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The Next Generation in Odour Control Technology

Odour Control Equipment Specification

Proposal For: Powered Ventilation

Site: 109 B Oxford Road, Reading

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Equipment Specification

Type and Size of Unit:	**Electrostatic Precipitator (RY7500)**
Extract Rate:	4.04 c/m/s
No of Units:	4
System Performance:	Total Static Pressure: 160 Pa. Total Weight: 488 kg approx. Total ESP Housing Size: H x 1080 L x 1240 W x 1790
Electrical Data:	Power Supply: 240 v / 1ph /50 Hz Total Protected Supply: 20 amps
Type and Size of Unit:	**Extechnology Carbon**
No of Units:	1 Housing (split into two units)
System Specification:	Total Housing Size: H x 1200 L x 1500 W x 1800 6No G4 Panel Filters 36 No Site Safe Carbom Filters Total Weight: 700 Kg Approx. Dwell Time: .3 Seconds

Describing the system

The Extechnology odour control application specified for 109B Oxford Road, Reading, has been designed inline with DEFRA's 2005 guidance on the control of odour and noise from kitchen exhaust systems.

The specification contained in this document is compliant with DEFRA guidelines and all agreements have been put in place to ensure that the system is maintained in accordance with the manufactures specification and the DEFRA guidance.

The specified system will comprise of three layers of filtration and should be considered above and beyond compliant with point two detailed on page 11 of DEFRA's guidance under the subheading "high level of odour control":

Stage One:	Double Pass Electrostatic Precipitator
Stage Two:	G4 Pre Filter
Stage Three:	Carbon Filter (Dwell time .2 seconds)

Table 4.14 (page 72) in the DEFRA guidance *"anticipated relative cost effectiveness based on a well-maintained system"* details the level of odour abatement expected to be achieved relative to the equipment installed. Crossed referenced against this table the specification outlined in this document would result in a high level of odour abatement being achieved at 109B Oxford Road, Reading.

Maintenance Schedule

E.S.P (4 x ESP R7500)

Replace pre-filter, ioniser, collector and final filter.
Drain off accumulated grease from filter compartment.
Clean inside and outside of product with detergent.
Check door Sealing material.
Check high voltage circuit.
Check function of indicator lamps.

G4 Pre Filters (6 x Filters)

Replace pre-filters monthly

Carbon Filter (36 x Discarb Cells)

Replace pre-filters.
Replace carbon filters every 6 months or as required

Task	Frequency
Service ESP & UV-C System	4 Weekly
Replace pre-filters	4 Weekly
Replace carbon filters	6 Monthly
Lamp Change, UV-C & UV-O	Annually

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Case Study

In April 2014 Extechnology successfully installed an odour control system at “The Hollybush” West Hampstead.

The redevelopment of “The Hollybush” was in planning for a number of years and serious concerns had been raised by the neighbors with respect to any odour nuisance which could potentially occur as a result of the redevelopment.

The proposed point of discharge at “The Hollybush” was categorized as requiring a very high level of dour control and as a consequence there was a requirement from the local authority to achieve a level of odour control which would ensure that any statuary nuisance did not occur. The odour control system installed at “The Hollybush” comprised of the following:

Stage One:	Electrostatic Precipitator
Stage Two:	Course Dust Filter
Stage Three:	Carbon Filter

The system at “The Hollybush” is being maintained on a monthly basis and the performance is meeting expectations and achieving a very high level of odour control.

About Extechnology

With over 1000 installations through the UK and Europe Extechnology is a leading supplier of odour control equipment to the commercial kitchen ventilation sector.

Reference

Mohammed Nasim
Environmental Health Enforcement Officer
Premises Management
Westminster City Council
64 Victoria Street
London
SW1E 6QP
Tel - 020 7641 1870

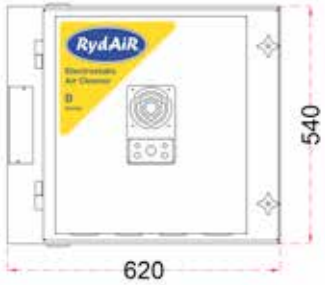
RY 7500B

Electrostatic Air Cleaner
(Without Blower)

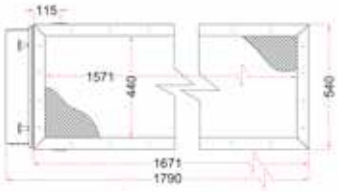
Industrial grade Electrostatic Air Cleaners for collection of dry and wet particulates like dust, oil mist, cooking fumes and various pollutants. Typical application include commercial kitchen exhausts, Air Handling Units (AHUs), factories, workshops, CNC machine shops and many other

SPECIFICATIONS

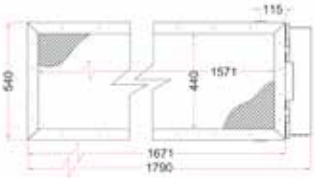
Dimensions/Weight	H:540 x W:1790 x L:620 mm /122Kg
Cabinet	Galvanized Steel, 1.4mm / 16 Gauge
Finishing	Powder Coated, Dark Blue
Air Volume (Rated-Max)#	CFM: 4500-6100; CMH: 7500-10,500; L/s: 2100-2900
Static Pressure	50 pa / 0.2”
Voltage & Power	230 VAC +/-10%, 50/60Hz, 105Watts
Ionising Voltages	High Voltage: 12KVdc , Low Voltage: 6KVdc
Air Flow Direction	Default : Right to Left; Reversible : Left to Right
Power Supply	High Frequency solid state and self regulating design
Features	*Short circuit, arc protection and auto restore power supply *BMS (Building Management System) terminals provided *Auto power cut-off when door is opened *Indicator LEDs for normal or wash indicator *Set of Terminals for remote LED normal or wash indicator
Particle size	From 0.01 microns - 10 microns
Efficiency	DOP Test, up to 95% single pass,up to 99% double pass, calculated. ASHRAE 52.2-2012, up to 96% single pass, up to 99% double pass, calculated. NIOSH 5026 OIL MIST FIELD TEST : UP TO 96%
MERV Ratings	Meets MERV 15 at velocity of 2.5m/s to 3.8m/s
Pre-Filter	Aluminum wire mesh, Washable x 3
Electrostatic Cell	H: 472mm, W: 550mm, L: 340mm
No of Cells / Weight	3/16.5Kg
No Of Plates per Cell	59
Total Collecting Area	18,21 Sq meters
Post Filter (Optional)	Aluminum Wire Mesh, Washable x 3
Installation	Ceiling Suspended; Wall or Frame Mounted, Multiple Units Stacked



Front View



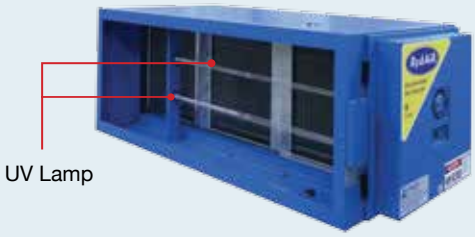
Air Intake View



Air Discharge View

Top View

RY7500B with UV Ozone Lamp



RY7500B-UV03

ODOUR CONTROL OPTION:
- UV ozone Lamp fitted after electrostatic cell
- Lamp Wattage : 180 Watts (90W x 2 Lamps)
- Ozone output : 16 Grams/Hour
- Lamp Life : 13,000 Hours
- Lamp Operation Blue LEDs on Unit’s Panel
- All accessories are contained in RY Unit

ISO 90001 CE

NIOSH-National Institute for Occupational Safety and Health
Running at max capacity will lower efficiency to 85%