

Environmental Products & Services

How to carry out a site survey v1.1

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Award Winning Technology

How to carry out a survey

Site Surveys

All kitchen equipment that discharges water into drain is a potential contamination point. They are divided in to two sections Food waste contamination and food waste & fats, oils and grease contamination points.

A site survey is conducted to identify all contamination points and make recommendations to the best products to protect the kitchen from discharging contaminants to drain. This process can be broken down into 5 steps.

1

Identify Points

Review the kitchen and equipment schedule to identify all equipment that is discharging to the drain

2

Type of contamination

Decide if the equipment is a food waste or fats, oils & grease contamination point

3

Calculate the flow rates

of all the contamination equipment

4

Proposed location

Select the most suitable location as close to the contamination point as possible

5

Model Selection

Select the best model variation for the application based upon the flow rates, available space and the application



How to carry out a survey

Step 1: Identify the contamination points

Carry out a full inspection of the kitchen to identify all potential contamination points. Be sure to ask staff members about other areas that may be in other part of the building or on a different floor.



How to carry out a survey

Step 2: Determine the type of contamination point

There are two main types of contamination points within a kitchen, food waste only & fats oils, grease & food waste

Food waste contamination points are areas that discharge food waste, starch & gluten and unlikely to discharge fats, oils & grease. The following areas would be typically from the preparation process and from the following sources.



Meat / Fish Sinks



Food Prep Sinks



Potato Rumbler



Coffee Machines



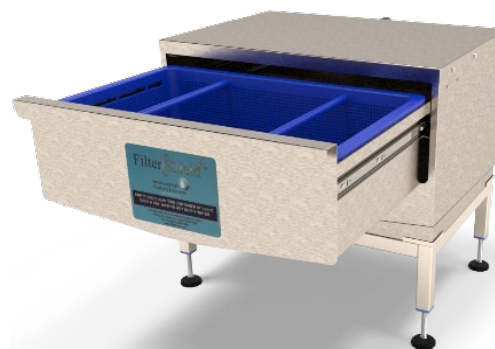
How to carry out a survey

Food waste contamination points can be protected by our FilterShield range detailed below. All our FilterShield ranges will remove and dewater food waste to prevent the biological activity of food waste and to prevent four odours and smells within the kitchen, whilst also protecting the drain from food waste related blockages.

The FilterShield range can be used as a stand-alone product to protect against food waste but can also be used in conjunction with the GreaseShield® range for full protection



FilterShield 2000



FilterShield 1500



FilterShield 1000



How to carry out a survey

Fats, oils & grease contamination points

Fats, oils & grease contamination points within a kitchen are typically areas from the cooking and cleaning process and are discharged from the following areas and will require protecting.



20 / 40 Grid Combi Ovens



6 / 10 Grid Combi Ovens



Rotisserie / Multiserrrie oven



Wok Cooker



Tinting Kettle



Pre-Rinse / Dishwashers



Pot Wash



Tunnel Dishwasher



Floor Drain



Washing Machine



Mop Sink

How to carry out a survey

Fats, oils and grease contamination points can be protected by our GreaseShield® range detailed below. There are 5 base GreaseShield® models that we recommend based upon the calculated flow rates but also the type of equipment that needs protection.

Each of the GreaseShield® base models can have various bolt on options available from the FilterShield and PreFilter range.



How to carry out a survey

Fats, oils and grease contamination points as mentioned above within food service establishments will discharge FOGs to the drainage network and will require protecting. GreaseShield® has a wide range of models suitable to protect all FOG contamination points that can be found in a kitchen.



Hydraulic Sizing and selection

Step 3 Calculating the flow rates of the contamination points

How to size a sink?

To calculate the flow rate of a sink bowl you need to measure the sinks length x width x height

In normal operation, a sink will only be filled $\frac{3}{4}$ full, we use the volume at 75% and allow a 2 minute drain rate to calculate the flow rate. Use the sizing and selection document below to input the bowl dimensions and get the calculated flow rate

Item No:	1			
Description:				
Sink Bowl No: 1	Length (mm)	Height (mm)	Width (mm)	Volume (L)
Sink Bowl No: 2	600	300	500	90
	600	300	500	90
Total Volume (L) of Item:				180
Adjust for Actual Drainage Load (%):	75.00%			
Volume of Actual Drainage Load (L):	135			
Drainage Period (Minutes):	2.00			
Flow Rate (L/M)	67.5			
Flow Rate (L/S)	1.1			

Note: By calculating the flow rates of the contamination points it will determine the GreaseShield® model that is required.

GreaseShield® 1000 Max flow of 1.0 Lps

GreaseShield® 1850 Max flow of 1.85 Lps

GreaseShield® 2000 Max flow of 2.0 Lps

GreaseShield® 3000 Max flow of 3.0 Lps

GreaseShield® 4000 Max flow of 4.0 Lps

[flow rate calculation form](#)



Sizing and selection

Combi Oven

You can refer to the technical specifications of the equipment for an exact flow rate or if this is not available you can allocate a generic flow rate. See below and example.

