

MTC-HC50

Mobile Tank Cleaning System

Operating & Maintenance Manual

- Removes Water & Sludge
- Optimizes Fuel Quality
- Improves Engine Reliability



* Shown with optional controller

Optimal Fuel Quality Provides Peak Engine Performance

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OPERATING AND MAINTENANCE MANUAL

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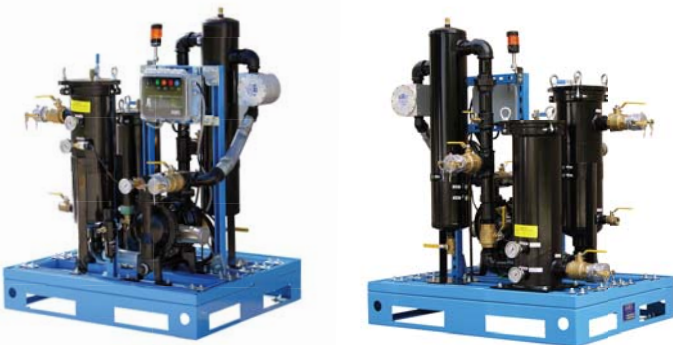
MTC-HC50 high capacity, modular tank cleaning systems are used to recondition, stabilize, and decontaminate Diesel Fuel, Bio-Diesel, Light Oils and Hydraulic fluids

MTC systems efficiently remove water, sludge, and sediments that naturally accumulate in tanks. They clean tanks, while **restoring your fuel to its "Clear & Bright" condition.**

AXI's mobile tank cleaning systems excel in combining **High Capacity Filtration & Water Separation with Compact Design and Low Operating Cost** to provide Optimal Fuel Quality for Peak Engine Performance and Reliability.



*Shown With Optional Controller



- Compact design
- High Capacity Fluid Processing
- Variable Flow-Rate (25-75 GPM)
- Sludge & Solids Up to 1/4" (6mm)
- Large Contaminant Holding Capacity
- Fully Automated (Optional)

System Capacity	Adjustable Flow Rate 25 – 75 GPM (Depending on air supply)
Primary Filter	Carbon Steel Pre-Filter Housing Quick Release 3-Bolt Swing Cover Drain Valve & Air Vent Perforated SS Strainer Basket 9/64" (3.5mm) for use with Filter Bags or SS Liner
Liner & Filter-Bags	Replaceable Filter Bags (10 - 1500 Micron) SS Basket Liners (60 - 850 Micron)
Secondary Filter	Carbon Steel Filter Housing Quick Release 3-Bolt Swing Cover Drain Valve & Air Vent
Filter Elements	Fine Filters 1 - 100 Micron Coalescing/Water Block Filters 1 - 100 Micron
Pump	Adjustable Flow Rate Air Driven, Double-Diaphragm Pump Filter / Regulator & Air Pressure Gauge Handles Solids up to 1/4" (6.4 mm)
Air Requirements	50gpm - 25cfm @ 90psi 75gpm - 50cfm @ 90psi 1/2" Air Hose Connection
Fuel Conditioner	LG-X 4000
Water Separator	RCM 1500 with Drain Valve & Air Vent
Ports	One Suction, Multiple Discharge & Sample Ports
Connectors	Cam & Groove Fittings and Covers
Hoses	25ft Clear Suction Hose (ID 2" - OD 2.5") 25ft Discharge Hose (ID 2" - OD 2.5")
Skid	Powder Coated Carbon Steel Lifting Eyes & Forklift Channels Drip Tray with Drain
Dimensions*	L36 x W45 x H58 inch L91 x W114 x H147 cm
Weight*	500 lbs / 227 kg
Instrumentation & Automation	Vacuum Gauges on Primary Filter Pressure Gauge on Pump Discharge Pressure Gauges on Secondary Filter AXI Watect 550 Water Sensor Alarm Module (optional)
Smart Filtration Controller	SFC-50MTC (optional)

* Depending On Configuration

INITIAL INSPECTION

Congratulations on your purchase of an Algae-X® MTC Mobile Tank Cleaning System!

