

Environmental Products & Services

Installation Training

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Installation connections

As part of the installation of a GreaseShield® & FilterShield, there are a few key things to remember:

The Inlet Pipe Work

- All pipe work must be in 40mm (1" ½) and have a fall of at least 1 in 40
- All pipe work must be properly clipped and supported
- A Vortex Flow controller (VFC) must be used when connecting to a PreFilter, FilterShield and an AST range.
- Never use a VFC when connecting to a Font Loading Filter

The Outlet Pipe Work

- All pipe work must be 50mm (2") and have a fall of at least 1 in 40 (*Excluding GS3000 & GS4000*)
- All pipe work must be properly clipped and supported
- The Running trap must always be fitted to prevent foul odours traveling into the kitchen.
- A sampling point must be fitted
- An air admittance valve (AAV) must be fitted on the line after the running trap
- If applicable, the grey hose must discharge into a trapped upstand and not sealed to prevent siphoning



Installation connections

The Water Connection

- The hot water supply pressure must be tested and not exceed 3 Bar (43 PSI)
- If the water pressure exceeds 3 Bar (43 PSI) a pressure reducing valve (PRV) must be fitted in order to bring it below 3 bar (43 PSI)
- If applicable, the correct type PRV must be used to control pressure under flow and not flow conditions.

Power Supply

- We recommend a minimum IP56 or higher rated socket to be located below counter level.
- Never leave a GreaseShield® installed without a power supply in a working kitchen.
- The Genie H20 must have its own power supply with a minimum 20amp fuse spare.
- Always tidy up power cable and never leave additional slack lying on the ground.

Additionally

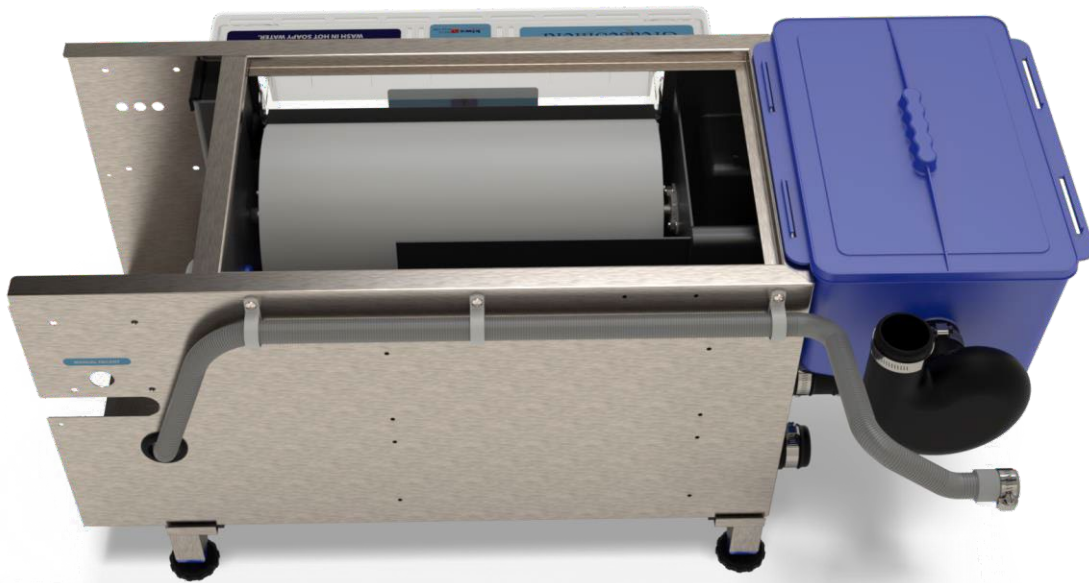
- The unit must be installed level
- Staff training and commissioning must be carried out.
- Leave the kitchen clean and tidy.



Main GreaseShield® Connections

The GreaseShield® has several components that allows it to work effectively to remove food waste, fats, oils & grease efficiently. This next section will teach you every component within all GreaseShield® models and their function.

Vortex Flow Controller: Is a non-restricted flow control device that connects to the inlet of the GreaseShield® and is designed to control the rate of water entering the equipment without restricting the flow.



Main GreaseShield® Connections

Sampling Point: Is fitted in the outlet pipe of the GreaseShield® and is placed at a 45° angle from the ground to permit samples of the effluent to be taken by local authorities for analysis of FOG discharge to drain.



Main GreaseShield® Connections

2" Running trap: Is a water trap the is fitted on the outlet of the GreaseShield® to prevent foul odours from making their way from the drainage network back to the GreaseShield®



Main GreaseShield® Connections

Air Admittance valve is to be located in-between the running trap and the drain point. Never install the AAV between the running trap and the GreaseShield® This allows a good flow of air into the line and helps prevent air locks, ensuring water can flow freely away from the GreaseShield®



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The Inner working parts & components of a GreaseShield®

Washing machine hose: Is supplied with the GreaseShield® and is to be connected to the GreaseShield® via either the kitchen's hot water supply or the Genie H2O instant hot water on demand.



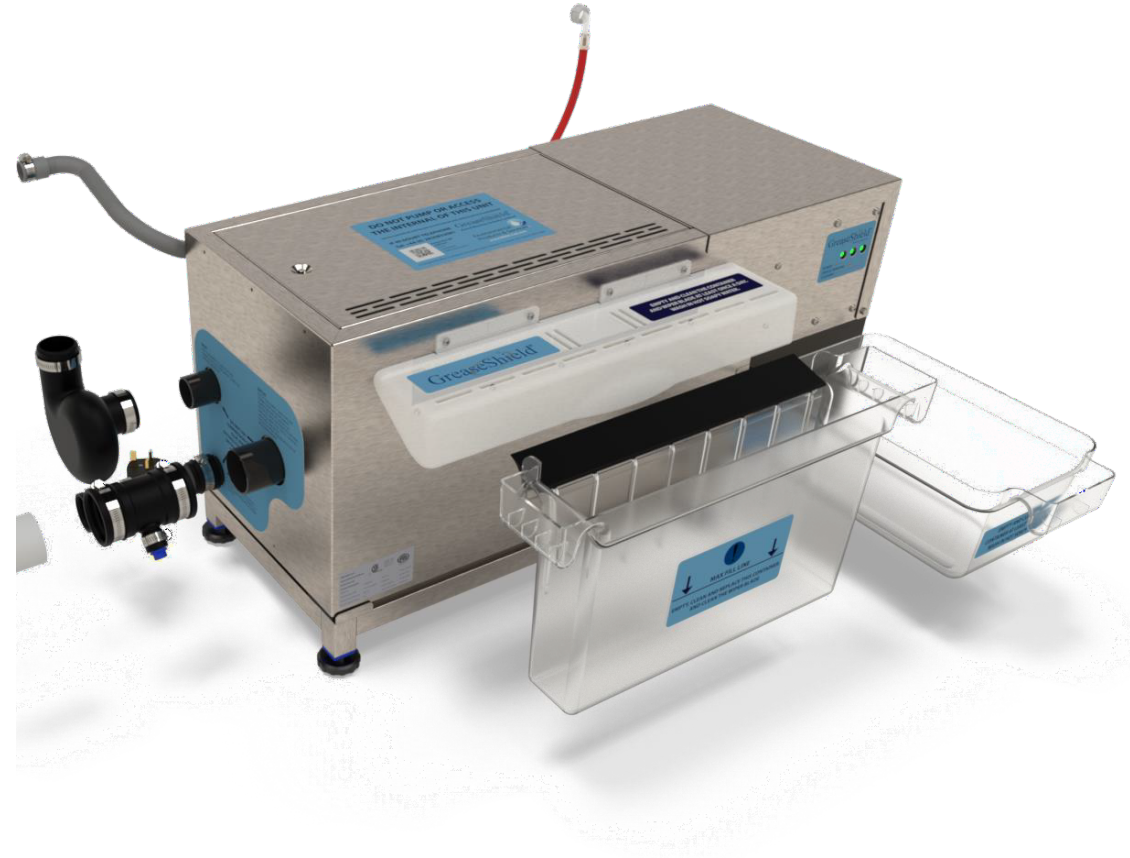
How to install a GreaseShield®

AST Inlet Connection

The GreaseShield® 1000, 1850 AST connections must be made with the Vortex Flow controller (VFC) device.

