deg 25mm	Reece Australia www.reece.com.au
17	1501860	PVC Press Red Coupling #8 50 x 25mm	Reece Australia www.reece.com.au
18	1502425	PVC Press Valve Socket #17 50p x 50mi	Reece Australia www.reece.com.au
19	1405610	DWV Coupling (Connector) 50mm FI	Reece Australia www.reece.com.au
20	1404110	DWV Junction 50 x 85 Deg Plain	Reece Australia www.reece.com.au

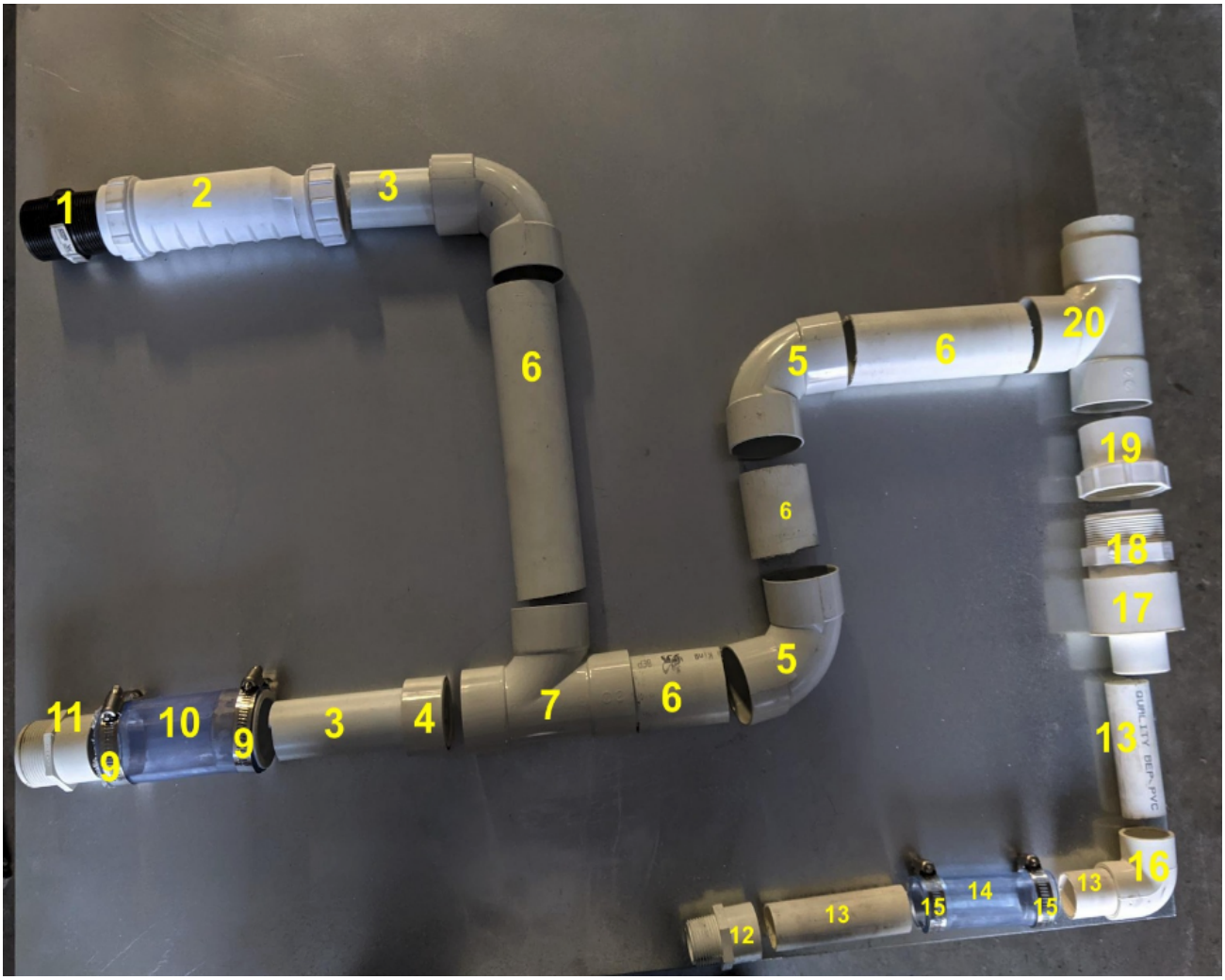
8. Plumbing connections illustrations **(outdoor installation)** – Follow part numbers.

NOTE: PLUMBING CONNECTIONS AND DRAINAGE CONNECTIONS PARTS ARE NOT SUPPLIED BY AOS.



9. Plumbing connections illustrations **(indoor installation)** – Follow part numbers
   Stainless steel overflow tray plumbing connection required.

NOTE: PLUMBING CONNECTIONS AND DRAINAGE CONNECTIONS PARTS ARE NOT SUPPLIED BY AOS



10. **Outdoor installation Plumbing illustration.**
(Note – Outdoor installation and No stainless steel overflow tray required).

MIST TEC

11. **Indoor installation Plumbing illustration.**
(Note –Indoor installation and stainless-steel overflow tray required).

12.Once plumbing is connected, make sure the water pump and water solenoid valve are electrically connected to power. Mist Tec unit should be now operational.

Maintenance procedures of the Mist Tec

o Turn off power which the blank switch (ON / OFF) which is located on top of the Grundfos water pump.

o Open the access door It may be located on the side or top of the unit and once removed with screwdriver or cordless drill access will be available.

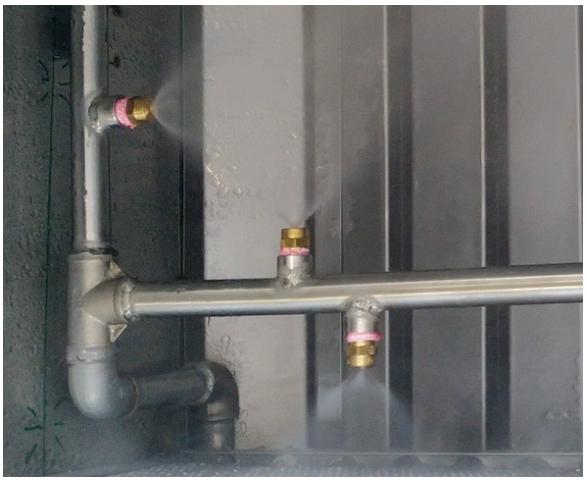
o Safety remove the UL approved stainless steel baffle filter inside the Mist Tec unit

o Once filter is removed wash down inside unit with maintenance hose spray hose and also clean inside the unit.

o Wash down and clean any large grease debris inside the unit and scrap any large debris and give the stainless filters a clean to remove any grease and oil via spray hose

o Put back stainless-steel filter correctly back into its original position.

o Wipe and clean spray nozzles with warm water if spray nozzles are blocked use a sewing pin to unblock.



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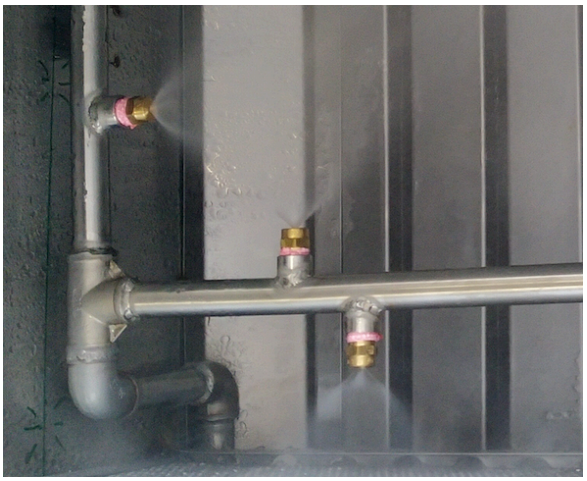


o Turn on water pump to check any blockages and make sure they are working correctly for operation mode.

o If the Mist Tec unit is working correctly put all access panels back into position and screw back correctly.

o Make sure Mist Tec is in operation mode (Press power button ON).

