Grease Muncher

OPERATION & MAINTENANCE MANUAL





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SAFETY PRECAUTIONS

Before installation, operation or maintenance of the pump system, read instructions and equipment manufacturer's specific instructions carefully.

System operation may cause injury. Take all necessary precautions. Wear necessary protective equipment. Refer to the engineers' department. Any maintenance of pump systems must be carried out by authorised qualified personnel only.

WARNING - PUMP MAY START AT ANY TIME

In normal automatic mode, pumps may start automatically at any time. Before maintenance or any work is carried out on pumps or motors, ensure proper isolation of motors at the relevant controller.

WARNING - SYSTEM IS PRESSURISED

Under normal operating conditions, the piper, pumps and components or water supply and pressure systems are pressurised. Before unbolting or dismantling any pipework or equipment, ensure water supply to the areas of maintenance is isolated and water pressure relieved.

DANGER - HIGH VOLTAGE

Control boxes contain high voltage live wiring and terminals. Entry of control boxes is not permitted except by authorised service personnel only. Ensure controller is correctly isolated before entering.

CAUTION - EXPOSED MOVING PARTS

Keep clear of all moving parts on pumps, motors and couplings and keep the area around pump system clear at all times.

WARNING - CONFINED SPACE

Under no circumstances should pump pit be entered by persons. Systems are designed to facilitate pump removal and component servicing from the surface. In the case of entry being unavoidable correct safety procedures should be carried out in accordance with current OH&S requirements. Personnel entering should be certified for confined space entry, have completed risk assessment, evacuated chamber of dangerous gases and be wearing breathing apparatus and safety lifting lanyard/body harness attached to an approved lifting system.

WARNING - NOXIOUS AND DANGEROUS GASES

System may emit dangerous gases. Ensure area is well ventilated prior to removing pit cover/lid

WARNING - DEEP PIT

Removal of pit access cover or incorrect fitting/installation of pit access cover may cause injury. Never leave an open pit unattended. Always have adequate barricading and warnings to prevent accidental falling. Ensure lid or cover is correctly reinstalled and sealed after removal. Removal of cover/lids must only be performed by authorised personnel.

CAUTION - CORROSIVE LIQUIDS

System may contain corrosive liquids/gases that may cause injury or equipment damage. Avoid all contact with skin and thoroughly wash/treat any equipment that contacts liquid.

WARNING - BIOLOGICAL RISK

The system may contain bacteria, infectious disease and other harmful substances. Exercise extreme care when near or working on the system. Avoid direct contact with components that have been in contact with waste liquids or gases.

Finally, take care and use common sense when working on or near system and report all faults to the maintenance manager.

SYSTEM DESCRIPTION

The GREASE MUNCHER is a revolutionary new generation grease arrestor marketed exclusively by ALLIED PUMPS. It is a lightweight, compact unit manufactured from polyethylene specifically for use in difficult installations or where traditional concrete grease arrestors are not practical.

The GREASE MUNCHER incorporates a special Biofilter which dramatically reduces the grease content of the discharge through microbiological activity.

The GREASE MUNCHER is a lightweight, compact and ideally suited for installation in both existing and new developments, particularly where conventional concrete grease arrestors are not practical or desirable.

The main tank is constructed from polyethylene with UPVC inlet, outlet and vent pipe pre-fitted through the walls for easy on-site connection of pipes. The Biofilter is made from thermoplastic and mounted in a rigid PVC housing. A polypropylene screw on access lid is fitted to the top of the tank for maintenance and inspection.

INSTALLATION

The GREASE MUNCHER requires careful attention to installation to avoid problems.

It is important that the installing plumber is aware of the installation requirements of the system. The installer should also keep up to date with changes in the W.A. Water Corporation requirements and observe all requirements of AS3500. Installers are advised that any variation from the installation guidelines in this manual voids the manufacturer's warranty.

The GREASE MUNCHER should be installed so as not to cause danger to health. There should be no leakage, blockage or surcharging from the system.

The system must have the prior approval of the W.A. Water Corporation before the GREASE MUNCHER is delivered to site and installed.

* Install in well ventilated area which has good access for maintenance.

GENERAL

The GREASE MUNCHER must be located so as to enable easy access for cleaning and maintenance.

The hose tap must have a BACK FLOW PROTECTION device in accordance with AS3500.

Do not install the system in locations likely to cause nuisance, be damaged by traffic, cause obstruction, reduce access to emergency services or be vandalized.

OVERFLOW RELIEF POINT

Under no circumstances is the GREASE MUNCHER to be used as a relief overflow point. An extra gully is required on the down-stream side or a reflux valve installed.

OUTLET CONNECTION

The outlet of the GREASE MUNCHER must be connected to a gully in accordance with AS3500 to prevent release of odours.