As the GS1000-AST model has a 32mm inlet connection a 42mm – 32mm FlexiPlumb reducer must be used to connect the Vortex flow control device.

On the GS1850-AST version the VFC can be connected directly to the 40mm inlet of the GreaseShield®



How to install a GreaseShield®

PreFilter Connection Inlet

When connecting to the PreFilter variation the connection from the contamination points will be fitted directly to the 42mm (1 ½) connection on the rear of the PreFilter via the vortex flow controller by 42mm (1 ½) pipe work that is well supported and having a fall of at least 1 in 40.



How to install a GreaseShield®

FilterShield 2000 Connection **Inlet**

When connecting to the FilterShield 2000, the inlet from the contamination points will be via the 42mm / 1 ½ " connection on the rear of the FilterShield and the FilterShield will then be connected to the GreaseShield® via 42mm / 1 ½ " pipe via the vortex flow controller.

All pipe work must have at least a 1 in 40 fall or less



GS1850-F Rear View



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How to install a GreaseShield®

FilterShield 1000 Connection Inlet

When connecting to the FilterShield 1000 variation, the inlet from the contamination points are connected via the 42mm / 1 ½" connection on the rear of the FilterShield 1000. The connection to the inlet is made with a Vortex flow controller and the outlet of the FS1000 will then be connected to the GreaseShield® with 42mm (1" ½) pipe work that has a minimum fall of at **least 1 in 40**.

Never, fit the Vortex Flow Controller (VFC) on the line between the FilterShield and the GreaseShield® as this will reduce the flow of water leaving the FilterShield and will cause the FilterShield to be overwhelmed and flood.



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How to install a GreaseShield®

Front loading Filter Inlet

When connecting to the Front-Loading Filter (FLF) variation the connection from the contamination points will be fitted directly to the 42mm / 1 ½ ” connection on the rear of the Filter via a 40mm (1” ½) FlexiPlumb 90° or straight coupler.



Pipe work must be 42mm (1 ½) pipe work that is well supported and having a fall of at least 1 in 40.

Never use solvent weld PVC pipe when connecting to an oven to the GreaseShield® as the high discharging temperatures of the water exceed the pipes capabilities.

Always uses push fit polypropylene pipe work that can deal with the high discharging temperatures.

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How to install a GreaseShield®

Connection to the sink waste

As the GreaseShield® equipment is commonly located directly underneath, space is typically limited.

1" ½ P-Traps are quite deep and can take up unnecessary space, but when you are connecting a GreaseShield® to the sink bowl, the need to protect the sink from foul odours and sewer is no longer a priority as the GreaseShield® equipment becomes the closest source to the drain and must now be protected.

There are two options available to connect onto the sink waste that will limit the space consumed below the sink bowl.

Option 1: The bath trap



Option 1: Swivel 90°



How to install a GreaseShield®

GreaseShield® Outlet connection

The outlet on the GS1000 to GS2000 models is made via 2" outlet located on the left-hand side of the GreaseShield® the outlet can be connected by a number of Flexi Plumb connectors

2" FlexiPlumb Sampling point



2" FlexiPlumb Straight connector



2" FlexiPlumb 90° bend



How to install a GreaseShield®

Regardless of the FlexiPlumb fitting that connects to the GreaseShield® the outlet pipe must have a 2" running trap fitted on the outlet line to prevent any foul smells traveling back to the GreaseShield® and an air admittance valve located after the running trap to allow a good flow of air to the pipe and ensure that the water can flow away from the GreaseShield® with ease.



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How to install a GreaseShield®

GreaseShield® 1850 & 2000 Outlet connection

Along with the 2" outlet on the GreaseShield® there is the addition of a grey flexible hose that must also be connected.

The Grey hose is for cleaning and servicing purposes and must be fitted at the time of installation when applicable.

The grey hose is located at the rear of the GreaseShield® and must be fitted to the outlet drain via a washing machine upstand or trapped upstand to prevent any foul odours traveling back up the pipe.

The grey hose must be raised above the height of the GreaseShield® before dropping into the upstand. The top of the upstand must be allowed to breath and the grey hose must not drop below the water line of the GreaseShield®, and you **MUST NOT** fill in with silicon or any other fittings that creates an airtight seal, as this can cause the siphoning of the separation tank and greatly reduce the efficiency of the equipment.



How to install a GreaseShield®

GreaseShield® 1850 & 2000 Outlet connection

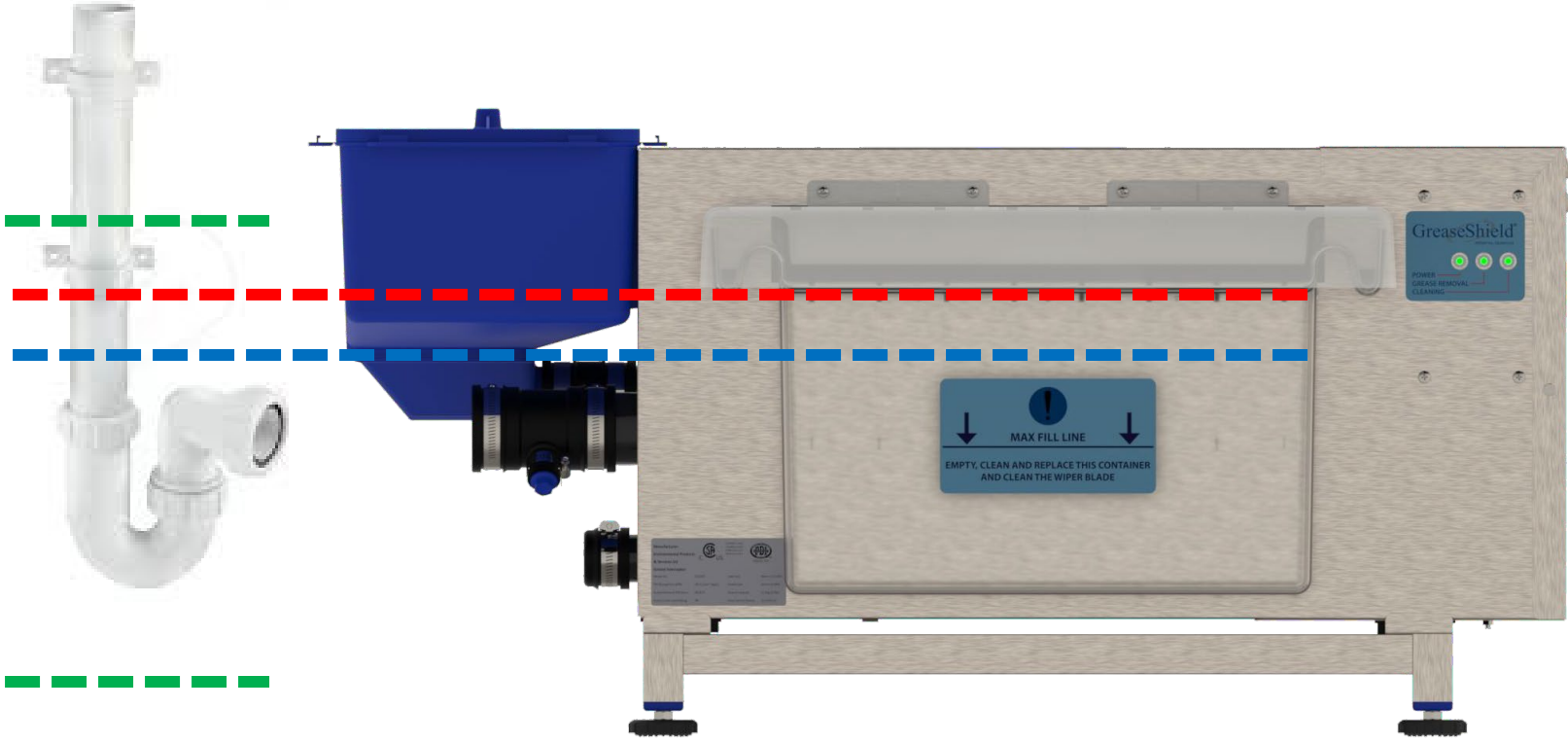
Here is an example of the grey hose being vented into the upstand, but the grey hose has been pushed below the static water level of the GreaseShield®. This will cause the water to siphon from the separation tank.

