



# Specialist Ventilation Services Ltd.

INNOVATIVE AIR CONTROL



## Kitchen Ventilation Systems for Schools & Commercial Buildings.

Our range of specialist Kitchen Ventilation Canopies, Ceilings, Service spines and controls are designed to satisfy the demands of modern high intensity kitchens in terms of performance and environmental requirements.

We have a comprehensive standard range as well as the facilities to manufacture bespoke systems to suit clients requirements.

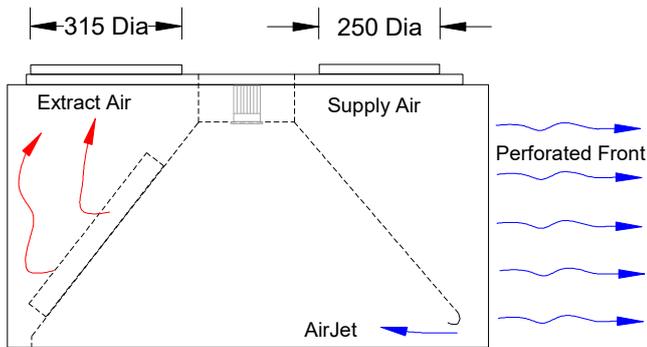
# Types of Canopies Available



Specialist Ventilation Services range of high efficiency kitchen ventilation canopies are designed with low energy consumption in mind. Not only in everyday use but also in our manufacturing processes where welding is kept to a minimum using state of the art bonding materials specifically developed for stainless steel construction where hygiene is important.

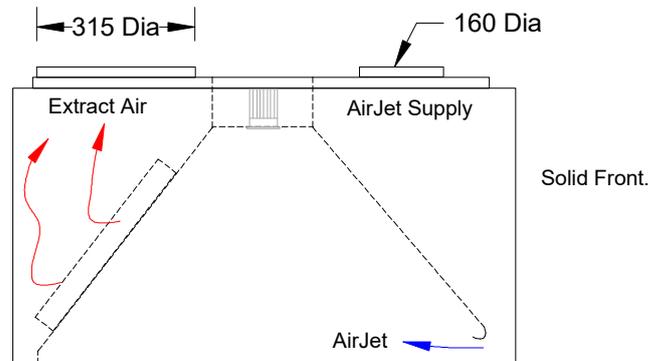
The models detailed below form part of our standard range suitable for all professional kitchens in the commercial, industrial, educational and health service sectors.

With the benefit of our in house test facilities we are able to design and test bespoke ventilation canopies and ceilings to suit clients' specific requirements including high moisture or fume extract canopies for industrial processes. Alternative finishes and materials are available for that special application.



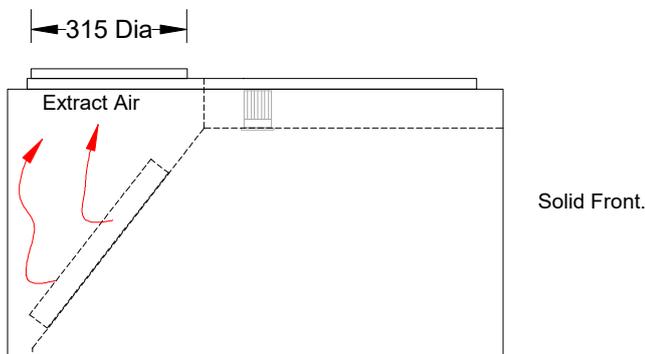
"AIRJET" AJS 400, 500, 600.

Combined supply & extract canopy with integral high efficiency "AirJet" to ensure containment of convective plumes from the cooking equipment below with reduced ventilation rates.



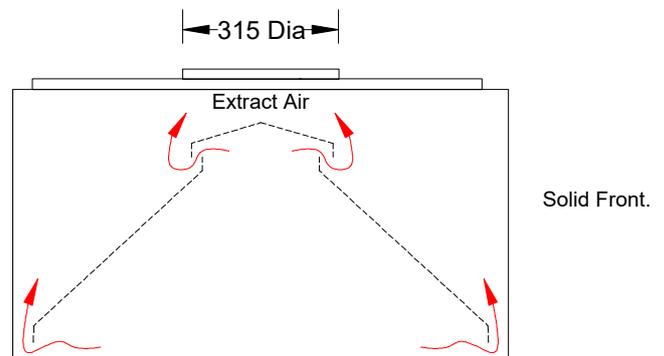
"AIRJET" AJE 400, 500, 600.

Extract canopy with integral high efficiency "AirJet" to ensure containment of convective plumes from the cooking equipment below with reduced ventilation rates.



"BASIC" BEC 400, 500, 600.

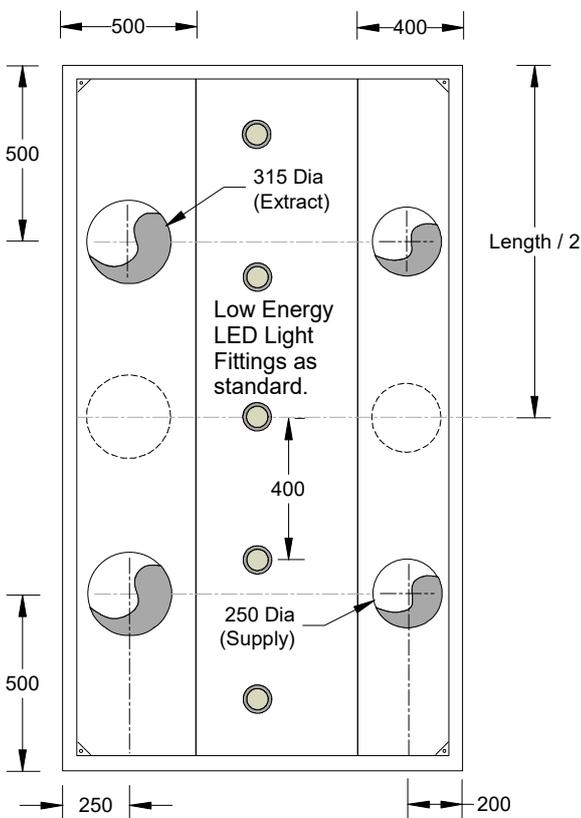
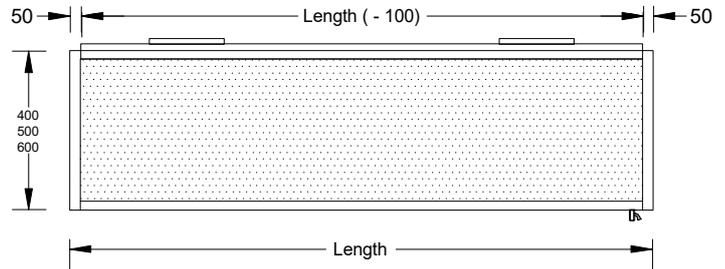
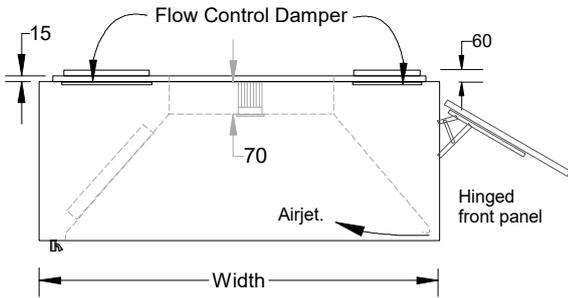
Extract only canopy suitable for smaller installations where the designed airflow rates are considered low and would not benefit from the high efficiency "AirJet" canopies.



"CONDENSE" CEC 400, 500, 600.

Condense canopy for use over high steam emitting appliances where grease extraction is not normally required.

# Airjet Supply & Extract Canopy Type AJ5-400, 500, 600.



### STANDARD SINGULAR MODULE SIZES (mm)

Length: 1000, 1500, 2000, 2500, 3000.

Width: 1100, 1200, 1300, 1400,  
1500, 1600, 1700, 1800.

Alternative dimensions can be provided.

