

## **Maintenance Strategy – Kitchen Extract Old Granada Studios, Zones 4 and 5**

### **Introduction**

This Maintenance Strategy has been prepared to support Mollies and Soho House operation from the premises at Old Granada Studios, Manchester, M3 3BG.

The strategy will provide details of the maintenance requirements for the kitchen extraction equipment:

- Means of extraction
- Fans, filters, ductwork and fume and odour abatement equipment
- Daily, weekly, monthly and annual cleaning requirements
- Maintenance and replacement intervals listing for the filters
- Who is responsible

### **Introduction**

Mollies and Soho House are both established restaurant and F&B businesses, currently operating a numerous of restaurants nationally, and in the case of Soho House, globally.

### **Means of extraction**

The two kitchens will be connected through risers supplied by the Landlord, that exhaust at roof level in accordance with Environmental Health guidance. The method of extraction will comply with Planning Permission, and the installation will be carried out in accordance with relevant lease and planning conditions. Plan and section drawings illustrating the ducting routes are attached along with details of extraction equipment and filtration. A full cleaning regime will be implemented.

Mollies - the ventilation strategy is based upon a dedicated kitchen extract system of 5.22m<sup>3</sup>/s. The duct is fire rated from the kitchen void to the open roof level structurally (Level 2) and the riser to roof level also rated thermally. Odour control for the kitchen extraction has been assessed using EMAQ guidance and the point of discharge classed as high risk. To achieve this ESP filtration is implemented to remove grease and smoke particulate, followed by UV ozone system to remove the gaseous odours.

Soho House - the ventilation strategy is based upon a dedicated kitchen extract system of 1.8m<sup>3</sup>/s. The duct is fire rated from the kitchen void to the open roof level structurally (Level 10) and the riser to roof level also rated thermally. Odour control for the kitchen extraction has been assessed using EMAQ guidance and the point of discharge classed as high risk. To achieve this ESP filtration is implemented to remove grease and smoke particulate, followed by UV ozone system to remove the gaseous odours.

## **Equipment**

- 2 No. canopies fitted with baffle and mesh filters – KVT ClearAir
- 1 No. ESP AG 7000/UVC at roof level 10 – Plasmaclean
- 2 No. ESP AG 10500/UVC at roof level 2 - Plasmaclean
- Fire rated extract ducts
- 1 No. extract fan at roof level 10 – Helios GBD 560/4/4
- 2 No. extract fan at roof level 2 – Helios GBD 630/4

## **Cleaning Requirements**

Frequent physical inspections of the ventilation systems should be done. To achieve this, there should be at least a one a week inspection of the ventilation systems. Accumulation of dirt and grease on the metallic surface should be checked more regularly.

Cleaning of baffles, grease filters and collection drawers will be completed daily, with a thorough inspection and deep clean at least once weekly. Mesh filters should be cleaned at least twice a week.

A weekly deep cleaning of cooker hood / internal canopy will be observed.

Inspection and cleaning of ductwork in line with recommendations, every 6 months as a minimum.

Fans do not require active cleaning, but regular maintenance as set out below. By design the silicone line raiser should allow grease to run to the base and this base area should be cleaned every 6 months.

Nominated Supplier for maintenance and cleaning of kitchen extraction will be ACS Cleaning Ltd, with a maintenance contract in place for the following;

- Regular cleaning of the electrostatic filter components and UVC lamps (detergent followed by isopropyl alcohol).
- The aluminium pre and post filters require washing when dirty
- Routine checks of the ionisers, collector cells and UVC lamps during the first few months of use.

A specialist contractor should be called to carry out periodic deep hygiene.

## **Maintenance and replacement intervals**

ACS Cleaning Ltd will also be appointed for the regular Planned Preventative Maintenance (PPM) for the following;

- 6 monthly: general inspection & maintenance of kitchen and roof fans
- 12 monthly: test and review of silicone lined raiser within fans
- 12 monthly: re-lamp of UVC lamps within ESP units

**Who is responsible**

Mollies Motels Ltd PMV Contact – Mike Hogan, Mollies  
Soho House Ltd PMV Contact – Syed Meah, Soho House

Nominated supplier for maintenance and cleaning – ACS Cleaning Ltd  
<https://www.acscleaningltd.co.uk/food-hygiene/>

# ClearAir . . .

. . . canopies from



- ✓ DW172 Compliant
- ✓ BS6173 Compliant
- ✓ HSE Compliant

## Repeatable quality.....

Our approach to manufacture utilising standard components means that we can consistently repeat quality throughout all **ClearAir** products – and at competitive prices. This unique method allows us to pre-engineer our sub-assemblies with reinforced fixing points to aid installation. Our finished canopies have beautifully tight folds, closed joints and rigid panels, without the need for over-engineering of the fabrication. There are no visible fixings on the surface of **ClearAir** canopies – all jointing systems are hidden to provide a clean and easily wiped, snag-free surface. The entire construction is based around a double skinned arrangement which ensures a rigid final assembly with hidden standing seam joints whilst utilising much lighter materials than would otherwise be needed.