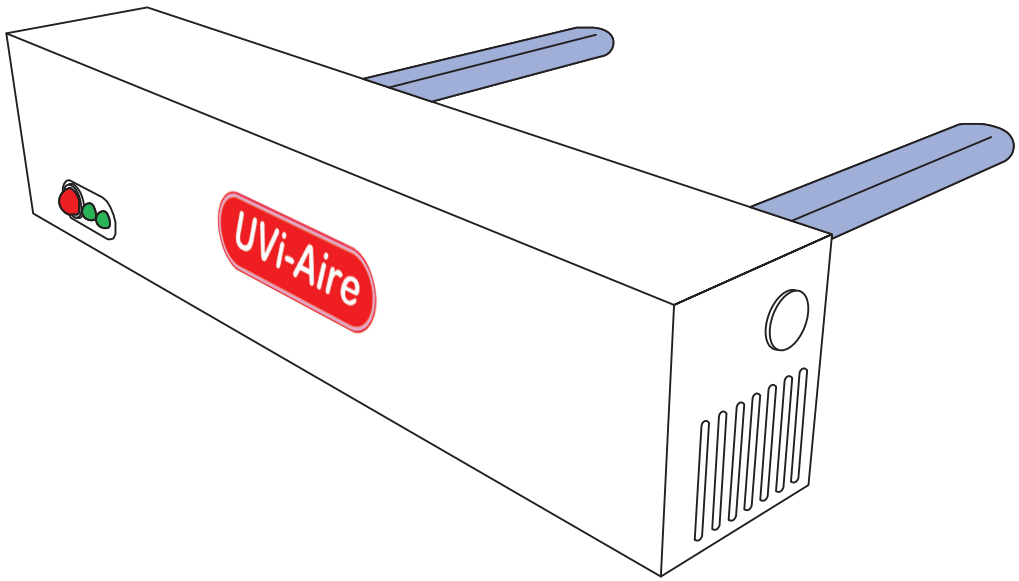
DUCT MOUNTED UV OZONE

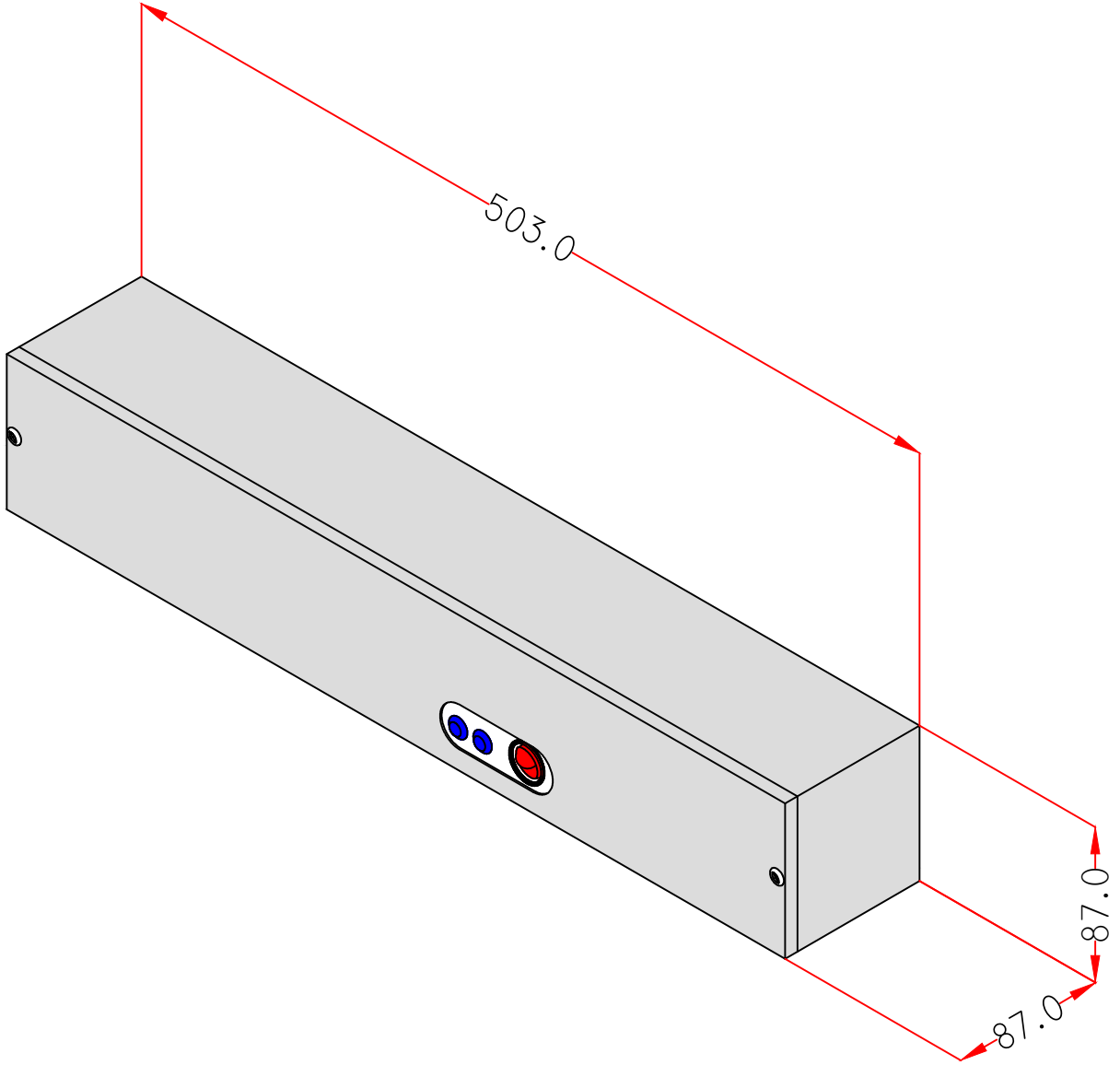
DUO SERIES – DUCT MOUNTED UV OZONE.

Technical Data

Model	DUO - 2 - 300
Construction	Stainless steel 1.2mm 304 finish
Dimensions	503 mm long x 87 mm wide x 87 mm high
UV lamps No	X 2
Grams per hour	12 grams per hour
Power Connection	240 Volts 1PH
Amps	1.0 Amps
Safety switch ON /OFF	Yes
Power interlocked	Must be electrically interlocked with kitchen exhaust fan

PLEASE NOTE: UV BOXES MUST BE ELECTRICALLY INTERLOCKED WITH THE KITCHEN EXHAUST FAN.


UVi-Aire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Ozone Generator

Odour Control System

The UVi - Aire ozone generator are used in kitchen exhaust systems to reduce cooking odours, grease and oil accumulation from the cooking process. An Ozone Generator will not only reduce fire risk but will save money annually on duct maintenance and the cleaning cost because the ozone allows for a clean air discharge.

Ozone is a very powerful oxidising agent and is effective for odour control. An allowance of 2 - 3 second contact time will allow the odours to be destroyed by the ozone and after 20 - 30 mins ozone is reverted back to oxygen.

Model	Power	Amps	Weight	Size L X H X W (mm)	PVC pipe connection	Exhaust Air treated
UVi Aire - 30G	240 V - 1PH	1.50 A	12 KG	350 x 420 x 225	100mm diameter	1600 L/s
UVi Aire - 40G	240 V - 1PH	2.40 A	16 KG	500 x 420 x 270	100mm diameter	1800 L/s
UVI Aire - 50G	240 V - 1PH	2.80 A	18 KG	500 x 420 x 270	100mm diameter	2200 L/s

Note: Power connections should be interlocked with kitchen exhaust fan.

Air Odour Solutions Australia
32 Chifley St, Smithfield NSW 2164
Tel: 02 9721 0020
Email: info@aosaus.com.au

www.aosaus.com.au
www.aosnz.co.nz

OZONE GENERATOR

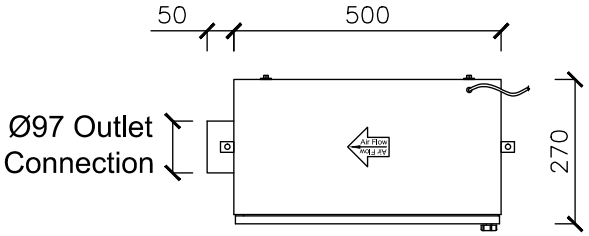
TECHNICAL DATA

Model	Power	Amps	Weight	Size	PVC Pipe connection	Exhaust air treated
Uvi Aire 50G	240 V – 1PH	2.80 A	18kg	500 mm long 420 mm high 270 mm wide	100 mm diameter	2200 L/s

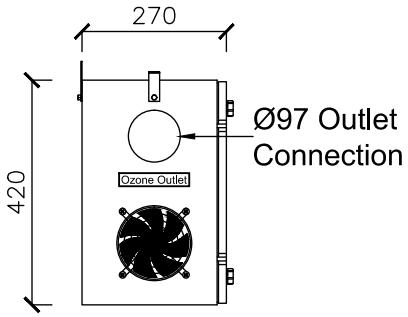
Notes below:

- Ozone generator must be electrically interlocked with kitchen exhaust fan.
- 3 Pin male plug provided ready for connection (plug / play).
- 1 metre PVC pipe connections provided.

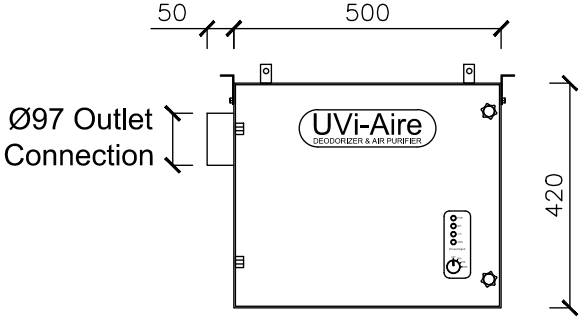
UVi-Aire 50G



① TOP VIEW
Scale 1:10 @ A3



② SIDE VIEW
Scale 1:10 @ A3



③ FRONT VIEW
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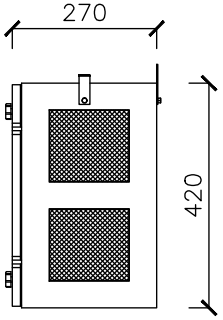


④ SIDE VIEW
Scale 1:10 @ A3

AOS
AIR ODOUR SOLUTIONS

UVi-Aire

Activated Carbon V Bank

Industrial Grade Odour Control System

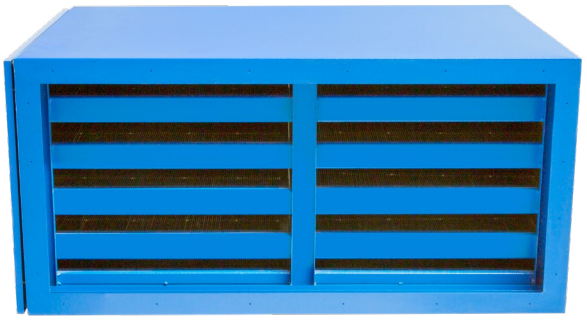
AOS Activated Carbon Filtration units are a great addition to commercial kitchen ventilation as they are specifically made for the control of cooking odour. Activated charcoal pellets within the carbon bank are designed to remove and control gas and vapour contaminants.