Always keep the grey hose above the water maximum water level within the separation tank.



How to install a GreaseShield®

Grey hose installation



Max grey hose depth 

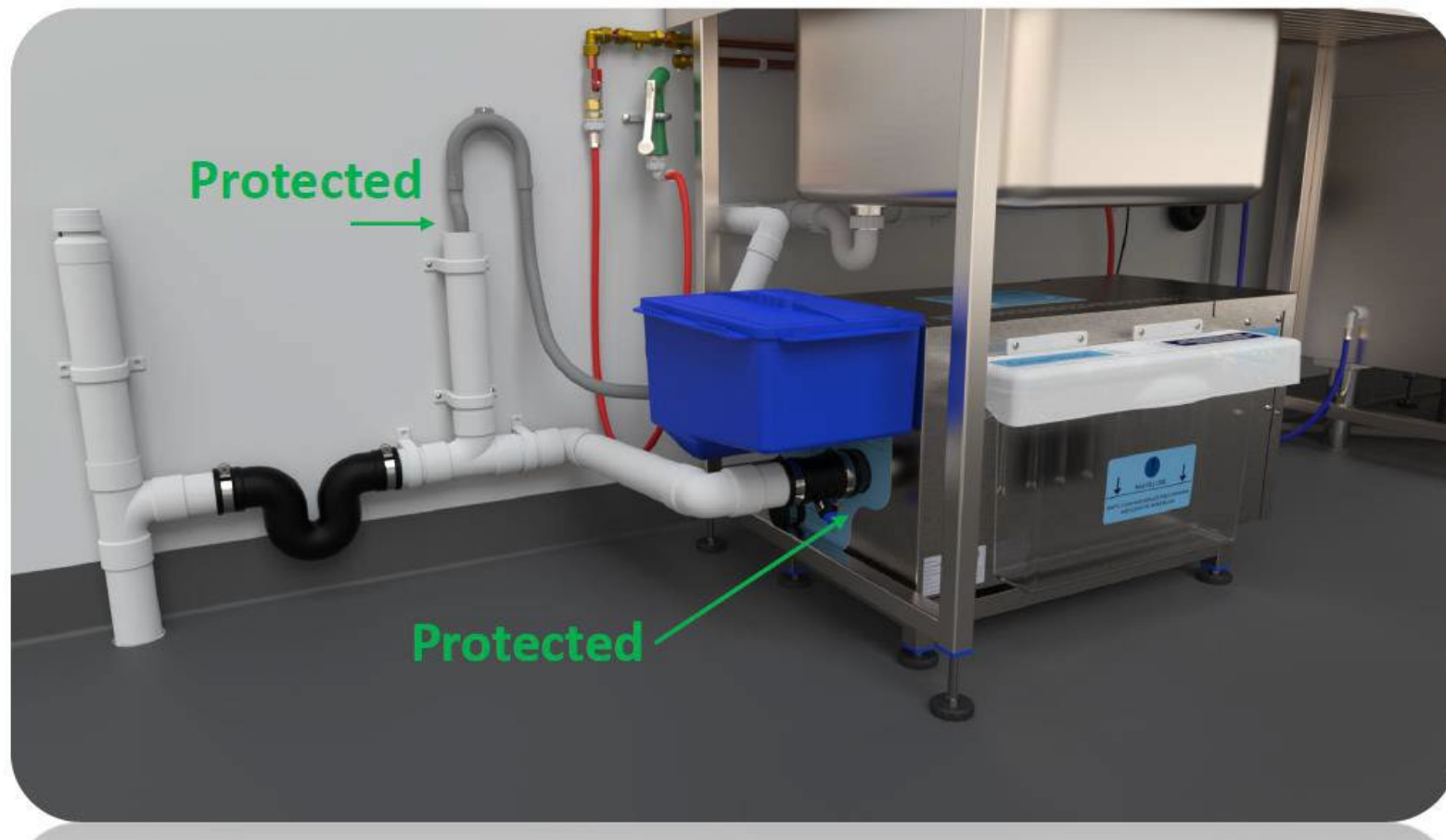
Flood level 

Static Water level 



How to install a GreaseShield®

GreaseShield® 1850 & 2000 **Outlet** grey hose connection



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How to install a GreaseShield®

GreaseShield® Range **Water** connection

The GreaseShield® range will require to be connected to either the kitchen hot water supply or via the Genie H20 instant hot water heater.

The hot water connection is located at the rear of the unit below the power lead and is connected by a ¾" BSP washing machine hose that is supplied with the equipment.



How to install a GreaseShield®

GreaseShield® Water connection

The opposite end of the $\frac{3}{4}$ " BSP washing machine hose is connected to quarter turn washing machine valve.

We also recommend that a WRAS approved double check valve be fitted on the water connection to prevent back contamination to the water supply.

Once the washing machine has been fitted you must also test the water pressure to ensure that it does not exceed 3 bar pressures. If the water pressure exceeds 3 Bar, then a pressure reducing valve must be fitted to ensure the water pressure is set below **3bar (43 PSI)**



How to install a GreaseShield®

The importance of checking the water pressure

If the water pressure exceeds 3 bar (43 PSI) there is a high likelihood the structural integrity of the hose will be compromised.

The hose can begin to show bulging in certain areas and will eventually give way and potentially flood the kitchen.

Always test the water pressure and fit a suitable pressure reducing valve (PRV) when required.

Ensure the correct PRV is used that will control the pressure under flow and non-flow conditions.

