

Plumbing for retail food businesses

Every day, thousands of food outlets in Sydney produce waste, such as cooking oil, grease and food solids. If that waste is discharged directly into our sewers, it can cause blockages and overflows, overload wastewater treatment plants and cause major pollution problems in our rivers and on our beaches. Plumbers can help retail food businesses effectively manage and dispose of greasy wastewater by correctly installing grease traps and other devices.

Grease traps

If you cook or serve hot food, you must install a grease trap and have a trade waste agreement with Sydney Water. Wastewater from food preparation areas, floor wastes, kitchen sinks, dishwashers and garbage areas should all flow to your grease trap.

Install grease traps as close to the source of grease as possible, so that pipes between the kitchen and the grease trap don't clog with grease. If you can't avoid long pipe runs, such as in shopping centres, you can use a heat trace or increase the grade.

Grease traps must be at least 1,000 litres, because this is the minimum size to capture grease efficiently. The maximum size is 5,000 litres to ensure ease of pump outs and clean outs.

Kitchen wastewater should preferably drain by gravity to the grease trap and then by gravity to the sewer. If this is not possible, kitchen wastewater can drain to an under sink pump unit or to a pump well outside the kitchen. You can also configure a grease trap to drain to a pump well, and pump wastewater to the sewer from there. Any pump well or pump unit must be accessible for maintenance.

Connect a pumped line into the inlet to the grease trap, above the double junction inlet, laying at least the last meter horizontally.

Do not install a pumped system for convenience, as it is more difficult and expensive to manage and maintain in operation. When you apply to us for approval, Sydney Water will ask you to explain why the wastewater cannot drain to the grease trap by gravity.

Do not direct wastewater from potato peeling machines to a grease trap, as it contains starch rather than grease. Neat fat and oil generated by cooking processes (refer to minimum pre-treatment table page 6 of this document) must be collected for recycling. It must not drain directly to a grease trap or the sewer.

We only permit authorised grease traps to be installed. Please refer to authorised pre-treatment listings on sydneywater.com.au

Plumber's Certificate of Compliance

When a grease trap is installed, Sydney Water requires a Certificate of Compliance. Make sure you engage a licensed plumber to install your grease traps and that you obtain a Certificate of Compliance for this work.

Venting grease traps

Venting the grease trap is an important requirement of the pre-treatment installation. The venting pipework must be 100 mm diameter minimum. All grease trap installations must have:

- two 100 mm vents open to the atmosphere for cross ventilation
- an induct vent, either high or low level directly off the grease arrestor
- a high level educt vent off the incoming drainage.

Use of air admittance valves to vent grease traps is not permitted, but air admittance valves on branch lines and 'over distance' branch lines draining to grease traps are permitted, but must be installed following the Plumbing Code of Australia.

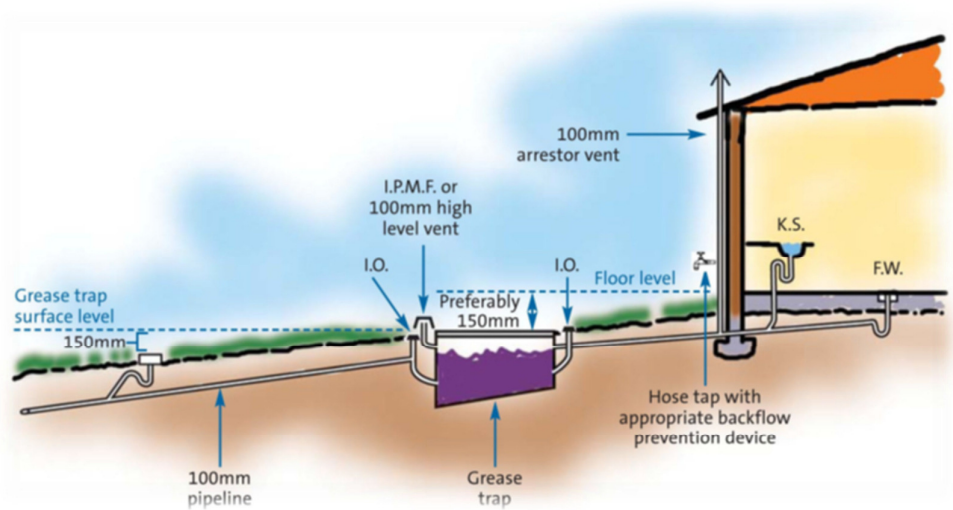
Inlet and outlet pipework

Inlet and outlet pipework for grease traps is not part of pre-treatment and does not come under the jurisdiction of Sydney Water. Instead it is covered in the applicable plumbing and drainage codes and standards and this work is inspected by the NSW Department of Fair Trading.