CB 2500

Unit:	H: 534 mm, W: 800mm, L: 580mm
Cabinet:	1.2mm Galvanised Steel
Finishing:	Weatherproof Powder Coated, Dark Blue
Weight:	100 kg
Weight of carbon:	40 kg
No of Carbon:	10 pieces
Tray size of carbon	660mm x 555mm x 20mm
Airflow capacity:	700 L/S
Residential time:	0.1 to 0.2 sec
Airflow:	L to R / R to L
Static pressure:	100 to 127 pascal
CTC absorption:	50 to 60 %

CB 5000

Unit:	H: 534mm, W: 800mm, L: 1110mm
Cabinet:	1.2mm Galvanised Steel
Finishing:	Weatherproof Powder Coated, Dark Blue
Weight:	180 kg
Weight of carbon:	80 kg
No of Carbon:	20 pieces
Tray size of carbon	660mm x 555mm x 20mm
Airflow capacity:	1400 L/S
Residential time:	0.1 to 0.2 sec
Airflow:	L to R / R to L
Static pressure:	100 to 127 pascal
CTC absorption:	50 to 60 %



CB 7500

Unit:	H: 534mm, W: 800mm, L: 1670mm
Cabinet:	1.2mm Galvanised Steel
Finishing:	Weatherproof Powder Coated, Dark Blue
Weight:	280 kg
Weight of carbon:	120 kg
No of Carbon:	30 pieces
Tray size of carbon	660mm x 555mm x 20mm
Airflow capacity:	2100 L/S
Residential time:	0.1 to 0.2 sec
Airflow:	L to R / R to L
Static pressure:	100 to 127 pascal
CTC absorption:	50 to 60 %

AIR ODOUR SOLUTIONS

Air Odour Solutions Australia
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www.aosaus.com.au
www.aosnz.co.nz

ELECTROSTATIC AIR CLEANER WITH UV OZONE

DESIGNED TO REMOVE SMOKE, GREASE, AND ODOUR FROM THE KITCHEN EXHAUST SYSTEM

Electrostatic cell consists of 61 individual collection plates to remove cooking smoke, grease and oil

1.4 mm weatherproof powder coated finish can be installed in outdoor conditions

UV ozone injection to remove and oxidize cooking odours

Cooling fan to provide efficient cooling to components

Drain Plug located at top and bottom of the unit for oil drainage

Cable connection and includes BMS connection and remote monitor status

LED indicator lights
(ON/ OFF)
UV ozone (BLUE)

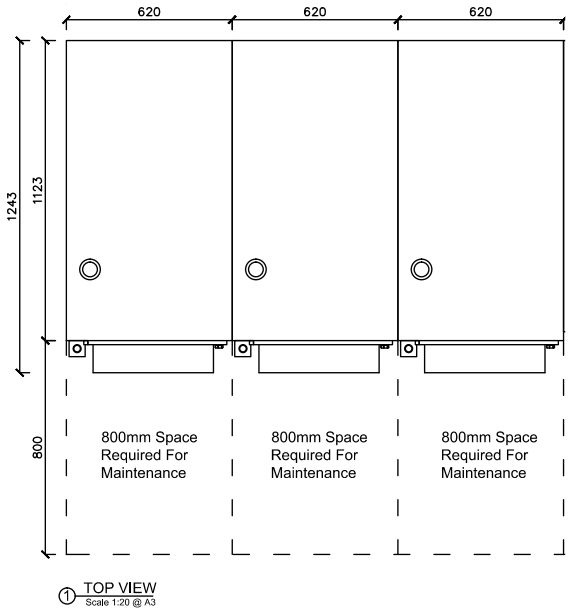
ASHRAE 52.2 certified, Electrical safety tested **AS/NZS 60335.1**

Air Odour Solutions

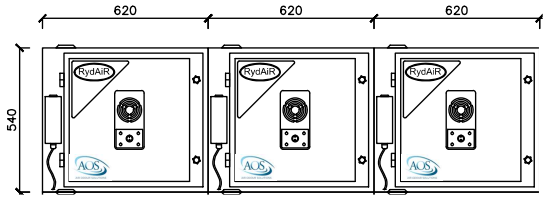
NSW / QLD/ VIC / WA/ SA/ NZ

Tel: 02 9721 0020 * Email: info@aosaus.com.au * Web: www.aosaus.com.au

ELECTROSTATIC AIR CLEANER WITH UV OZONE



① TOP VIEW
Scale 1:20 @ A3



③ FRONT VIEW
Scale 1:20 @ A3

MODEL: RY5000B - TP - UV

AIR ODOUR SOLUTIONS

Air Odour Solutions Australia
32 Chifley St, Smithfield NSW 2164
Tel: 02 9721 0020
Email: info@aosaus.com.au

www.aosaus.com.au
www.aosnz.co.nz

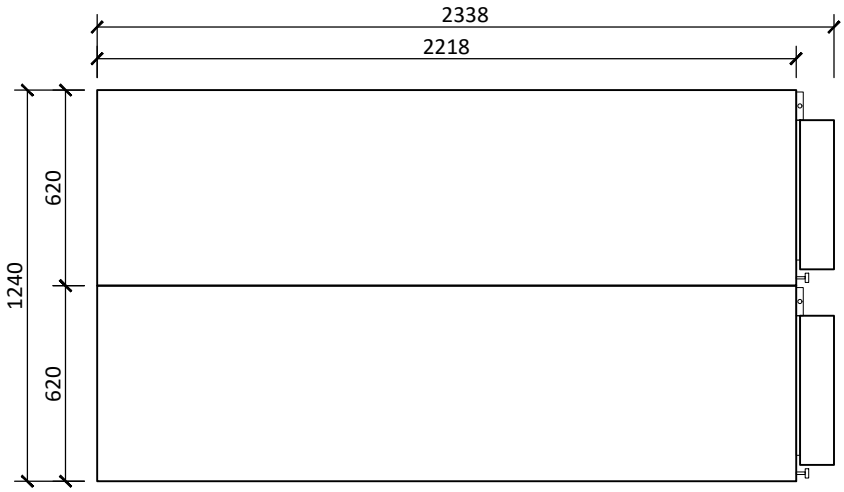
TECHNICAL DATA

ELECTROSTATIC AIR CLEANER WITH UV OZONE AND ACTIVATED CARBON FILTRATION

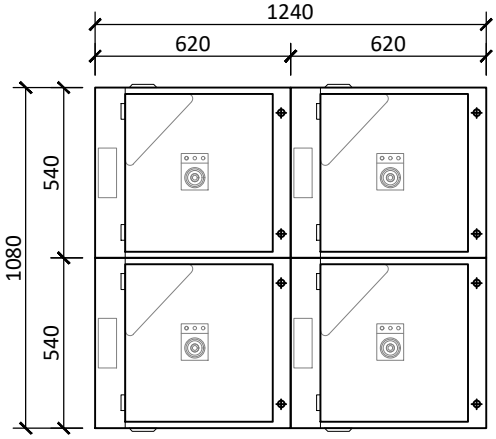
Model	RY5000B – TP – UV - ACF
Unit Size	H: 540 mm W: 1243 mm L: 2660 mm
Cabinet	1.4mm steel powder coated weatherproof
Weight	450 Kg
LED Operating Indicators	Green LED (ON) Red LED (OFF) Blue (ON/ OFF)
Air Volume	1400 L/s
Airflow Direction	Default: Left to Right Reversible Right to Left
Static Pressure	240 Pa clean
Power	(x 3) 230 Volts (1PH) – 3 Pin cord plug 50Hz (Plug / Play)
Amps	4.5 Amps
Efficiency	99.9% efficiency triple pass configuration.
Velocity	2 – 3 m/s ASHRAE Calculated
Ionising Voltage	High Voltage 12KVdc, Low Voltage 6KVdc
Particle Size	0.01 microns – 10 microns
BMS	Standardised in every RY series electrostatic unit
Application	Odour Control
No of lamps	6
Ozone output	42 grams / per hour
Lamp life	13000 hours
No of Carbon Trays	X 20 carbon granulated trays
Residential Time	0.1 to 0.2 sec
Carbon Tray Size	660 mm wide x 555 mm long x 20 mm wide
Carbon efficiency	95 – 98 %
Maintenance / service access	(x 4) 800 mm x 800 mm
Electrical connection	Filtration equipment must be electrically interlocked with kitchen exhaust fan
Certified To	AS 1668.1 and AS 1668.2 certified to BCA performance requirements can be utilised for alternative solution compliance. ASHRAE 52.2 2017 – Method of testing general ventilation air cleaning devices for removal efficiency by particle size. Australian and New Zealand electrical certified AS/NZ 60335.1 AS/NZS60335.1 2011 + A1 + A2, A3 NATA Accredited Laboratory Number: 676

Electrostatic Air Cleaner with UV Ozone

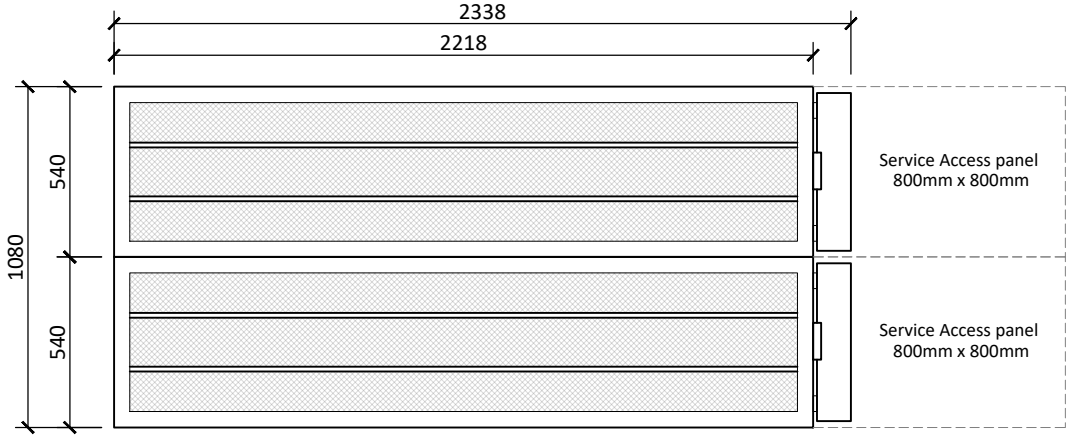
RY10000B - 2 - DP - UV



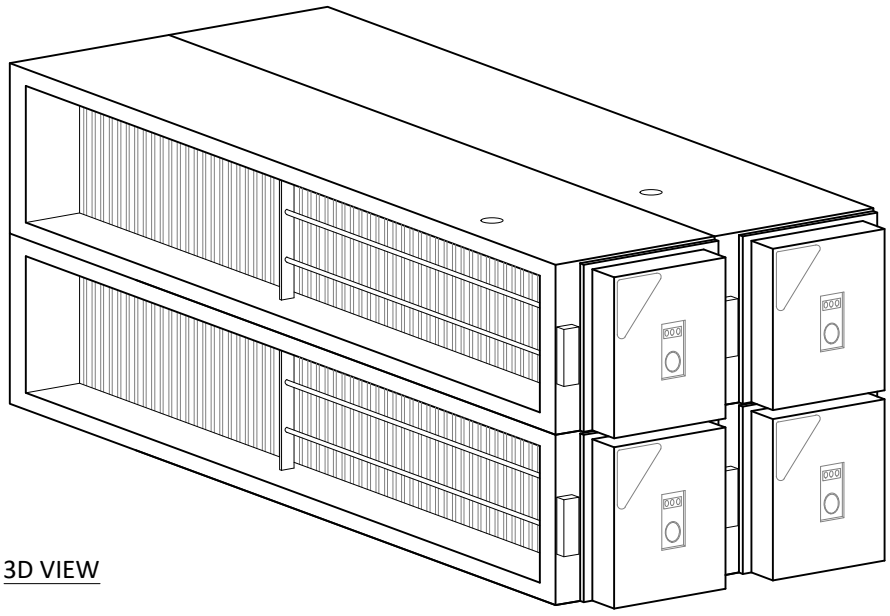
PLAN VIEW



FRONT VIEW



END VIEW



3D VIEW

Air Odour Solutions Australia
32 Chifley St, Smithfield NSW 2164
Tel: 02 9721 0020
Email: info@aosaus.com.au