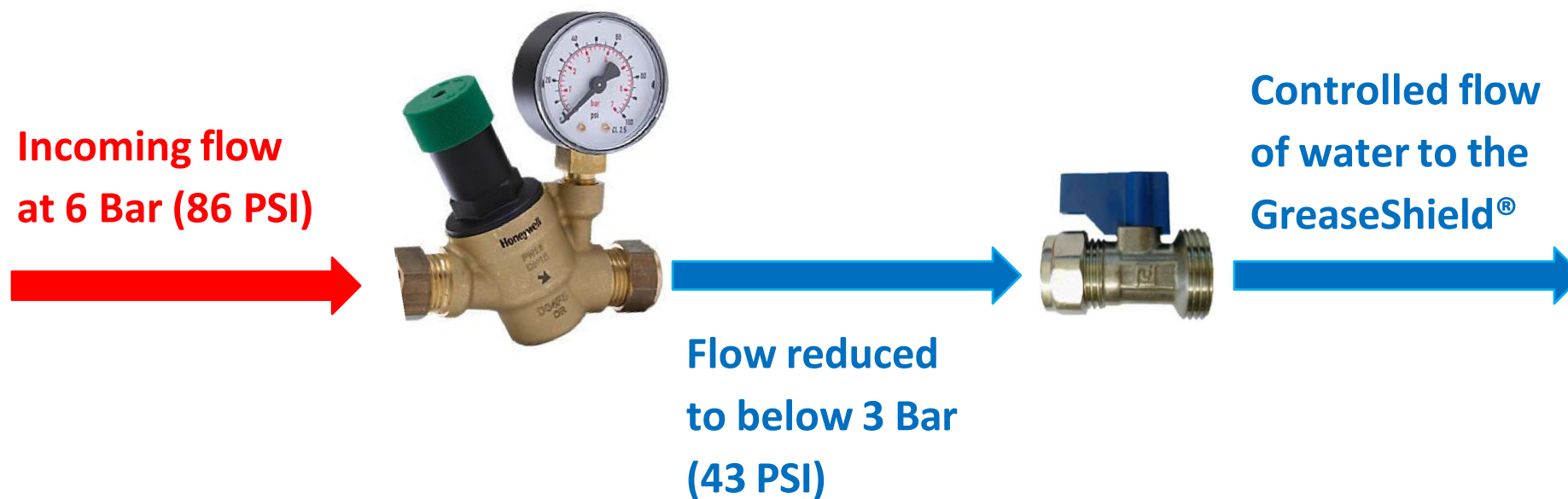


How to install a GreaseShield®

Installing a Pressure Reducing Valve (PRV)

Step 1.

Find a suitable location for installing the PRV. The valve must be installed before the washing machine valve.



How to install a GreaseShield®

Installing a Pressure Reducing Valve (PRV)

Step 2.

Wrap the thread on the pressure gauge with PTFE tape and ensure that you cover with at least 10 -15 layers depending on the grade of the tape.

After wrapping the PTFE tape, apply joining compound around the PTFE tape and tighten to the PRV until a water tight seal is created.



How to install a GreaseShield®

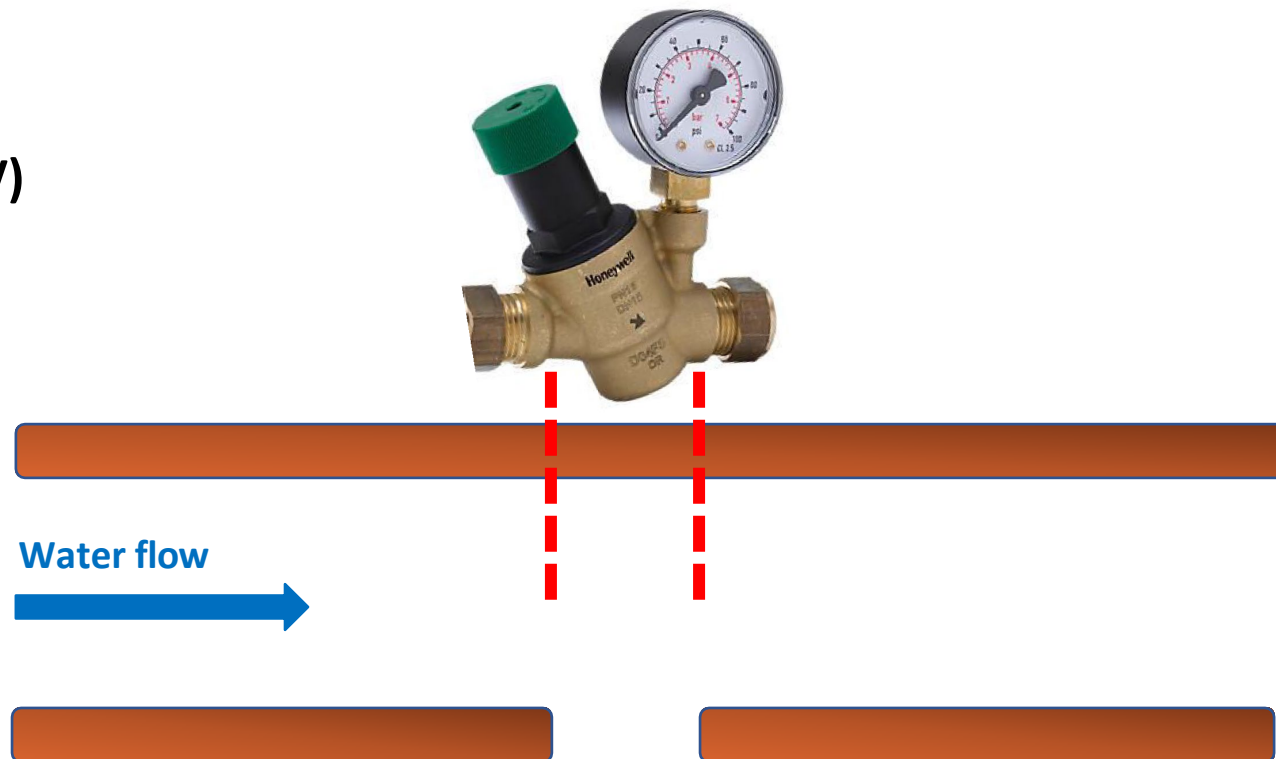
Installing a Pressure Reducing Valve (PRV)

Step 3.

Isolate the hot water supply and open the hot taps to confirm that the flow of water has stopped.

Mark on the pipe where to cut the pipes and cut the copper or plastic pipe.

Always ensure that arrow on the PRV is pointing in the same direction as the flow of water



How to install a GreaseShield®

Installing a Pressure Reducing Valve (PRV)

Step 4.

Apply the joining compound on the outside of the 15mm compression olives / rings and fit the PRV into position