Maintaining grease traps

The space above the grease trap must be at least equal to the depth of the grease trap.

This allows enough access space to monitor the grease trap, remove the grease trap lid, maintain it and get it pumped out. Do not install other services, such as air conditioning ducts, where they will block access to the grease trap lid.



Preferable drainage layout for a grease trap installation

Safe access for grease trap waste inspection and maintenance

All above ground grease trap installations require a platform and steps manufactured to Australian Standard 1657-1992 for safe access for inspection and maintenance. Grease trap contractors must be able to park as near as possible to a grease trap to service it. They have fairly long suction hoses to access the traps, but the closer they can get the better. If you are in any doubt, ask one of the contractors and obtain a written agreement that they can service the trap.

Floor and sink waste bucket traps

In addition to grease traps, you must install authorised in-sink and in-floor waste bucket traps in all sinks and floor wastes in all commercial kitchens and food preparation areas.



In-floor bucket trap



In-sink bucket trap

Fixed pump-out lines

It is possible to install a fixed pump-out line to enable future servicing of grease traps (these are not part of the pre-treatment and are not specified by Sydney Water). Installing a fixed pump-out line may require council approval. You must consult a grease trap waste contractor, if you intend to install a fixed pump-out line.

Experience has shown that a fixed pump-out line must be as straight as possible. Use long radius bends, if bends are required. Lines should be a minimum diameter of 75 mm in a robust material, such as galvanised iron. Fixed pump-out lines should terminate near the grease trap but not in it, as a flexible line needs to be attached to ensure all of the waste is collected from inside the trap. Lines require cam-lock fittings at both ends to the pump-out contractor's specifications and caps for the cam-lock fittings to prevent odours when lines are not in use.

Cleaning grease traps

Grease traps must be pumped out regularly to avoid overflows, odours and polluted wastewater. When your plumbing contractor pumps out your grease trap they will also need to clean the grease trap's internal surfaces, and may need to scrape the inside of the trap. You don't need to completely refill the trap. Sydney Water will specify how often your grease trap must be pumped out. This depends on the size of your grease trap and the amount and quality of greasy wastewater you generate.

If you are a Sydney Water customer with a grease trap, you will be part of our Wastesafe program. Wastesafe manages scheduling, collecting, transporting, and disposing of grease trap waste.

Managing waste oil

Grease traps are designed to treat greasy wastewater. They are not designed to accept waste oil tipped into them. Waste oil should never be poured down the drain or into your grease trap. Collect waste oil from deep frying and BBQ's, store it in sealed containers in a properly bunded area and have an oil recycler collect it.

Multiple grease traps

If you manage a shopping complex or small shopping centre, you may have multiple grease traps.

Grease traps must be big enough to treat all the wastewater from all of the businesses that use them. If your grease traps aren't big enough to treat all the wastewater from all the businesses that use them, you must upgrade.