### STANDARD SPIGOT CONNECTIONS (mm)

1000 Long: 1x Supply, 1x Extract.

1500 Long: 2x Supply, 1x Extract.

2000 Long: 2x Supply, 2x Extract.

2500 Long: 2x Supply, 2x Extract.

3000 Long: 3x Supply, 2x Extract.

The number of spigot connections will vary to suit the Air Flow requirements.

Square or Rectangular spigot connections can be provided as an alternative if required.

### AVERAGE MODULE WEIGHTS:

1000 long 70kg                      2500 long 125kg

1500 long 85kg                      3000 long 145kg

2000 long 105kg

With large single module sizes, consideration should be given to the weight of the module as well as access to the kitchen and or building.

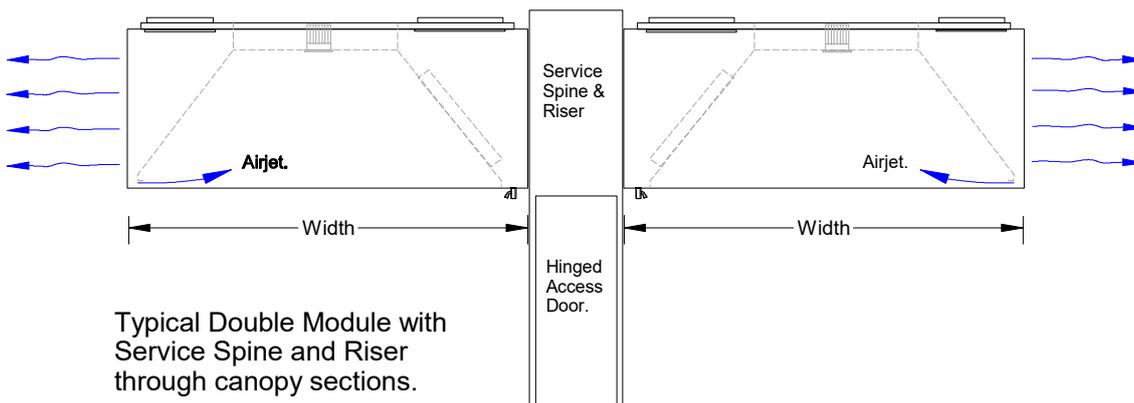
### LIGHTING: Fittings are circular 3x3W LEDs (IP54)

1000 long 3 Qty                      2500 long 6 Qty

1500 long 4 Qty                      3000 long 7 Qty

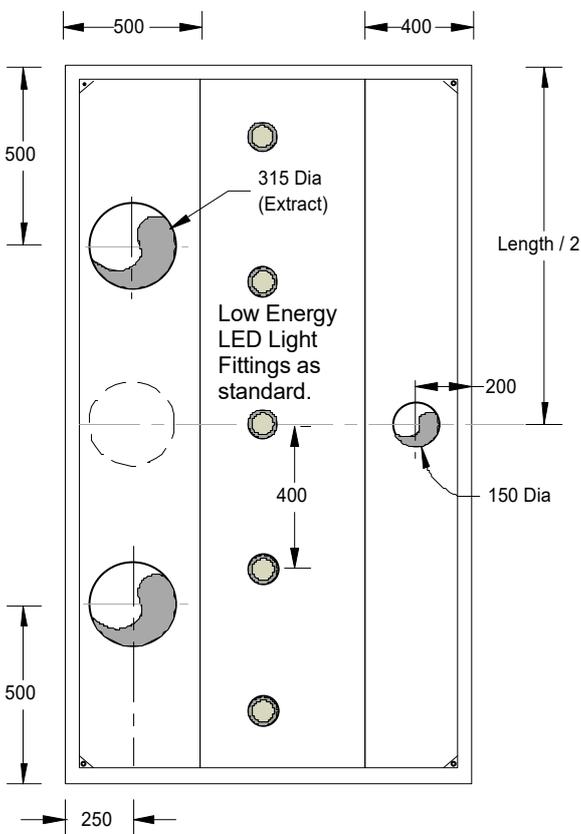
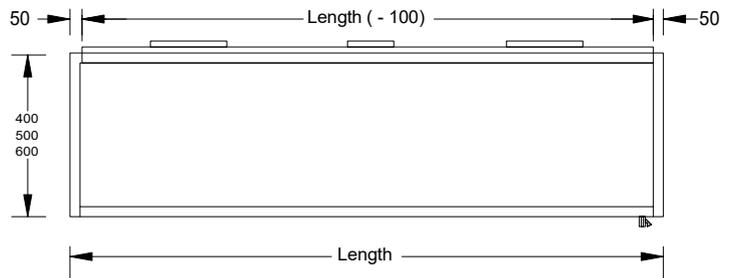
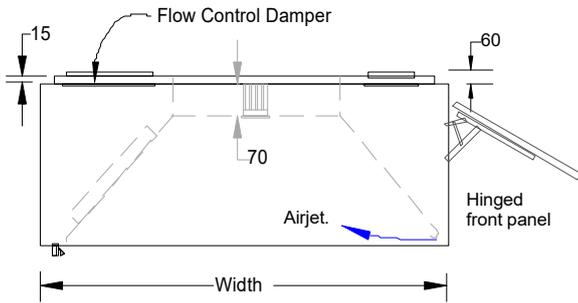
2000 long 5 Qty

Each fitting is a total of 9W with a 410 lm output giving an average lux level of 500 at working height.



Typical Double Module with Service Spine and Riser through canopy sections.

# Airjet & Extract Canopy Type AJE-400, 500, 600.



### STANDARD SINGULAR MODULE SIZES (mm)

Length: 1000, 1500, 2000, 2500, 3000.

Width: 1100, 1200, 1300, 1400,  
1500, 1600, 1700, 1800.

Alternative dimensions can be provided.

### STANDARD SPIGOT CONNECTIONS (mm)

1000 Long: 1x AirJet, 1x Extract.

1500 Long: 2x AirJet, 1x Extract.

2000 Long: 2x AirJet, 2x Extract.

2500 Long: 2x AirJet, 2x Extract.

3000 Long: 2x AirJet, 2x Extract.

The number of spigot connections will vary to suit the Air Flow requirements.

Square or Rectangular spigot connections can be provided as an alternative if required.

### AVERAGE MODULE WEIGHTS:

1000 long 70kg      2500 long 125kg

1500 long 85kg      3000 long 145kg

2000 long 105kg

With large single module sizes, consideration should be given to the weight of the module as well as access to the kitchen and or building.

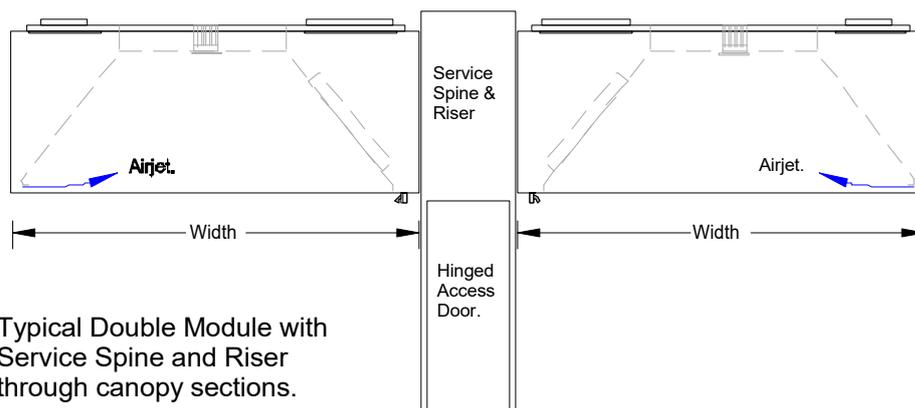
### LIGHTING: Fittings are circular 3x3W LEDs (IP54)