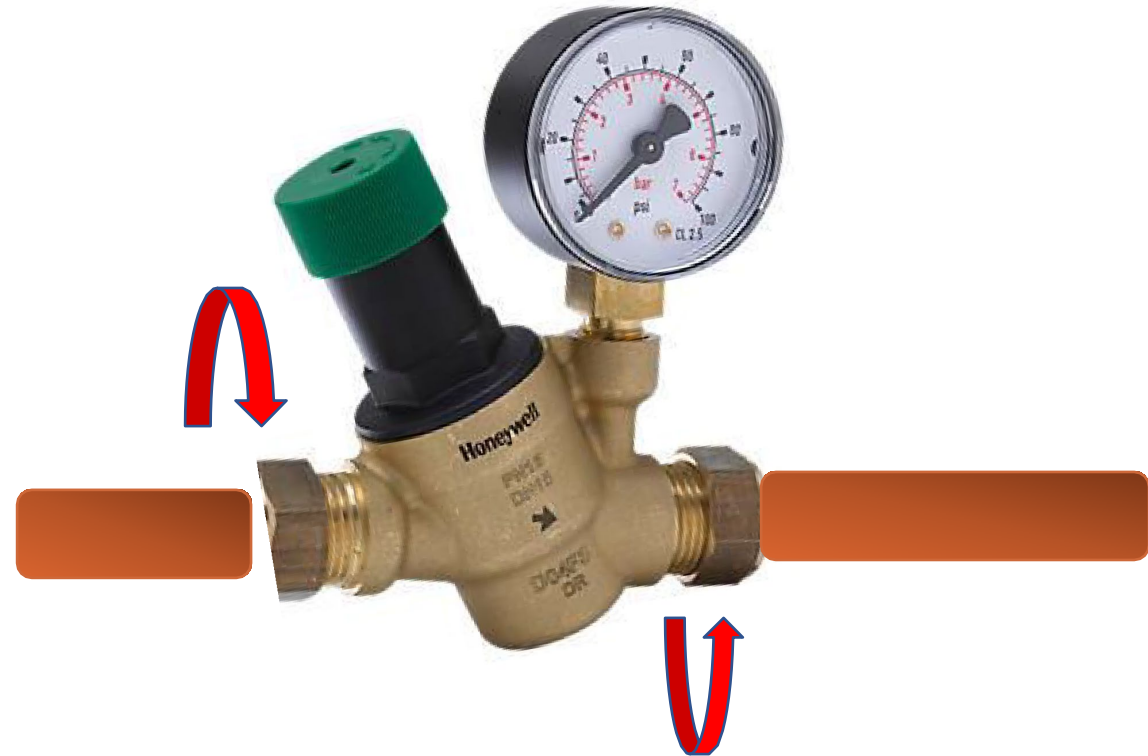
How to install a GreaseShield®

Installing a Pressure Reducing Valve (PRV)

Step 5 .

Using an adjustable spanner and pump pliers, tighten the compression nuts until water tight, never over tighten the nuts as this can damage the pipe and the olive and will cause a leak.

Open the isolation valve and test for leaks. Tighten the joints if required.



How to install a GreaseShield®

Installing a Pressure Reducing Valve (PRV)

Step 6.

PRVs typically come present to 3Bar, but if you need to further reduce the pressure, use a Allen key to adjust the pressure as required.

Once satisfied, ensure that the pressure is maintained below 3 Bar (43 PSI) during non-flow conditions.



How to install a GreaseShield®

GreaseShield® Power connection

The GreaseShield® range requires a 13amp IP56 rated socket located below the counter level and to prevent the staff from switching the equipment off.

Genie H20 Power connection

The Genie H20 hot water on demand system will require its own separate power supply via a 20amp fuse spare.

NEVER connect the Genie H20 into 13amp socket.



How to install a GreaseShield®

Ensure the unit is installed level

Always check the equipment is installed level and use the adjustable feet on the hygiene stand.

When the GreaseShield® is not sitting level, it can greatly affect the removal of FOGs and the efficiency of the equipment.

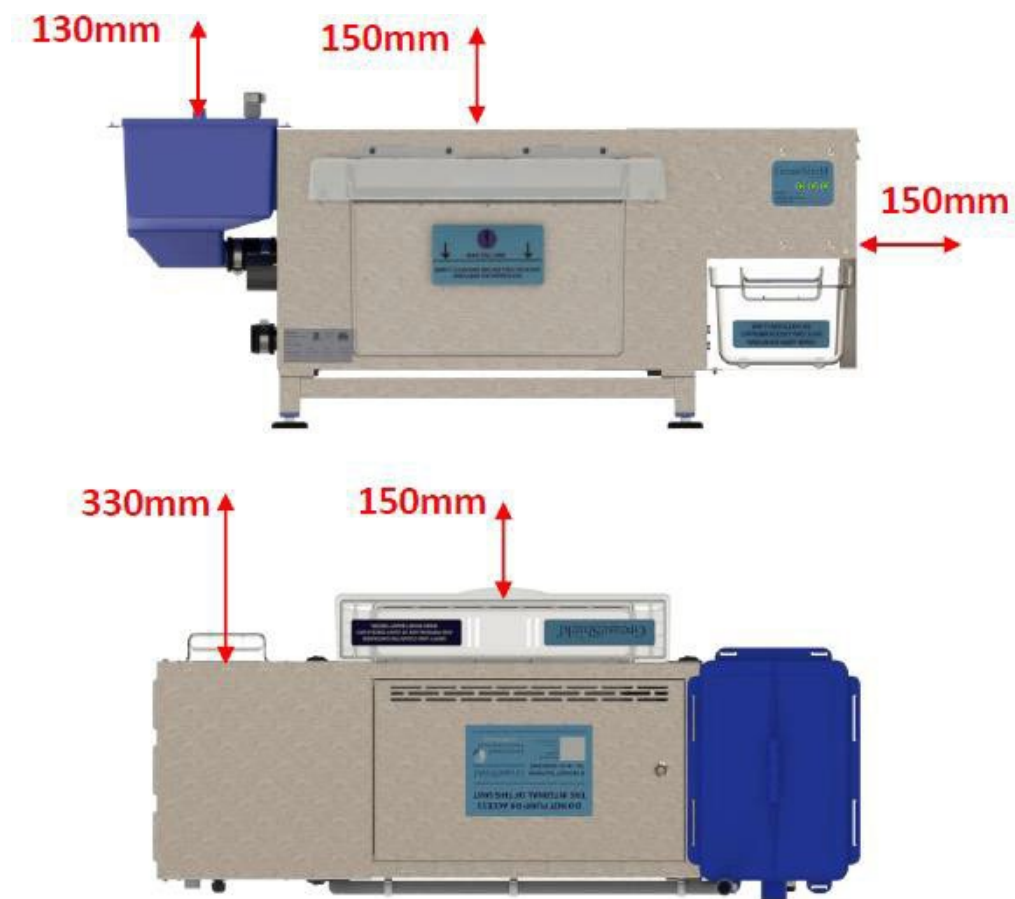


How to install a GreaseShield®

Daily maintenance & Service access

Always take into consideration the staff that are using the equipment daily and ensure that you do not restrict access to carrying out the daily maintenance procedure.

Additionally, always think about the final location of the GreaseShield® equipment and ensure sufficient access is available to carry out servicing on the equipment.



How to install a GreaseShield®

Testing and commissioning

Once the equipment has been installed correctly, you must turn on power to the equipment to ensure that its going through it normal cycles correctly and working efficiently.

You must discharge all connected equipment through the GreaseShield® at the same time to ensure that the equipment can handle the peak flow of water from the discharging equipment. Fill all connected sinks to 75% and discharge at the same time. If there is a dishwasher connected, place into a drain down cycle and if there is a combi oven connected, dump the boiler water.

Check all pipework including the hot waster supply to ensure there is no leaks. If you discover a leak within the kitchen that has nothing to do with the services that you were working on, advise the manager and make a not on your report.



How to install a GreaseShield®

Adjusting the PLC program

Once the equipment has been installed and commissioned you must ask the Manager / Chef what the operating times of the kitchen are and adjust the GreaseShield® accordingly.

Changing the operational times

Step 1 Press and hold the + Button for 10 seconds. After 10 seconds a new menu will appear.

Step 2 press the A button once to scroll to the next menu screen, this will now take you to the operational times. You will see the following:

- On hours 0007
- On minutes 0000

Meaning the Unit will activate at 07:00am

- Off hours 0002
- Off minutes 0030

Meaning the unit will turn off at 02:30am

Step 3 press the + & - buttons to scroll up and down to the desired value you need to change

Step 4 press the green OK button in order to change the value as required with the + & - buttons

Step 5 press the green OK button again when changes have been made and press the red ESC button when finished.



How to install a GreaseShield®

Staff Training

Prior to signing off on the report, ensure that you provide staff training to all relevant members of staff and have them sign the report detailing that they have received training on the correct use of the training.



DO NOT ACCESS THE INSIDE OF THE GREASESHIELD!
DO NOT USE THE TOP OF THE GREASESHIELD AS A SHELF!



EMPTY and CLEAN Fats, Oils and Grease collection container DAILY!
Grease should be collected by authorised waste collectors



CLEAN WIPER BLADE on FOG collection container.
Wash in hot soapy water.