Upon delivery, the MTC System and accessories must be visually inspected. Shipping and handling may cause physical or electrical problems. Note any damages with the shipping company or refuse shipment in cases of severe damage.

OVERVIEW - MOBILE TANK CLEANING SYSTEM

The MTC-HC50 is a four-stage mobile fuel conditioning and tank cleaning system. It efficiently removes sludge and water from fuel and oil tanks, restoring & optimizing fuel quality in the same operation.

The system is designed as a “**fuel/oil dialysis system**” that circulates and cleans fuel/oil by pumping it **from the tank, processing it through the MTC and back into the tank.**

The system can also be used to **clean fuel or oil by pumping it from one tank through the MTC into another tank and / or suitable container.**

The MTC-HC50 is equipped with a double diaphragm pump rated at a maximum of 75 GPM. An air filter regulator adjusts the pump’s speed and flow. The system’s maximum flow rate depends on factors such as: suction lift, discharge head, hose length & diameter, pressure drop over the primary/secondary filters and separator. Ultimately, the available air flow and pressure will determine maximum system capacity.

TANK CLEANING - WHY, WHERE AND HOW

All storage tanks naturally accumulate water, solids and sludge resulting from condensation and the degradation of fuel and oil. The more fuel we turn over through a tank, the more debris and water will accumulate in the bottom.

Algae-X® Fuel Conditioning and Filtration Systems eliminate the need for costly, periodic manual tank cleaning, while **stabilizing and extending the shelf life of fuel**. This is extremely important for all applications of long-term fuel storage, especially **emergency power generators**.

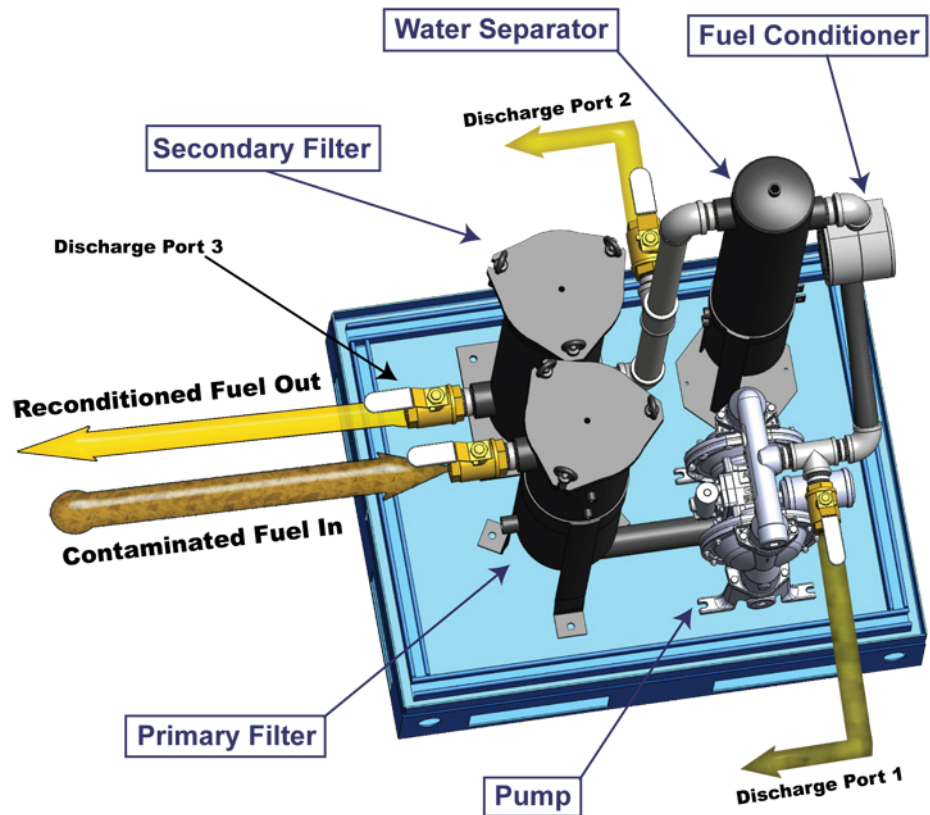
The Algae-X® Mobile Tank Cleaning System is compact, easy to operate and extremely versatile.