Common Ovens

Oven Type	Flow Rate l/ps
6 / 10 Grid Convection / Combi Oven	0.46
20 / 40 Grid Convection / Combi Oven	0.7



20 / 40 Grid Combi Ovens



6 / 10 Grid Combi Ovens



Sizing and selection

Multisserrie Style Convection ovens

Will have the need for a Genie H20 to be connect to the GreaseShield® equipment in order to condition the separation tank prior to use in the morning.

Given the nature of these ovens and the high volumes of FOGs that discharge from them, the GreaseShield® 1850-CRM-4 Model has been specially designed for this type of equipment.

Please note that when a GS1850-CRM-4 model is connected to a Multisserrie Style oven, no other contamination equipment can be connected to the same GreaseShield®



Sizing and selection

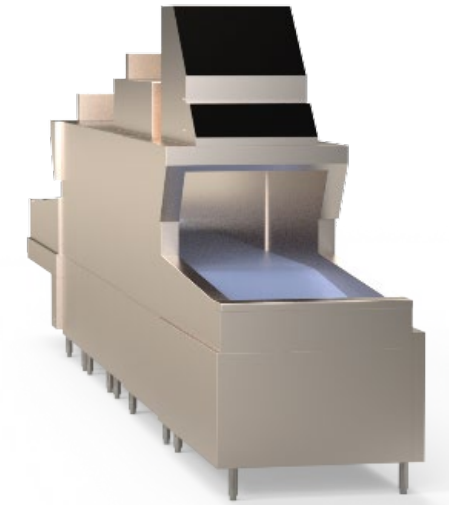
Dishwasher

You can refer to the technical specifications of the equipment for an exact flow rate, plus you may also measure the internal bowls if it doesn't have a drain pump. or if this is not possible you can give a generic flow rate. See below.



Pre-Rinse / Dishwashers

Dishwasher Type	Flow Rate l/ps
Hood Type Dishwasher	0.5
Small Conveyer Dishwasher	1
Large Conveyer Dishwasher	2



Tunnel Dishwasher



Calculating Flow Rates

Flow rate calculations

In order to recommend suitable equipment to protect the identified areas we must first determine the calculated flow rates of each piece of equipment.

To do this we must complete a [flow rate calculation form](#) or with the use of the below information for common sink bowls.

Common Sink Bowls

Sink Type	Bowl dimensions (mm)	Flow Rate l/ps
Single Bowl	400 x 250 x 400	0.3
Single Bowl	500 x 300 x 400	0.4
Single Bowl	610 x 300 x 460	0.5
Double Bowl	400 x 250 x 400	0.6
Double Bowl	500 x 300 x 400	0.8
Double Bowl	610 x 300 x 460	1.1
Triple Bowl	400 x 250 x 400	0.8
Triple Bowl	500 x 300 x 400	1.1
Triple Bowl	610 x 300 x 460	1.6

Common Ovens

Oven Type	Flow Rate l/ps
6 / 10 Grid Convection / Combi Oven	0.46
20 / 40 Grid Convection / Combi Oven	0.7

Dishwasher Type	Flow Rate l/ps
Hood Type Dishwasher	0.5
Small Conveyer Dishwasher	1
Large Conveyer Dishwasher	2



Calculating Flow Rates

Calculated flow rates

Now we know the calculated flow rates of the equipment, we can start to look at suitable models by reviewing the type of equipment needing protected, proposed locations and available space.

We also look at the possibility trying to connect multiple contamination points into the same piece of equipment. This depends on several factors, such as proximity to each other, calculated flow rates, available space and the equipment type.

Area	Item No.	Description	Contamination Type	Flow Rate
Wash Up	1.06a	Sink Bowl	Fats Oils & Grease	0.5
Wash Up	1.08	Dishwasher, Hood Type,	Fats Oils & Grease	0.5
Veg Prep	6.02b	Double Bowl Sink Unit	Food Waste	1.1
Cooking	8.04	Combi Oven, 10 Grid	Fats Oils & Grease	0.5