EMPTY and CLEAN Prefiltration collection Basket DAILY!
Ensure Basket is correctly aligned with Inlet.



EMPTY and CLEAN solids waste collection container daily.
Solid waste can go for composting.
Wash in hot soapy water.



EMPTY and CLEAN Inlet Filtration Cylinder DAILY!
Solid waste can go for composting.
Wash in hot soapy water.



Use FOG Storage Drums (Part No. S30D)
Located on a Bunded Pallet (Part No. S3DP)
to Comply with Environmental Protection Agency Requirements



Complete Daily Maintenance Checklist and record amounts of FOGs and solid waste removed each day.
Maintenance Contracts are Available

Daily Maintenance Video

https://youtu.be/v6L6CvV_UVk

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How to install a GreaseShield®

Good House keeping

Always clean up afterwards and always leave the kitchen in a clean and tidy.

This will show the professionalism of yourself and the company and leave our customers happy with the service that we provide.



How to install a GreaseShield®

Service Report

After the equipment has been correctly installed you must complete the service report ensuring the following information is recorded.

Details on the equipment installed onsite.

- The Model
- The Serial number
- Details on the connected equipment

14:52

Create Equipment

Equipment Details

Make:

Model:

Serial:

Description:

Reference:

Plant Location:

Install Date:
None Set

Warranty Expire Date:
None Set

Next Service Date:
None Set

14:45

Equipment List

Search Equipment.. Show..

Showing equipment for current site

EPAS
Model: GS1850PF
Serial: 210969
Single Bowl Sink 300/500/400

EPAS
Model: GS1000PF
Serial: 210871
10 grid oven







EPAS
Model: GS1850-PF
Serial: 210856
Double Bowl Sink 300/500/500



How to install a GreaseShield®

Parts consumed

Always record and details the parts used on the installation. A booklet with barcodes that can be scanned is provided to help assist with this process.

 WS56W 50mm Swept Tees White Solvent	
 WS49W 45° 40mm Spigot Bends White Solvent	
 WS66W 45° 50mm Spigot Bend White Solvent	

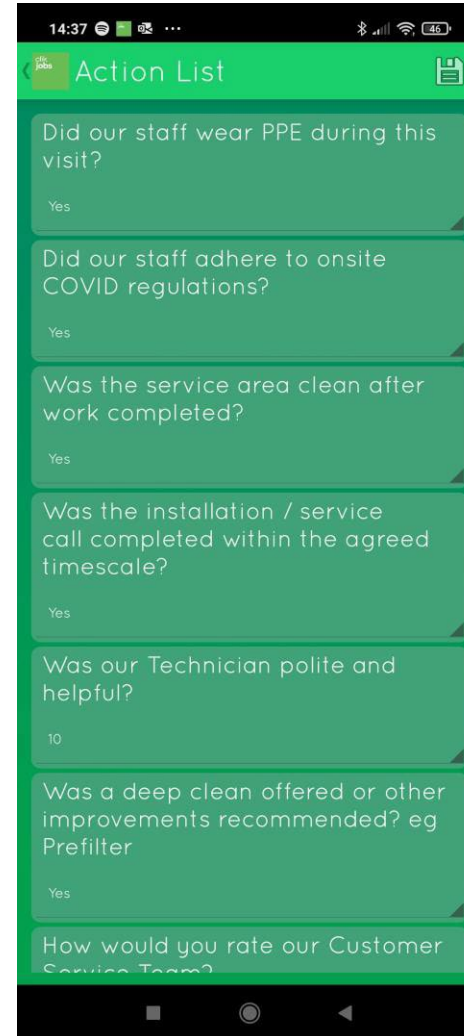


How to install a GreaseShield®

Customer Satisfaction Survey

Always have the person signing off on the installation, complete the customer satisfaction survey.

Customer satisfaction surveys are used to gauge the level of service we are providing and help us to continually improve our customer service.



The screenshot shows a mobile application interface titled "Action List". It contains a list of seven survey questions, each with a "Yes" response option and a small arrow icon in the bottom right corner of the question box. The questions are:

- Did our staff wear PPE during this visit? Yes
- Did our staff adhere to onsite COVID regulations? Yes
- Was the service area clean after work completed? Yes
- Was the installation / service call completed within the agreed timescale? Yes
- Was our Technician polite and helpful? 10
- Was a deep clean offered or other improvements recommended? eg Prefilter? Yes
- How would you rate our Customer Service Team?

