



Kitchen Ventilation Systems

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Engineered Solutions

Introduction

One of the UK's leading manufacturers and distributors of heating and ventilation equipment, Price TWA works with architects, M&E consultants, building and heating contractors and facilities managers, to design, develop, supply and install high quality solutions to meet the specific needs of individual projects.

With over a decade's experience, our products and systems are proven in projects across a wide range of applications and sectors in both the public and private sector. From health to retail and education to commercial offices, our systems feature in both new-build and refurbishment projects throughout the UK.

We manufacture a wide range of systems under the Price TWA brand, supplemented by products drawn from some of Europe's leading manufacturers allowing us to provide high quality yet cost-effective solutions for a host of applications.

For more details about any of these products please **contact your local distributor** or visit www.pricetwa.co.uk.

As well as products and systems to meet Kitchen Ventilation requirements, our range also includes:

- / Natural ventilation
- / Radiant panels
- / Fabric ducts
- / Fans
- / Displacement systems
- / CAV and VAV systems
- / Grilles and diffusers



Kitchen Ventilation

Adequate and effective kitchen ventilation is required to create both a safe and a comfortable working environment in commercial kitchens. Systems are often required to quickly and efficiently remove significant quantities of fumes and vapour, discharging them to a safe external location, as well as to help dissipate large amounts of heat. This is usually achieved by mechanical means through the use of canopy hoods installed over the kitchen appliances, with systems also providing good levels of general ventilation throughout the kitchen as a whole.

Designing Kitchen Ventilation Schemes

When designing an effective Kitchen Ventilation scheme, a number of factors must typically be taken into consideration, including:

- / The cooking load – that is, the maximum demands that are likely to be placed on the ventilation system during peak periods of activity
- / The amount, location and type of different cooking equipment that is to be used
- / The layout and shape of the kitchen, together with any limiting factors which may influence the positioning of inlet or outlet equipment
- / The availability of access points for easy cleaning and maintenance

In addition, specific attention must be paid to the individual elements of the ventilation system, including Canopy Design, Replacement Air, Cooling Air and Discharge.

Benefits of Kitchen Ventilation

Effective Kitchen Ventilation systems provide a number of key benefits:

- / Remove cooking fumes and vapours directly from the source
- / Remove excess hot air and introduce clean, cool to achieve a comfortable and safe working environment
- / Ensure that all air movement within the kitchen is comfortable for staff
- / Low maintenance systems are designed to avoid the build up of fat residues and to keep air inlets freely flowing, ensuring consistent performance and reducing the risk of fire
- / Improves general health, welfare and hygiene standards
- / Wide range of materials – including anti-bacterial and flame retardant options

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Canopy Design

To ensure the effective removal of cooking fumes and heat, the canopy hood must clearly be of a suitable size and have the appropriate extraction capacity, with a hood installed for each relevant appliance, as close as is practical to the source.

Care should be taken to allow access to all ductwork and filters to ensure that regular cleaning is possible, preventing the build up of fat and ensuring a constant flow of air.

Replacement Air

The ventilation system should take into account the need to replace air that has been extracted. This can be achieved either by mechanical or natural means – the specification largely being determined by the size and layout of the kitchen.

Cooling Air

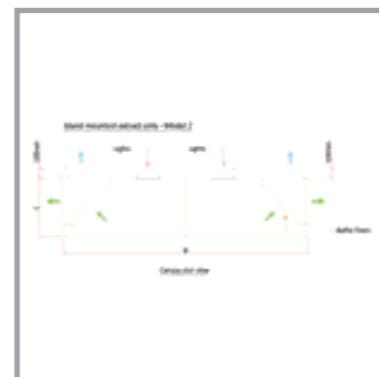
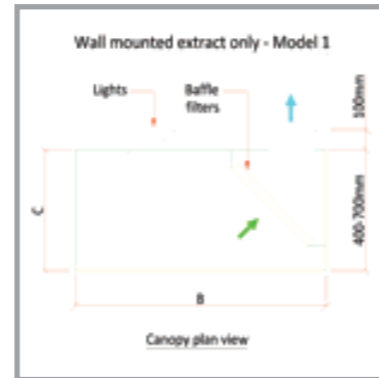
By effectively balancing the incoming cool air and the extracted hot air, the temperature of the kitchen should be regulated. If mechanical ventilation systems are used, cool air may be targeted directly to specific areas of the kitchen.

Discharge

Depending on the location and proximity of neighbouring buildings, it may be necessary to extract air at a high level.

With a wealth of experience designing and developing Kitchen Ventilation installations, Price TWA is able to manage projects from initial design concepts through to full installation. Our systems are proven in applications throughout the UK, in projects of widely varying scale and complexity, from small canteens up to large scale industrial operations.

Working in close partnership with specialist design and construction project teams, our technical support team provides guidance and design support for projects of all scope and type – whether new build or refurbishment.



Our comprehensive product range spans from simple, extract-only kitchen hoods through to more complex supply-and-extract kitchen canopies with insulated supply sections and air-capture capability.

The range also includes stainless steel splash backs, service spines, fire suppression systems and canopies (all of which are fully compliant with DW172).