www.aosaus.com.au
www.aosnz.co.nz

TECHNICAL DATA

ELECTROSTATIC AIR CLEANER WITH UV OZONE AND ACTIVATED CARBON FILTRATION

Model	RY10000B – 2 - DP – UV - ACF
Unit Size	H: 1080 mm W: 2040 mm L: 2338 mm
Cabinet	1.4mm steel powder coated weatherproof
Weight	1336 Kg
LED Operating Indicators	Green LED (ON) Red LED (OFF) Blue (ON/ OFF)
Air Volume	5600 L/s
Airflow Direction	Default: Left to Right Reversible Right to Left
Static Pressure	220 Pa
Power	(x 4) 230 Volts (1PH) – 3 Pin cord plug 50Hz (Plug / Play)
Amps	6.8 Amps
Efficiency	99.9% efficiency double pass configuration.
Velocity	2 – 3 m/s ASHRAE Calculated
Ionising Voltage	High Voltage 12KVdc, Low Voltage 6KVdc
Particle Size	0.01 microns – 10 microns
BMS	Standardised in every RY series electrostatic unit
Application	Odour Control
No of lamps	8
Ozone output	64 grams / per hour
Lamp life	13000 hours
No of Carbon Trays	X 80 carbon granulated trays
Residential Time	0.1 to 0.2 sec
Carbon Tray Size	660 mm wide x 555 mm long x 20 mm wide
Carbon efficiency	95 – 98 %
Maintenance / service access	(x 3) 800 mm x 800 mm
Electrical connection	Filtration equipment must be electrically interlocked with kitchen exhaust fan
Certified To	AS 1668.1 and AS 1668.2 certified to BCA performance requirements can be utilised for alternative solution compliance. ISO 16890 Air filter testing and certified worldwide. ASHRAE 52.2 2017 – Method of testing general ventilation air cleaning devices for removal efficiency by particle size. Australian and New Zealand electrical certified AS/NZ 60335.1 AS/NZS60335.1 2011 + A1 + A2, A3 NATA Accredited Laboratory Number: 676

All RY - B series electrostatic air cleaner ISO 16890 certified & tested

The new test standard ISO 16890 for worldwide filter testing and assessment to supersede the previous standards EN 779 (Europe) and ASHRAE 52.2 (USA).

AOS
AIR ODOUR SOLUTIONS

Blue Heaven Technologies

2820 S. English Station Road - Louisville, KY 40299

TEST NO. 22-250-3C

ISO 16890-2 :2016 Air Filter Test Result Summary

Section 2

Counter Information

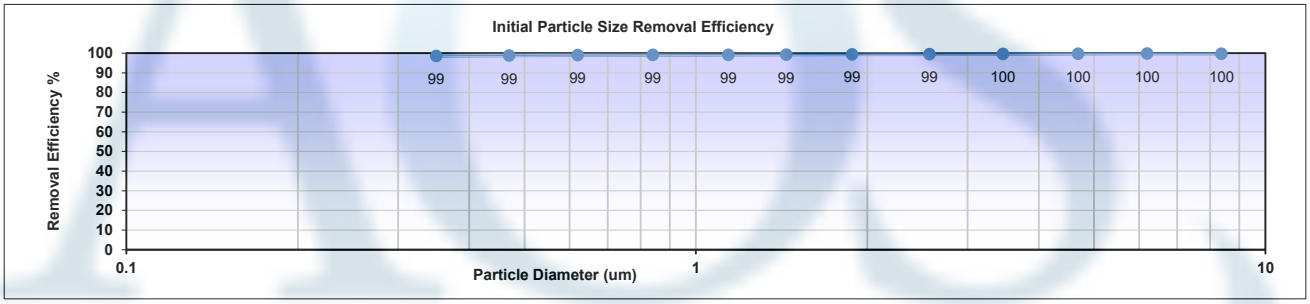
Manufacturer	TSI, Inc.
Model No.	3330

Test Conditions

Test Flow Rate (CFM)	3150
Test Aerosol	Aerosolized KCl & DEHS
Temperature (Deg F)	79.0
Relative Humidity (%)	36.0
Barometer (in Hg)	29.57

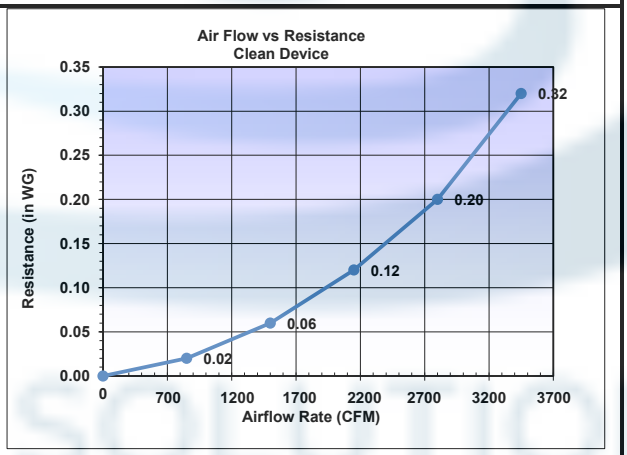
Device Tested

Manufacturer	RydAir
Model	RY5000B - TP - UV
Part Number	RY Series B
Dimensions	540 mm x 1860 mm x 1243 mm
Type of Media	Stainless Steel
Media Area	Standard
Construction	Metal
Filter/Media Electrostatic Charge	ESP/UV
Media Color	Stainless Steel
Media Adhesive	N/A
Sample Procurement	New From Manufacturer
Initial Weight (g)	N/A
Final Device Weight (g)	N/A
Initial Pressure Drop ("w.c.)	0.20



DEHS Size .03 - 1.0 and KCL Size 1.0 - 10.0

Range (µm)	Geo. Mean	Initial Efficiency (%)	Upstream Number of Particles
0.3-0.4	0.35	99	395446
0.4-0.55	0.47	99	288018
0.55-0.7	0.62	99	160096
0.7-1.0	0.84	99	154915
1.0-1.3	1.14	99	18660
1.3-1.6	1.44	99	10729
1.6-2.0	1.88	99	27910
2.0-3.0	2.57	99	18772
3.0-4.0	3.46	100	10234
4.0-5.5	4.69	100	7117
5.5-7.0	6.20	100	2985
7.0-10.0	8.37	100	2869



%	Airflow (CFM)	Resistance (in WG)
0	0	0.00
25	870	0.02
50	1542	0.06
75	2025	0.12
100	2849	0.20
125	3350	0.32

Comments

Tested For: AOS Australia Pty Ltd
Device Condition: New From Manufacturer
Tested and certified to AS 1668 parts 1 & 2 and NCC 2019

Test Operator Information | Test Performed By: CRees CAFS | Approved by | Completion Date: 7/12/2022

Blue Heaven Technologies
2820 S. ENGLISH STATION ROAD - LOUISVILLE, KY 40299

Blue Heaven Technologies
2820 S. English Station Road - Louisville, KY 40299

TEST NO. 22 -251 -3A

ISO 16890-2 :2016 Air Filter Test Result Summary

Section 2

Counter Information

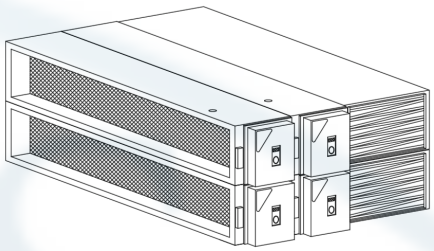
Manufacturer	TSI, Inc.
Model No.	3330

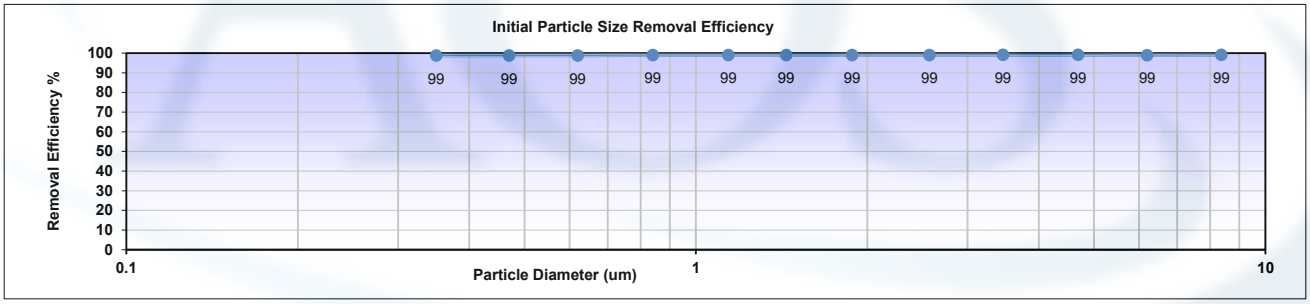
Test Conditions

Test Flow Rate (CFM)	11900
Test Aerosol	Aerosolized KCl & DEHS
Temperature (Deg F)	77.0
Relative Humidity (%)	50.0
Barometer (in Hg)	29.59

