



Homeowner's Manual

For:

MIGHTY MAC

500 Gallon-Per-Day

600 Gallon-Per-Day

750 Gallon-Per-Day

Table of Contents

I. Introduction

II. About Your MIGHTY MAC System

III. Homeowner (System Owner) Responsibilities

IV. Installer/Service Person Responsibilities

V. Appendices

A. MIGHTY MAC Limited Warranty Policy

B. MIGHTY MAC Record of Service

C. MIGHTY MAC Drawings and Specifications

VI. MIGHTY MAC Warranty Card

I. Introduction

Thank you for your purchase!

Your new *MIGHTY MAC* Aerobic Treatment Plant is a two phase, mechanical, aerobic treatment unit capable of turning regular household sewage into a clear odorless liquid within 24 hours. Your wastewater system has been tested against the NSF International Standard No. 40, Class I and has been approved by ANSI/NSF. Class I is the highest standard issued by NSF International.

There are certain duties the homeowner accepts responsibility for in order to insure that the *Mighty Mac* system operates properly. This document, along with any information given to you by your Installer will help you understand those responsibilities.

If you have any questions about your system, please first contact your dealer/installer. For further assistance you may also contact the *Mighty Mac* manufacturer.

II. About your *MIGHTY MAC* System

As was mentioned in the introduction, your *MIGHTY MAC* Aerobic Treatment Plant is a Class I, two phase, mechanical, aerobic treatment unit capable of turning regular household sewage into a clear odorless liquid within 24 hours. This liquid is then disposed of in an ecologically friendly manner, generally by evacuation through your lawn sprinklers. The *MIGHTY MAC* wastewater treatment system was tested against the NSF International Standard No. 40 and approved by the National Sanitation Foundation (NSF).

The *MIGHTY MAC* systems use a process referred to as extended aeration to treat common household wastewater by introducing air into the sewage

through diffusion. This activated sludge process promotes growth of aerobic bacteria and other microorganisms that break down the organic material found in regular household sewage. This activity takes place within the aeration chamber.

In the aeration chamber, the wastewater is brown in color. This is caused by the solids entering from the home and sludge returning from the clarifier. As the wastewater leaves the aeration chamber, it enters this clarifier, also referred to as the "quiet zone". No mixing occurs within the quiet zone.

In the clarifier, the solids separate from the liquid and settle to the bottom of the clarifier; this solid material, called sludge, contains dissolved oxygen and bacteria from the aeration chamber. The sludge returns to the aeration chamber to be mixed and digested again. The sludge mixes with incoming wastewater and this mixture of sludge, wastewater, and dissolved oxygen is referred to as mixed liquor.

The mixed liquor flows back into the clarifier, the solids separate and return to the clarifier, and clear liquid continues to the top of the clarifier, where it flows through the outlet into the pump tank. This never-ending cycle produces high quality effluent that is ready to be released to the environment.

Before the system can be used, it must be filled with water, which your installation person will do for you. The system can be used as soon as it is filled with water and all electrical and plumbing connections have been made. Your system size has been determined by the recommendations of local health authorities in the USA. You should try to keep your water usage within the 'safe zone' for your unit's size. The zones are as follows:

Size Safe Zone

500 Gallons Per Day 350-550 Gallons Per Day
600 Gallons Per Day 450-650 Gallons Per Day
750 Gallons Per Day 600-800 Gallons Per Day

Normal usage is between 50 and 100 GPD per person. Most experienced manufacturers estimate 75 - 80 GPD; however this is just an average. If

you feel that your usage differs significantly, you may want to discuss this with your dealer prior to installation. Remember, these systems were rigorously tested by NSF International under strict guidelines. There is no question as to their ability to perform as advertised if they are sized and cared for properly.

III. Homeowner (System Owner) Responsibilities

If you have lived with a standard septic system before, most of the requirements for keeping an aerobic system properly maintained should seem familiar. If you have been on City-provided sewage, you may need to carefully read this document to familiarize yourself with the sensitivities of an aerobic system.

The power to your system must remain on at all times. Should you go on vacation, the system should not be turned off! Turning off power to your aerator will eliminate oxygen delivery to the bacteria in your system; without oxygen, the bacteria will die and the system will cease to function.

All electrical and plumbing connections must be properly wired and connected. Extension cords and power poles should not be a part of your wiring system!

Never drive anything heavier than a lawn mower over your system! Even small cars and trucks can cause your system to collapse unless it has been specially engineered to go underneath a driveway or road of some sort.

In addition to traffic, fire and damage to the aeration equipment and/or control panels, water damage to the aeration equipment and/or control panels, misuse or neglect of the system or components, and any level of destruction to the system can render all warranties void. Ant poison should be used to prevent hills from being built around the system. Moving components, altering the wiring, or changing any part of your system could result in its damage, and that damage would not be covered by your warranty or service policy. It is important that you allow your service personnel to handle all changes to your system!