Kitchen Canopies

Construction – Our range of canopies is manufactured from austenitic 304 brushed stainless steel (18swg thick), ensuring that each product not only provides robust, reliable performance but also an elegant design solution. Featuring welded construction, with no rough edges, the canopies also provide low maintenance and safe surfaces where wiping down may be necessary.

Lights – Where lighting is specified, canopies are available with either surface mounted or recessed lights, all of which fully meet IP65 specification and deliver 500 lux light level directly to the cooking area. Lights are all manufactured from shatter-proof glass, are both vapour and steam resistant and may be hinged to allow access above the canopy for maintenance.

Filters – The majority of our canopies are supplied with high efficiency baffle filters (cyclone type) which may be easily removed for replacement or for routine cleaning in a dishwasher. The filters do not clog and so deliver a constant pressure/ volume. They also create an effective fire barrier.

Extract Only

These units provide the efficient and safe extraction of fumes, odours and contaminated air. (See specifications opposite)

Extract and Supply

Extract and supply units effectively remove fumes and vapours whilst also delivering a supply of clean replacement air. The air supply sections of these units feature insulation to reduce condensation, as well as perforated plates which may be removed for cleaning and which have filter media behind. (See specifications opposite)

Supply, Extract and Capture

These remove fumes and vapours, deliver a supply of clean cool air and facilitate the capture of contaminants. (See specifications opposite)

Extract Only

Wall Mounted – Model 1

This model is available in the following dimensions:

W	1,000mm – 3,000mm
D	1,000mm – 1,700mm
H	400mm – 700mm

Island Mounted – Model 2

W	1,000mm – 3,000mm
D	1,000mm – 1,700mm
H	400mm – 700mm

Sloping Valance – Model 7

W	1,000mm – 3,000mm
D	1,000mm – 1,700mm
H	500mm – 700mm (sloping to 150mm – 400mm)

These two units (Models 8 and 9) are ideal for wash up areas or dishwasher appliances:

Wash Up – Model 8

These canopies are supplied with an egg crate (or lattice) grille.

W	800mm – 3,000mm
D	800mm – 1,700mm
H	400mm – 700mm

Condense / Wash Up - Model 9

These units are supplied with internal condensing baffles.

W	1,000mm – 3,000mm
D	1,000mm – 1,700mm
H	500mm – 700mm

Extract and Supply

Wall Mounted – Model 3

W	1,000mm – 3,000mm
D	1,000mm – 1,700mm
H	500mm – 700mm

Island Mounted – Model 4

W	1,000mm – 3,000mm
D	1,000mm – 1,700mm
H	500mm – 700mm

Supply, Extract and Capture

Wall Mounted – Model 3

W	1,000mm – 3,000mm
D	1,000mm – 1,700mm
H	500mm – 700mm

Island Mounted – Model 4

W	1,000mm – 3,000mm
D	1,000mm – 1,700mm
H	500mm – 700mm

Ansul R102 Fire Suppression System

Our Ansul R102 Fire Suppression System provides an automatic (or manual) fire detection and extinguishing system to protect cooking equipment, canopies and ductwork. Custom designed to meet the needs of each individual application, the system is based on an Ansul automan regulator and suppresses fires by spraying at the plenum area and filters, cooking surfaces and the exhaust duct system with a pre-determined flow rate of Ansulex liquid.



Splashback Wall Cladding

Our splashback wall cladding systems are custom-made to suit each particular application. Manufactured from folded and welded stainless steel, the cladding system provides highly durable, easily-cleaned surfaces to run along the wall below the canopy, behind the appliances and extending down to the finished floor level.

Manufactured from Type 304 Catering Grade Stainless Steel, panels are mounted onto the wall using a hidden fixing system, with the external seam then sealed with a food grade sealant. Columns, corners and sockets can all be easily accommodated either during manufacture or on site during installation.



Service Distribution Units

Our Service Distribution units provide a robust, easily cleaned housing for the mechanical and electrical services that are required to supply cooking equipment. Custom-designed for each project, the units feature separate chambers for each service with access panels and doors to suit.

Typically, the units comprise a horizontal service spine and either one or two vertical risers – according to where the services need to be routed. Each riser can have internal divisions to form separate chambers for different services.

The units are all manufactured from Type 304 Catering Grade Stainless Steel to provide a durable, fire resistant and low-maintenance enclosure.

For more information on our range of kitchen ventilation systems or for free design assistance, **please contact your local distributor.**



Services

Our dedicated technical and product support teams offer a comprehensive range of services – from application analysis, product advice and design, through to scheduling supply. If required we also offer a complete installation and maintenance service through our national network of specialist engineers, enabling us to take responsibility for the whole life of our products.

With an extensive product range we are able to offer standard solutions for the vast majority of applications. However, we are also able to draw on our design and development capability to develop bespoke solutions, including control systems to meet particular application requirements.

For more information on our Kitchen Ventilation systems, or to discuss specific project requirements, **please contact your local distributor.**

Testing

For copies of relevant test certificates, **please contact our technical support team or visit our website www.pricetwa.co.uk.**



Local Distributor

For more information our range of products and systems or our technical design and support services, please contact us.

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