

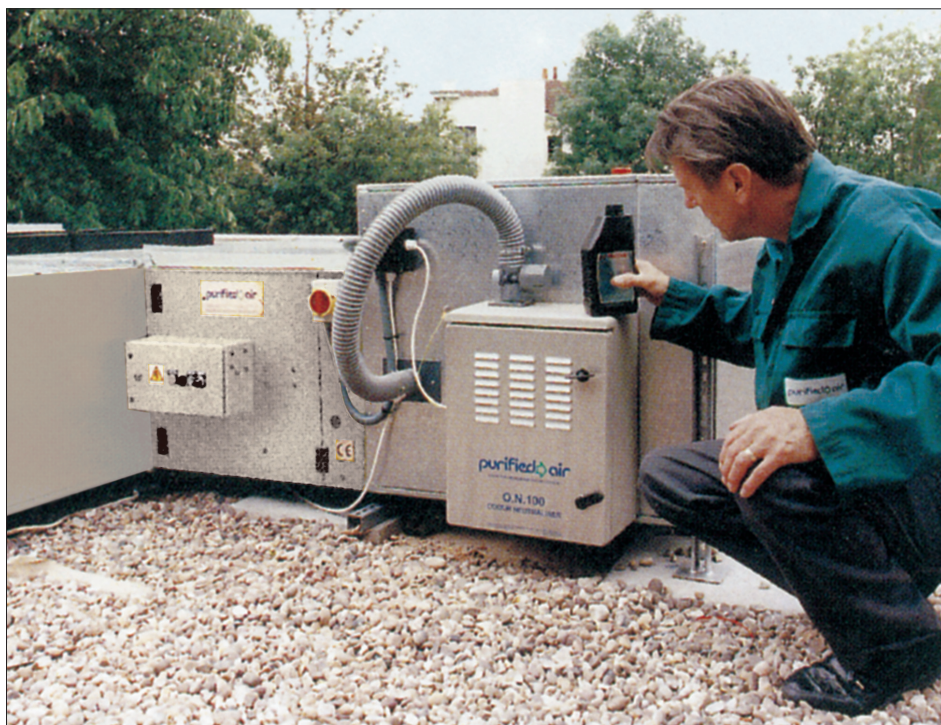
The O.N.100 Odour Neutraliser

How it works and its use in the control of odours from commercial kitchen extract systems

The O.N.100 has been developed by Purified Air Limited using patented technology which combines physics and chemistry to encapsulate and treat cooking odours being emitted from restaurants and other commercial cooking applications. There is high demand worldwide for the O.N.100 and associated products which are easy to install and maintain. When applied correctly the O.N.100 can reduce the odours emanating from cooking premises by as much as ninety percent.

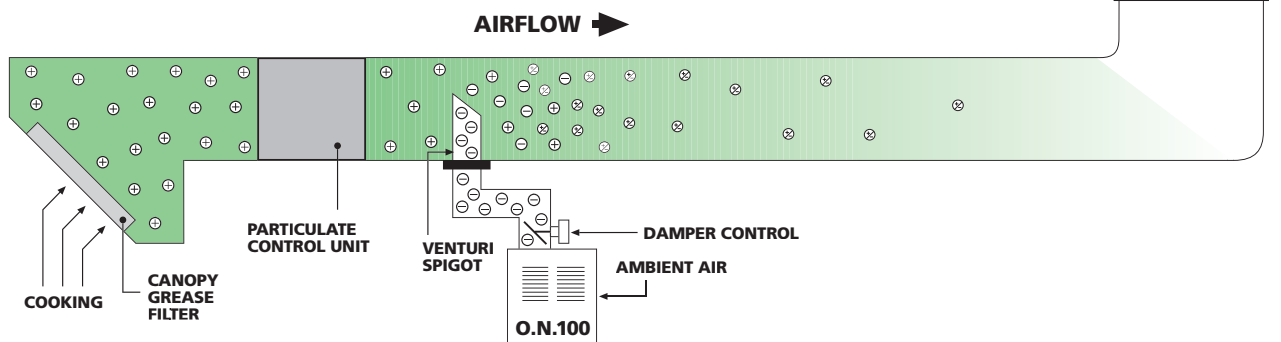
THE FOLLOWING ARE SOME OF THE MAJOR ADVANTAGES OF THE O.N.100:-