1000 long 3 Qty      2500 long 6 Qty

1500 long 4 Qty      3000 long 7 Qty

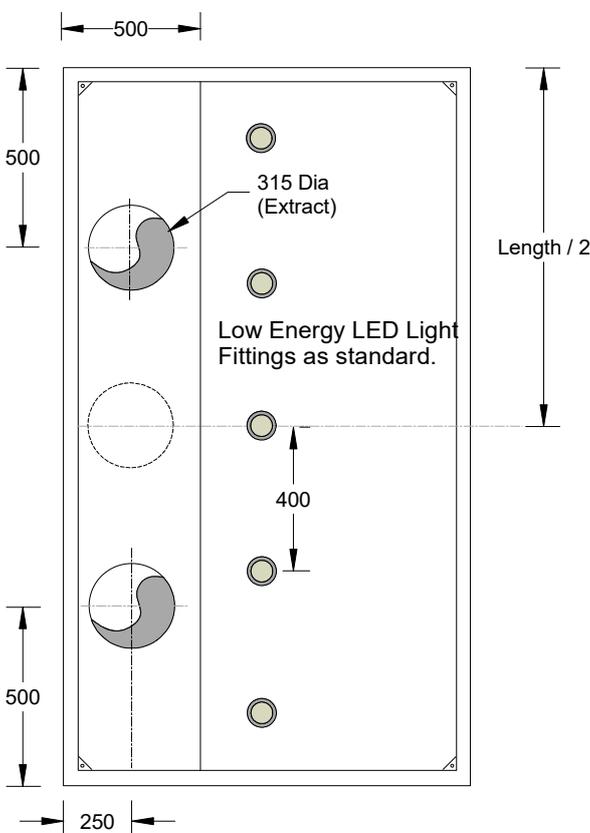
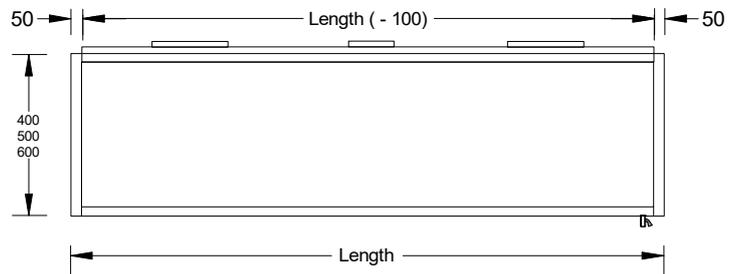
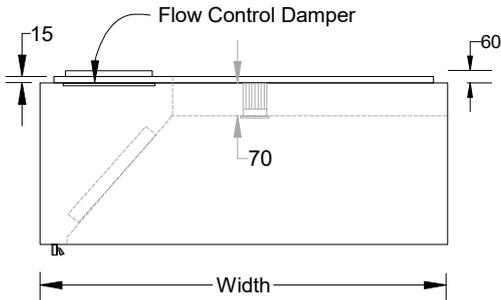
2000 long 5 Qty

Each fitting is a total of 9W with a 410 lm output giving an average lux level of 500 at working height.



Typical Double Module with Service Spine and Riser through canopy sections.

# Basic & Extract Canopy Type BEC-400, 500, 600.



### STANDARD SINGULAR MODULE SIZES (mm)

Length: 1000, 1500, 2000, 2500, 3000.

Width: 1100, 1200, 1300, 1400,  
1500, 1600, 1700, 1800.

Alternative dimensions can be provided.

### STANDARD SPIGOT CONNECTIONS (mm)

1000 Long: 1x Extract.

1500 Long: 1x Extract.

2000 Long: 2x Extract.

2500 Long: 2x Extract.

3000 Long: 2x Extract.

The number of spigot connections will vary to suit the Air Flow requirements.

Square or Rectangular spigot connections can be provided as an alternative if required.

### AVERAGE MODULE WEIGHTS:

1000 long 50kg      2500 long 100kg

1500 long 66kg      3000 long 117kg

2000 long 84kg

With large single module sizes, consideration should be given to the weight of the module as well as access to the kitchen and or building.

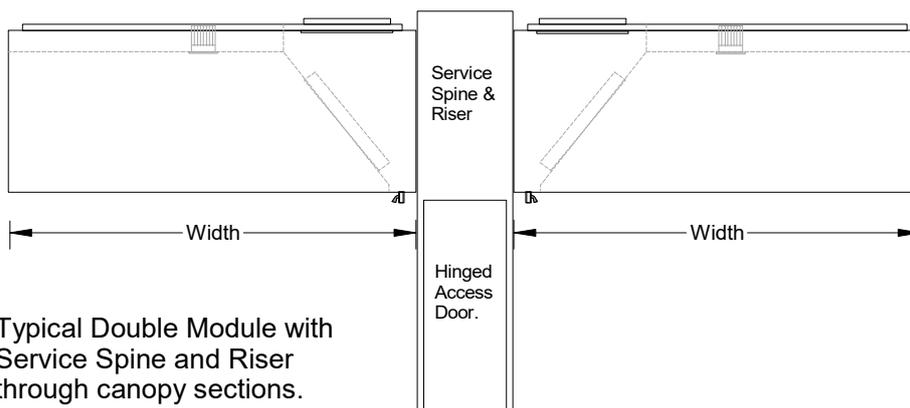
### LIGHTING: Fittings are circular 3x3W LEDs (IP54)

1000 long 3 Qty      2500 long 6 Qty

1500 long 4 Qty      3000 long 7 Qty

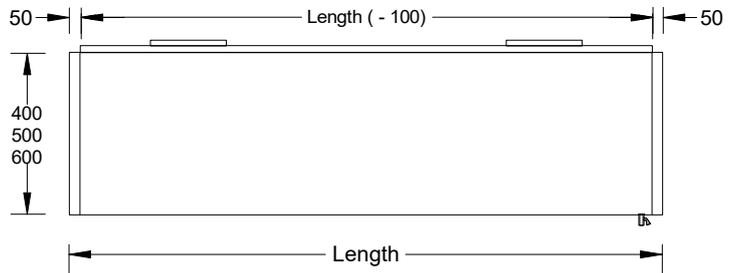
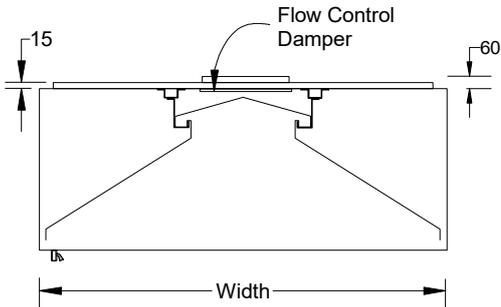
2000 long 5 Qty

Each fitting is a total of 9W with a 410 lm output giving an average lux level of 500 at working height.



Typical Double Module with Service Spine and Riser through canopy sections.

# Condense Extract Canopy Type CEC-400, 500, 600.



| STANDARD SINGULAR MODULE SIZES (mm) |  |
|-------------------------------------|--|
| Length:                             | 1000, 1500, 2000, 2500, 3000.                      |
| Width:                              | 1100, 1200, 1300, 1400,<br>1500, 1600, 1700, 1800. |

Alternative dimensions can be provided.

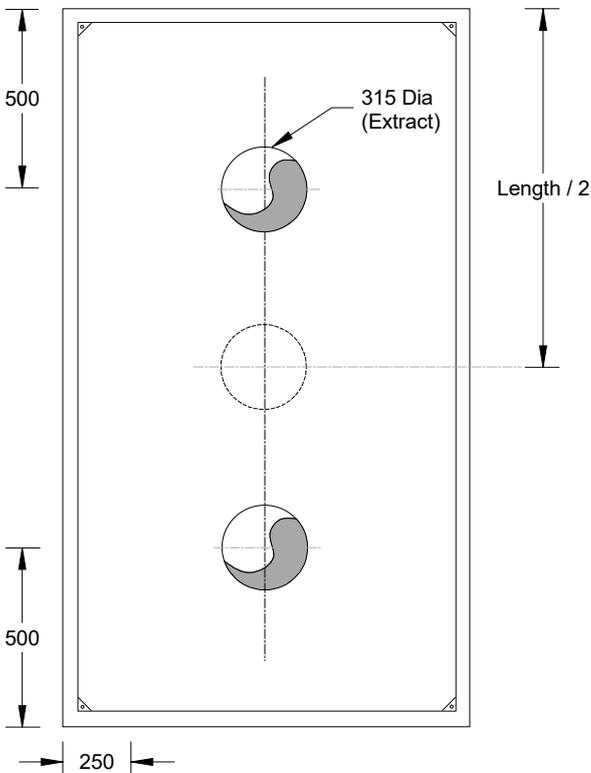
| STANDARD SPIGOT CONNECTIONS (mm) |             |
|----------------------------------|-------------|
| 1000 Long:                       | 1x Extract. |
| 1500 Long:                       | 1x Extract. |
| 2000 Long:                       | 1x Extract. |
| 2500 Long:                       | 2x Extract. |
| 3000 Long:                       | 2x Extract. |

The number of spigot connections will vary to suit the Air Flow requirements. Square or Rectangular spigot connections can be provided as an alternative if required.

| AVERAGE MODULE WEIGHTS: |      |           |       |
|-------------------------|------|-----------|-------|
| 1000 long               | 50kg | 2500 long | 100kg |
| 1500 long               | 66kg | 3000 long | 117kg |
| 2000 long               | 84kg |           |       |

With large single module sizes, consideration should be given to the weight of the module as well as access to the kitchen and or building.