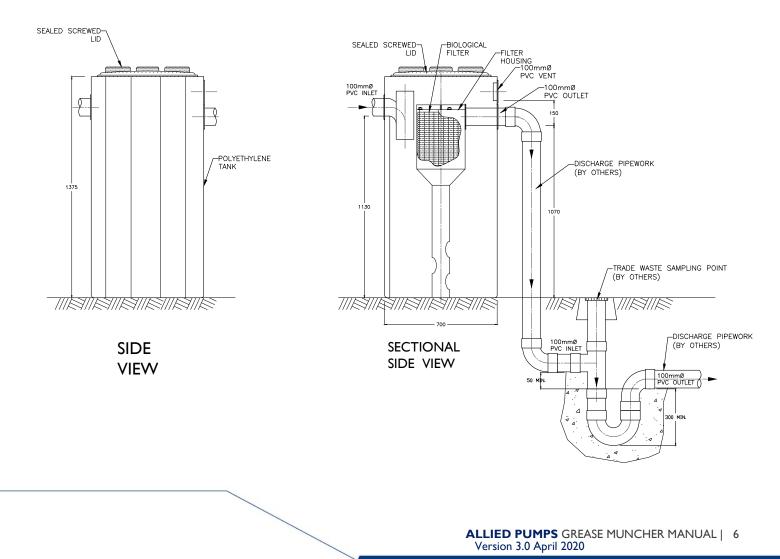
VENTING

The Vent connection provided should be 80 or 100mm. It should terminate above the roofline in accordance with AS3500. In certain cases, an induct vent may be used.

ABOVE GROUND INSTALLATION

When installed above ground the GREASE MUNCHER should be located on a suitable concrete base. All connecting pipes should be fully externally supported so that there is no stress on the tank connections.

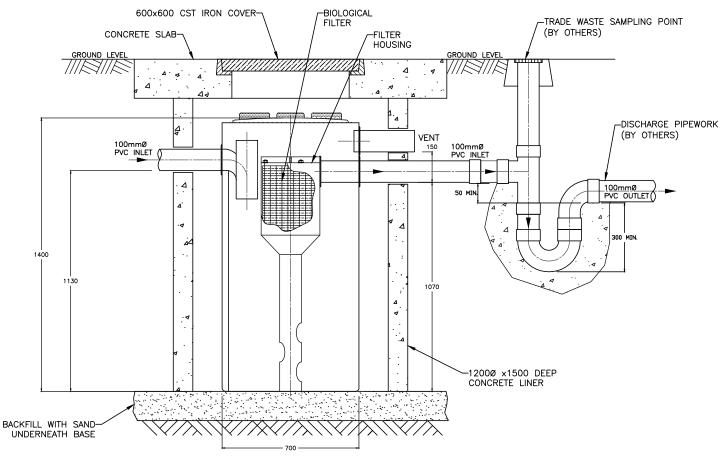
The GREASE MUNCHER must be protected from the potential undermining effects of stormwater.



BELOW GROUND INSTALLATION

The GREASE MUNCHER may be installed below ground inside a concrete liner $(1.20 \times 1.5m \text{ deep})$ with a 150mm thick sand pad under the base of the unit. In water charged areas, adequate precaution must be taken to prevent floatation and base/liner must be sealed to preclude ground water entry.

Where the GREASE MUNCHER is installed below ground, it is recommended to install a gas tight cast iron or galvanised chequer plate cover over the unit. Care should be taken to ensure proper sealing of odours from the unit and that the lid is of sufficient strength to support loads imposed by traffic etc. The clear opening should not be less than 600mm x 600mm square.



SECTIONAL SIDE VIEW

MAINTENANCE

The GREASE MUNCHER should be maintained in accordance with a strict and regular maintenance schedule. This schedule will ensure a trouble-free operation of system and continued compliance with discharge requirements. The system must be cleaned by a licensed liquid waste contractor who is authorised by the W.A. Water Corporation.

CLEANING PROCEDURES

The cleaning procedure for the GREASE MUNCHER should be carried out as follows.

Place vacuum hose into the unit outside of the Biofilter casing and begin evacuating the liquid.

Remove the Biofilter from its case and lay sideways on case for support. Wash filter with hose until all heavy solids and grease are washed back into tank. Replace filter in its case.

Continue to evacuate the liquid taking care to remove all floating material.