Device Tested

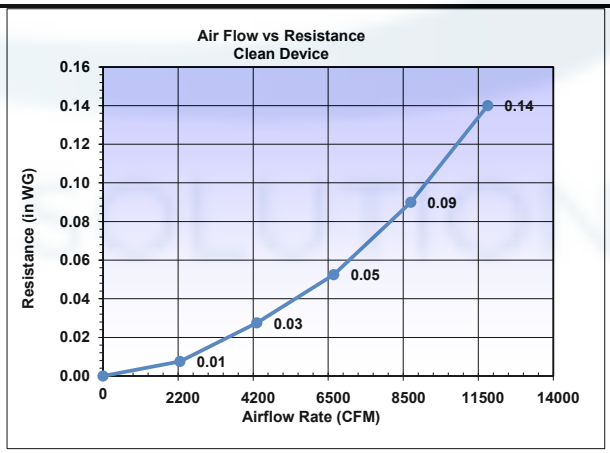
Manufacturer	RydAir
Model	RY10000B - 2 - DP - UV - ACF
Part Number	RY B Series
Dimensions	1080 mm x 2040 mm x 2338 mm
Type of Media	Stainless Steel
Media Area	Standard
Construction	Metal
Filter/Media Electrostatic Charge	Esp / uv / carbon
Media Color	Stainless Steel
Media Adhesive	N/A
Sample Procurement	New From Manufacturer
Initial Weight (g)	N/A
Final Device Weight (g)	N/A
Initial Pressure Drop ("w.c.)	0.09





DEHS Size .03 - 1.0 and KCL Size 1.0 - 10.0

Range (µm)	Geo. Mean	Initial Efficiency (%)	Upstream Number of Particles
0.3-0.4	0.35	99	856646
0.4-0.55	0.47	99	630076
0.55-0.7	0.62	99	346732
0.7-1.0	0.84	99	354215
1.0-1.3	1.14	99	31122
1.3-1.6	1.44	99	18390
1.6-2.0	1.88	99	46480
2.0-3.0	2.57	99	30217
3.0-4.0	3.46	99	15576
4.0-5.5	4.69	99	10760
5.5-7.0	6.20	99	4437
7.0-10.0	8.37	99	3983



%	Airflow (CFM)	Resistance (in WG)
0	0	0.00
25	2205	0.01
50	4410	0.03
75	6815	0.05
100	9120	0.09
125	12125	0.14

Comments

Tested For: AOS Australia Pty Ltd
Device Condition: New From Manufacturer
Tested and certified to AS 1668 parts 1 & 2 and NCC 2019

Test Operator Information | Test Performed By: CRees CAFS | Approved by | Completion Date: 7/12/2022

INSTALLATION MANUAL OF THE ELECTROSTATIC AIR CLEANERS + ACTIVATED CARBON V BANK FILTERS

AIR ODOUR SOLUTIONS

TABLE OF CONTENTS

AOS
AIR ODOUR SOLUTIONS

QUICK OVERVIEW

Electrostatic air cleaners and activated carbon filtration units from Ryd Air, also can be installed in a number of ways, including hanging from a frame, mounting on a wall, or sitting on a platform. Make sure you follow local regulations and authorities, and examine all wall or roof structures for any weight loads before installation

The RY - B series electrostatic air cleaners and CB series activated carbon v bank filters may be installed inside or outdoors, and they are modular in design for greater airflow rates. For example, units can be stacked on top of each other and are pre-bolted in the factory before arriving at the installation site.

Before making an order, AOS should be advised of the airflow direction, which should be either (right to left) or (left to right). The airflow will be modified at the AOS factory before it arrives on site for installation.

Before installing the electrostatic air cleaner and activated carbon v bank filters all pre filters and electrostatic cells and carbon panels should be removed to reduce the amount of weight when installing the unit, which will make handling the unit easier. If optional UV ozone is installed inside the esp unit, UV ozone lamps should be removed in case of damage or breakage.

The inlet and outlet transitions for the electrostatic air cleaner and activated carbon filtration unit should be carefully sealed to prevent any air or oil leaks when they are installed. The total airflow volume must be spread equally throughout the surface of the inlet and outlet sections in order to retain maximum efficiency. Short or sharp transitions should not be placed as they will damage the operation of the electrostatic air cleaner.

Note: Before installing the electrostatic air cleaner s and activated carbon filtration make sure the there is adequate space and access for service and maintenance at least allow 800 mm for door openings on each electrostatic and carbon unit, The installer must coordinate adequate access.

STEP 1

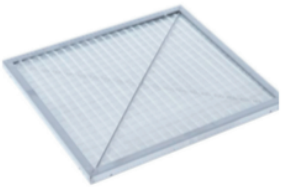
Removing all the components from inside the electrostatic air cleaner and activated carbon v bank filtration before installation

Open the access door at the face of the electrostatic unit via 2 black knobs to slide pre - filters and electrostatic cells from the rails inside the electrostatic unit use attached on the front of the cell to move electrostatic cells this will reduce the weight load. To remove UV ozone lamps use screwdriver to unscrew lamp holder and pull uv lamps out from the holder via sockets this will reduce breakage of the uv lamps.

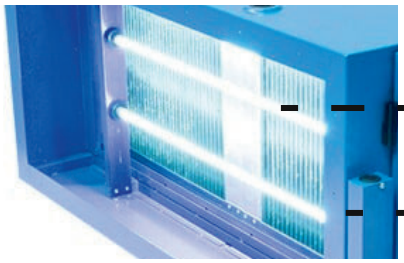
Open the carbon access panel via 4 gold screws, open the door is open remove carbon panels accordingly to lessen the weight when installing.

2 Black Knobs

Electrostatic cell



Pre - filter



Remove UV ozone lamps

AIR ODOUR SOLUTIONS

STEP 1

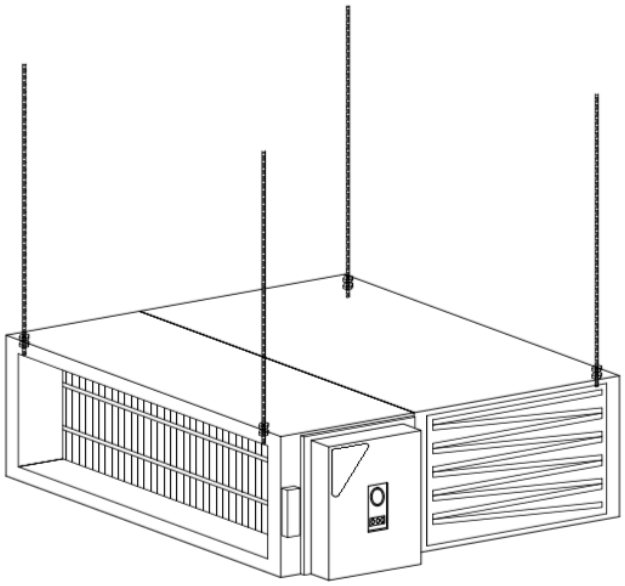
Removing all the components from inside the electrostatic air cleaner and activated carbon v bank filtration before installation

Unscrew the door panel via x 4 screws on the activated carbon filtration unit

Slide carbon panels out of V formation

STEP 2

Hanging & securing the electrostatic air cleaner and activated carbon unit



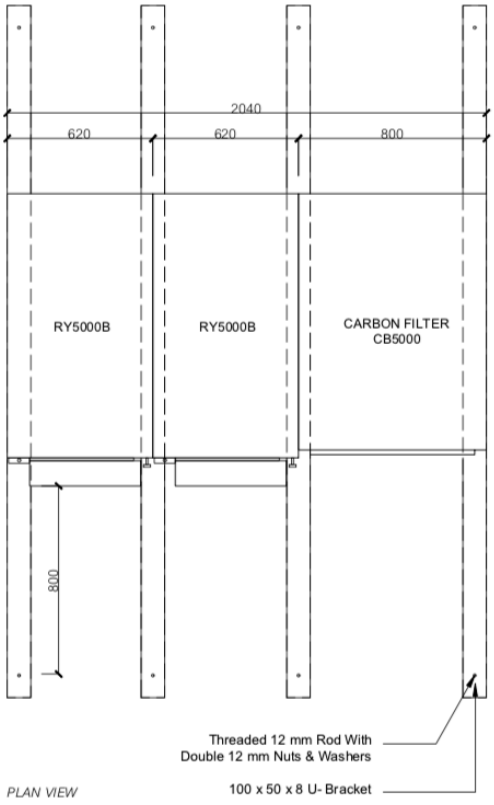
- Use a 10 mm or 12 mm threaded rod and a sleeve anchor to fix into concrete.
- On the top of the electrostatic unit, drill a 10.5 mm or 12.5 mm hole to slip the threaded rod through the top of the unit. Use nuts and bolts to fasten the threaded rod to the unit. Make sure electrostatic air cleaners are level and use genie hoist or lift to raise the electrostatic air cleaner and activated carbon unit in position.
- Place threaded rods on the corners of the unit rather than in the centre, if you install threaded rods in the centre pre filters and cells will not come out.
- if electrostatic air cleaners and activated carbon units are stacked they are pre - bolted in AOS Factory before arriving to site.
- Only stacked section or x 1 electrostatic air cleaner or x 1 activated carbon unit should be installed at once, do not attempt to install the entire electrostatic air cleaners and activated carbon filtration unit at once it becomes to heavy and awkward to install.
- If fixing electrostatic air cleaner and activated carbon unit to the wall check or wall structures before installing.
- **Note: Before hanging the esp unit and carbon unit make sure to inspect every structure for weight loads.**