All visible surfaces are manufactured from 304 DP1 Stainless Steel (Brush Finish). The roof and sliding plate dampers as standard are manufactured from Galvanised mild steel. Stainless steel is an option if required.



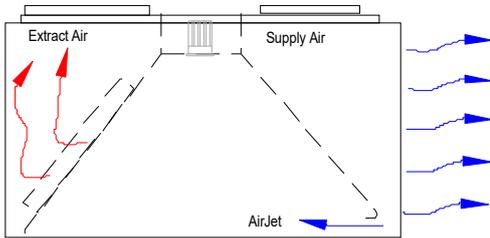
Factory fitted LED lights are available if required.

# Kitchen Ventilation Canopies, Quick Selection Guide.

## Types: AJS, AJE, BEC & CEC



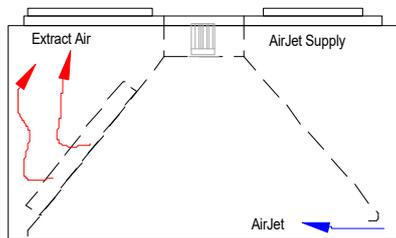
"AIRJET" AJS 400, 500, 600 High efficiency AirJet complete with Supply & Extract system.



| Canopy Length (mm) | Extract Volume (l/s) | Supply Volume 600 high (l/s) | Supply Volume 500 high (l/s) | Supply Volume 400 high (l/s) |
|--------------------|----------------------|------------------------------|------------------------------|------------------------------|
| 1500               | 400                  | 425                          | 350                          | 275                          |
| 2000               | 500                  | 550                          | 450                          | 375                          |
| 2500               | 650                  | 700                          | 575                          | 450                          |
| 3000               | 800                  | 850                          | 700                          | 550                          |
| 3500               | 900                  | 950                          | 800                          | 650                          |
| 4000               | 1000                 | 1100                         | 925                          | 750                          |
| 4500               | 1150                 | 1250                         | 1025                         | 825                          |
| 5000               | 1300                 | 1400                         | 1150                         | 900                          |

The figures in the table above are based on an extract pressure loss of 90 - 100 Pa  
The Supply Air pressure loss is approximately 30 - 40 Pa

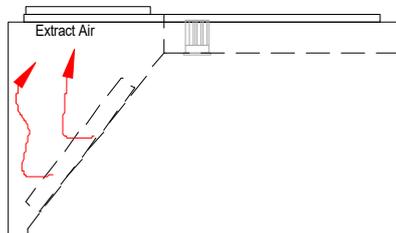
"AIRJET" AJE 400, 500, 600 High efficiency AirJet complete with Extract only system.



| Canopy Length (mm) | Extract Volume (l/s) | AirJet Volume (l/s) |
|--------------------|----------------------|---------------------|
| 1500               | 400                  | 40                  |
| 2000               | 500                  | 50                  |
| 2500               | 650                  | 65                  |
| 3000               | 800                  | 80                  |
| 3500               | 900                  | 90                  |
| 4000               | 1000                 | 100                 |
| 4500               | 1150                 | 115                 |
| 5000               | 1300                 | 130                 |

The figures in the table above are based on an extract pressure loss of 90 - 100 Pa  
The AirJet pressure loss is approximately 90 - 100 Pa

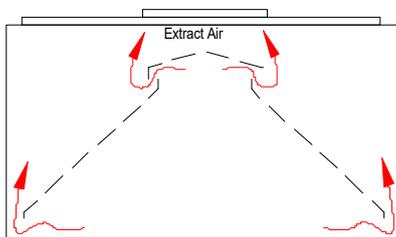
"BASIC" BEC 400, 500, 600 Basic Extract only system.



| Canopy Length (mm) | Extract Volume 1100 wide (l/s) | Extract Volume 1300 wide (l/s) | Extract Volume 1500 wide (l/s) | Extract Volume 1700 wide (l/s) |
|--------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 1500               | 580                            | 685                            | 790                            | 895                            |
| 2000               | 770                            | 910                            | 1050                           | 1190                           |
| 2500               | 965                            | 1140                           | 1315                           | 1490                           |
| 3000               | 1155                           | 1365                           | 1575                           | 1785                           |
| 3500               | 1350                           | 1595                           | 1840                           | 2085                           |
| 4000               | 1540                           | 1820                           | 2100                           | 2380                           |
| 4500               | 1735                           | 2050                           | 2365                           | 2680                           |
| 5000               | 1925                           | 2275                           | 2625                           | 2975                           |

The figures in the table above are based on a face velocity of 0.35m/s at 90 - 100 Pa

"CONDENSE" CEC 400, 500, 600 Extract only system complete with Condense baffle plates.