## Attention to detail.....

Grease separation is one of the most important aspects of any kitchen ventilation system and therefore, every **ClearAir** canopy has **KVT's** high efficiency grease separators fitted. Filters are retained in a solidly constructed, integral housing with built-in grease management system which safely stores collected oils out of the air-stream. Removal & cleaning of filter panels & grease collection trays is simple. **ClearAir** canopies are fitted with high temperature, grease and steam resistant LED light fittings as standard. All **ClearAir** canopies are carefully designed so as not to need a full perimeter channel for stiffening or residual condensate collection. This removes yet another unsightly dirt trap seen on out-dated traditional canopy designs.

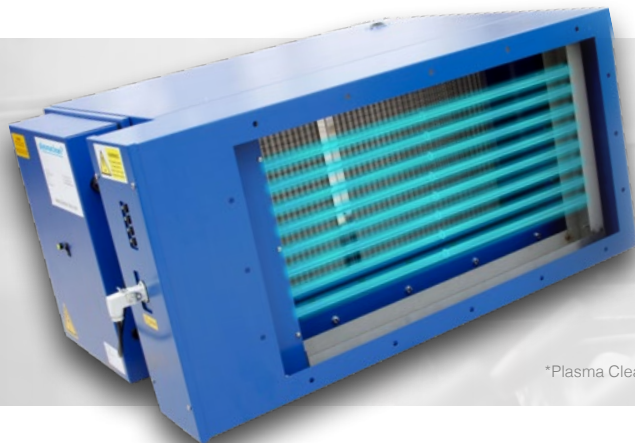


## Finish.....

- ✓ **ClearAir** canopies are manufactured from type 304 stainless steel, finished with a fine-grain, satin-finished polish.
- ✓ All fixings and standing seams joints are hidden within the double skinned assembly.
- ✓ **ClearAir** grease separators are tested and certified to DIN 18869-5, UL1046 and ASTM2519.
- ✓ Grease separators have handles to facilitate safe removal and re-fitting.
- ✓ Grease trays are available in different capacities to suit the style and intensity of cooking.
- ✓ This is all achieved with the latest laser technology at our British manufacturing facility.
- ✓ **ClearAir** canopies available in extract & supply-air configurations.



The full package in a small footprint



\*Plasma Clean is continuously improving its products and services and reserves the right to alter designs without prior notice

Our ESP UV range is up to twice as effective as competitor units. It's also integrated, so you get the full works – grease, smoke and odour control – in one neat package.

There's also a perfectly matched power supply and the UV lamps come with a 10,000-hour lifespan. So you get superior UVC performance over long periods of time.

## Benefits

- Offers integrated grease, smoke and odour removal
- Keeps extract ductwork virtually grease-free
- Reduces fire risk
- Cuts the cost of maintenance
- Enables heat recovery with grease-free air.

**Related products** **Electrostatix 3500/7000 / 10500**  
Offering the highest particulate removal efficiency in their class - removing sub-micron particles by 95%  
[Find out more](#)



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## Introduction to Kitchen Ventilation from Plasma Clean

Grease, odour and smoke emissions produced by commercial kitchens are an increasing concern both for existing establishments and for new build projects. Therefore, it is essential to implement a suitable grease and odour control strategy - as a matter of urgency - to ensure that the kitchen emissions comply with DW/172 and DEFRA guidance. This is not just about protecting the environment from nuisance emissions, but also reducing grease build up in the ductwork, which could present a fire risk if left untreated.

Plasma Clean's Kitchen Ventilation range consists of a range of modular solutions for grease, smoke and odour control which can be used alone or can be combined to provide a site-specific solution. For example, a pizza restaurant will not require the same level of grease, odour and smoke control equipment as a char-grill steak house.

Starting at the canopy, our [Coil Filters](#) are designed to capture 95% of grease particles; between 55-70% more than traditional baffle-type filters. Our [Xtract](#) range releases natural ozone - a superb disinfectant and odour neutraliser - directly into kitchen ventilation systems. Our [Techniclean](#) range includes the canopy mounted **Techniclean CM**, combining high intensity UVC light with ozone technology to break down odour and grease in the air, as well as the **Techniclean Mini, 5000** and **7500** models; perfect for new projects or retrofitting into existing ductwork. High levels of grease and smoke particulate are treated by the [Electrostatix](#) and combining Electrostatic Precipitation with UVC, are our [ESP UV](#) units, to provide highly efficient removal of grease, smoke and odour from a compact unit.