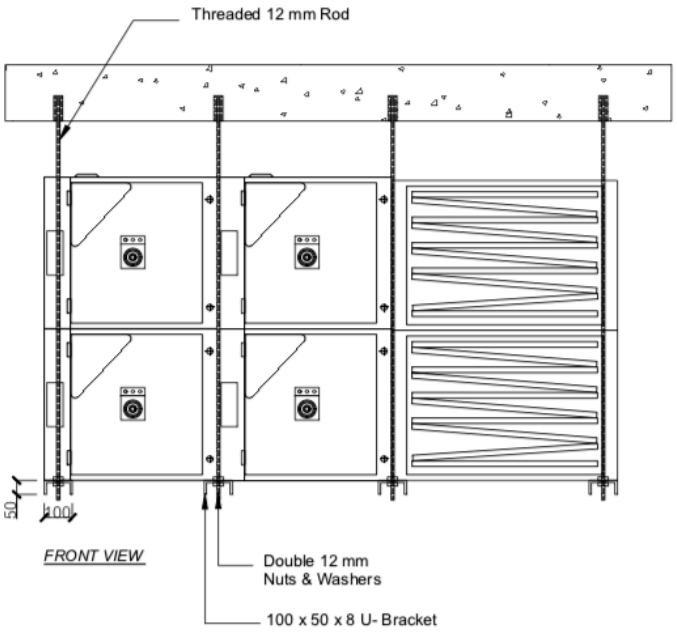
AIR ODOUR SOLUTIONS

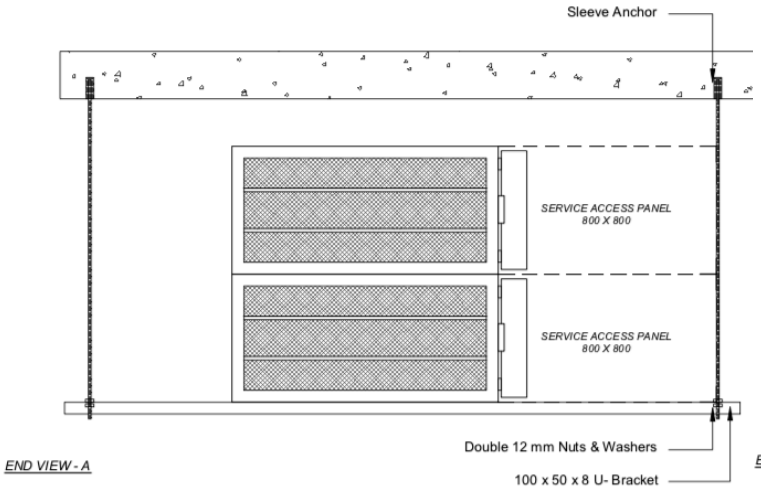
STEP 2

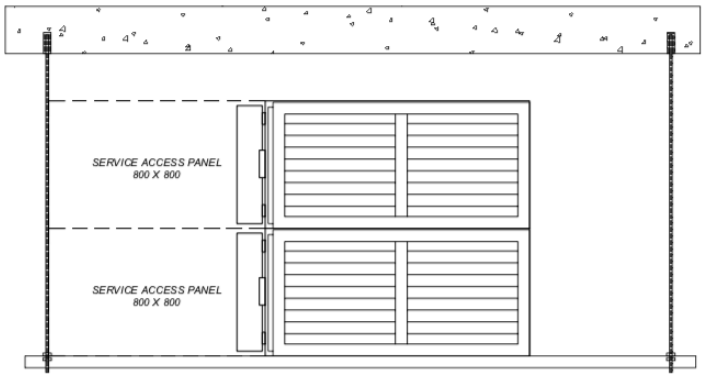
Hanging & securing the electrostatic air cleaner and activated carbon v bank filtration

Stacked electrostatic air cleaner and activated carbon v bank filtration







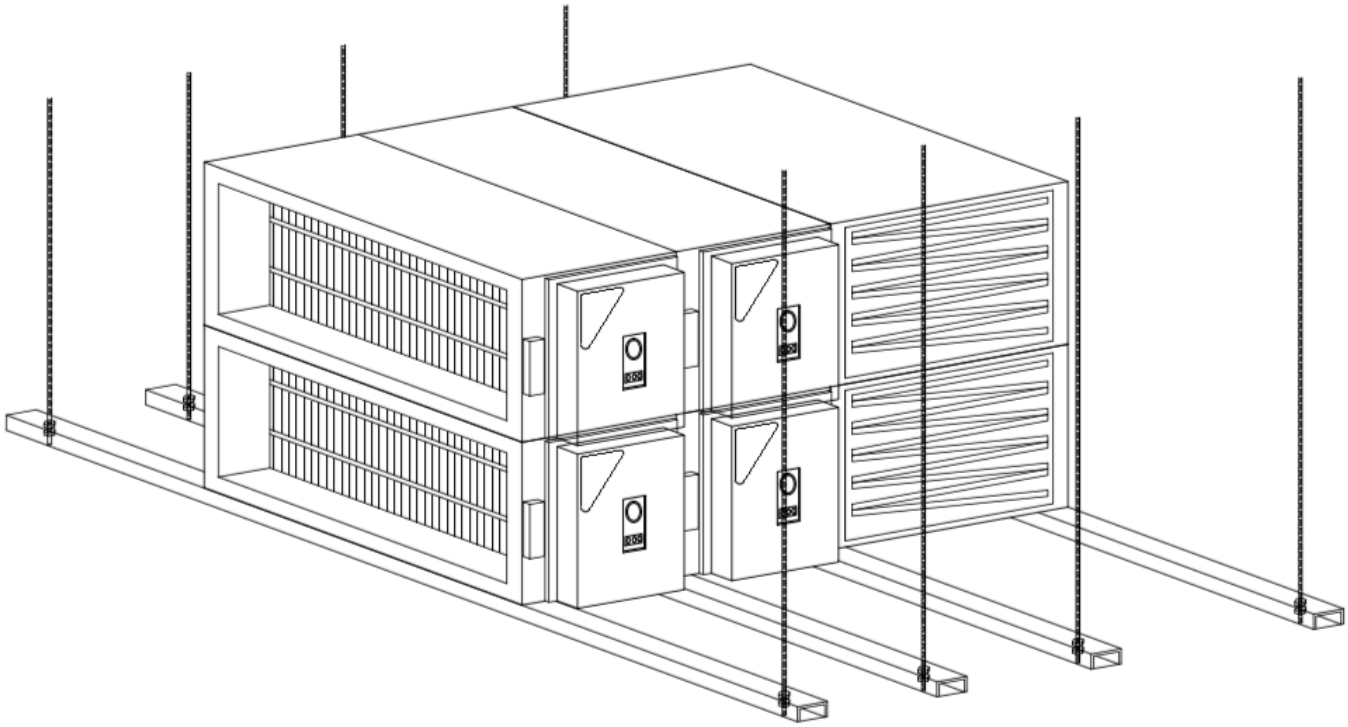


AIR ODOUR SOLUTIONS

STEP 2

Hanging & securing the electrostatic air cleaner and activated carbon v bank filtration

Stacked electrostatic air cleanerand activated carbon v bank filtration



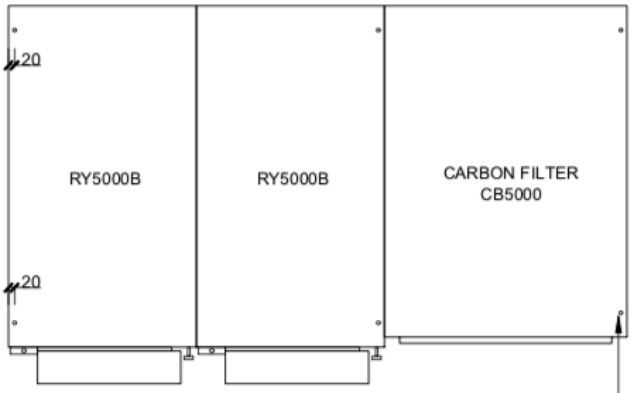
3D VIEW

AIR ODOUR SOLUTIONS

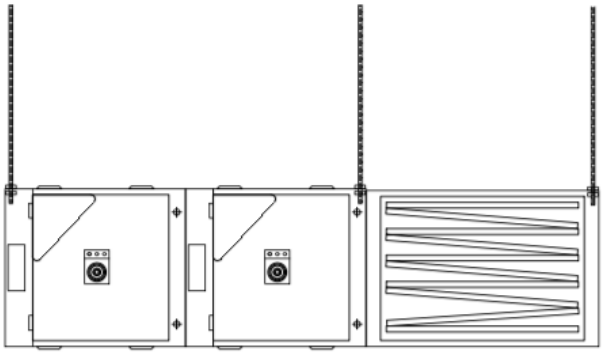
STEP 2

Hanging & securing the electrostatic air cleaner and activated carbon v bank filtration

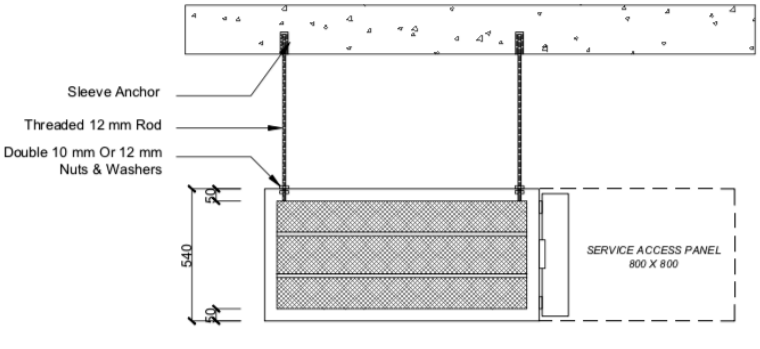
Double pass electrostatic air cleaner and activated carbon v bank filtration