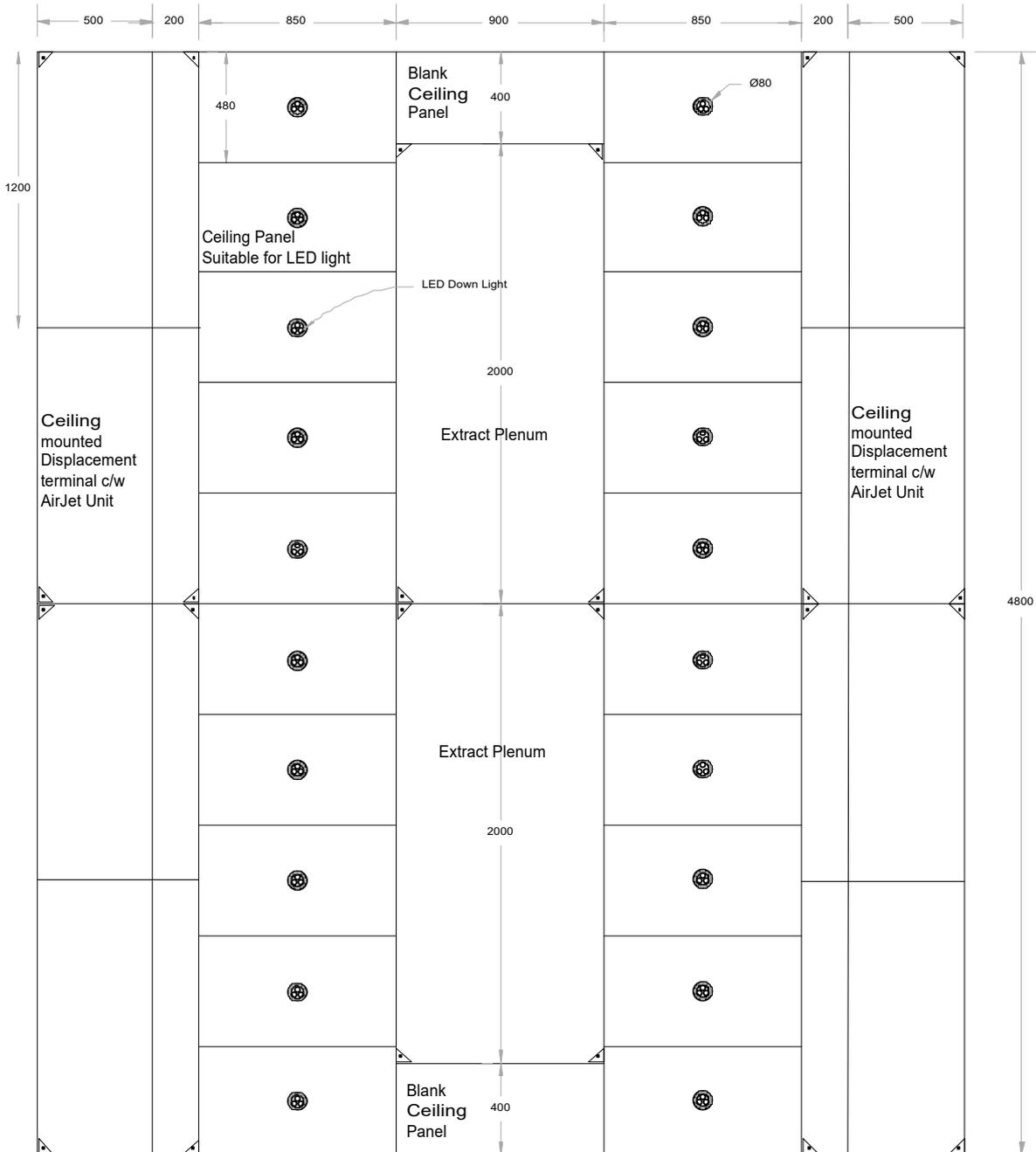
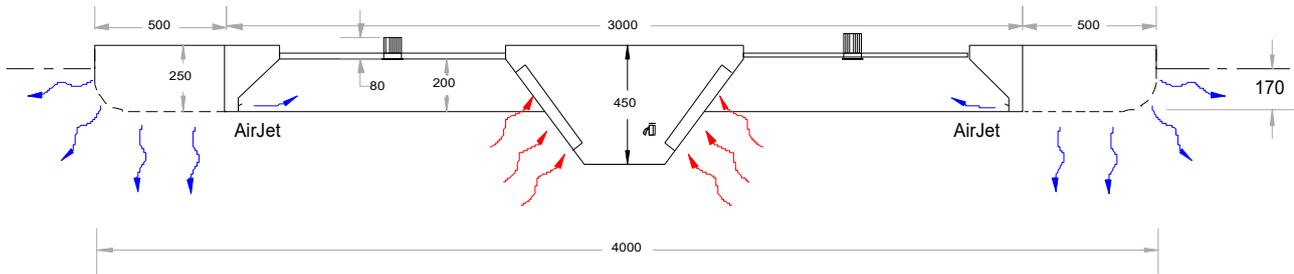
| Canopy Length (mm) | Extract Volume 1100 wide (l/s) | Extract Volume 1300 wide (l/s) | Extract Volume 1500 wide (l/s) | Extract Volume 1700 wide (l/s) |
|--------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 1500               | 330                            | 390                            | 450                            | 510                            |
| 2000               | 440                            | 520                            | 600                            | 680                            |
| 2500               | 550                            | 650                            | 770                            | 850                            |
| 3000               | 660                            | 780                            | 900                            | 1020                           |
| 3500               | 770                            | 910                            | 1050                           | 1190                           |
| 4000               | 880                            | 1040                           | 1200                           | 1360                           |
| 4500               | 990                            | 1170                           | 1350                           | 1530                           |
| 5000               | 1100                           | 1300                           | 1500                           | 1700                           |

The figures in the table above are based on a face velocity of 0.2m/s at 35 - 45 Pa

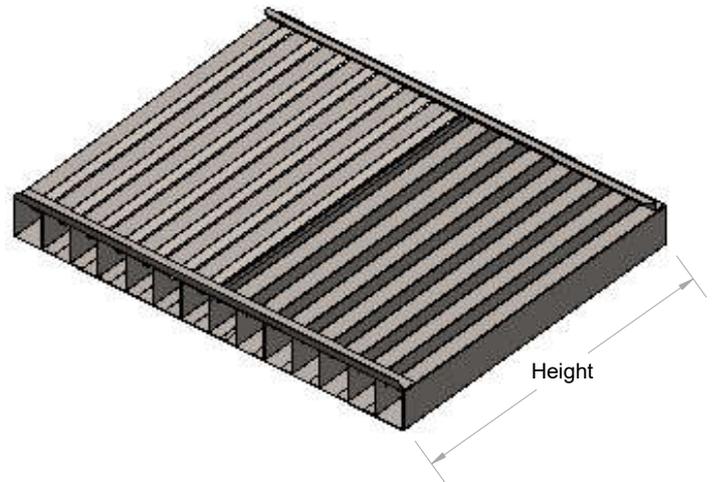
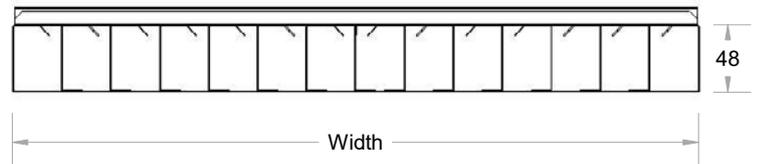
NOTE: All performance figures detailed above are based on a noise level of approximately 50 dB(A) suitable for a commercial kitchen.  
For multiple modules or double bank (back to back) canopies please pro-rata the air volumes. The pressure loss will remain the same.

# AirJet Ventilated Ceiling for kitchens.

## Type: AJV



# Centrifugal Grease Filters Stainless Steel. Type: CGF-SS



#### APPLICATION:

The CGF-SS is a Centrifugal Grease Filter manufactured from 304 Grade "Bright Annealed" Stainless Steel. It has been specifically designed for use in professional kitchen ventilation systems such as Canopies / hoods or ventilated ceilings where performance and reliability are paramount. Using 316 Grade Stainless steel makes the CGF-316 SS suitable for marine and off shore applications.

Conventional aluminium or mild steel products are no longer permitted due to poor corrosion resistancy as well as health and hygiene reasons.

This product by nature of the manufacturing process remains robust and resistant to many chemicals & cleaning fluids etc.

#### SPECIALS:

Due to the flexible manufacturing process it is possible to provide many different blade pitch and frame arrangements in terms of material thickness and depth as well as overall dimensions. It is also possible to have "Brush" finish known as Dull Polish.

#### STANDARD:

Our standard construction is of 304 grade Stainless Steel with a Bright Annealed finish similar to a "Mirror" finish.

Size: Nominal 500 w x 400 h x 50 deep  
600 w x 400 h x 50 deep

NOTE: Depth dimensions don't include the top and bottom hooks.

#### MATERIALS:

Stainless Steel 304 or 316 DP1 marine grade with a minimum thickness of 0.7 mm depending on dimensions.

#### CONSTRUCTION:

Pressed formed Body & blades with spot welded assembly providing added rigidity.

#### ALTERNATIVE FINISH:

Mill finish Stainless Steel.  
Polished Stainless Steel.

#### DIMENSIONS:

The standard nominal size is 500 x 400 x 50

All dimensions are in mm.

Width and height can be manufactured to any size.

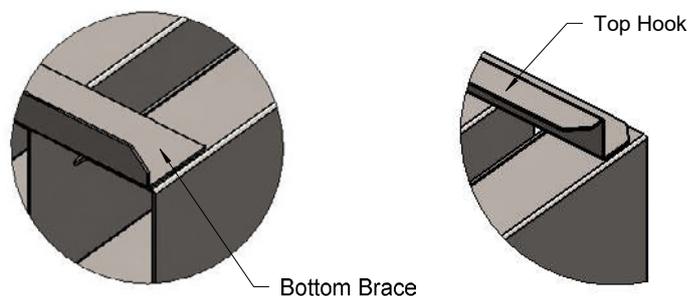
Overall depth is 48mm as standard.

#### OPTIONS:

Handles for easy removal of filters from canopy (no cost option).

Note:

Each canopy module comes with at least one filter with handles.



#### OPERATION:

Due to the simplicity of the filter design having vertical slots at the front and a solid back, the filtered air is extracted via the top and bottom of the filter into the extract plenum.

The angled leading edge of the vertical slot encourages the air to hug the inner surface of the chamber creating a cyclone which then creates a centrifugal action causing the grease particles and excess moisture to be thrown out of the air stream and onto the chamber sides.

The contaminants are then free to drain from the filter into the bottom of the extract plenum to be collected and (or) drained off.

