VENTILATED CEILINGS

ADVANTAGES

✓ Flexible layout in catering equipment
✓ Addition of equipment is simple
✓ High level of hygiene
✓ Automatic wash-down system
✓ High grease extraction efficiency
✓ A wall to wall ceiling system
DESCRIPTION AND OPERATION

Vapour is discharged via the double active cassettes. The grease is extracted via the centrifugal principle which runs off into a channel and drains into the collecting gutter. The channel forms part of the rigid and robust suspension system. The air supply cassettes with plenum box guarantees an even air flow distribution which allows for a total and perfectly balanced ventilation system. The required lighting is integrated into the ceiling system according to the height of the ceiling. Either the V-ITL class IP54 or LED lights can be used.

OPTIONS

The following options are available to further increase the efficiency of the ceiling and improve the working environment within the kitchen:

- Automatic water wash system (WW)
- VIANEN UV-C filtration system (V-UV-C)
- Jet stream air when possible
- Fully automatic built-in fire suppression system
- V4TEC (Vianen efficiency technology)
- VIANEN kitchen management system (V-KMS)

TECHNICAL INFORMATION

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust pressure drop Spantile ceiling</td>
<td>100 Pa</td>
</tr>
<tr>
<td>Hot water connection</td>
<td>28 mm</td>
</tr>
<tr>
<td>Water discharge</td>
<td>54 mm</td>
</tr>
<tr>
<td>Water temperature</td>
<td>65 °C minimum</td>
</tr>
<tr>
<td>Water pressure</td>
<td>2.0 bar</td>
</tr>
<tr>
<td>Control cabinet</td>
<td>230V /1Ph /50Hz x 20A</td>
</tr>
</tbody>
</table>

ACTIVE CASSETTE PRINCIPLE

1. Underside of the cassette
2. Condensation between the cassettes
3. Air flow
4. Extraction opening underside
5. Extraction opening topside
6. Extraction air from the kitchen
SUPPLY BOX WITH GRIL

The VIANEN stainless steel supply grills are mounted in a galvanised insulated supply box with spigot and hanging points. In this supply box a perforated air distribution plate evenly distributes the air over the supply grill. This air is introduced into the kitchen at a low velocity ensuring a comfortable kitchen climate for the staff. The supply grill can be easily removed from the box for cleaning.

TECHNICAL INFORMATION

The VIANEN stainless steel combined ceiling solution is used to cover kitchens containing a mixture of both light and heavy duty equipment. Where heavy cooking activity occurs, producing seriously contaminated air, a plenum is integrated into the Spantile ceiling. The FECON filters in the Plenum are capable of handling and filtering the high volume of exhaust air required for the heavy kitchen equipment. The filtrated residue is collected in an integrated channel within the plenum and is washed down by the automatic washing system of the ceiling.

The VIANEN combined ceiling ensures optimal ventilation of the kitchen area regardless of the heavy duty cooking equipment. In this system Vianen combines both aesthetics and technical know-how to obtain the best solution and low maintenance costs for the end user.

OPTIONS

The following options are available to further increase the efficiency of the ceiling and improve the working environment within the kitchen.

- Automatic water-wash system (WW)
- VIANEN UV-C filtration system (V-UV-C)
- Jet stream air when possible
- Fully automatic built-in fire suppression system
- VETEC (Vianen efficiency technology)
- VIANEN kitchen management system (V-KMS)
The VIANEN Spantile Ventilated Ceiling system consists of three different cassette types all fabricated in 304 stainless steel 1.00 mm thick. All visible surfaces are ultra-fine grain polished (320) and polythene protected during transport.

The cassettes are available in the following configurations:

1. **ACTIVE CASSETTE** – double skinned curved active cassettes (with extract air passages) to extract vapour and grease designed to handle 125 m³/h (0.035 m³/s) per cassette.
2. **PASSIVE CASSETTE** – single skinned curved passive cassettes (closed) are positioned in the ceiling where exhaust or supply air is not required.
3. **SUPPLY CASSETTE** – single skinned curved supply cassettes (with supply air passage) designed to supply 100 m³/h (0.027 m³/s) per cassette.

Each cassette measures 500 x 500 mm and features a lip and groove so that adjacent cassettes clip together to form a chain effect. This facilitates easy handling and removal of the cassettes for cleaning purposes. The cassettes are supported by a full length stainless steel bracket assembly which incorporates an anodized aluminium grease collection profile.
ADVANTAGES

- Allows flexible approach to layout of catering equipment
- Provides high level of hygiene
- Highly efficient grease extraction rate
- Ensures ventilation of the kitchen area is properly balanced
- Suitable for heavy duty cooking

CROSS-SECTION PLENUM CEILING

The following options are available to further increase the efficiency of the ceiling and improve the working environment within the kitchen:

- Automatic water wash system (WW)
- VIANEN UV-C filtration system (V-UV-C)
- Jet stream air when possible
- Fully automatic built-in fire suppression system
- VETEC (Vianen efficiency technology)
- VIANEN MAESTRO kitchen management system (V-KMS)

DESCRIPTION

The VIANEN plenum ventilated ceiling is suitable for all types of medium and heavy duty cooking equipment and is a flexible solution for kitchen ventilation. The ceiling can be installed to cover the full area of a kitchen allowing flexibility in the layout of a catering equipment and is easily adapted to serve the addition of further equipment.

The plenums are fitted with VIANEN FECON filters to ensure the highest level of grease extraction. The filters are designed to allow the grease to run off the filters into an integral grease collecting channel and then into easily removable grease trays.

The provision of perforated supply air panels or grilles allow the introduction of supply / make-up air under draught free conditions to maintain a comfortable working environment and ensure the kitchen ventilation system is perfectly balanced.

The inclusion of V-LEL LED light fittings provide the correct levels of lighting in the kitchen areas where it is most needed. In all other areas removable matching stainless steel panels are installed to maintain the hygienic properties and highly aesthetic appearance of the ceiling. The ceiling has a constant exhaust pressure drop of 100 Pa and a supply air pressure drop of 40 Pa.

Working from kitchen layout drawings VIANEN produces a fully integrated ceiling package, co-ordinated to match the requirements of both extract and supply air to ensure the kitchen ventilation system is properly balanced and works perfectly.
FLAT CEILING

The VIANEN FLAT ceiling is applied were no direct exhaust is required.

The stainless steel type 304, 1,0mm thick, grit 320 panels combine perfectly with the exhaust part of the ceiling. Lighting and dimensioning of the exhaust ceiling are continued into the at ceiling design to form one complete aesthetic solution. The flat ceiling can also be used to introduce supply air into the kitchen area. Depending on the kitchen layout and amounts of supply air required this can be done by either stainless steel perforated at panels or supply grills. The VIANEN FLAT ceiling is low on maintenance costs and reassures the user of a hygienic durable solution.

Supply air via perforated panels.

The VIANEN stainless steel 304, 1,0mm thick, perforated panels can be utilised in VIANEN FLAT ceilings. A galvanised insulated supply plenum with spigots is placed above the perforated panels. In this plenum a perforated air distribution plate evenly distributes the air over the entire supply area. This air is introduced into the kitchen at a low velocity ensuring a comfortable kitchen climate for the staff. The air is introduced draught free into the kitchen at a velocity of approximately 1,0 m³/sec (3600 m³/h/m²).

Accoustic panels 20 mm thick, sealed in black foil, are installed on top of the stainless ceiling.