For a final polish - removing residual ozone - [Activated Carbon](#) filters are the ideal choice for low level extraction. Our Carbon Housing allows Activated Carbon filters to sit in 3, 6 or 9 easily mountable Sitesafe Discarb units.

When it comes to Control Panels, our **Air Flow Interlock** range is used to synchronise the operation of all of our Kitchen Ventilation products with detected air flow. The equipment is automatically turned off when the system is shut down, preventing accidental exposure to UVC light and ozone, whilst ensuring energy efficiency for the system. Options are available for Lamp Life Indicators, Lamp Fault and BMS interface.

## Filtration with Ozone from Plasma Clean

Each unit incorporates a 5 stage filtration system consisting of:

- Aluminium pre-filter
- Combined electronic Ioniser
- Electrostatic collector cells
- Aluminium post filter
- UVC lamp frame containing 2, 4, 6 or 8 high output UVC lamps

## Installation

It is important to achieve uniform distribution of air across the filter surface. Inlet and outlet tapers must be sized correctly and the equipment must be located no less than 1m from any bend. Plasma Clean can offer assistance with the installation design if required. Requires two people plus lifting gear to carry and install.

## Maintenance

**THIS PRODUCT CONTAINS LAMPS THAT EMIT UVC LIGHT. IMMEDIATE OR PROLONGED EXPOSURE TO UVC LIGHT CAN RESULT IN PAINFUL EYE INJURY, SKIN BURN, PREMATURE SKIN AGING OR SKIN CANCER. MAINTENANCE IS TO BE CARRIED OUT BY FULLY TRAINED PERSONNEL ONLY**

A Plasma Clean service contract is available (please enquire) and in any case Plasma Clean would recommend Plasma Clean trained personnel to carry out the following :

- Servicing is normally confined to the regular cleaning of the electrostatic filter components and UVC lamps (detergent followed by isopropyl alcohol).
- The aluminium pre and post filters require washing when dirty
- For maximum efficiency establish a regular cleaning cycle based on routine checks of the ionisers, collector cells and UVC lamps during the first few months of use.

## Accessories

Control Panel

## Warranty

Terms a1 year manufactures warranty [subject to terms and conditions](#)

Extended 3 year warranty [care plan available](#)

## Terms

In accordance with our standard terms of business.

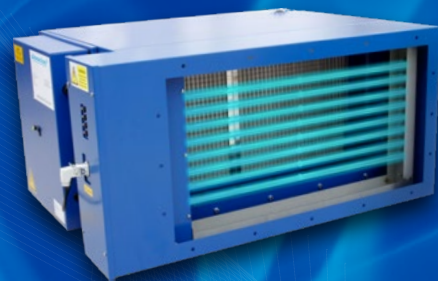
## Technical Specifications & Data

|                  | ESP AG 7000/UVC             | ESP 10500 AG UVC            |
|------------------|-----------------------------|-----------------------------|
| Dimensions (HWD) | 534x 1103 x 780mm           | 534 x 1564 x 780mm          |
| Air Volume*      | up to 1.94m <sup>3</sup> /s | up to 2.91m <sup>3</sup> /s |
| Input Voltage    | 230Vac / 1 phase / 50-60Hz  |                             |
| Power            | up to 600W                  | up to 800W                  |
| Weight           | 82kg                        | 115kg                       |
| Pressure         | <115Pa (dirty filters)      |                             |

\*Air volume is subject to cooking application. Duty is reduced to 1.4m<sup>3</sup>/s and 2.1m<sup>3</sup>/s respectively for high grease and odour content.

Number of UVC lamps range from 2-8 subject to application.

Speak to one of our team for further information.