#### REMOVAL and CLEANING:

To clean the CGF-SS simply remove the the filter with the handles first by pushing the bottom into the extract plenum about 20mm then slide up towards the roof to unhook the filter and remove from the plenum.

The remaining filters can be slid apart and then removed in the same way. Cleaning can be done using a dishwasher or hot soapy water and a bottle brush to clean the inside of the chambers.

#### PERFORMANCE:

As each chamber is relatively large in cross-sectional area, it has the added advantage of providing a non clogging feature that ensures a constant pressure loss (resistance) throughout the day to day use. This means no loss in performance due to clogged up filters.

The recommended working pressure loss is 40 to 120 Pa  
As a guide each filter is capable of handling 125 to 250 l/s

## “AirJet” Canopy Specification (Combined High Efficiency Supply and Extract)

The Canopy shall be manufactured so that all visible surfaces are constructed from 304 grade Stainless Steel and free from all kinds of visible fixings such as screws and pop rivets etc.

All joints shall be free from sharp edges and be of welded construction. All lower joints shall be fully welded and dressed to match the finish of the original material.

Material thickness is to be a minimum of 1 - 1.2mm with a DP2 finish to the sides. DP1 to all other internal surfaces. The canopy plenum roof panels are to be manufactured from 1 - 1.2mm galvanised mild steel.

Supply air plenums shall incorporate:

A high efficiency “AirJet” system and are to have a hinged double skin perforated front fascia for the even introduction of supply air into the kitchen through low velocity displacement. This facility provides access for internal cleaning and adjustment of the integrated lockable sliding plate supply air volume control dampers located in the spigots.

The plenum shall have factory fitted self-adhesive smooth insulation to the internal surface of the canopy roof section. The insulation shall be a non-shedding, cross linked closed cell polyethylene construction to minimise the formation of condensation due to the cool supply air introduced via the plenum.

A Pressure Measurement point shall be incorporated into the supply plenum for commissioning purposes

Extract Plenums shall incorporate:

Full length, constant pressure loss Centrifugal Grease Filters (CGF-SS) manufactured from Mirror finish 304 Stainless steel and extract spigots c/w integral lockable sliding plate balancing dampers.

A continuous drain channel running the perimeter of the canopy for collection of excess condensation and grease. These shall include factory fitted drain taps.

A Pressure Measurement point shall be incorporated into the extract plenum for commissioning purposes.

The Canopy roof shall include:

Low Energy cool running fire rated “LED Down Light” fittings shall be provided as standard and to be of a vapour proof recessed type with a minimum rating of IP54. Light fittings shall be suitable for 230V supply and each canopy is to provide approximately 500 lux at the working / cooking surface.

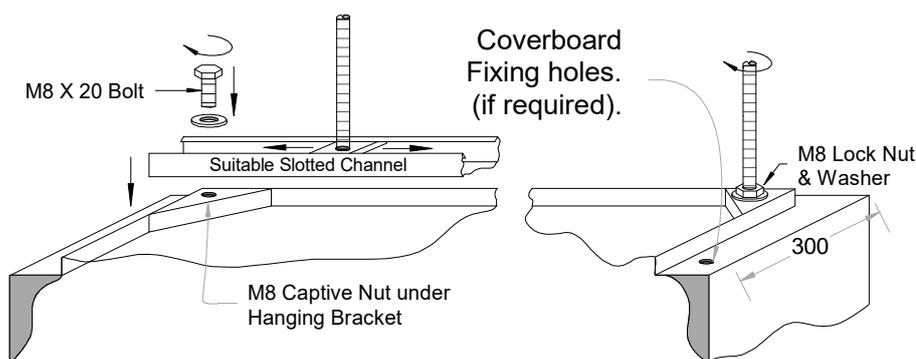
Emergency battery backup light fittings should also be included where appropriate.

Structural hanging points shall be welded to the canopy roof so that the canopy is self-supporting without deformation or sagging.

Where the canopy is hung below the ceiling, matching stainless steel cover boards (infill panels) shall be supplied to fill the gap to the ceiling.

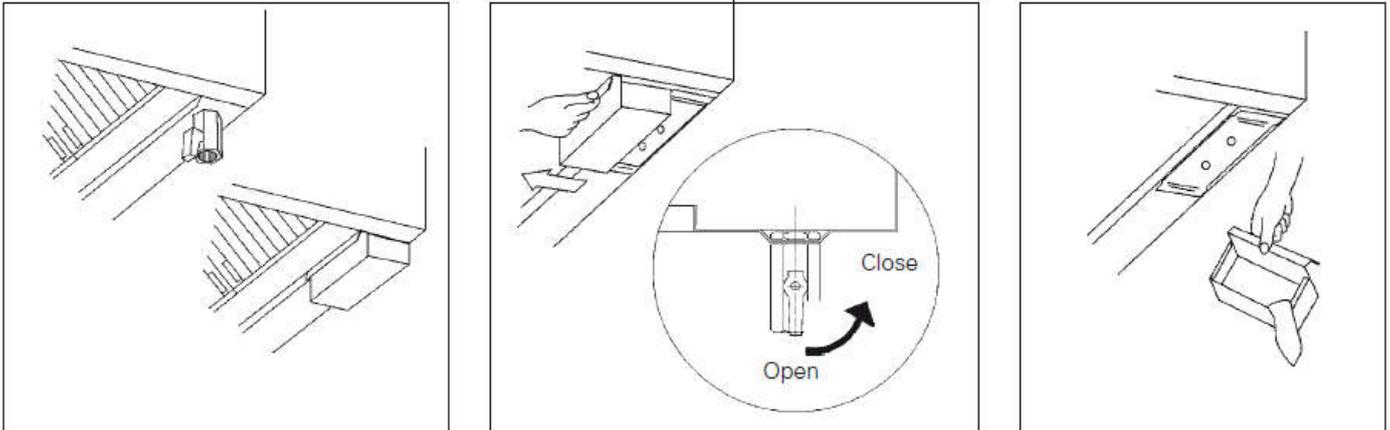
Where a service spine and or service riser is required to pass through the canopy modules, matching infill panels shall be provided between each canopy module and continue to the ceiling.

## Recommended Installation method for “AirJet” Canopies.

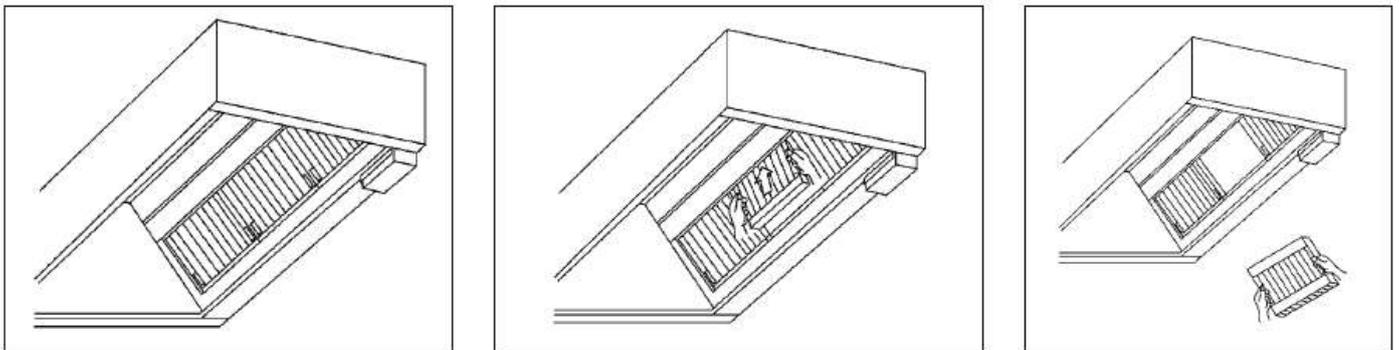


## Cleaning Instructions

All surfaces of the canopy should be cleaned with mild soap and water or a neutral product, making sure to wipe clean all interior and exterior surfaces of hood including the light fixture. Carefully rinse away all surplus cleaning product, as the combination of it with the high temperature found in the kitchen is not recommended. Never clean the canopy when any of the surfaces are hot.