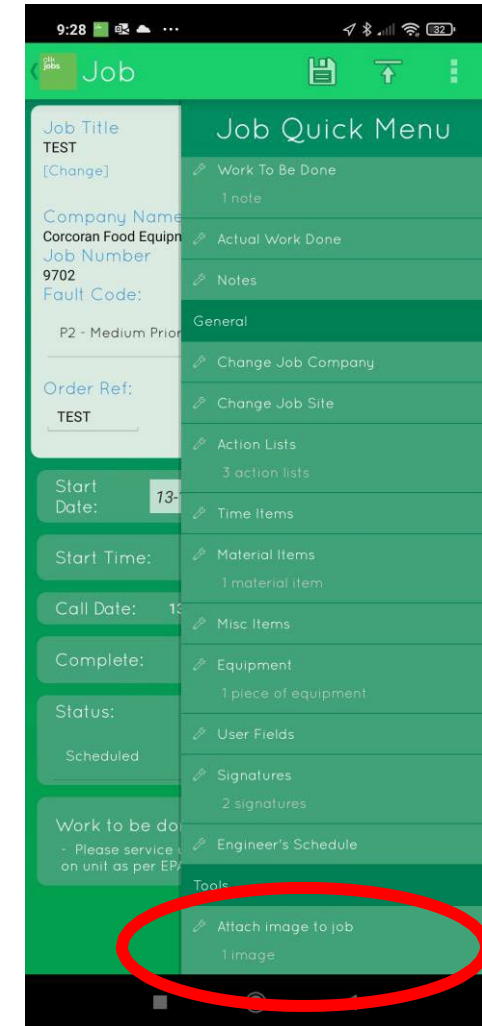


How to install a GreaseShield®

Photographs of the installation

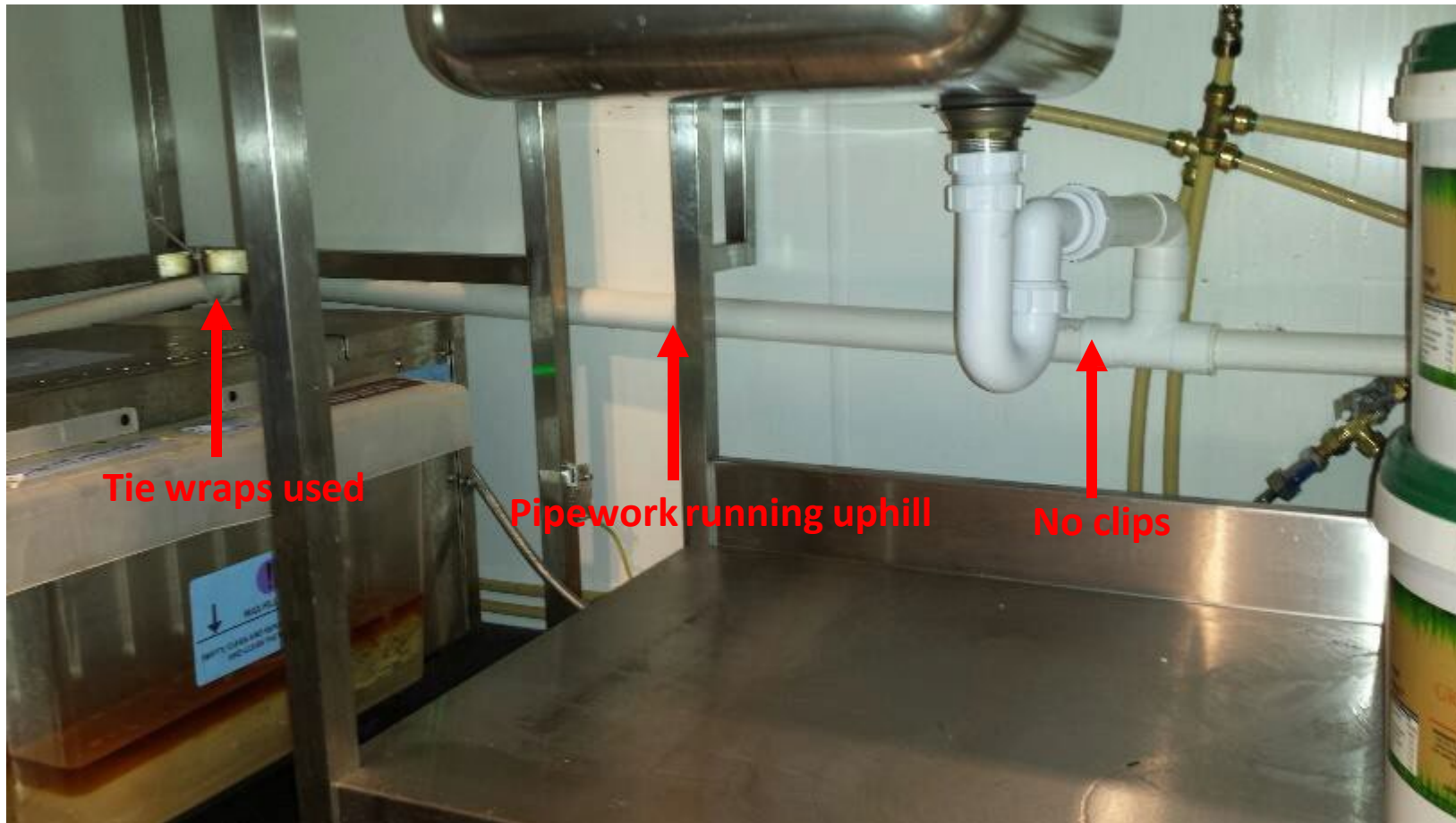
Always ensure that you take plenty of photographs after the installation and capture the following information.

- An overview of the GreaseShield® installation. Good clean photographs can be used in **social media posts** to help promote the company.
- Detailed photos of the inlet pipe work being correctly supported and with a sufficient fall towards the GreaseShield®
- Detailed photos of the outlet pipe work being correctly supported and with a sufficient fall away from the GreaseShield® with the trap and air admittance valve in the correct position along with eth vented, trapped upstand for the grey hose.



How to Install a GreaseShield®

What not to do!



Inlet pipe **running flat** and is supported by **cable ties** to the legs of the tables.

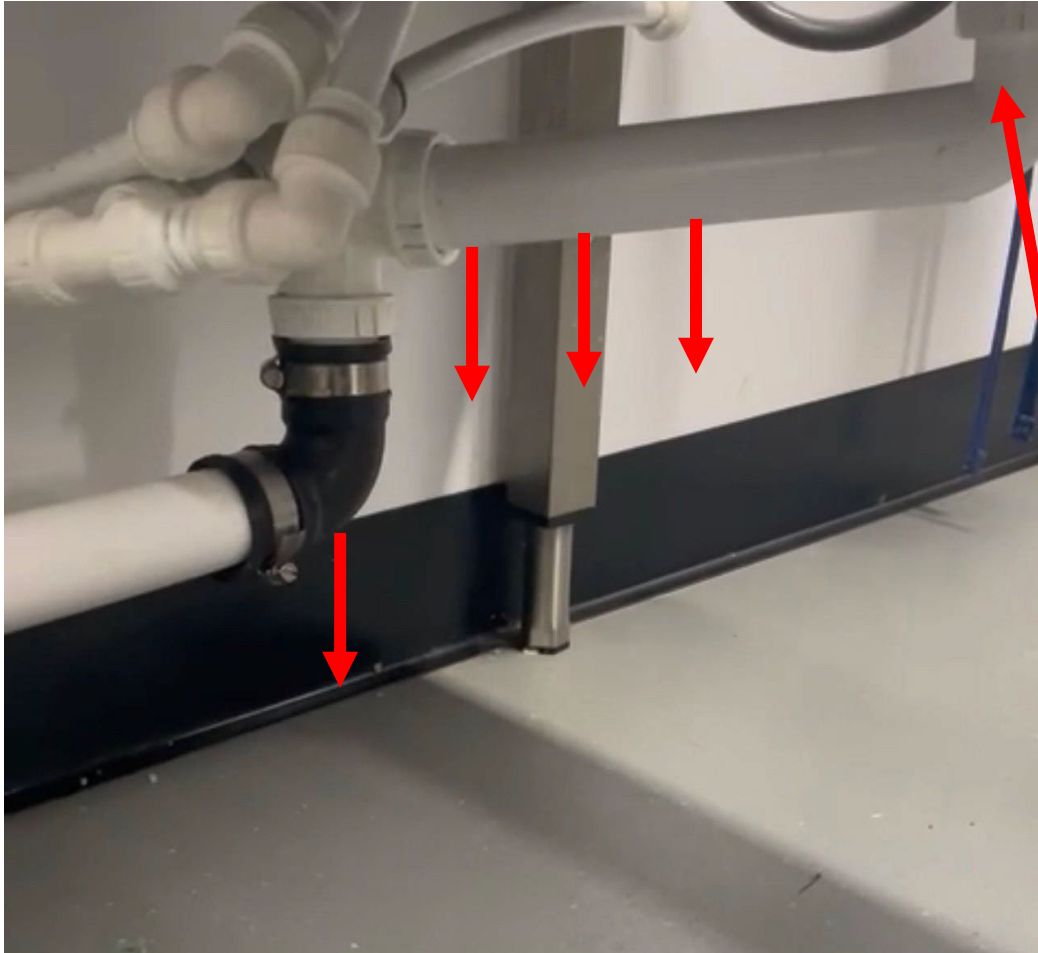
Always ensure a sufficient fall of no less than 1 in 40 and clip all pipe work to the wall at frequent intervals to prevent pipe sagging in the future.

Food waste and sediment & FOG will eventually build up in the line causing a blockages and prevent the sinks from emptying.



How to Install a GreaseShield®

What not to do!



Excess strain & weight put on waste connections

Unsupported pipe work will begin to sag and eventually put stress on fitting that can break.

Always secure pipes to walls when possible or use rubber lined munsen rings, threaded bar and wall / floor brackets to secure the pipe work.



How to Install a GreaseShield®

What not to do!



**Pipe work sagging
due to lack of
support and clips**

This is what happens to pipe work that is not clipped and supported properly, the pipe work begins to sag over time.