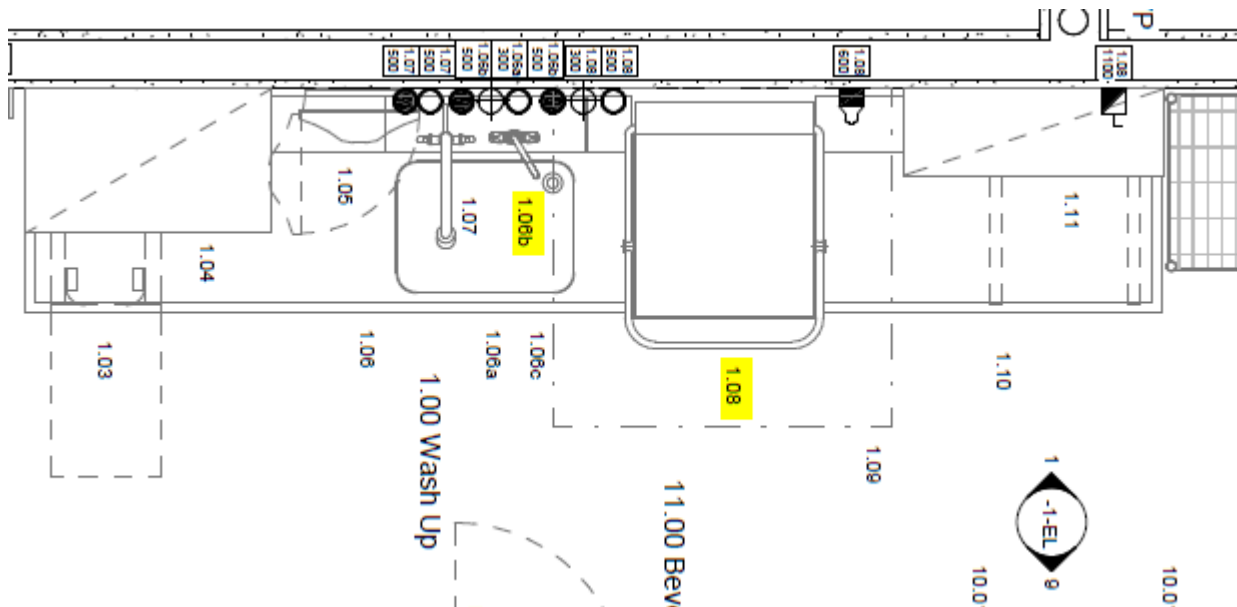
Area	Item No.	Description	Contamination Type	Flow Rate	Equipment
Wash Up	1.06a	Sink Bowl	Fats Oils & Grease	0.5	?
Wash Up	1.08	Dishwasher, Hood Type,	Fats Oils & Grease	0.5	?
Veg Prep	6.02b	Double Bowl Sink Unit	Food Waste	1.1	?
Cooking	8.04	Combi Oven, 10 Grid	Fats Oils & Grease	0.5	?



Equipment Selection

Example Wash Area

Looking at the wash up area we can see that there are two contamination points located beside each other that can be connected to the same GreaseShield® **NB****Please note that different jurisdictions have rules about connecting dishwashers to the grease management systems.*



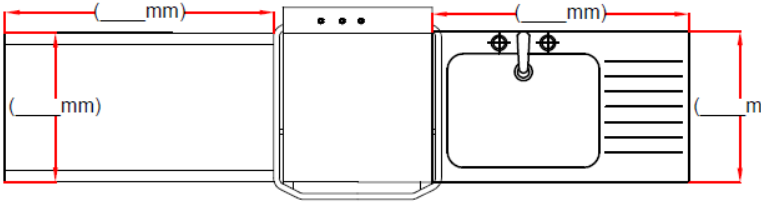
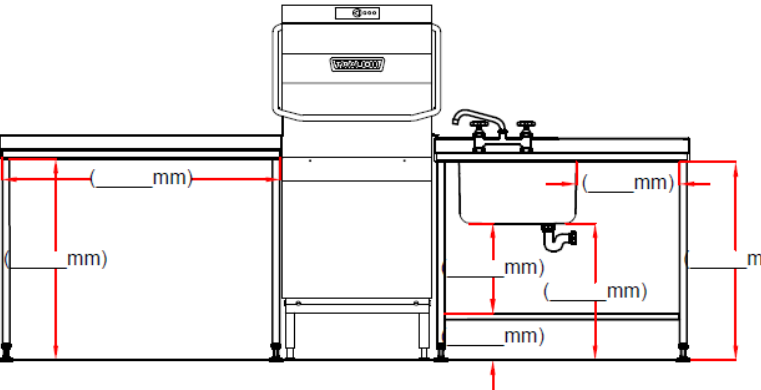
Item 1.06 the pre-rinse sink & **Item 1.08** the hood type dishwasher are in proximity and have a calculated flow rate of **1.0 lps**, this means that it possible to protect both contamination points with GreaseShield® 1850 model

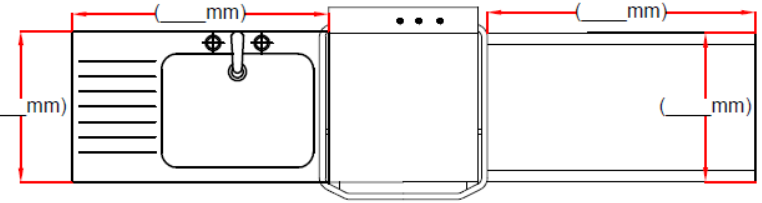
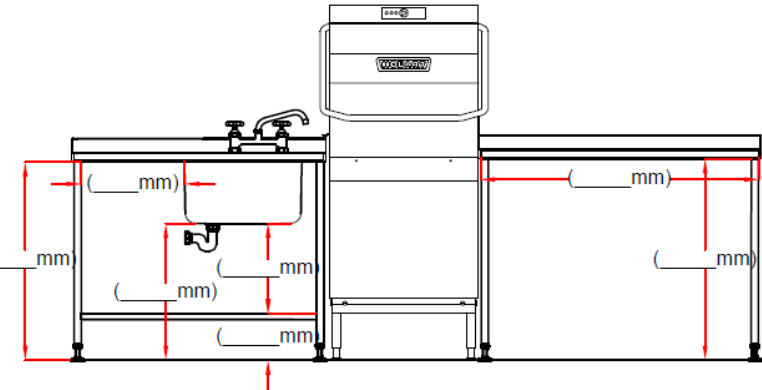


Equipment Selection

Always ensure that you record all the available space within the kitchen that can accommodate drainage protection equipment. Always look for areas as close as possible to the contamination points.