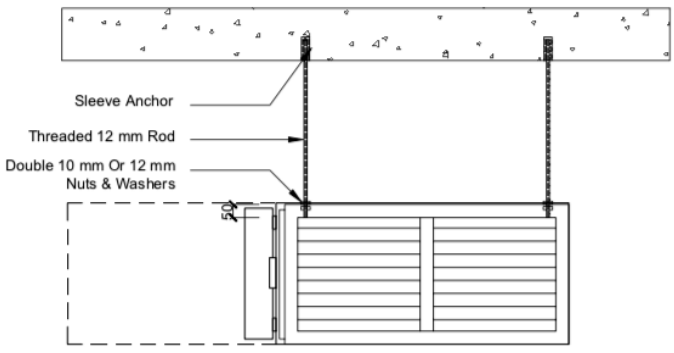
PLAN VIEW



FRONT VIEW



END VIEW - A



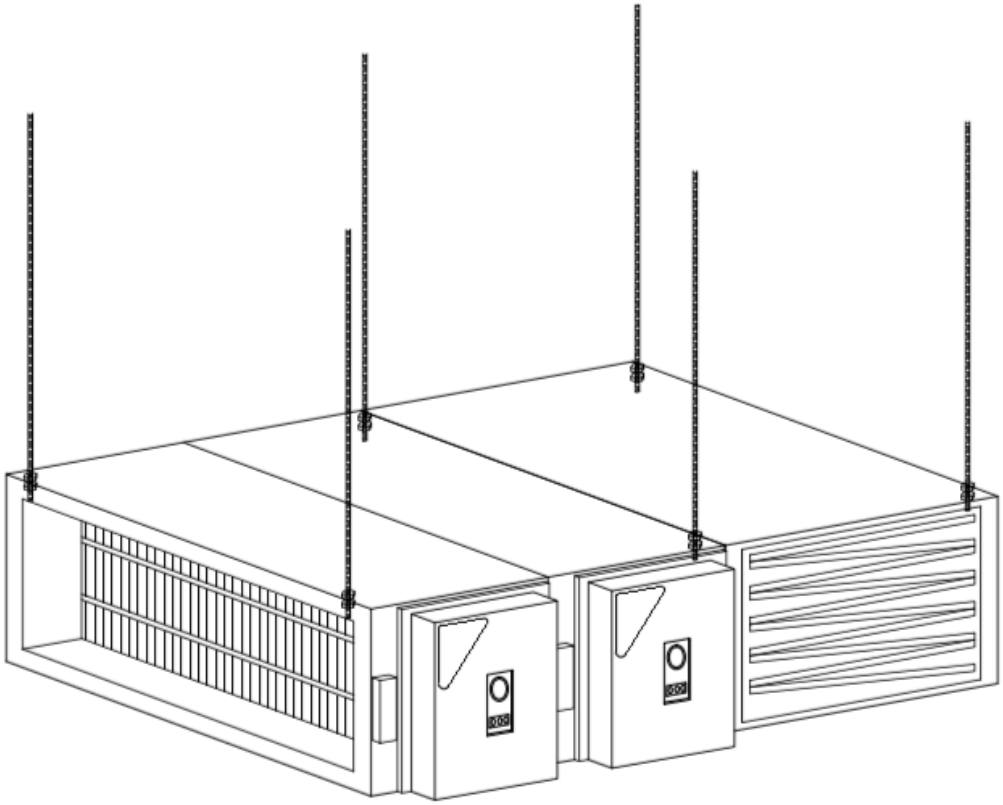
END VIEW - B

AIR ODOUR SOLUTIONS

STEP 2

Hanging & securing the electrostatic air cleaner and activated carbon v bank filtration

Double pass electrostatic air cleaner and activated carbon v bank filtration

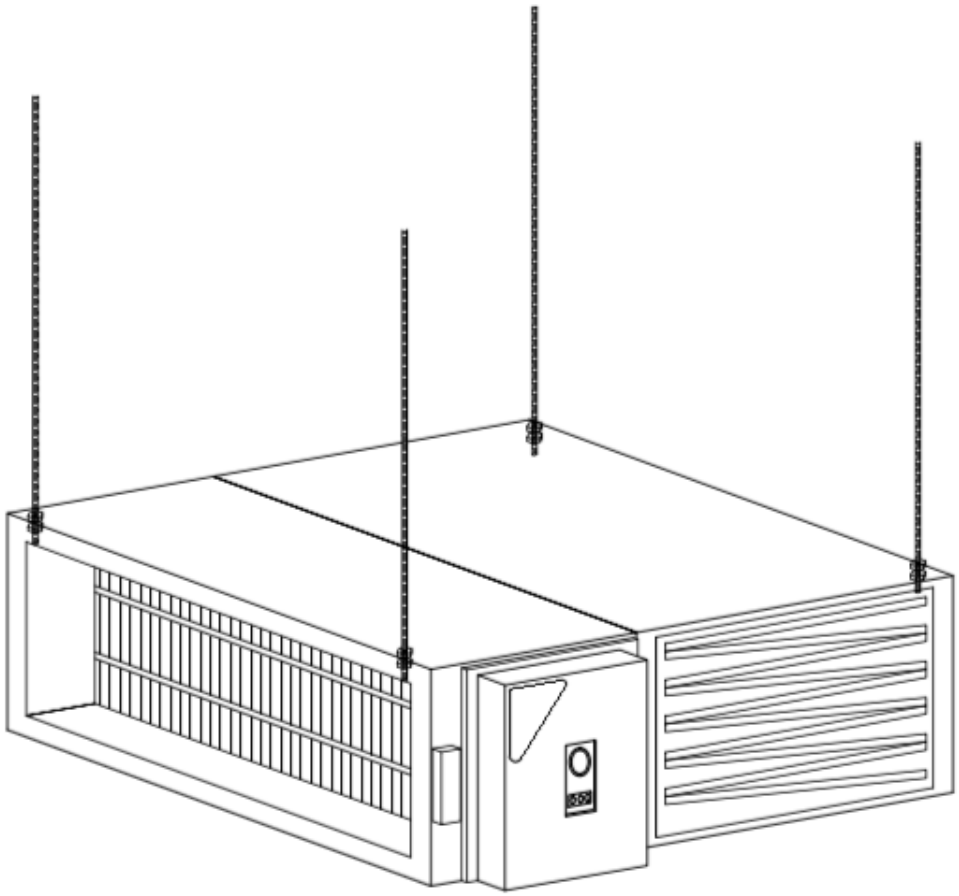


AIR ODOUR SOLUTIONS

STEP 2

Hanging & securing the electrostatic air cleaner and activated carbon v bank filtration

Single pass electrostatic air cleaner and activated carbon v bank filtration

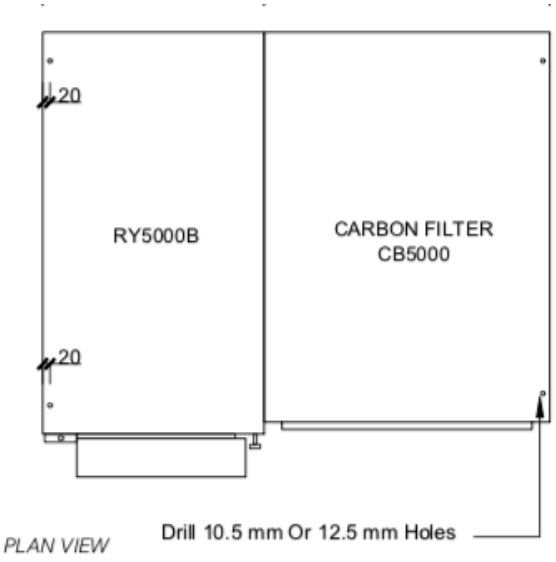


AIR ODOUR SOLUTIONS

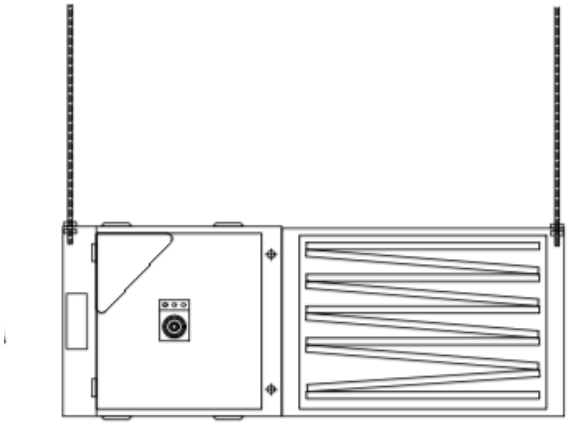
STEP 2

Hanging & securing the electrostatic air cleaner and activated carbon v bank filtration

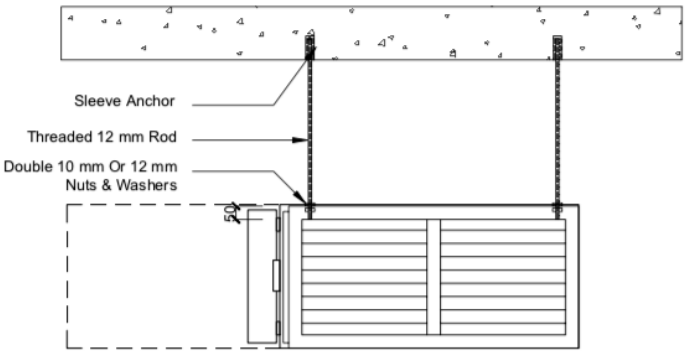
Single pass electrostatic air cleaner and activated carbon v bank filtration



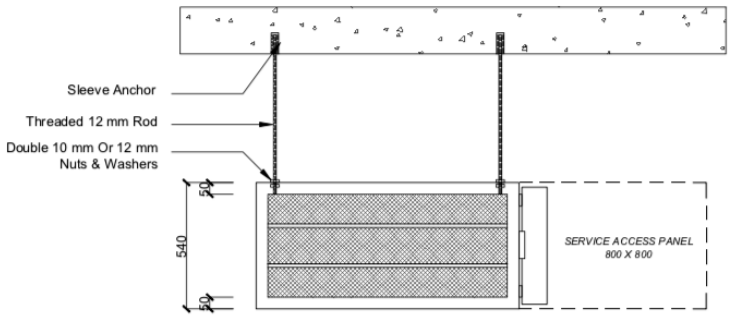
PLAN VIEW



FRONT VIEW



END VIEW - B



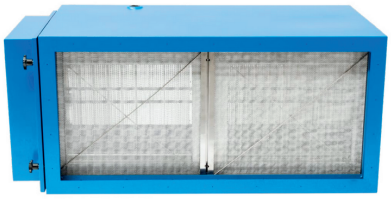
END VIEW - A

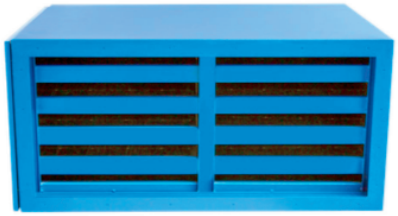
AIR ODOUR SOLUTIONS

STEP 3

Fixing the electrostatic air cleaner and activated carbon v bank filtration together

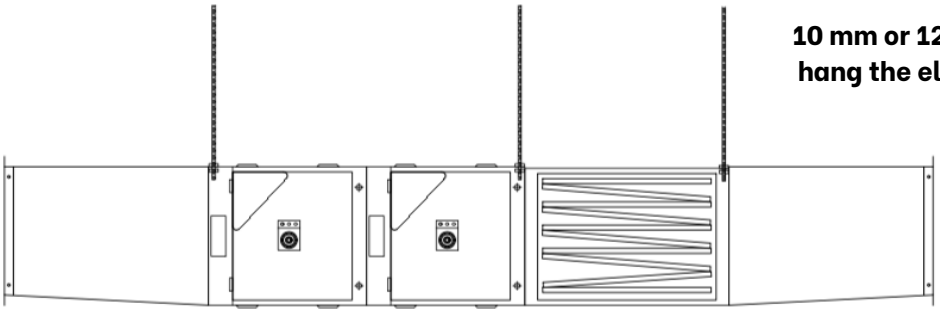
There is a series of 2mm holes located around the inlet and outlet flange of the electrostatic unit and activated carbon filtration unit





2 mm series small holes located around the perimeter of the inlet and outlet flanges

Apply high temperature grease an oil resistant duct sealant to the flanges first before tex screwing the electrostatic air cleaner units together.



