



Grease Boss – Under bench Grease Removal Unit **Product Information Sheet** Performance Class 1





### Product Description and intended use:

MACTRAP specialises in the design and manufacture of wastewater separation systems and associated pumping solutions.

This Product Description relates to our range of under-bench grease removal units known as the Grease Boss.

The Grease Boss intercept fats, oils, and grease (FOG), and sediment, that flows with the wastewater from commercial kitchens. Wastewater enters the Grease Boss, and the FOG rises to the surface while the heavier food sediment settles on the bottom of the tank.

Cleaned wastewater exits the Grease Boss without allowing the separated sediment or FOG to leave the separating chambers.

Automated FOG removal processes move the FOG to an external collection container meaning that FOG is not stored in the Grease Boss.

- Construction Material 304 stainless steel
- PLC Program that controls the grease removal functions which occur 6 times a day.
- Hot water is connected to the Grease Boss. An appropriate backflow prevention is required.
- PLC Program that controls water jets that are critical to the grease removal process and provide a level of cleaning of the tank.
- Trolley and quick removal bend available.

#### Product Identifier

There are three parts to the Product Identifier/ Product Code Example Product Code – MTGB25



#### Place of Manufacture

The Grease Boss is manufactured in New Zealand by Mactrap Limited. The design and intellectual property of these products, unless stated otherwise, belong to Mactrap Limited.

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### Relevant Building Code Clauses

- NZBC Clause G13 Foul Water AS2 Grease Traps: 3.4.1 to 3.4.7
- NZBC Clause G14 Industrial Liquid Waste VM1 & AS1 Drainage: 2.2.5

## Statement on how the building product is expected to contribute to compliance.

G13/AS2 Grease Traps and G14/VM1 & AS1

The Mactrap Grease Boss range are pre-treatment devices designed to trap and remove fat, oil and grease (FOG) therefore preventing FOG from entering the wastewater network system. Periodically the Grease Boss must be completely emptied and cleaned to remove the food sediment that settles on the bottom of the tank.

Wastewater from the kitchen flows into the Grease Boss where fats, oils, and grease (FOG) rise to the surface. The surface FOG is attracted to a rotating roller. The FOG adheres to the roller and is removed via a wiper blade and then flows into an external collection container. Laboratory tests have proven that over 98% of FOG is removed, well within the requirements of the New Zealand Foul Water Drainage code G13 AS/2.

A PLC controlled hot water injection programme ensures FOG is pliant and always recoverable by keeping temperature to a level that will not allow fats to solidify. The hot water jets also push the surface FOG towards the roller. Mains water hot water pressure is required.

After the FOG is extracted from the wastewater, hot water jets within the Grease Boss clean the sides of the tank and another water jet washes the roller, the wiper blade, and the FOG chute. The result is a cleaner appliance, operating continuously with reduced maintenance.

The FOG extraction continues intermittently on a 24-hour cycle. Waste FOG can be collected in a disposable container (such as a used milk bottle) and put with other rubbish collection or alternatively, a washable collection container can be used.

The size of the grease trap is specified to comply with the NZBC, Council By-laws and EN1825 hydraulic flow calculations.

### **Installation Requirements**

Refer to the Installation Instructions on <a href="https://mactrap.co.nz/products/greaseboss-easyclean/">https://mactrap.co.nz/products/greaseboss-easyclean/</a>

- Product not to be modified in any way that will compromise performance.
- Follow all standards under Plumbers, Gasfitters, and Drainlayers Act 2006 for installation.





## Design requirement that would support the appropriate use of the building product:

It is important that wastewater can flow from the Grease Boss without restriction and therefore critical that a minimum of gradient of 1:40 is achieved on the outlet pipework.

The outlet pipe size must maintain a minimum on 50mm.

The number of sinks and fixtures must not exceed the plans upon which the Grease Boss size was sized.

Dishwasher should not connect to the Grease Boss.

Main hot water pressure is required.

Follow all standards under Plumbers, Gasfitters, and Drainlayers Act 2006 for installation.

Pumping greasy water to the Grease Boss should be avoided because the fat and grease is emulsified by the pumping action and separation will be delayed.

### Operations and Maintenance Requirements

Wastewater from kitchen contains FOG and food sediment. The Grease Boss is very effective at removing FOG from the wastewater and it has a filter basket (2mm mesh) to capture food waste.

However, the filter basket cannot capture flour, aioli and other fine food products so these will build up on the bottom of the tank. It is important that staff scrap food preparation surfaces, plates etc into the rubbish bin to help keep food out of the sink.

#### Sink Filters

Use a permanent sink filter to help reduce the food particles entering the Grease Boss.

#### Empty the filter basket daily

The filter basket will capture most of the food waste before it enters the Grease Boss. The filter basket needs to be emptied every day to prevent food decomposing and falling through the mesh. Food scrapes left sitting the filter basket will cause odours.

#### Empty the external collection container as required.

The external collection container holds the FOG that is removed from the Grease Boss. Around 600 – 800 ml of FOG and water will be removed daily. The container must be emptied into the rubbish bin or stored for removal by an oil collection company.





#### Check and clear the wiper blade and grease removal spout

The wiper blade lifts the FOG off the roller and moves it down the chute to the spout and external collection container. The wiper blade, chute and spout should be checked once a week to ensure FOG can flow out to the external collection container.

#### Clean out

The Grease Boss must be completely emptied and cleaned regularly – the period depends on the buildup of food on the bottom of the tank, but every 3 months is a good starting point.

#### Dishwashers

Do not plumb dishwashers into the Grease Boss. The wastewater from dishwashers is very hot, often turbulent and contains caustic cleaners. The heat and turbulence have a greater impact on a small trap like the Grease Boss and will delay separation therefore risking emulsified fats entering the wastewater network. The caustic cleaners have a negative impact on the ability of the Grease Boss to remove FOG.

#### Caustic Cleaners in the kitchen

Caustic cleaners such as Janola, sugar soap, degreasers, sanitizers, dishwashing powders etc. emulsify and change the nature of the FOG and negatively impact the ability of the Grease Boss to remove it from the tank. Kitchen staff should primarily use simple detergents for clean-up.

#### Consumables

The Grease Boss has three low-cost components that will need to be replaced every 12 months (period will vary depending on the kitchen).

- Wiper blade
- Door seal
- Lid seal

## Limitations of use of the building product

Mactrap Grease Boss range of products have been designed for compliance with the scope outlined in building code clauses listed above and are to be installed as per published installation guides.

Is the building product range subject to warning or ban under Section 26?

No