Bowl Dimensions:	Drainage	Water	Power
Length: () mm	Ground Level Drain: (Yes / No)	Hot water (Yes / No)	Suitable Power Supply (Yes / No)
Width: () mm	Outlet Pipe: (40mm / 54mm / 105mm)	Isolation Valves (Yes / No)	IP56 socket required? (Yes / No)
Depth: () mm	Pipe going Thru wall: (Yes / No)	Pipe Size: (15mm / 22mm)	
Qty: () mm	Height of pipe thru wall: () mm		

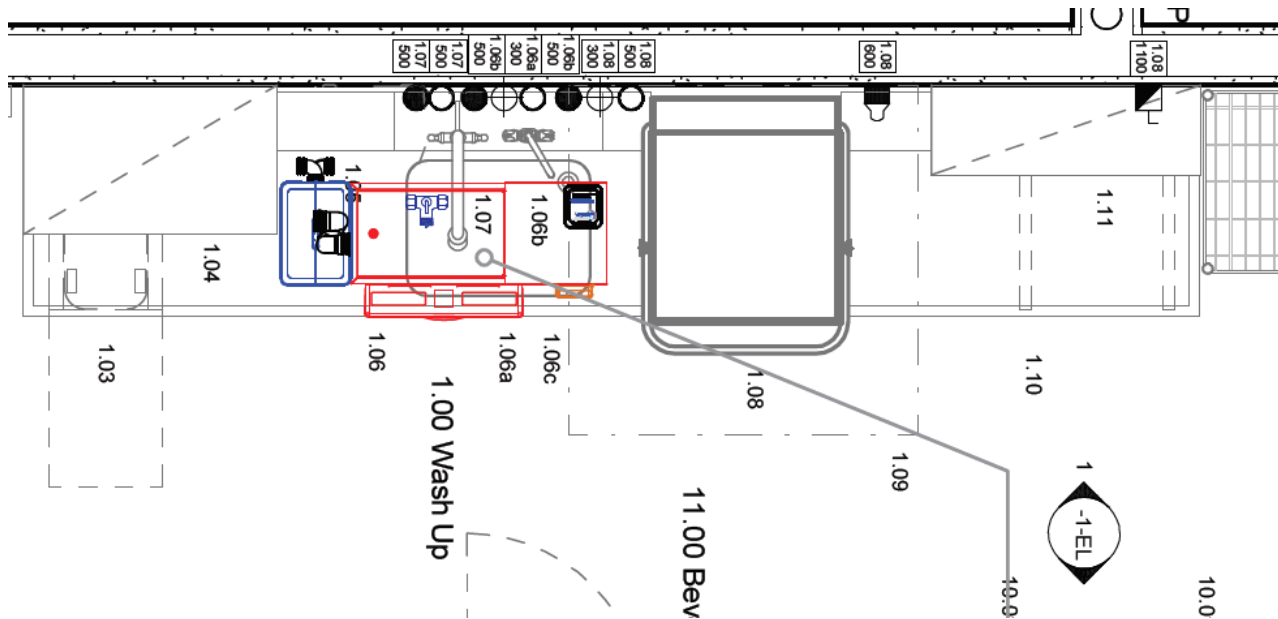
[Link to Site Survey Templates](#)



Equipment Selection

Example Wash Area protection

If we are making a recommendation within an area that permits dishwashers to be protected, we will always recommend protection. Given that the flow rates have determined that a GS1850 model is the ideal model, we must then look at the best form of food waste filtration. In this case the **PreFilter** option will suite as there is adequate space and clearance above the PreFilter for daily maintenance