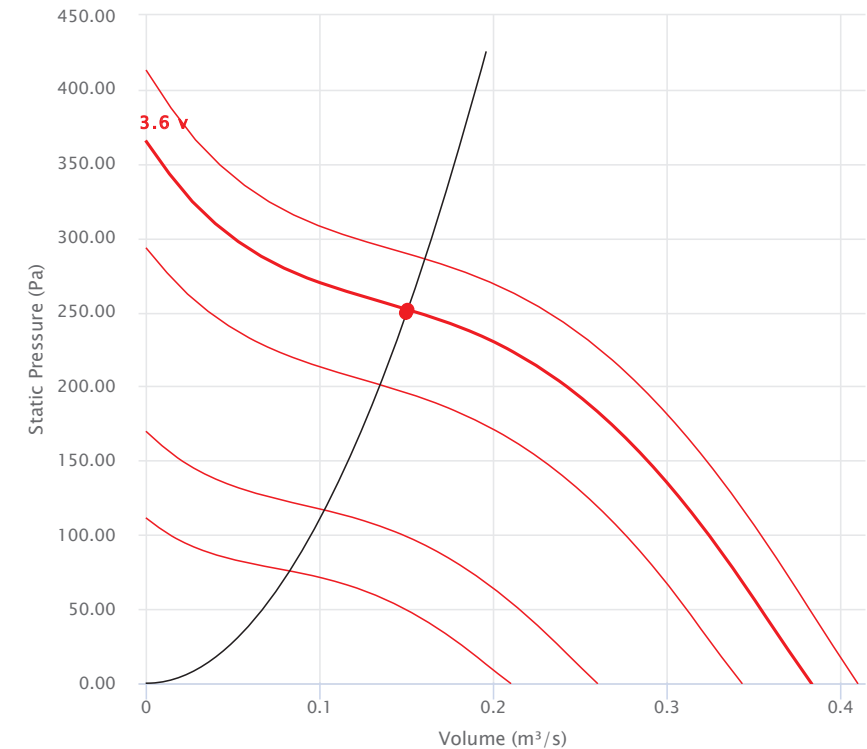
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|-----------------|-----------------------------------|----------------|---------------|
| Project Name:   | OLD GRANADA STUDIOS MOLLIES HOTEL |                |               |
| Client:         | COMPLETE VENT                     | Engineer:      | Mark Hadfield |
| Quote Number:   | Q 40003                           | Date:          | 04/04/2023    |
| Item Reference: | EF 00 01                          | Item Quantity: | 1             |

MV EC 250 MultiVent In-Line Mixed Flow Fan , EC Technology



MixFlowVent swing out EC-in-line fan with high volume flow and pressure performance for space-saving in-duct installation. Casing manufactured from impact resistant and corrosion resistant polymer, colour light-grey, with integrated mounting frame for easy installation on wall and ceiling as well as connection spigots which fit all standard duct sizes. By loosening the clips the fan unit with terminal box can be rotated to any position and can be removed for maintenance and cleaning purposes. Mixed flow impeller with 8 spatially curved blades made from impact resistant polymers. Dynamically balanced to class G 6.3 VDI 20060 and DIN ISO 1940.

Performance Chart



Product

|                       |           |
|-----------------------|-----------|
| Ref.No.               | 6035      |
| Model Code            | MV EC 250 |
| Fan Size              | 250 mm    |
| Maximum airflow temp. | 50 °C     |
| Weight                | 5.3 kg    |

Performance

|                           |                              |
|---------------------------|------------------------------|
| Requested Duty            | 0.150 m³/s @ 250 Pa (Static) |
| Actual Duty               | 0.151 m³/s @ 252 Pa (Static) |
| Fan Nominal Speed         | 2740 rpm                     |
| Estimated Control Voltage | 3.6 v                        |
| Specific Fan Power        | 0.58 W/l/s                   |
| Output Power              | 0.104 kW                     |

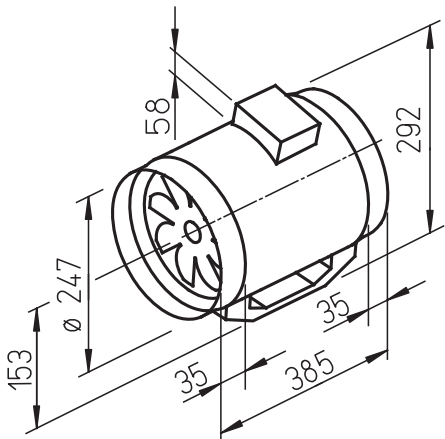
Motor

|                   |               |
|-------------------|---------------|
| Rating            | 0.126 kW      |
| Electrical Supply | 230v/1Ph/50Hz |
| Full Load Current | 1 A           |

Sound

| Sound Pressure Level |       | 35 dB(A) at 3m |     |     |     |    |    |    |    |
|----------------------|-------|----------------|-----|-----|-----|----|----|----|----|
| Spectrum             | Hz    | Total          | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| LwA Intake           | dB(A) | 71             | 53  | 64  | 66  | 66 | 64 | 56 | 47 |
| LwA Extract          | dB(A) | 71             | 52  | 63  | 66  | 65 | 66 | 59 | 49 |
| LwA Breakout         | dB(A) | 56             | 38  | 47  | 50  | 49 | 51 | 45 | 37 |

Dimension and Drawing



\*This drawing shows dimensions that should be used as a guide only and are subject to change. Certified drawings are available on request.



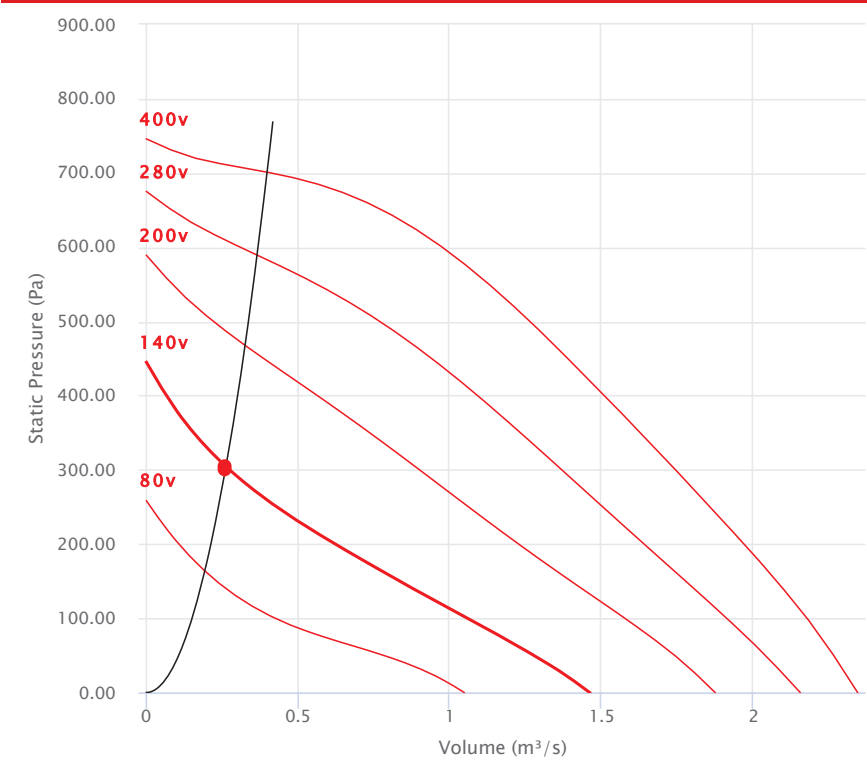
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|-----------------|-----------------------------------|----------------|---------------|
| Project Name:   | OLD GRANADA STUDIOS MOLLIES HOTEL |                |               |
| Client:         | COMPLETE VENT                     | Engineer:      | Mark Hadfield |
| Quote Number:   | Q 40003                           | Date:          | 04/04/2023    |
| Item Reference: | EF 02 01                          | Item Quantity: | 1             |

KRD 500/4/80/50 A Rectangular Box Fan



Rectangular centrifugal fan with backward curved impeller and swing out motor and impeller unit, for in-line installation in rectangular ducting. Casing made from galvanised steel and flanged on both ends, compact design, service friendly (cleaning) through swing out motor and impeller unit. Centrifugal, backward curved impeller made from polymer. Dynamically balanced for low noise operation. Aerodynamically optimised, intake air flow by means of inlet nozzle. Totally enclosed, 3-phase external rotor motor with thermal contacts wired to the terminal block. Speed control by use of a 5-step transformer controller or an electronic controller (stepless) as well as with a Helios frequency inverter and sinus filter on all poles Maintenance free, low-noise sealed for life ball bearings, tropical protection of windings. Mains supply via pre-assembled terminal box (IP 55).

Performance Chart



Product

|                       |                   |
|-----------------------|-------------------|
| Ref.No.               | 8643              |
| Model Code            | KRD 500/4/80/50 A |
| Maximum airflow temp. | 60 °C             |
| Weight                | 64.0 kg           |

Performance

|                    |                              |
|--------------------|------------------------------|
| Requested Duty     | 0.260 m³/s @ 300 Pa (Static) |
| Actual Duty        | 0.262 m³/s @ 305 Pa (Static) |
| Fan Nominal Speed  | 1360 rpm                     |
| Specific Fan Power | 0.45 W/l/s                   |
| Output Power       | 0.148 kW                     |

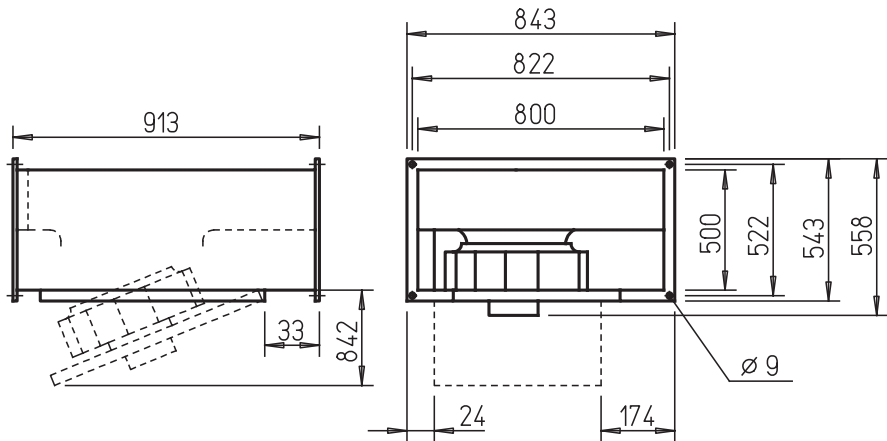
Motor

|                   |                   |
|-------------------|-------------------|
| Rating            | 1.21 kW           |
| Poles             | 4                 |
| Motor Input Power | 0.119 kWh         |
| Electrical Supply | 230-400v/3Ph/50Hz |
| Full Load Current | 2.7 / 4.7 A       |

Sound

| Sound Pressure Level |       | 28 dB(A) at 3m |     |     |     |    |    |    |    |
|----------------------|-------|----------------|-----|-----|-----|----|----|----|----|
| Spectrum             | Hz    | Total          | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| LwA Intake           | dB(A) | 55             | 51  | 49  | 46  | 45 | 42 | 41 | 40 |
| LwA Extract          | dB(A) | 62             | 55  | 57  | 55  | 54 | 49 | 46 | 46 |
| LwA Breakout         | dB(A) | 49             | 48  | 42  | 38  | 32 | 24 | 21 | 22 |

Dimension and Drawing



\*This drawing shows dimensions that should be used as a guide only and are subject to change. Certified drawings are available on request.



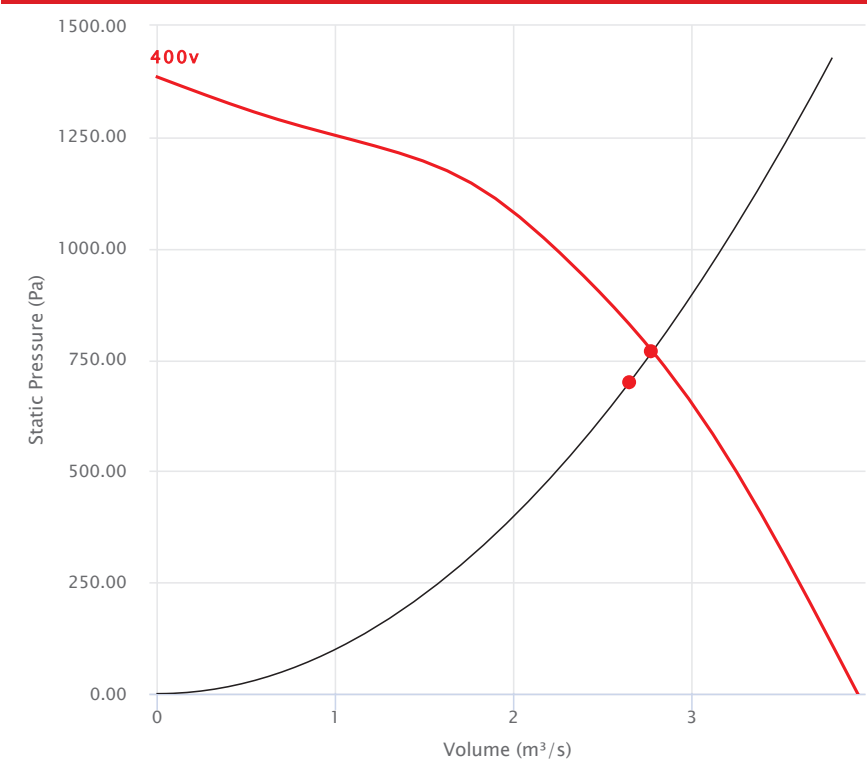
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| Project Name:   | OLD GRANADA STUDIOS MOLLIES HOTEL |                |               |
| Client:         | COMPLETE VENT                     | Engineer:      | Mark Hadfield |
| Quote Number:   | Q 40003                           | Date:          | 04/04/2023    |
| Item Reference: | EF 02 02A&B                       | Item Quantity: | 2             |

GBD 630/4 T 120 (CENT) GigaBox temperatures to 120° C



Acoustical exhaust unit with supply and extract low-loss duct adapters including flexible sleeves (suitable for temperatures up to 120°C) to reduce vibration transmission. Variable applicable side panels to suit to structural conditions. Motor located outside of the air flow, therefore applicable for extraction of dirty, hot air up to max. 120°C. Supplied with condensate collector and enclosed condensation discharge as standard. Application area: Commercial kitchens and application in ventilation systems of process technology. Simple positioning by standard crane hooks. Self-supporting case framework from aluminium hollow profiles. Double skinned side panels from galvanised sheet steel with 20 cm thick temperature insulating and flame-retardant fibreglass mats. High efficiency backward centrifugal impeller, manufactured aluminium, mounted on galvanised steel support plates, direct driven. The impeller together with the external rotor motor is dynamically balanced to quality standard G 2.5 to DIN ISO 1940 T.1. Motor with closed, maintenance-free design, located outside the air flow. Control is carried out exclusively by frequency inverter, built-in thermal contacts connected to the terminal block, sealed for life low-noise ball bearings. Mains connection to the terminal box (IP54) integrated in the device.

Performance Chart



Product

|                       |                        |
|-----------------------|------------------------|
| Ref.No.               | 5779                   |
| Model Code            | GBD 630/4 T 120 (CENT) |
| Fan Size              | 630 mm                 |
| Maximum airflow temp. | 120 °C                 |
| Weight                | 105.0 kg               |

Performance

|                    |                             |
|--------------------|-----------------------------|
| Requested Duty     | 2.65 m³/s @ 700 Pa (Static) |
| Actual Duty        | 2.78 m³/s @ 768 Pa (Static) |
| Fan Nominal Speed  | 1445 rpm                    |
| Specific Fan Power | 1.16 W/l/s                  |
| Output Power       | 4.40 kW                     |

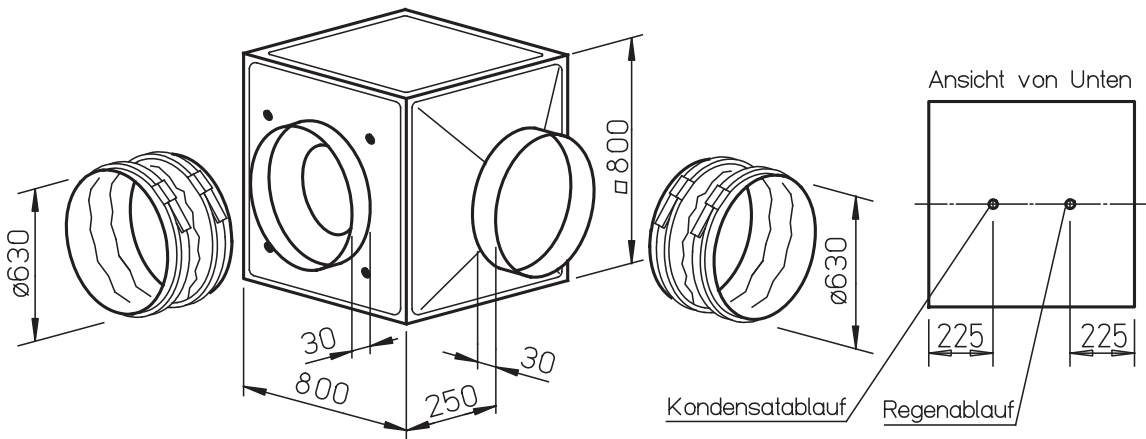
Motor

|                   |               |
|-------------------|---------------|
| Rating            | 4.40 kW       |
| Poles             | 4             |
| Motor Input Power | 3.44 kWh      |
| Electrical Supply | 400v/3Ph/50Hz |
| Full Load Current | 8 A           |
| Starting Current  | 48 A          |

Sound

|                      |       |                |     |     |     |    |    |    |    |
|----------------------|-------|----------------|-----|-----|-----|----|----|----|----|
| Sound Pressure Level |       | 51 dB(A) at 3m |     |     |     |    |    |    |    |
| Spectrum             | Hz    | Total          | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| LwA Intake           | dB(A) | 86             | 73  | 82  | 79  | 78 | 77 | 74 | 66 |
| LwA Extract          | dB(A) | 89             | 80  | 81  | 83  | 83 | 81 | 76 | 68 |
| LwA Breakout         | dB(A) | 72             | 65  | 66  | 64  | 64 | 64 | 60 | 54 |

Dimension and Drawing





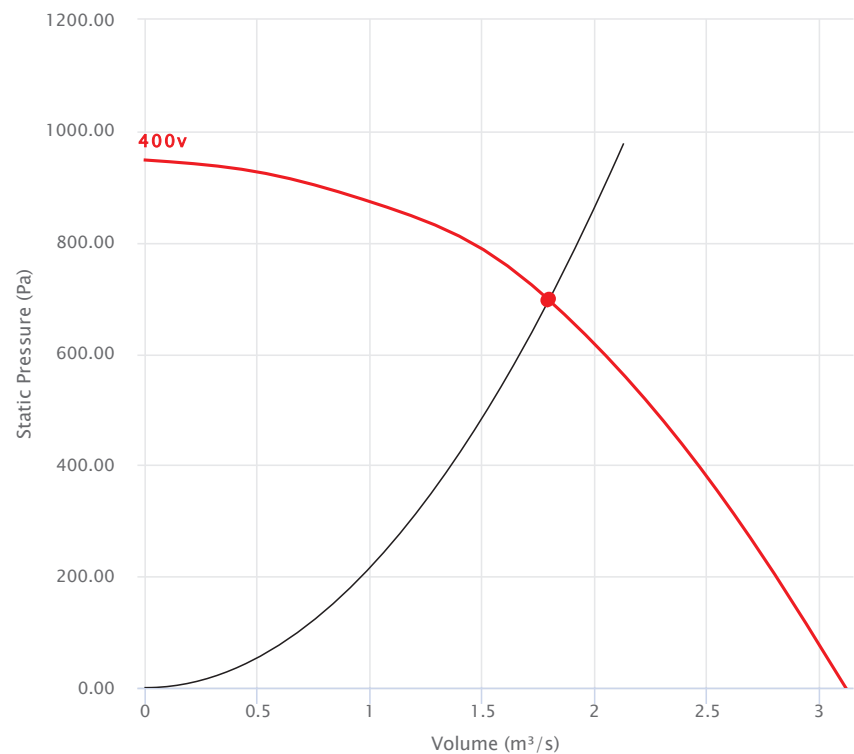
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|-----------------|-----------------------------------|----------------|---------------|
| Project Name:   | OLD GRANADA STUDIOS MOLLIES HOTEL |                |               |
| Client:         | COMPLETE VENT                     | Engineer:      | Mark Hadfield |
| Quote Number:   | Q 40003                           | Date:          | 04/04/2023    |
| Item Reference: | EF 10 01                          | Item Quantity: | 1             |

GBD 560/4/4 T 120 (CENT) GigaBox temperatures to 120° C 2 Speed



Acoustical exhaust unit with supply and extract low-loss duct adapters including flexible sleeves (suitable for temperatures up to 120°C) to reduce vibration transmission. Variable applicable side panels to suit to structural conditions. Motor located outside of the air flow, therefore applicable for extraction of dirty, hot air up to max. 120°C. Supplied with condensate collector and enclosed condensation discharge as standard. Application area: Commercial kitchens and application in ventilation systems of process technology. Simple positioning by standard crane hooks. Self-supporting case framework from aluminium hollow profiles. Double skinned side panels from galvanised sheet steel with 20 cm thick temperature insulating and flame-retardant fibreglass mats. High efficiency backward centrifugal impeller, manufactured aluminium, mounted on galvanised steel support plates, direct driven. The impeller together with the external rotor motor is dynamically balanced to quality standard G 2.5 to DIN ISO 1940 T.1. Motor with closed, maintenance-free design, located outside the air flow. Control is carried out exclusively by frequency inverter, built-in thermal contacts connected to the terminal block, sealed for life low-noise ball bearings. Mains connection to the terminal box (IP54) integrated in the device.

Performance Chart



Product

|                       |                          |
|-----------------------|--------------------------|
| Ref.No.               | 5778                     |
| Model Code            | GBD 560/4/4 T 120 (CENT) |
| Fan Size              | 560 mm                   |
| Maximum airflow temp. | 120 °C                   |
| Weight                | 105.0 kg                 |

Performance

|                    |                             |
|--------------------|-----------------------------|
| Requested Duty     | 1.80 m³/s @ 700 Pa (Static) |
| Actual Duty        | 1.80 m³/s @ 696 Pa (Static) |
| Fan Nominal Speed  | 1400 rpm                    |
| Specific Fan Power | 1.24 W/l/s                  |
| Output Power       | 2.50 kW                     |

Motor

|                   |                |
|-------------------|----------------|
| Rating            | 2.50 / 1.85 kW |
| Poles             | 4 / 4          |
| Motor Input Power | 2.22 kWh       |
| Electrical Supply | 400v/3Ph/50Hz  |
| Full Load Current | 3.2 / 6.8 A    |
| Starting Current  | 8.32 / 17.68 A |

Sound

| Sound Pressure Level |       | 47 dB(A) at 3m |     |     |     |    |    |    |    |
|----------------------|-------|----------------|-----|-----|-----|----|----|----|----|
| Spectrum             | Hz    | Total          | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| LwA Intake           | dB(A) | 82             | 69  | 78  | 75  | 74 | 73 | 70 | 62 |
| LwA Extract          | dB(A) | 85             | 76  | 77  | 79  | 79 | 77 | 72 | 64 |
| LwA Breakout         | dB(A) | 68             | 61  | 62  | 60  | 60 | 60 | 56 | 50 |

Dimension and Drawing