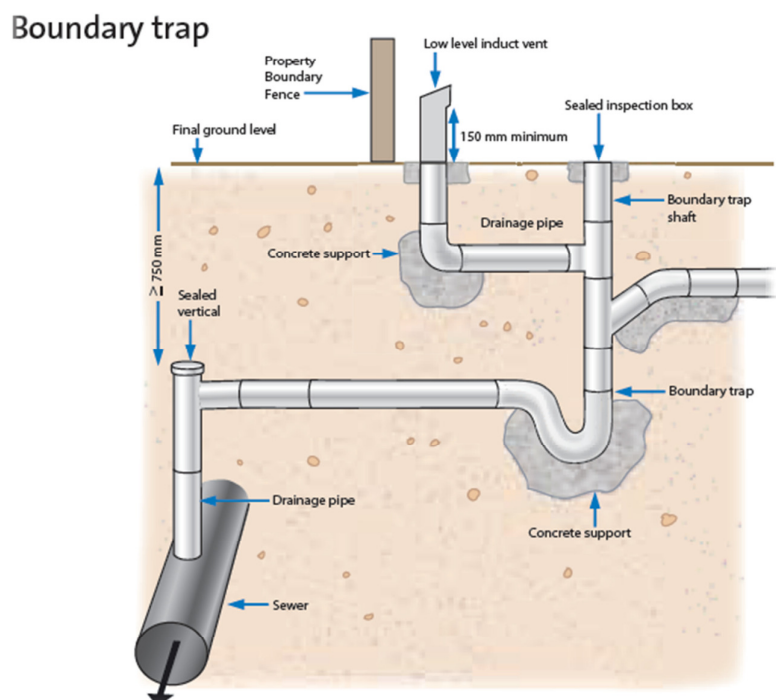
Multiple grease traps at the one site can have a maximum capacity of 30,000 litres. For example, you may have six grease traps of 5,000 litre capacity each.

Centralised pre-treatment for shopping centres

If you need more than 30,000 litre grease trap capacity, you must install centralised wastewater treatment, such as dissolved air flotation (DAF). DAF separates grease and light suspended solids from wastewater by floating them to the surface on fine air bubbles.

Boundary trap

A boundary trap must be installed on all retail food properties with a gravity connection to the sewer. If the property does not have a boundary trap and the customer has applied for a connection to discharge trade waste, the customer must install a boundary trap at the boundary or the point of connection, if this is within the property boundary.



Disconnecting a grease trap

If your business process changes and you no longer need to discharge trade wastewater to the sewer, you must contact Sydney Water to cancel your agreement and disconnect your grease trap(s) from the sewer.

A licensed grease trap transporter should empty the trap, before it is disconnected. A licensed plumber then puts a pipe through or around the grease trap (from inlet to outlet) and fills it with sand or blue metal.

Repairing or replacing a grease trap

Although a grease trap has a long lifespan, they can wear out and become hard to clean and may develop holes and start to leak. It is sometimes very difficult to repair some that have contained grease for many years, and it may be better to replace them completely.

Seek advice from a grease trap manufacturer or licenced plumber on options for repair or replacement, and apply to Sydney Water before proceeding. (approval to vary connection agreement).

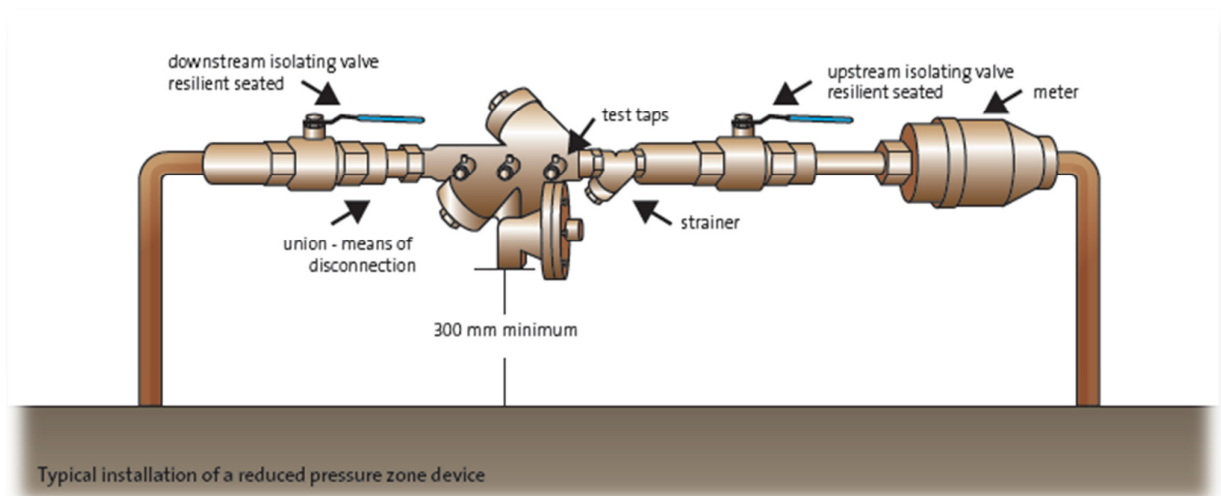
Backflow prevention

Your plumber should ensure you have adequate backflow prevention.