Model type: 1850 *(Based on flow)*

Food Waste Filter: PreFilter *(Based upon available space)*

Additional: AST *(Based on lack of drain pump)*

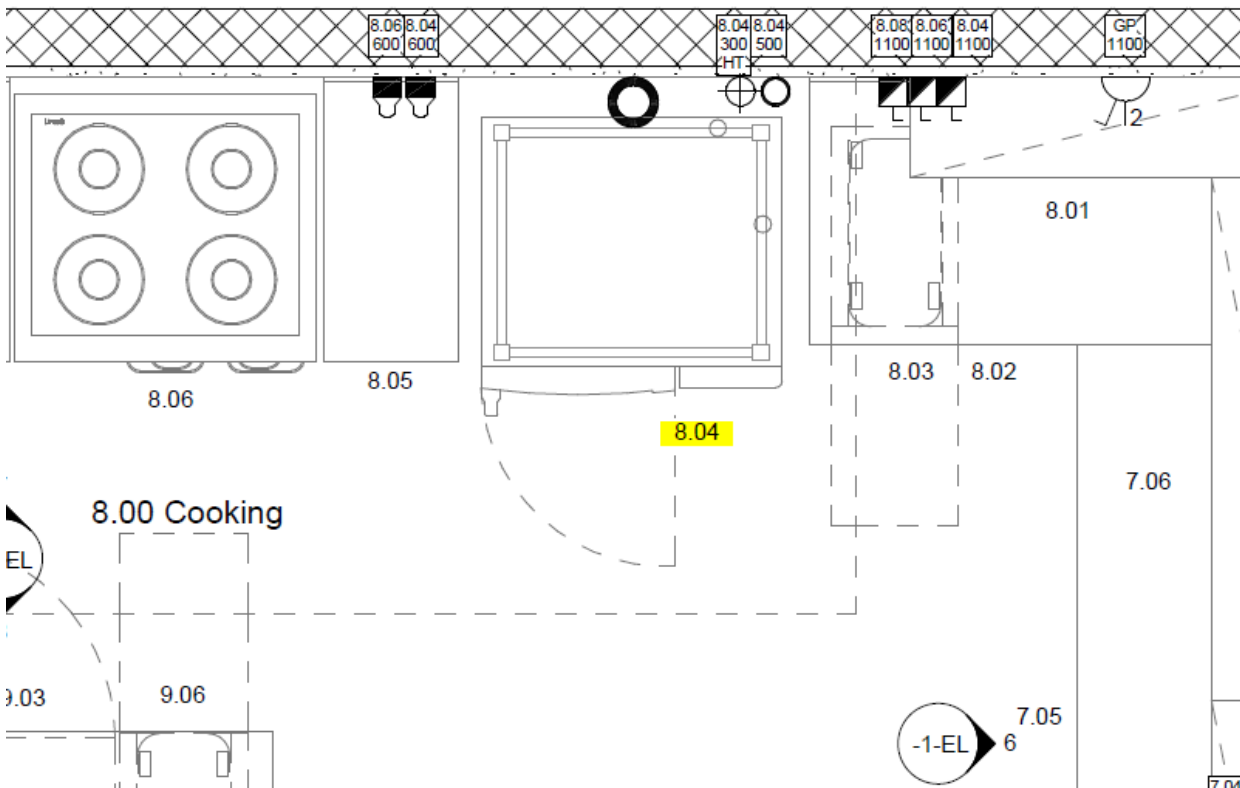
Recommended Model: *GS1850-AST-PF*



Equipment Selection

Cook Area protection

We have identified a 10 grid combi oven that needs to be protected and we have calculated that the flow of the equipment is 0.5 Lps so a GS1000 model is suitable.



As you can see from the drawing, there is no available space to the left or the right-hand side of the oven due to the kitchen design. This leaves only the area directly underneath the oven to located the GreaseShield®



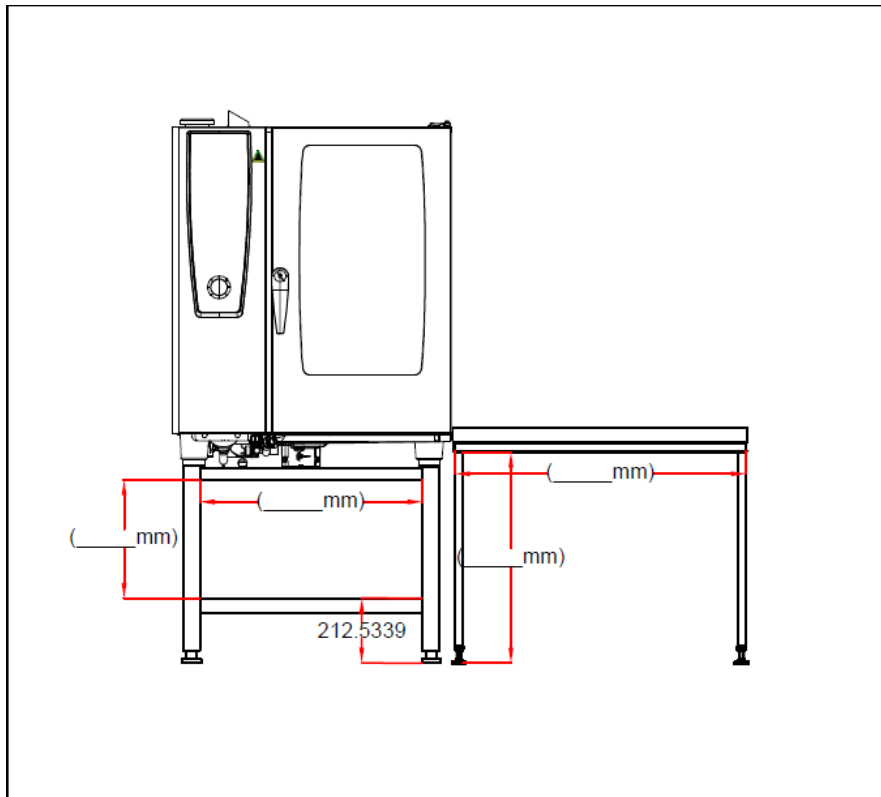
Equipment Selection

Always ensure that you record all the available space within the area that can accommodate drainage protection equipment. Always look for areas as close as possible to the contamination points.