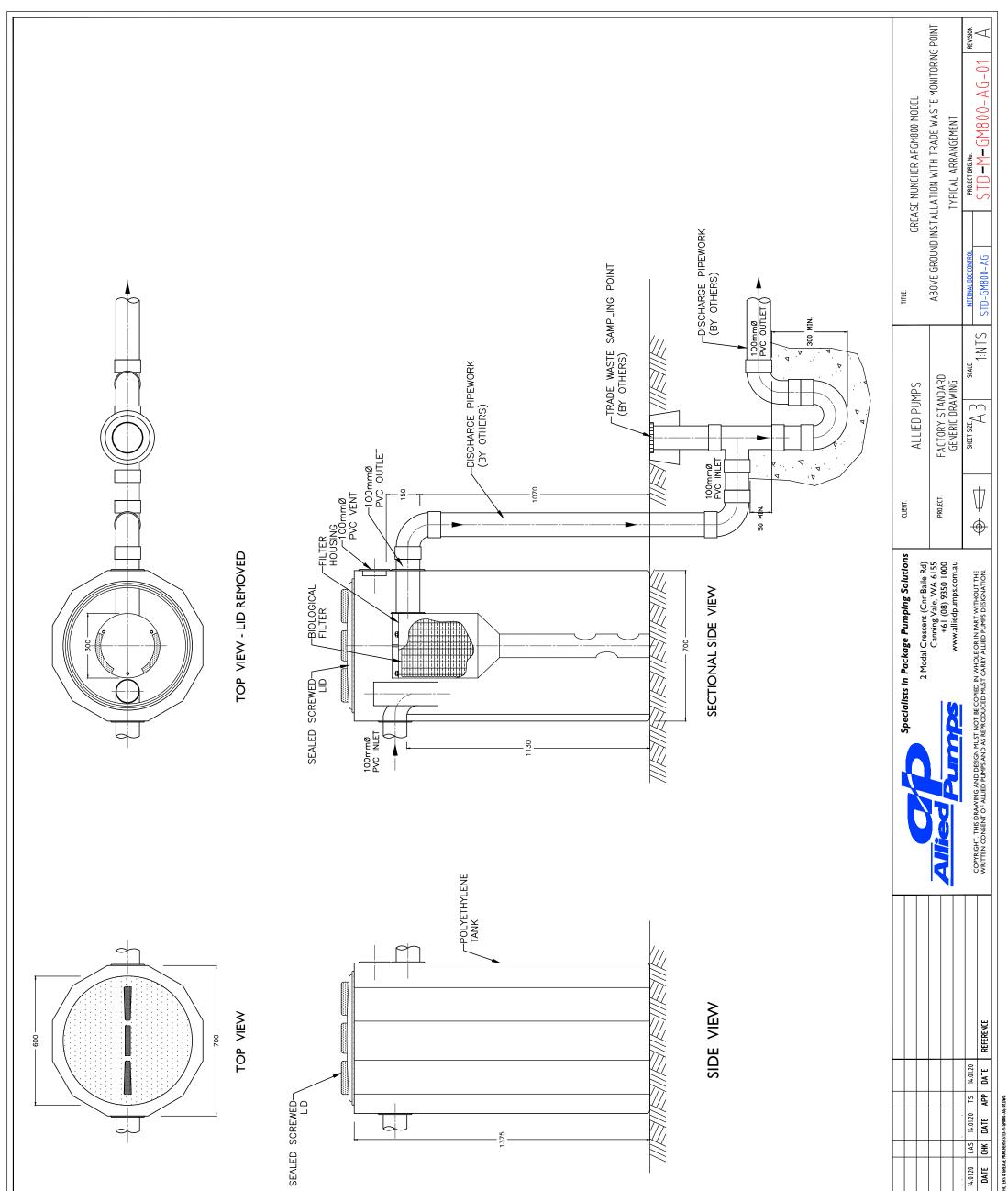
Hose down the inside of the vessel while the vacuum lines is still connected and ensure that vessel is clean and any grease that has accumulated on the vessel walls and any sludge off the bottom is removed.

Replace lid, ensuring that mating surfaces are clean and free from any dirt or grit that will affect sealing.

MAINTENANCE FREQUENCY

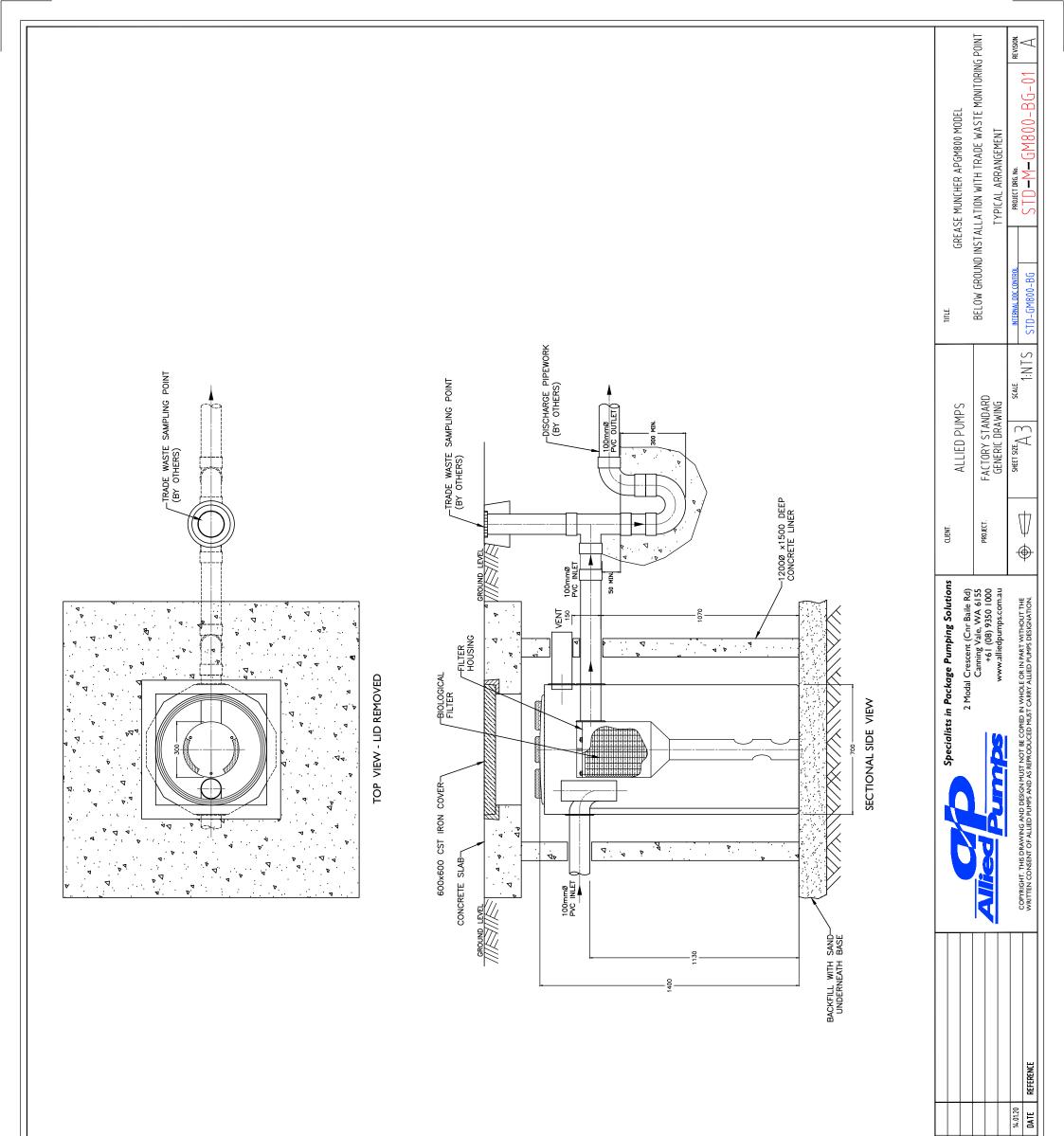
The maintenance frequency will depend on the amount of use and the quality of housekeeping, however the first pump out should be 8 weeks after use.

The filter should be cleaned when the build-up on the plates reaches 50mm above the bottom of the outlet pipe. The pump out frequency may be extended if the build-up does not reach this height in the nominal 8 weeks



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APENDIX A Warranty and Service Information



Warranty is limited to replacement or repair, at Manufacturer's discretion, of any parts or equipment without removal and reinstallation cost for a period of twelve months from date of invoice, provided such part of equipment that is deemed by the respective manufacturer to be faulty. Any work done on site to inspect or remedy faults that are subsequently not accepted as being under warranty by the manufacturer, or are caused by misuse, fair wear or operating procedures, will be charged at parts and labour and travelling time rates applicable at the time.

If buyer requires our services in respect of site inspection or service outside of what is covered by Manufacturers' warranties, then Buyer should enter into a separate agreement with ALLIED PUMPS in respect to the same. In the event of no such separate agreement, all operation, calibrating, cleaning and maintenance of plant is the responsibility of the buyer.

ALLIED PUMPS have not acted as a consultant nor charged design fees on this project, and are in no way responsible for, nor guarantee any particular level or performance of the treatment plant supplied or effluent quality unless such guarantee is specially given in writing.

Under no circumstances is ALLIED PUMPS liable for any direct or consequential loss or damage to persons or properties of any nature due to any cause whatsoever.

Application of warranties is conditional on ALLIED PUMPS having received in cash the total contact price. Furthermore, ALLIED PUMPS reserves the right to withdraw any code compliance, Australian Standard compliance or selection compliance, should the contract not be paid in full.

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