You must comply with Sydney Water's Backflow Prevention Policy. This means you must engage a backflow accredited licenced plumber and arrange to install and test a backflow containment device(s) at the property boundary next to the water meter(s) servicing your property.

You must also install a tap within five metres of any pre-treatment equipment (eg grease trap) and a backflow prevention device on the inlet side of the tap.

To know more about backflow prevention, visit sydneywater.com.au



Minimum pre-treatment requirements for retail food processes			
Commercial process	Seats/beds	Minimum pre-treatment	in floor and in sink bucket traps
Cafeteria, canteen (and school hot meals)		1000 L	yes
Take-away, including food court shops		1000 L	yes
Charcoal chicken		1000 L	yes
Wastesafe only, including school domestic science		1000 L	yes
Snack bar – coffee lounge – hot foods		1000 L	yes
Restaurant	1-69	1000 L	yes
Restaurant	70-199	1500 L	yes
Restaurant	200-399	2000 L	yes
Restaurant	400-599	3000 L	yes
Restaurant	600-799	4000 L	yes
Restaurant	800-1000	5000 L	yes
Kitchen – hospital, nursing home	1-69	1000 L	yes
Kitchen – hospital, nursing home	70-199	1500 L	yes
Kitchen – hospital, nursing home	200-399	2000 L	yes
Kitchen – hospital, nursing home	400-599	3000 L	yes
Kitchen – hospital, nursing home	600-799	4000 L	yes
Kitchen – hospital, nursing home	800-1000	5000 L	yes
McDonalds	Discuss requirements with Sydney Water	1500 L – 3000 L	yes
Pizza Hut		1000 L	yes
Function centre	1-69	1000 L	yes
Function centre	70-199	1500 L	yes
Function centre	200-399	2000 L	yes
Function centre	400-599	3000 L	yes
Function centre	600-799	4000 L	yes
Function centre	800-1000	5000 L	yes

Commercial process	Seats/beds	Minimum pre-treatment	in floor and in sink bucket traps
Red Rooster		1500 L	yes
Delicatessen with hot food < 12 kL/day		1000 L	yes
Hungry Jacks		1500 L	yes
Supermarket with chicken cooker	Discuss requirements with Sydney Water	1500 L plus grease removal device upstream of grease trap	yes
BBQ wholesale (chicken)	Discuss requirements with Sydney Water	1500 L plus grease removal device upstream of grease trap	yes
BBQ wholesale (pork, duck)	Discuss requirements with Sydney Water	2000 L plus grease removal device upstream of grease trap	yes
BBQ restaurant	Discuss requirements with Sydney Water	2000 L plus grease removal device upstream of grease trap	yes
Wholesale food < 12 kL/day, caterer		1000 L	yes
Hotel/motel kitchen	1-69	1000 L	yes
Hotel/motel kitchen	70-199	1500 L	yes
Hotel/motel kitchen	200-399	2000 L	yes
Hotel/motel kitchen	400-599	3000 L	yes
Hotel/motel kitchen	600-799	4000 L	yes
Hotel/motel kitchen	800-1000	5000 L	yes
Ice cream parlour		No grease trap	yes
Butchers - retail		1000 L	yes
Fish (fresh outlet) no cooking		Large basket trap with fixed screen and removable basket	yes
Chicken (fresh retail) no cooking		1000 L	yes
Smallgoods < 12 kL/day maximum		1000 L	yes
Wholesale butcher < 12 kL/day maximum		1000 L	yes
Bakery retail –hot bread - cakes		No grease trap	yes
Bakery retail – pies – sausage rolls		1000 L	yes