The grease collection tray or drain tap should be thoroughly checked daily and emptied when necessary. It can be washed by hand, dishwasher or steam cleaned.

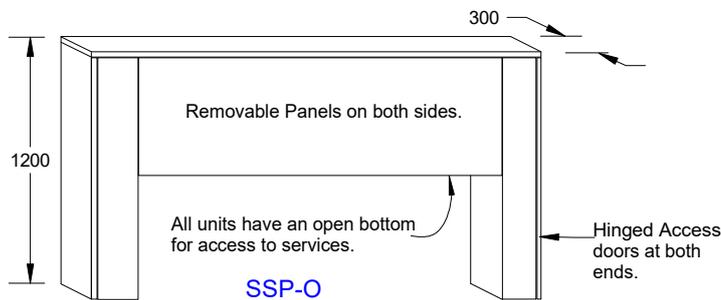


For cleaning of grease filters remove filters via the two folding handles and clean them with a brush and detergent or in a dishwasher or steam clean.

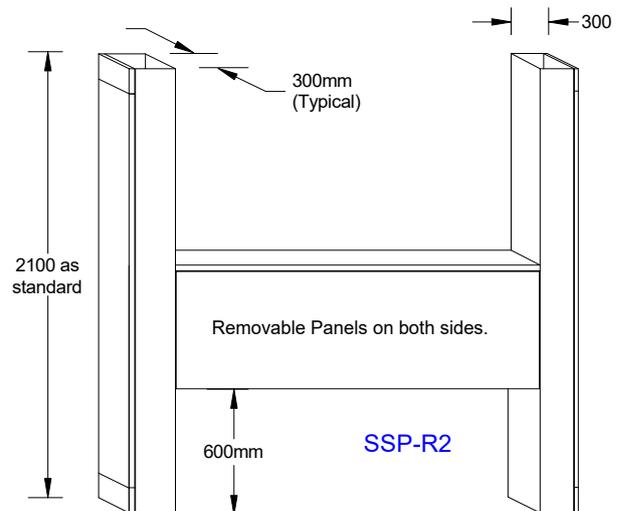
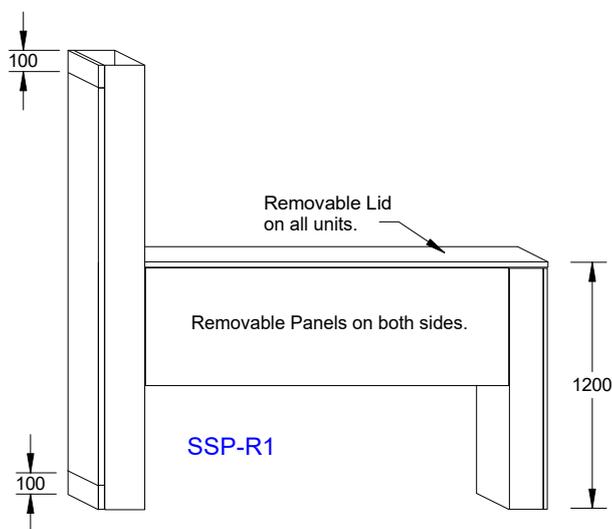
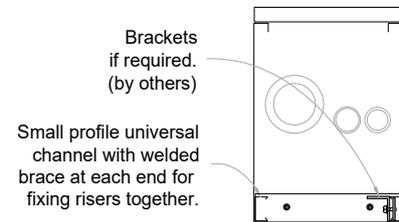
**IMPORTANT:** Never use harsh or abrasive cleaners on stainless steel.  
Do not use chlorinated or bleached water.

# Stainless Steel Service Spines & Distribution units.

## Type: SSP-O, SSP-R1, SSP-R2



### Section through Raceway.



### DIMENSIONS:

All dimensions shown are typical of standard sizes, however any dimension can be provided to suit the clients requirements. Service Spines over 3m long will be provided in suitable sections.

### OPTIONS:

Structural service spines are available to support canopies where it is not possible to suspend the canopy from the ceiling. Windows are available in the doors to allow vision of controls etc. Specialist mounting brackets and supports for services if required. Factory fitted services including gas solenoid valves, pressure switches, gas proving devices and ventilation interlocks if required. Factory fitted dividers in the risers and raceways are available to separate different services if required.

### SPECIFICATION:

All Service Spines or Service Distribution Units shall be manufactured from a minimum of 1.2mm thick 304 grade stainless steel sheet and shall have a brush finish to all external surfaces.

All corners shall be fully welded and dressed to match the original brush finish.

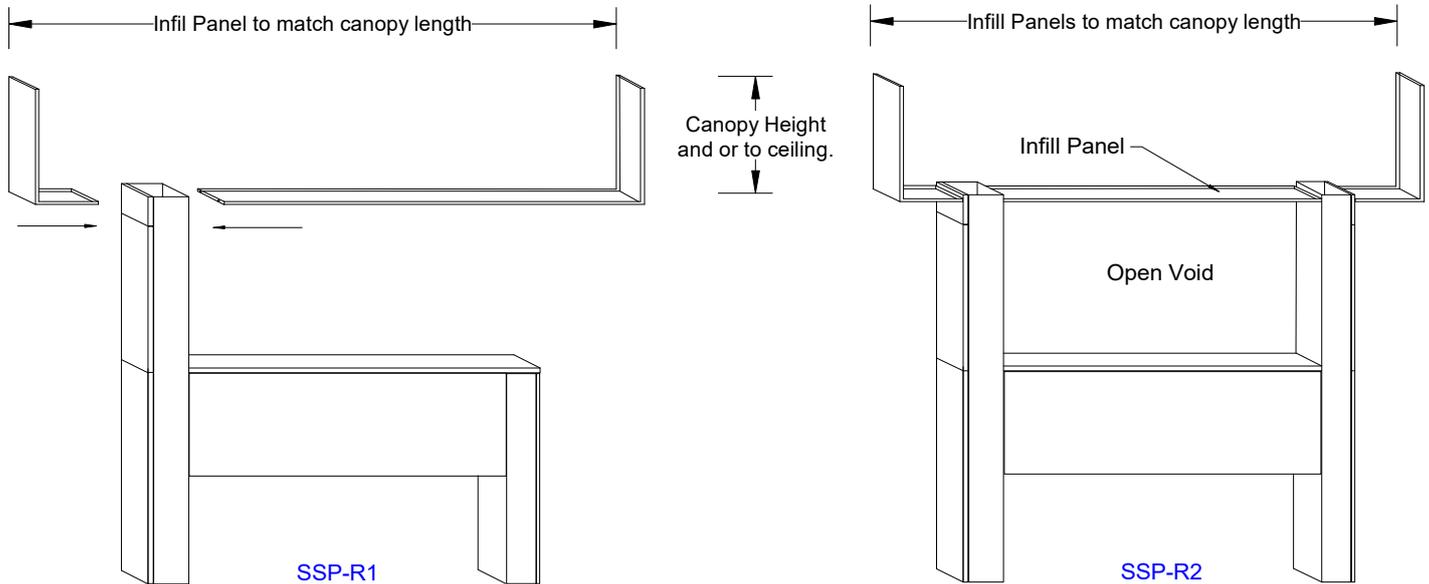
All removable panels shall be supported at the bottom by a Galvanised mild steel Low Profile universal channel section frame and secured using concealed fixings. The channel frame shall be able to support secondary fixings for light weight pipes and electrical containment etc. Larger gas pipes etc may need independent supports.

Pop rivets and self-drilling / tapping screws are not to be used for hygiene reasons.

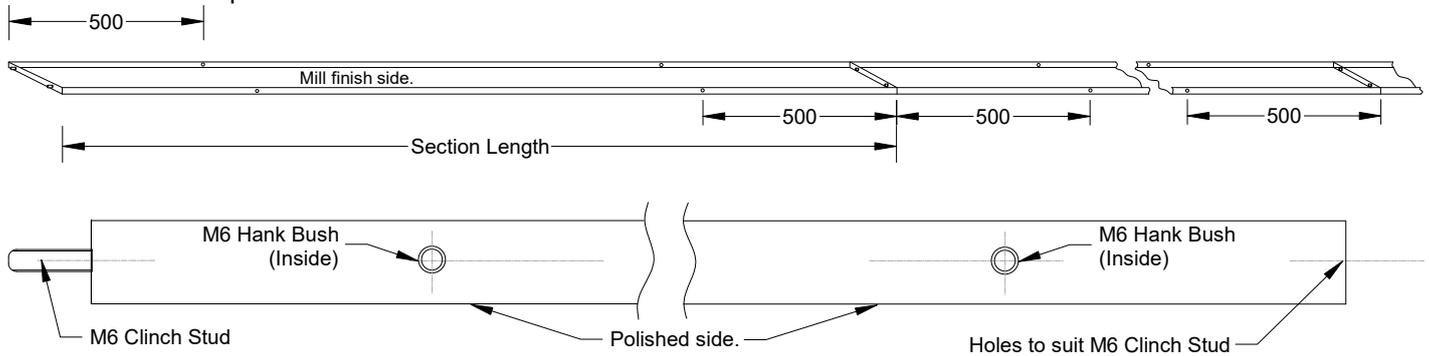
All hinges, handles and catches for the doors shall be corrosion resistant and suitable for a food production environment ensuring ease of cleaning.

# Stainless Steel Infill Panels.

## Type: SSIP



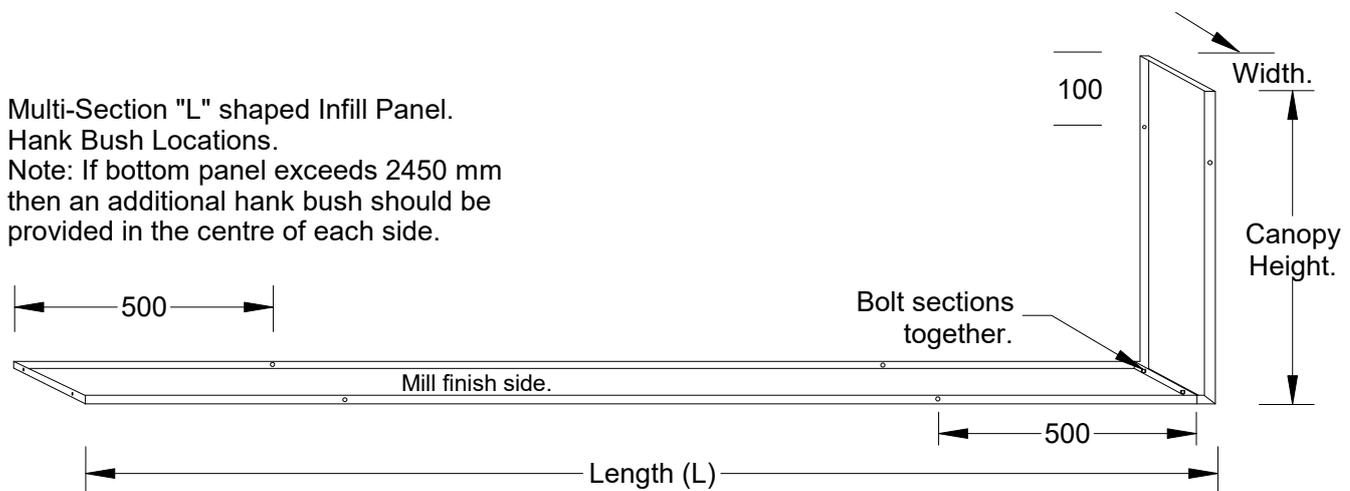
### Multi Sectional infill panel detail.



### Multi-Section "L" shaped Infill Panel.

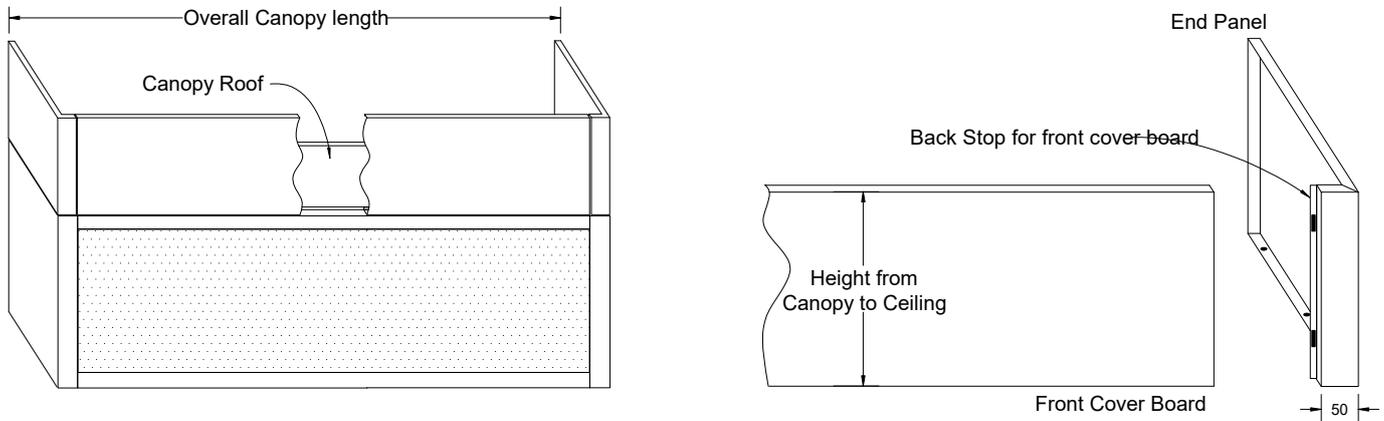
#### Hank Bush Locations.

Note: If bottom panel exceeds 2450 mm then an additional hank bush should be provided in the centre of each side.



All material is 304 grade Stainless Steel DP1 to match the ventilation canopy.

## Stainless Steel Cover Boards. Type: SSCB



All material is 304 grade Stainless Steel DP1. to match the ventilation canopy

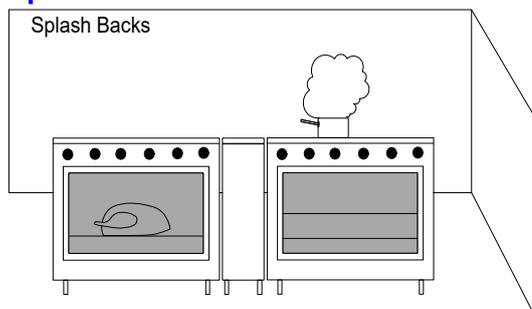
### INSTALLATION.

The cover boards are installed as follows:

- 1) Secure the end panel to the roof of the canopy ensuring that the corner of the panel is flush with the corner of the canopy and that the 50mm return matches that of the canopy below. If there are two end panels repeat the process.
- 2) Next offer the Front Cover Board(s) up into the space that is left so that the front ensures that the sides are square. Check that the catches in the side panels line up with the keepers on the front cover board and firmly push home, the front cover board should now be secure.
- 3) To check or remove the front cover board a suction device (e.g. suction handle or dent puller) will be required. The suction handle should be placed at the ends of the front cover board in the centre of the height. Once applied pull the handle towards you then push back and if it feels secure then release the suction handle. If you need to remove the cover board then pull more firmly and this will disengage the catch allowing the panel to come free. Care should be taken to ensure that this is done in a safe manner and that the cover board is supported at all times. If the cover board is quite long or high then this should be done with more than one person.
- 4) For reasonably small (in height) cover boards up to 600mm there will only be one catch at each end in the centre. Very long or larger cover boards will have two or more and as such will need the suction handle located near the catch.
- 5) Depending on the overall size particularly multi section cover boards then timber ceiling trims and retaining screws may need to be used. Please consult one of our design engineers for assistance if required.

Other styles of cover boards are available depending on the features required to suit the client's requirements.

## Splash Backs.



Splash backs are manufactured from 1mm thick 304 grade Stainless Steel DP1. They match the ventilation canopy and have folded safe edges on all sides providing a heat resistant, clean and hygienic surface to the walls etc. Any size can be produced up to nearly 3000 x 1500 in a single section. Larger sizes will be supplied in multiple sections to suit the clients requirements. Corner sections can be produced as a single item for inside or outside corners.

## Specialist Ventilation Design Services.

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