- Instant Control of Odours
- Efficiency up to 90%
- Visual Awareness of Neutralising Agent
- Fully adjustable
- Easy and Economical to Maintain
- Installed easily into new/existing systems
- No resistance to the Airflow
- User Friendly



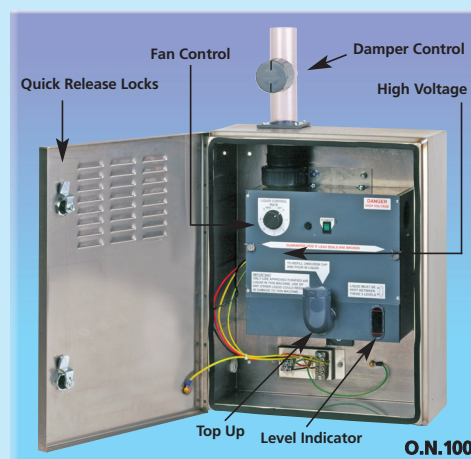
The O.N.100 in situ on a flat roof installation with the ESP 3000 E Pre-filtration unit.

- ⊕ POSITIVELY CHARGED GREASE
- ⊖ NEGATIVELY CHARGED ELIMINODOR
- ⊗ ODOURLESS COMBINATION



ODOUR NEUTRALISER

HOW IT WORKS: The airstream must first be cleaned of the majority of particulate contaminants made up of hydrocarbons and grease vapour leaving the gaseous phase (odour) to be treated by the O.N.100. Ambient air is drawn into the unit and mixed with a specially blended neutralising chemical. A vapour is formed which is then ionised to a negative potential of 15,000 volts. The ionised vapour passes along a non-conductive tube and is discharged into the centre of the duct via a venturi spigot, the metal ducting is earthed through the same high tension circuit which makes the contaminant at an opposite potential to the negatively charged vapour. The electrostatic difference between the contaminant and the neutralising vapour causes the two to combine electrically after which a chemical reaction takes place to treat the malodour.



MAINTENANCE: The O.N.100 needs to be topped up with a chemically formulated neutralising agent called 'Eliminodor' on a regular basis. In an average situation we would envisage two to six weekly servicing, dependent on usage.

ELECTROSTATIC PRECIPITATORS

Electrostatic Precipitators are used to clean the airstream of grease and hydrocarbons (smoke). These highly efficient units can remove particles as small as 0.01 micron at an efficiency in excess of ninety percent. This equipment would be used before the O.N.100 in systems with a high 'carry over' of grease or smoke. The units come in modular form, shown right is the ESP 3000 E which is suitable for airflows of up to 5000 cubic metres per hour (3000 cfm). For Technical information see ESP brochure.





This unique product has been blended solely for use in Purified Air Products to counteract cooking odours from the exhaust of restaurants and commercial cooking premises. **ELIMINODOR®** has been developed using space age technology and is a finely balanced blend of oils and other chemicals which neutralise cooking odours. This blend must not become unbalanced by mixing with any other products as this will render **ELIMINODOR®** ineffective and result in damage to equipment. The design of this unique system provides that only minimal quantities are required for optimum results.

Approximate dosage : one litre per three weeks under normal conditions.