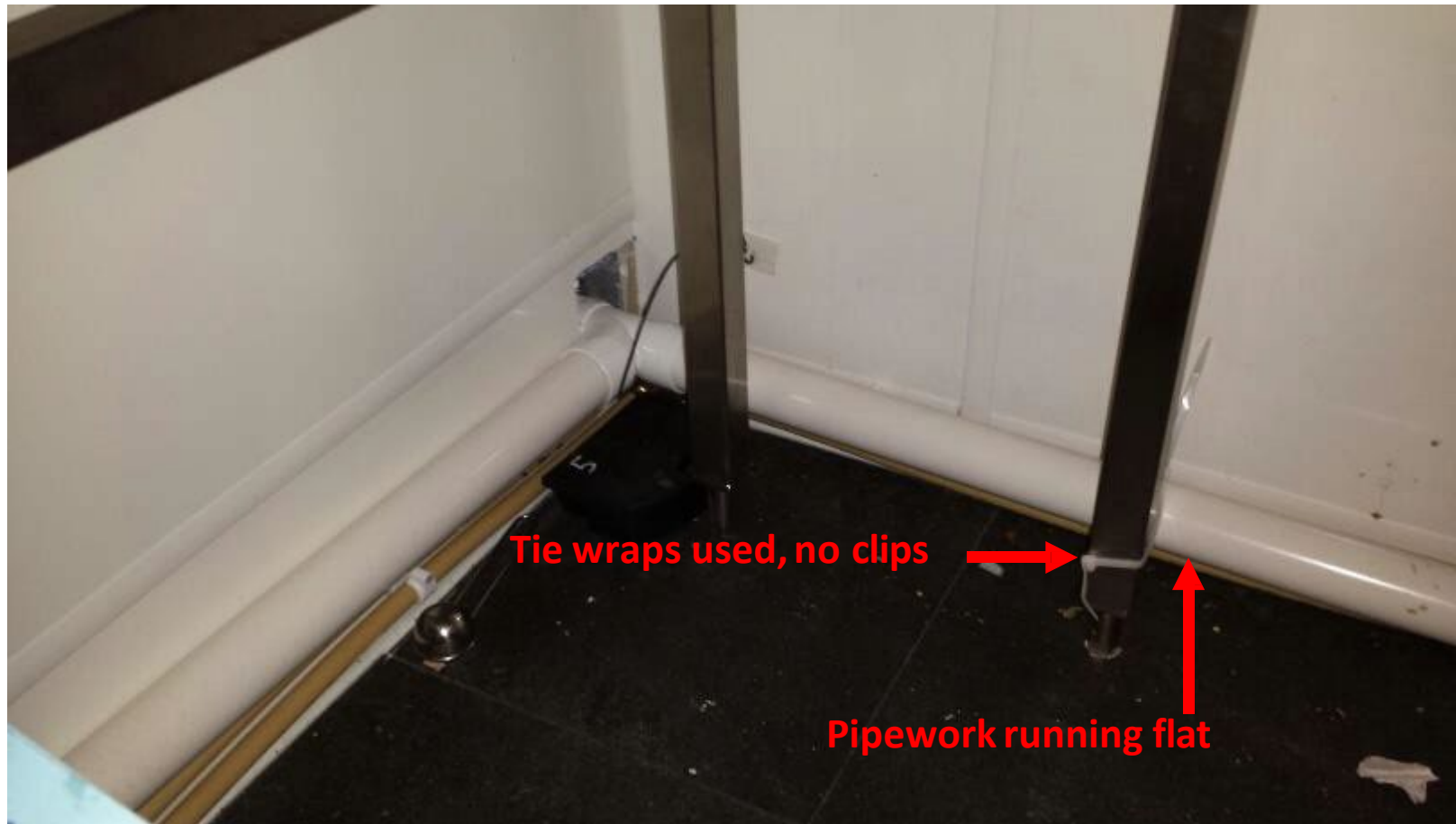
Always use pipe clips at no less than 24-inch intervals.

This will prevent sagging in the pipework



How to Install a GreaseShield®

What not to do!



Outlet pipe **running flat** and is supported by **cable ties** to the legs of the tables.

Always ensure a sufficient fall of no less than 1 in 40 and clip all pipe work to the wall at frequent intervals to prevent pipe sagging in the future.

This pipe work will **slow the flow** away from the equipment & sediment will eventually build up in the line causing a blockage.



How to Install a GreaseShield®

What not to do!



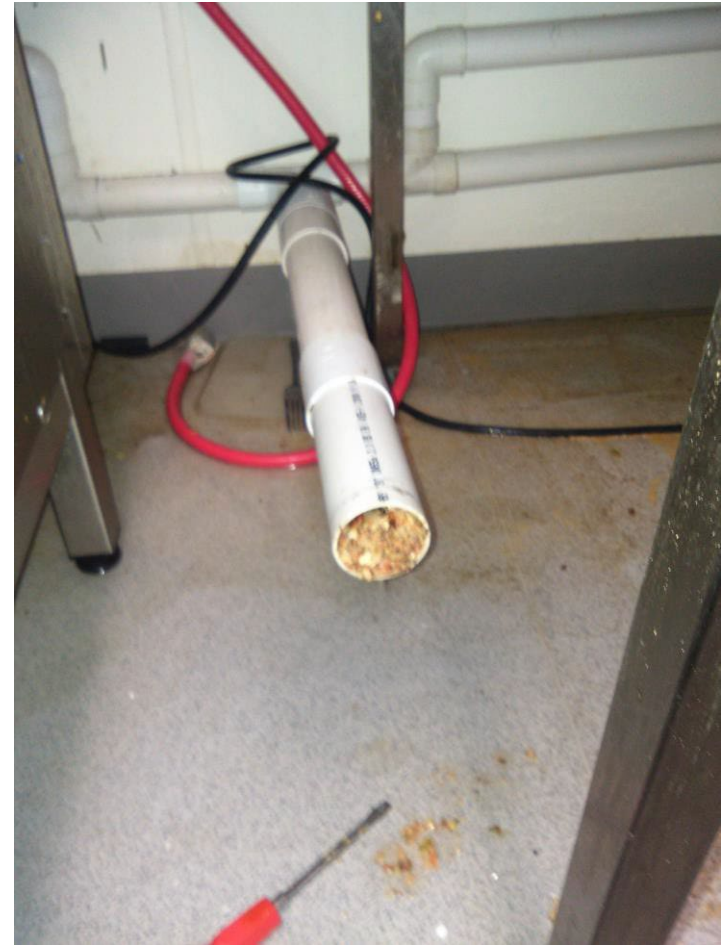
Always use the stainless-steel hygiene stand to raise the GreaseShield® to the required height.

By placing the GreaseShield® on an unsecured makeshift platform it will not only hinder access for cleaning but can also fall from the platform injuring someone.



How to Install a GreaseShield®

What not to do!



How to Install a GreaseShield®

Unit installed back to front



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How to Install a GreaseShield®

Never seal the upstand



The Grey hose from the service pump is going to an upstand that has been sealed.

By sealing the upstand there is the potential of **syphoning** the water within the GreaseShield® separation tank.

The grey hose must be able to breath and the line must be trapped to prevent smells from escaping, this can be done either by using a washing machine upstand or a running trap on the line.



What to do When

What to do you are installing a GreaseShield® and there is no power supply.

If you are installing a GreaseShield® unit and there is no power available, continue to install the GreaseShield® inlet, outlet and water connections as normal but once completed, disconnect the inlet & outlet connections, isolate the hot water and push the GreaseShield® aside and fit a by-pass kit. This will allow the kitchen to continue to operate until a suitable power source is provided.

Time that day has been allocated for this installation so complete as much as possible.

Once the customer has organised a power source, a technician can return and fit in to position and commission the GreaseShield®

Never leave a newly installed GreaseShield® plumbed in without a power or water source.



What to do When

What to do if a customer is rude or irate to you?

Never rise to a confrontation with a customer, always remain calm and respectful and apologies regardless of the situation. If required, inform your line manager afterwards.

When you are out the servicing and installing on behalf of EPAS you must always conduct yourself in a polite and professional manner, as essentially you are the face of the company the customers meet.