[Link to Site Survey Templates](#)

Using the site survey templates will help ensure you collect all relevant information such as:

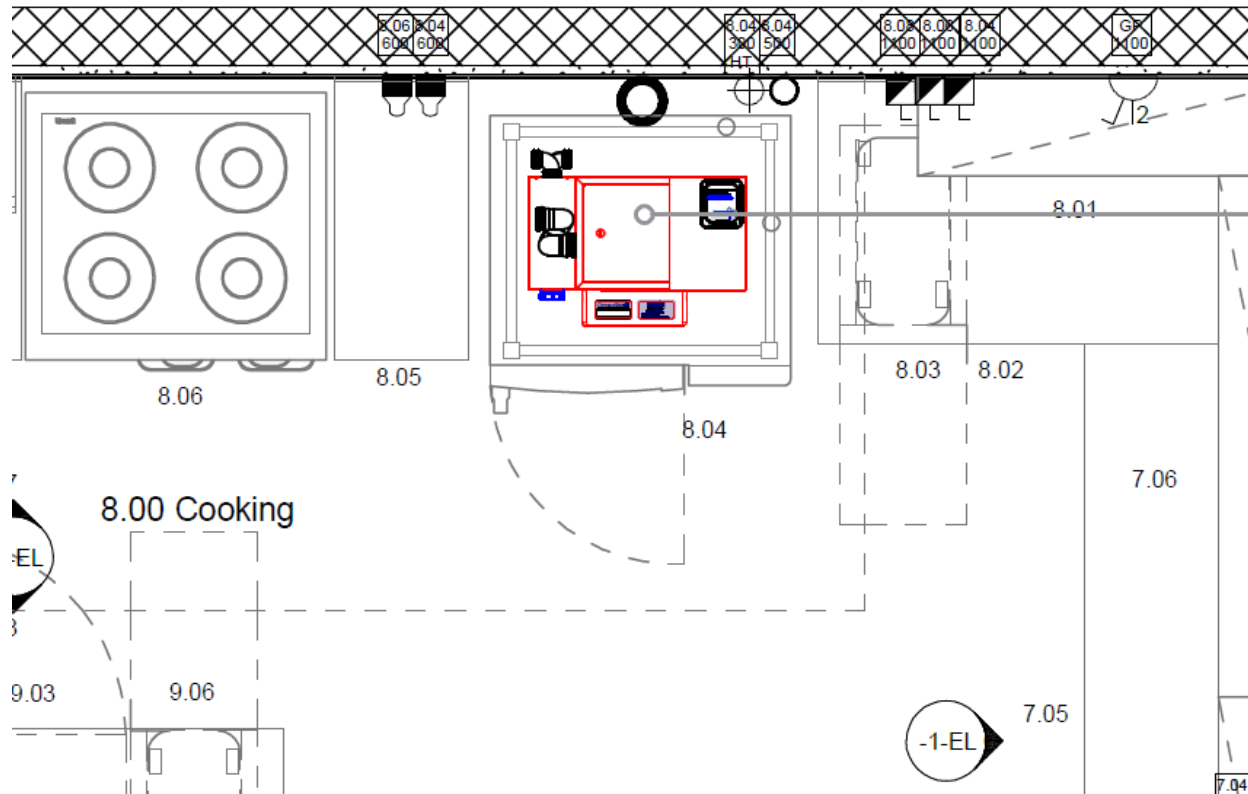
- Type of equipment
- Bowl dimensions
- Available space
- Exact drainage locations
- Available hot water supply and accessible isolation valves
- Suitable power requirements



Equipment Selection

Cook Area protection

We know that combi ovens don't typically discharge high amount of food waste and have limited space available, so the preferred method of food waste filtration would be the Front Loading PreFilter.



Model type: 1000 (Based on flow)

Food Waste Filter: Front Loading Filter (Based upon available space)

Location: Under Oven (due to lack of available options)

Recommended Model: GS1000-FLF

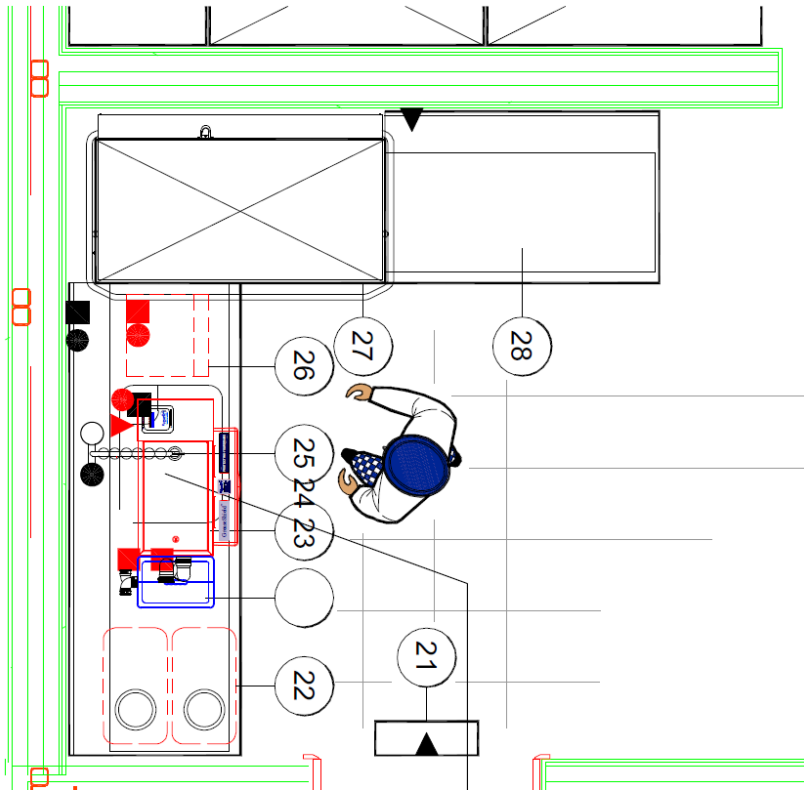
NB* If there was a prep table near by that could accommodate the equipment, then it would be a better option than directly underneath the oven as this space may have been intended for storage for oven tray.