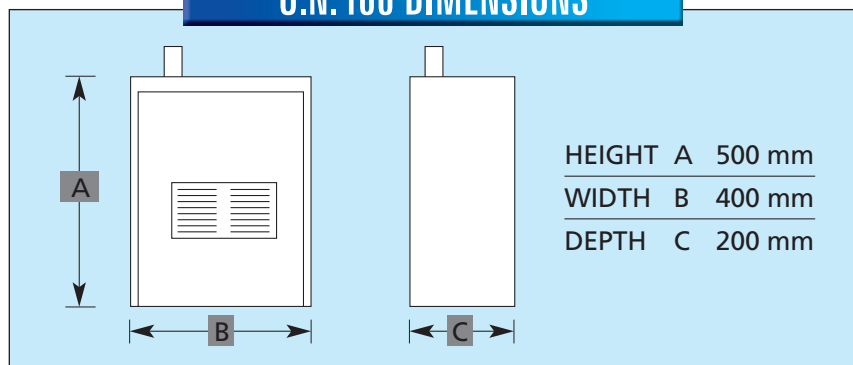
GUARANTEED PROCESS

ELIMINODOR® combined with Purified Air Systems can reduce nuisance caused by cooking odours by up to 90%.

O.N.100 TECHNICAL DATA

Electrical Supply:	220/240V 50 Hz (others can be manufactured)
Power consumption Max:	40 Watts
Weight:	12.25 Kg
Capacity:	up to 15,000m ³ /h exhaust air
Ionisation voltage:	15 Kv negative

O.N.100 DIMENSIONS



The design of cooking exhaust control systems varies. Different types of cooking and location have separate requirements and may require additional equipment. The equipment in this brochure is designed to be used in conjunction with other items of our manufacture. Purified Air Limited offer a free consultation service and will assist you with design, please discuss your project with us before selecting equipment.

Installation of grease smoke and odour equipment must be made on the negative side of the fan and the systems must be switched via an interlock to ensure they are only operational when the extract fan is operational. If there is ductwork inside the premises on the positive side of the fan please ensure that it is completely sealed so as not to let fumes or odour control compounds back into the premises. In certain instances some equipment can be installed on the positive side of the fan but please discuss this with our technical department and ask them to provide a design statement to confirm that it can be done.

THE O.N.100 ODOUR NEUTRALISER

(HOW IT WORKS IN KITCHEN EXTRACT SYSTEMS)

The concept of the O.N.100 was invented and patented in Germany. Purified Air Limited acquired the licence to manufacture and supply throughout Europe, USA and Canada. The O.N.100 was developed specifically to reduce odour contaminant from commercial kitchens. The unit is designed to deal with the gaseous phase pollutant, which will be present, after the bulk of the particulate phase has been removed.

The O.N.100 will improve the control of odour emissions even with limited particulate phase control; however, optimum results cannot be achieved unless used in conjunction with some form of high efficiency pre-filtration, the preferred type of particulate control is Electrostatic Precipitation.

How the O.N.100 Works

The process combines both Physics and Chemistry. Ambient air is drawn into the O.N.100 unit by means of an integral fan where the air is mixed with a neutralising chemical to form a vapour or gas. The principles of Electrostatic Precipitation are again applied and the vapour is ionised to 15,000V negative and discharged into the duct by means of a non-conductive flexible hose and venturi spigot. The flow through this is controlled by the velocity within the duct, thus once a system is commissioned and balanced the correct dosage should be applied.

The metal duct is earthed through the same circuit thus making the contents at an opposite electrical potential to the ionised chemical vapour. The electrostatic difference forces the chemical to combine electrically with the contaminants after which a chemical reaction takes place to neutralise the cooking odour.

Efficiency

The neutralisation effect is very good, dependent on the level of activity within the kitchen, either a faint cooking odour or faint neutralising chemical will be detected directly at the discharge.

Pressure Loss

The O.N.100 does not exhibit any pressure loss and can therefore be installed into any new or existing system without the necessity to upgrade the fan.

Maintenance

The only maintenance required is regular topping up of the neutralising chemical (approximately once every three to four weeks).

Eliminodor

The odourfoyl concept used in Eliminodor is a system developed by Purified Air Limited to reduce or eliminate the perception of malodorous materials. By using a combination of selected materials, the malodorous molecules are electrostatically entrapped in the air thereby preventing them being recognized by the nose.