The following items should not be introduced into your wastewater:

Bleach*
Fabric Softeners
Disinfectants*
Toilet Cleaners*
Sanitizers*
Plastic and rubber products
Cigarette butts
Paper towels/baby wipes/diapers
Heavy paper products
Commercial or industrial waste
Excessive volumes of water
Ground or rainwater
Shrimp/seafood/egg shells
Coffee grounds
Exhaust from water softeners
Excessive grease/cooking oil
Toilet chemicals (Tidy Bowl, etc)
Solvents, paints, drain cleaners
Home Brewery waste
ANY NON-BIODEGRADABLE ITEMS!

*Products used in normal amounts as long as manufacturer's labels are followed and amounts are not exceeded are acceptable.

Despite package directions, condoms/feminine hygiene products should NOT be flushed down the toilet; these items in your system will void its warranty.

Rather than saving laundry to do on one day of the week, it is advised that you distribute laundry and dish washing throughout the week. Too many loads on one day can overload your system. Powdered, low-suds, phosphate and baking soda based detergents are advised. Biodegradable and non-toxic cleansers and soaps are also suggested; fabric-softening sheets instead of liquid additives are strongly recommended.

In addition, do not allow surface water to pond around the unit. Do not allow non-sewage water to enter the unit. Do not allow anybody to service or maintain your system unless that individual can provide documentation that they have been properly trained and certified to service and maintain the Mighty Mac Wastewater Treatment System.

If you have installed a chlorine disinfecting system, the chlorine levels should be checked weekly, though on most systems, chlorine will only need to be added once or twice a month. Special chlorine for Aerobic Systems should be used; though they appear to be similar, chlorine tablets for pools or hot tubs should not be used. Your installer or service person can direct you to a source of chlorine tablets.

Your system will need to be pumped occasionally, usually every 2-5 years. Your installer or service person can give you information on having your waste pumped and disposed of in an ecologically friendly and legal manner.

In the event that the alarm on your aerator should sound and/or if an odor is present, call your service provider and inform them that your alarm is sounding, and/or that there is an odor, along with any other information. Information to contact your service and maintenance provider will be located on the aerator and in this manual.

The aerator on your MIGHTY MAC system displays important contact information. This contact information, displaying the phone numbers and addresses for MIGHTY MAC, the distributor your system was purchased from, and your installer or service person can help you if your system requires service. We advise that you contact your service person first, but if you have problems contacting them, contact the distributor or Mighty Mac directly for assistance with your system.

If you are gone from your home for extended periods of time, we strongly recommend that you leave the power on to your system and allow it to remain running as normal. If it is positively necessary to turn off the power to your system for more than a few days, the system should be pumped out with the aerator running and refilled with clean water. The aerator can then be turned off and power disconnected.

IV. Installer/Service Person Responsibilities

It is the Homeowner's responsibility to obtain permits on the MIGHTY MAC system. It is the Installer's responsibility to make sure the system and all components are installed properly, functioning properly, and are covered properly. It is the installer's responsibility to make sure that the homeowner fully understands their responsibilities. Regardless of whether or not local laws, rules, codes, and regulations are enforced, the service person (in most cases, the installer) is required by MIGHTY MAC to behave in compliance with those codes.

A two-year service policy is included in the price of your system. The unit is to be inspected and assessed for service needs at least every six months. The first person to hold the service contract, generally the installer, is responsible for setting this schedule and seeing to its execution in compliance with local and state health department requirements. During the service inspections, electrical connections should be checked for proper function, dirt, and debris. The high-water alarm sensor should be checked. The Aerator should be inspected for proper function and to insure that pests have not begun nesting in or around the aerator. Strong odors should be investigated. The water in the pump tank should be clear. The point of discharge should be inspected. The homeowner should be notified IN WRITING of any problems that need to be addressed and when those problems will be corrected.

The Installer is also required to offer the Homeowner an extended service policy after the initial two (2) year service policy has expired. The extended service policy should reflect the same services as in the initial two(2) year service policy along with an appropriate fee for providing the those services. Your system components have a 2-year warranty. Should a replacement part be needed after the warranty of the part in question has expired, the service person replacing the part will either give you instructions for obtaining a replacement or provide it himself. The service person is

responsible for obtaining the part and providing the labor at a fair price, and dealing with its replacement and any other repairs in a timely manner.

An additional 1-year manufacturers' warranty is available to extend your initial warranty to a total of 3 years at an additional cost. This warranty protects your components for an additional year and details are available only from your initial service provider.

Service personnel are responsible for responding to homeowner's requests for emergency service within 48 hours. This pertains to those events where your alarm is sounding, a part has ceased to function, or the system is odiferous or backing up. Failures to respond to initial contact attempts within 48 hours should be called to the attention of Mighty Mac. The name and contact information of your service person is located on a sticker on the aerator of your system, as well as at the end of this document.