10 mm or 12 mm threaded rod can be used to hang the electrostatic units to the concrete slab.

Electrostatic air cleaners are pre bolted together in AOS factory and esp units and tex screwed and sealed together when esp units are installed in modular or in series.

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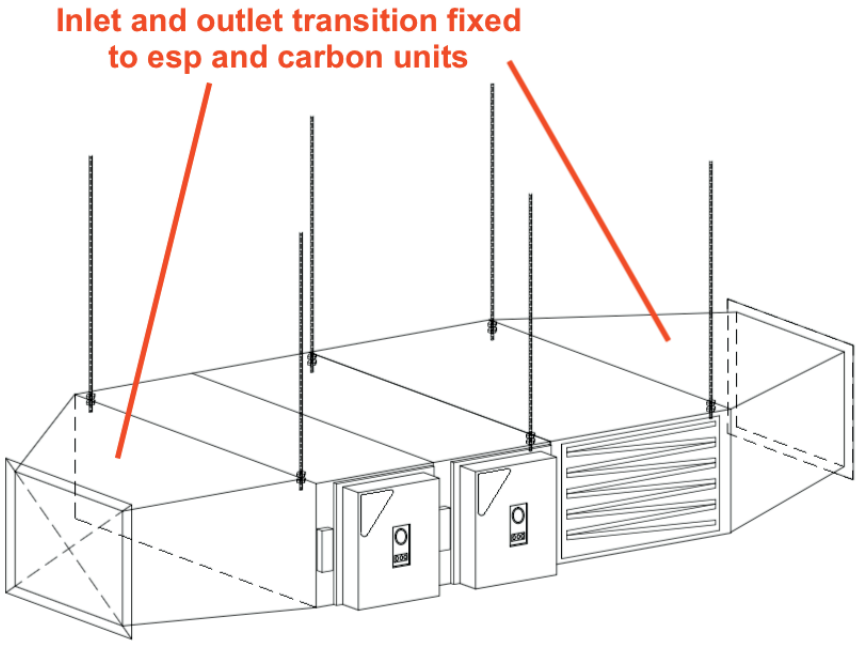
STEP 4

Installing the ductwork inlet and outlet transitions on the electrostatic air cleaner and activated carbon v bank filtration.



- The inlet and outlet transitions for the electrostatic air cleaner and activated carbon filters should be carefully sealed to prevent any air or oil leaks when they are installed. The total airflow volume must be spread equally throughout the surface of the inlet and outlet sections in order to retain maximum efficiency.

- Short or sharp transitions should not be placed as they will damage the operation of the electrostatic air cleaner.

- For maximum efficiency it is best to turn the ductwork in 50 mm when fixing to the flanges of the electrostatic unit.

- High temperature grease and oil sealant should be used to seal any air leaks or gaps and prevent any oil leaks.

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STEP 5

Preparing to put all components back into the electrostatic air cleaner and activated carbon units

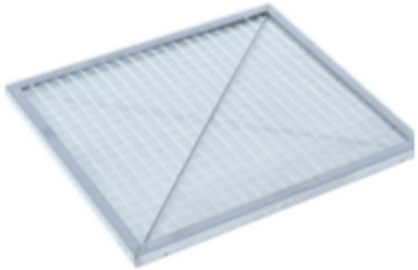
- When installation is completed ensure that all debris and dust is clear before if build up of dust you may need to wipe the inside of the electrostatic unit. If power is connected it is best to run the exhaust fan to clear any dust build up inside the electrostatic unit and activated carbon filtration unit.

- Check that the cell's compression pins line up with the high and low white door connectors on the inside of the door. All cell pin connectors on the front of the cell must face the same direction as the white circle door connectors.

2 Pin connectors on the front of the cell

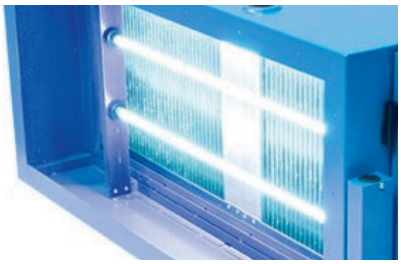
2 white low / high insulator connectors

- Pre-filters, electrostatic cells that must be slid back into the unit, and UV ozone lamps, if ordered, are among the parts that must be reinserted into the electrostatic air cleaner.



Pre - filters

Electrostatic cells



UV ozone lamps to be re installed back in position back into lamp holder and brackets

- Black drain plugs supplied with the electrostatic air cleaner unit must be installed at the top and bottom of the electrostatic air cleaner unit or oil and grease drainage.

Top drain plug

Bottom drain plug

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STEP 5

Preparing to put all components back into the electrostatic air cleaner and activated carbon units

- Unscrew the door panel via x 4 screws on the activated carbon filtration unit

- Put the carbon panels in position in V formation use gloves and clean any debris inside the carbon unit. For longer carbon unit models load half the carbon panels in first and then push the remaining forward to the longest section (load and push method)

- Secure x 4 screws on the access panel to the face of the carbon unit. The carbon filtration v bank unit is now operational.

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AOS Air & Odour Solutions Pty Ltd

Electrical Safety Testing

Electrostatic Air Cleaner RY A and B Series

NATA Accredited Laboratory Number: 676
Accredited for compliance with ISO/IEC 17025-Testing

NATA Report No. 30E-17-0006-TRP-457606-0
31 Oct 2017

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Electrical Safety Testing - Electrostatic Air Cleaner RY A and B series	
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REVIEWED BY:	Long Xin Electrical Engineer	Date: 31 Oct 2017
APPROVED BY:	John Wang Senior Electrical Engineer Authorise signatory	Date: 31 Oct 2017

REVISION HISTORY:		
Revision No.	Date Issued:	Reason/Comments:
00	31 Oct 2017	Initial Issue

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KEYWORDS: Air, Odour, RY, Cleaner, Electrostatic, UV

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TEST REPORT

AS/NZS60335.1: 2011+A1, A2, A3
Household and Similar Electrical Appliances - Safety
Part 1. General requirements

Report No. ..... :	457606-0	
Compiled by..... :	John Wang	Signed: 
Reviewed by ..... :	Long Xin	Signed: 
Approved by..... :	John Wang	Signed: 
Date of issue..... :	31 Oct 2017	
Testing Laboratory ..... :	Vipac Engineers & Scientists	
Address..... :	2 Sirius Road, Lane Cove NSW 2066, Australia	
Testing location..... :	As Above	
Address..... :	As Above	
Applicant's name ..... :	AOS Air & Odour Solutions Pty Ltd	
Address..... :	32 Chifley Street, SMITHFIELD NSW, 2164	
Test specification:		
Standard ..... :	AS/NZS60335.1:2011+A1, A2, A3	
Test item description ..... :	Electrostatic Air and Odour Cleaner	
Trade Mark ..... :	RydAiR	
Manufacturer..... :	AOS Air & Odour Solutions Pty Ltd	
Model/Type reference..... :	RY A and B series (2500A, 5000A, 7500A, 2500B, 5000B, 7500B and 10000B)	
Ratings..... :	230V 50Hz, 0.45A to 1.85A	

Summary of test result:

The tested Electrostatic Air Cleaners, model RY A and B series (2500A, 5000A, 7500A, 2500B, 5000B, 7500B and 10000B), **COMPLY** with the requirements of standard with AS/NZS60335.1:2011 +A1, A2, A3.

Actual test was applied on models of RY7500A and RY10000B, which was with the most complicated construction and highest power rating of series A and B respectively, except clause 10 was performed on all other models.

Copy of marking plate/label:

We confirm that we will indicate the following electrical ratings on the model tags for all units indicating: **230V AC, 50 Hz** and the respective rated current as below:

RY2500 without Lamp	0.45A	RY2500 with Lamp	1.25A
RY5000 without lamp	0.68A	RY5000 with lamp	1.55A
RY7500A without Lamp	0.9A	RY7500A with Lamp	1.85A
RY2500B without Lamp	0.45A	RY2500B with Lamp	1.25A
RY5000B without Lamp	0.72A	RY5000B with lamp	1.50A
RY7500B without Lamp	0.95A	RY7500B with Lamp	1.70A
RY1000B without Lamp	0.9A	RY10000B with Lamp	1.70A

Test item particulars ..... : Electrostatic Air and Odour Cleaner, with or without UV lamps fitted

Classification of installation and use..... : Outdoor / indoor fixed appliance
Supply Connection .....: Type Y, non-detachable, 3-core, circular cord with 3-pin plug incorporated

Possible test case verdicts:
- test case does not apply to the test object .....: N (Not applicable)
- test object does meet the requirement.....: P (Pass)
- test object does not meet the requirement.....: F (Fail)

Testing.....:
Date of receipt of test item .....: 24 Feb 2017
Date (s) of performance of tests .....: 28 Feb – 02 Oct 2017

General remarks:
The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(See appended table)" refers to a table appended to the report.

General product information:
Electrostatic air and odour with or without UV lamps fitted.
RY2500A and RY2500B: Fitted with 1 electrostatic cell on each model;
RY5000A and RY5000B: fitted with 2 electrostatic cells on each model;
RY7500A and RY7500B: fitted with 3 electrostatic cells on each model;
RY10000B: fitted with 4 electrostatic cells.

Content of report: