

Old Rectory Market Bosworth Kitchen Ventilation System

Manufacturer	Trivent Ltd	Leeds	Tel: 0113 2760611	
Installation Date			Serial No	T24995
Client Order 0000060124	Design Volume		Design Pressure	
Kitchen Extract	0.58	m3.s-1m-2.	152	Pa
Kitchen Make Up Air	0.49	m3.s-1m-2.	109	Pa



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Please note, this manual has a number of graphics representing the system components these graphics also provide a hyperlink to the manufacturers product data and relevant sections in this manual, please follow these links for further information.

*We would love to get your feedback please
take a moment to review the kitchen
ventilation system installation:*





Operation

The kitchen ventilation system should be in operation from the beginning of food preparation, with all fans running at low speeds from switching on the appliances. The Ventilation systems should be run at the commissioned design duty during food production. The Kitchen ventilation system should be run on for a minimum of one hour from the end of food production and equipment being switched off to alleviate any heat build-up occurring during the service. The ventilation systems may be run permanently at lower speeds (providing the EHO have not imposed restrictions upon the operation due to noise complaints) to prevent heat build-up from refrigeration motors etc.

To operate the systems the fans should be turned on. This is done by ensuring electrical power is provided at the speed controller. For location of speed controller, see kitchen services drawing. The model number of the speed controller is clearly marked on all speed controllers.

The fan is then turned on by means of the rocker switch or stepped control dial situated on the fascia of the speed controller, on and off positions are marked adjacent to the rocker switch. Power on, is confirmed by the neon indicator situated on the front fascia of the speed controller. The level of ventilation achieved is then dictated by the fan speed control dial. The adjusting of the dial in a clockwise direction will increase the level of ventilation and anti-clockwise will reduce the level of ventilation.



With all speed controllers care should be taken to ensure that the control dial is not forced beyond its upper and lower level stop positions, which are marked on the front fascia by the extremes of the adjacent control arrow or positions "0" and "5". As this can result in damage to the control dial spindle, which will be deemed as "Operator abuse" and charges would be made for replacement.

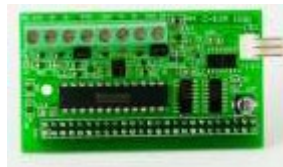
In the unlikely event that the kitchen ventilation system fails to operate following the above procedures we would firstly advise that the main kitchen distribution / fuse board be checked to ensure that the relevant fuses / trip switches have not activated.

Should the ventilation equipment be found to be at fault please make [contact](#) to arrange for an engineer with replacement parts to attend as soon as possible. To be of assistance please quote speed controller reference located on the component label



- **Gas Interlock Control Panel**

The interlock control panel is designed to monitor the fans proven operation prior to energising the gas solenoid valve and engage the heating controls to permit operation of gas fired catering equipment. The panel provides emergency stop to the system. See manufacturers details (link on graphic) for further details. NB: If Co monitoring is provided within the system the sensor requires an annual calibration to ensure continued safe operation.





Maintenance

Note: All fans and electrical equipment are to be isolated prior to any works being carried out on the systems.

- **Access to Grease Separators**

Only those personnel trained in the removal/reinstatement of Equipment and cleaning said equipment should be involved in connection with the following procedure. The following procedure is a generalisation. All risk assessments and method statements adopting the generic procedure must be followed depending on site conditions and other procedures allied to the site and personnel.

The catering equipment should be moved and be set to one side to allow access to the filter bank. All gas appliances, as required will need the gas connection broken and reinstated. The gas connection on each appliance will need to be turned to the off position. If the catering equipment is heavy, then other procedures will need to be adopted to allow safe removal and reinstatement of the equipment. Where electric units are hard wired then care should be taken to move the equipment forward of its position without stretching the electrical flex and ensuring the on/off isolator is set to off. If the electrical equipment is plugged in then this will be a case of breaking the connection having switched off first. Before moving any equipment, it should be cold to the touch and where units are filled with oil or water as part of their day-to-day operation then such liquid should be emptied first.

In order to gain safe access to the filter assembly, Suitable access equipment (in accordance with all working at height policies and risk assessments) is to be utilised. The access equipment will be of the correct height to allow for safe working and is to be sighted on a level firm footing with a clear area within the workspace.



- **Grease separators.**

The grease separators mounted within the extract canopy should be cleaned at least once per trading week. The separators should be removed following the catering session. Under no circumstances should the systems be run void of any grease separator panels. The separators are removed by taking the separator handles and lifting the panel upwards within the assembly, until the bottom of the separator becomes exposed. The lower section of the separator can then be tilted towards the operator allowing the panel to be lowered out of the assembly. The Grease collection drawers should also be checked, emptied, and cleaned (wipe with clean cloth and detergent solution) on a weekly basis. Any collected grease is to be disposed of appropriately and not to be placed within the house drainage system.



The separator panels should then be left to soak in a solution of hot soapy water (washing up detergent recommended), for around 20 minutes, until the grease collected within the separator media is released into the solution. Alternatively, the panel may be cleaned in the house decarbonising tank, following all relevant instructions, method statements, COSHH and risk assessments. The panels should then be rinsed in clean water and left to drain overnight to be placed back within the assembly at the start of preparation the following day. When placing the separator panels within the grease separator assembly, care should be taken to ensure that the drainage holes within the separator panel are located to the bottom of the separator assembly, allowing grease to drain from the separator panels.

The separator panels may be cleaned within the house dishwasher system. To obtain replacement separators can be obtained via the [contact details](#) below, please quote ventilation system project reference at time of enquiry. Replacement separators are usually despatched within five working days.

- **Fresh Air Filters**

For location and details of replacement air filters please refer to layout drawing. The filters should be inspected every three months and replaced, as necessary. The filters are accessed via the filter door detailed upon the drawing. All works are to be carried out fully in accordance with all relevant risk assessments and safe working Practices.

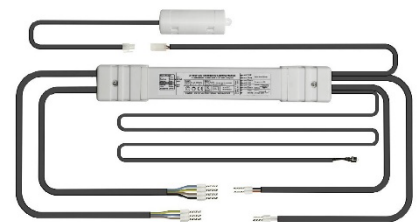


▪ **Canopy Lighting**

In the event of light failure, the LED spotlight unit should be replaced in its entirety. If a number of light fittings fail to operate, check relevant fuses / trip switches (see electrical installation operation and maintenance manual). If all fuses etc are found to be working, the installation should be inspected by a qualified electrical contractor. The spotlights are held in position by means of spring clips (please refer to canopy lighting details for instructions on installation/removal) which is to be carried out fully in accordance with all relevant risk assessments and safe working practices.



The emergency lights (identified on layout drawing) within the canopy should be periodically tested for correct operation in line with current practices and the building insurers requirements.



- **Fire Suppression System**

Not provided as part of Kitchen Ventilation package, please refer to manufacturer's manual if present.

Fans

Inspection of the fan is recommended to ensure that the motor, fan blades, and supporting guards, (Guidance timescales detailed within the table below) are clean and free of obstruction. Any build-up of grease deposits on the blades or guards and casing should be removed using a non-abrasive cleaner. All fastenings should be checked for tightness. In addition, all rotating items should be checked. Bearings are of the 'sealed for life' type and will not need a detailed inspection.

The fan locations and access points are detailed upon the kitchen ventilation layout.

Fan Commissioning
Certificate

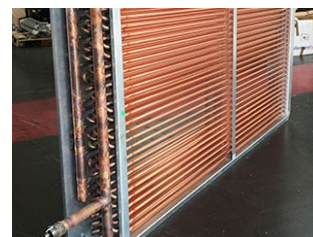


- **Heater Battery**

Tempered air systems are designed and commissioned for automatic operation in accordance with the ambient temperature and the system set point.

The heater battery should be inspected periodically as part of the system cleaning regime.

Both inlet and discharge faces of the heating coil be inspected for debris and cleaned as required, by a competent person fully in accordance with all relevant method statements and risk assessments. The easiest way to carry out this operation would be to utilise a hose type vacuum cleaner, although great care should be taken to ensure that the fins are not touched due to their fragile nature. The air bleed valve should also be opened (as in a domestic radiator, to expel any air trapped within the coil). For maintenance of control valves etc please refer to mechanical services contractor.

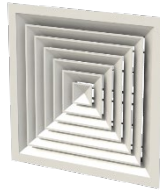
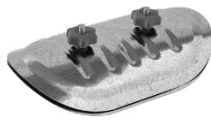


Upon completion of cleaning ensure that access door cover is correctly replaced utilising all original fixings.



Additional system components:





System Cleaning

To comply with the [Regulatory Reform \(Fire Safety\) Order 2005](#), grease extract systems must be inspected, tested and cleaned regularly to ensure the mitigation of fire hazards. In addition, advice and guidance provided by the [Health & Safety Executive](#) (HSE), [BSRIA](#) and [RISC Authority](#), stipulate that kitchen extract systems should be kept clean to minimise fire and health and safety risks.

This is to be carried out by a specialist cleaning contractor (ideally registered on the [BESCA VHE Scheme](#)) fully in compliance with BESA Specification [TR19® Grease](#)

This system cleaning is essential to ensure correct system performance and remove any residual fire hazards. It is widespread practice for pictures of the internal faces of the ductwork and system components be submitted post clean to show that all grease and debris have been removed. A build-up of grease on the fan guards, impellor and casing will detract from the systems performance; if left in such a state for extended time periods will result in damage to the fan motor.

Initial Clean Frequency Calculator					
Perceived level of grease production	Typical Example	Cleaning intervals (Months) / Daily Usage			
		Up to 6 Hours	6-12 Hours	12-16 Hours	16+ Hours
Low	No significant grease production	12	12	6	6
Medium	Moderate grease production	12	6	4	3
High	High grease production	6	3	3	2

The canopy and grease separator plenum are areas with a high risk of fire. Consideration should be given to more frequent cleaning in accordance with the building insurers requirements.

Daily / weekly inspection and cleaning should also be implemented on canopies, separator panels, drainage channels and grease collection drawers. This would typically be carried out by the operator, due to frequency of requirement, fully in accordance with all relevant risk assessments and safe systems of work.



▪ **General Maintenance.**

All canopy and grease filter assembly surfaces should be cleaned on a weekly basis to prevent build-up of grease within the system and maintain the appearance of the canopies etc.

The attractive and hygienic surface appearance of stainless-steel products cannot be regarded as completely maintenance free. All grades and finishes of stainless steel may in fact stain, discolour or attain an adhering layer of grime in normal service. To achieve maximum corrosion resistance the surface of the stainless steel must be kept clean. Provided that cleaning schedules are carried out regularly, superior performance and long life will be achieved. Surface contamination and the formation of deposits are critical factors which may lead to drastically reduced life. Commercial and even domestic and naturally occurring atmospheric conditions can result in deposits which can be quite corrosive. Working environments can also create more aggressive conditions, such as the warm, high humidity atmosphere above combination and steaming ovens. These environments can increase the speed of corrosion and therefore require more frequent maintenance. Cleaning solutions often contain sterilisers and bleaches for hygienic purposes. All these proprietary solutions, when used in accordance with the manufacturers 'instructions' are safe, however, if used incorrectly (e.g., warm or concentrated) can cause discolouration and corrosion on the surface of stainless steels. Strong acid solutions (e.g., hydrochloric acid or "spirits of salts") are sometimes used to clean masonry and tiling of buildings but they should never be permitted to come into contact with metals, including stainless steel. If this should happen the acid solution must be removed immediately by copious water flushing.

Stainless steel is easy to clean. Washing with soap or a mild detergent and warm water followed by a clean water rinse is usually quite adequate. An enhanced appearance will be achieved if the cleaned surface is finally wiped dry.

All maintenance work is to be carried out safely (fully in accordance with all relevant method statements / risk and COSHH assessments) by competent, trained personnel provided with all relevant PPE and Access equipment necessary to carry out the works in accordance with safe working practices.
All fans and electrical equipment are to be isolated prior to any works being carried out on the systems.

For service and replacement parts Contact:

Lloyd Catering Equipment
01709 740540



Kitchen Ventilation System Maintenance Record

Clean Grease Separators	Clean Grease Collection Drawers	Canopy Surface Clean	Full System TR19 Clean	Inspect Input Filters	Emergency lights drop test	Checked By	Date
✓	✓	✓	✓	✓	✓	Fred	1/1/2020