How to carry out a survey

Step 5: Model Selection and food waste filtration options

Knowing the combined flow rates of the contamination points will determine the GreaseShield® range required but different kitchen setups will limit the options available for food waste filtration and dewatering.

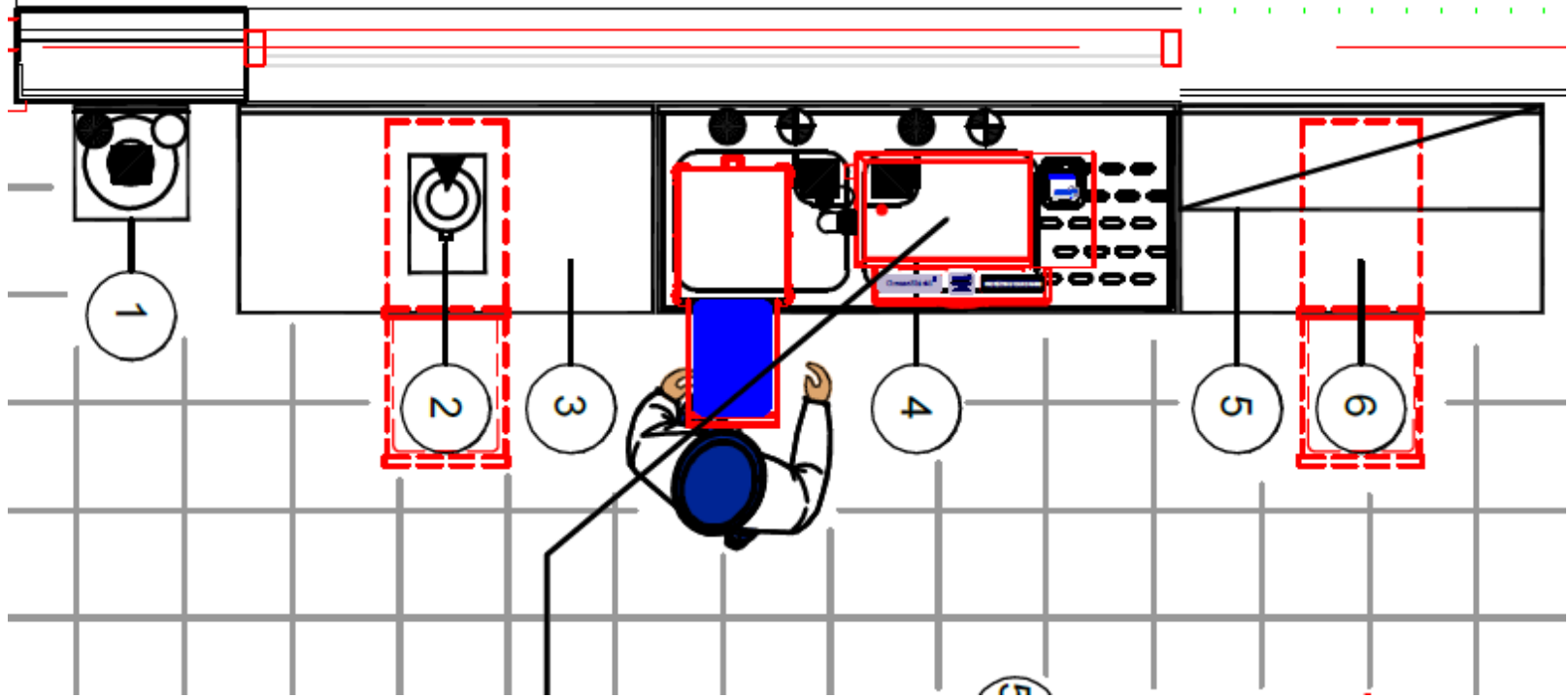


Example 1: The Pre-rinse sink has a left-hand side drainer, so a PreFilter can be fitted as there is no restriction in head clearance for removing the PreFilter basket.



How to carry out a survey

Example 2: The Double bowl pot wash sink has a right-hand side drainer, meaning that a PreFilter cannot be used as there is no clearance available to remove the basket. In this situation a FS1000 or FS2000 may be used to protect the GreaseShield® from food waste entering the unit.



How to carry out a survey

Collection of Information



When carrying out site surveys, always ensure that you gather as much information as possible.

- Take plenty of **photographs** of the kitchen to give a full representation of the kitchen layout.
- Ensure that photographs are taken of key areas such **power, drain & water access points** are captured.
- Always **stand back** to capture as much information as possible.
- **Record** a video showing the kitchen area and key information.
- Provide a kitchen **sketch** detailing the equipment layout and drain point locations.
- Use the site **survey templates** in to help gather vital information and measurements.
- Find out **access time** to the site and when an installation can happen.
- Advise of the local area and potential **parking** issues near the premises.

Collecting the correct information at the site survey will help ensure that the customer service department can prepare correctly for the installation and prevent installations being called off due to lack of information.

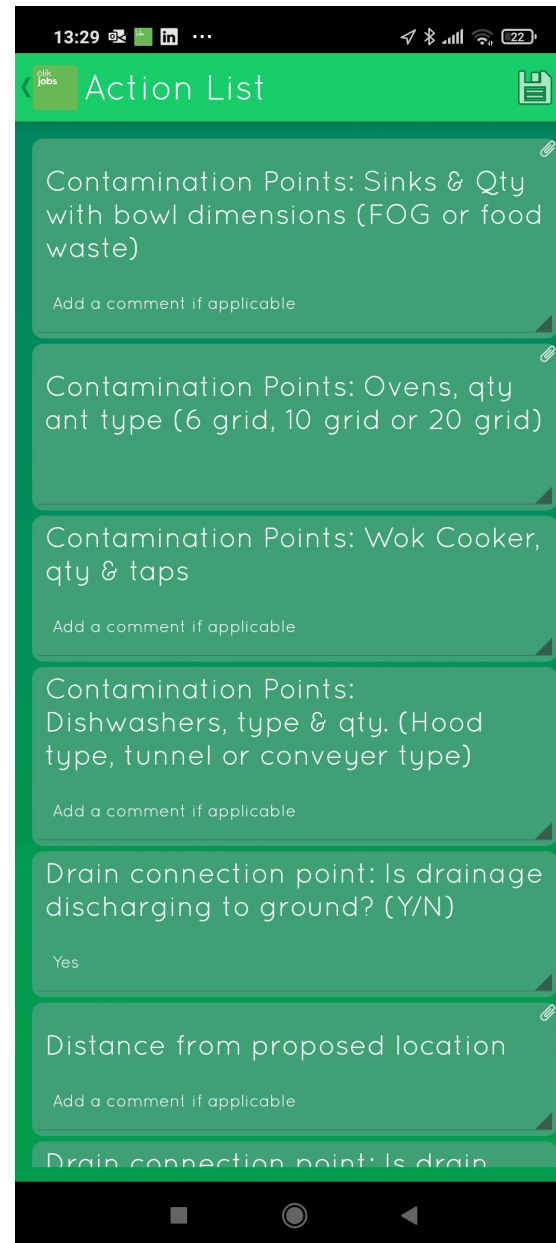


How to carry out a survey

Collection of Information on Klik

Please use the Klik software to gather all relevant information such as:

- Contamination points
- Sink dimensions
- Available space
- Current drainage
- Hot water requirements
- Power requirements
- Photographs



The screenshot shows a mobile application interface titled 'Action List'. The list contains the following items:

- Contamination Points: Sinks & Qty with bowl dimensions (FOG or food waste)
Add a comment if applicable
- Contamination Points: Ovens, qty and type (6 grid, 10 grid or 20 grid)
- Contamination Points: Wok Cooker, qty & taps
Add a comment if applicable
- Contamination Points: Dishwashers, type & qty. (Hood type, tunnel or conveyer type)
Add a comment if applicable
- Drain connection point: Is drainage discharging to ground? (Y/N)
Yes
- Distance from proposed location
Add a comment if applicable
- Drain connection point: Is drain



How to carry out a survey

Always follow the 5 steps

Identify Points

Review the kitchen and equipment schedule to identify all equipment that is discharging to the drain

1

Type of contamination

Decide if the equipment is a food waste or fats, oils & grease contamination point

2

Calculate the flow rates

of all the contamination equipment

3

Proposed location

Select the most suitable location as close to the contamination point as possible

4

Model Selection

Select the best model variation for the application based upon the flow rates, available space and the application

5

Always

- Note the accessibility to hot water and how it will be isolated
- Watch the kitchen staff and their habits within the kitchen. Just because a sink may be designated as food preparation, it may be discharging FOGs as staff are using it differently.
- Ask the staff if there are any other contamination points, as there may be additional equipment in a different room or even on another floor.
- Take plenty of photographs of the kitchen to show your findings and ensure to stand back and show as much information as possible
- Identify all contamination points within the kitchen. That includes all food waste and Fats, oils and grease contamination points.
- Do a sketch of the kitchen layout and complete a sizing and selection calculations to determine the flow rates of the contamination points
- ensure that you measure and recorded dimensions of the available space for the proposed location.
- Detail the closest power source and take notes of further requirements required