V. Appendices

A. MIGHTY MAC Limited Warranty Policy:

MIGHTY MAC warrants the parts in each treatment system to be free from defects in material and workmanship for a period of two years from the date of installation treating residential wastewater. MIGHTY MAC shall fulfill this warranty by repairing or exchanging any component part that in MIGHTY MAC's judgment shows evidence of defects, provided said component part has been paid for and is returned through an authorized dealer, transportation prepaid. The warranty must also specify the nature of the defect to the manufacturer.

The warranty does not cover treatment systems or components that have been flooded by external means or that have been disassembled by unauthorized persons, improperly installed, subjected to external damage, or damage due to altered or improper wiring or overload protection.

This warranty applies only to the treatment system and does not include any of the residential wiring, plumbing, drainage, or disposal system. MIGHTY MAC is not responsible for any delay or damages caused by defective components or materials, for loss incurred because of interruption of service, or for any other special or consequential damages or incidental expenses arising from the manufacture, sale or use of this system.

MIGHTY MAC reserves the right to revise, change, or modify the construction and design of the treatment system for residential wastewater or any component part or parts thereof without incurring any obligation to make such changes for modifications in previously sold equipment. MIGHTY MAC also reserves the right, in making replacements of component parts under this warranty, to furnish a component part that, in its judgment, is equivalent to the company part replaced.

Under no circumstances will MIGHTY MAC be responsible to the warrantee for any other direct or consequential damages, including but not limited to lost profits, lost income, labor charges, delays in production, and/or idle production, which result from defects in material and/or workmanship of the system.

This warranty gives MIGHTY MAC and the warrantee specific legal rights. Other rights may also be available that vary from state to state.

B. Record of Service

Please keep this with your Home Documents:

MIGHTY MAC Record of Service:

Customer: _____

Address: _____

Phone: _____

Cell: _____

E-mail: _____

Equipment:

500 GPD _____

600 GPD _____

750 GPD _____

Pump Tank _____

Other _____

Aerator SN# _____

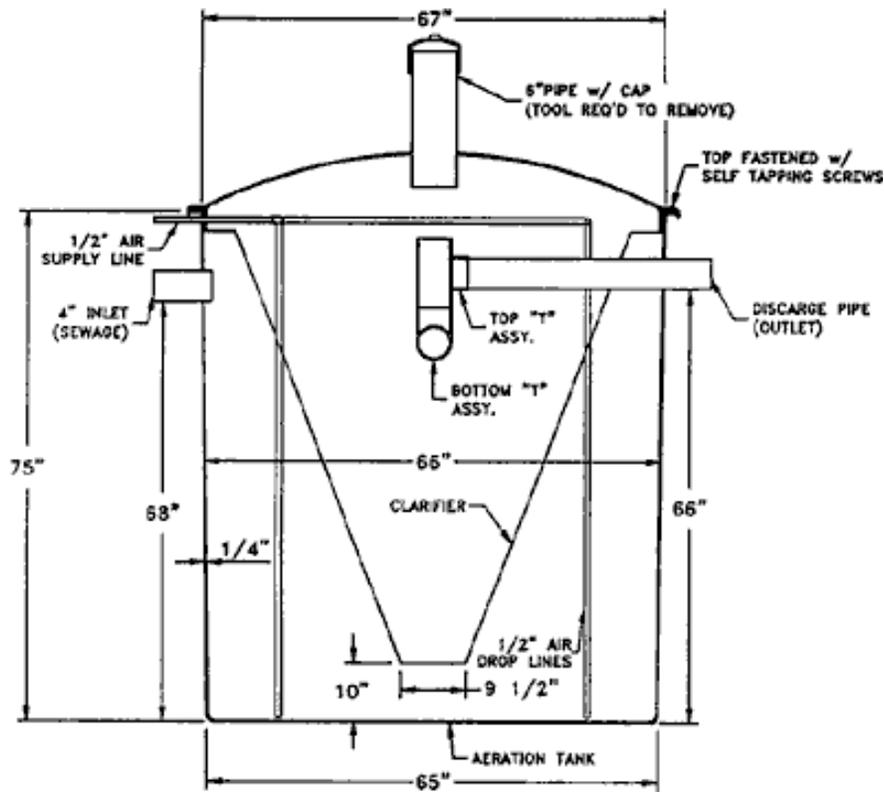
Submersible Pump SN# _____

Installer: _____

Installer's Phone: _____

Date of Installation: _____

C. Drawings and Specifications



Mighty Mac 500

Aeration Chamber: 776 - Gallon Capacity
Clarifier: 194 - Gallon Capacity
Total Volumetric Capacity: 970 Gallons
BOD Loading: 1 - 1.5 lbs. per Day
Treatment Capacity: 500 Gallons per Day