GENERAL TANK CLEANING PROCEDURE

The **MTC-HC50** offers three different discharge ports providing the operator with flexibility and efficiency.

MTC-HC50 systems are used to efficiently clean tanks, remove water & sludge and restore fuel quality; or to simply transfer fuel from one tank to another. At a low pump rate, using **Discharge Port 1** the HC50 will easily remove sludge and water from the bottom of your tank without creating a “Milk Shake Effect” by mixing fuel, water and sludge. Discharge Port 1 can also be used to transfer fuel to another tank while processing it through the primary filter.

Processing fuel through the Primary Filter, Fuel Conditioner, Separator and back to the tank through **Discharge Port 2** reconditions the fuel and cleans tanks at a high flow rate. Returning the fuel back to the tank from **Discharge Port 3** after the secondary filter, completes the fuel dialysis and reconditioning process. Depending on the job, Algae-X offers a choice of filter bags for the primary filter and a variety of fine filters, coalescing filters and water block elements for the secondary filter.



We always recommend keeping a “before” and “after” bottom tank sample for “show & tell” purposes and to demonstrate the improvement of fuel color, clarity and opacity.

AFC-705 FUEL CATALYST

The use of **Algae-X® AFC-705 Fuel Catalyst** is an **essential part of any tank cleaning procedure**, to more rapidly and efficiently decontaminate and clean the **entire fuel system**.

Before dosing the tank with AFC-705, remove as much of the sludge and free water as possible.

Adding the **Algae-X® Fuel Catalyst (AFC-705)** to the tank will **speed up the cleaning process** by breaking down and dissolving the sludge covering the tank walls and baffles. AFC-705 will **decontaminate areas and sections of the tank that are out of reach of the suction hose**.

Using a higher concentration of one to twenty five hundred (1:2500) instead of one to five thousand (1:5000) has proven to be very helpful in accelerating the rate of dissolving the sludge. Even higher doses of AFC-705 may be necessary depending on contamination level of fuel.

AFC-705 is a full spectrum fuel additive containing combustion catalyst, surfactant, detergent, dispersant, corrosion inhibitor, lubricity enhancers and fuel stabilizer that **eliminates the need for expensive toxic biocides**.

TANK CLEANING “101”



! IMPORTANT ! It is recommended that only qualified, experienced personnel, familiar with this equipment, who have read and understood all the instructions in this manual should operate and maintain the system.



! WARNING ! Do not use with gasoline, solvents, corrosive liquids, food liquids or other liquids having a flash point less than 100°F. Use with gasoline or use with any flammable liquids at a temperature exceeding their flash point, presents an immediate explosion and fire hazard



! IMPORTANT ! All safety measures and practices involving fuel / oil handling should be observed and followed at all times.



! WARNING ! For operator safety the MTC system needs to be properly grounded. Additionally all tanks, containers, hoses as well as the MTC system itself need to be bonded to prevent built-up of static electricity.

NOTE: Contact factory for use of MTC with biodiesel, vegetable oil or other liquid compatibility.

PREPARATIONS

Before operating the MTC, we recommend you first determine the amount of contaminants, free water and sludge in the tank.

Algae-X[®] provides a variety of **tank sampling equipment** including **Sampling Pumps**, tubing and bottles as well as **Sampling Thieves** (“Bacon Bomb”) – please see our FS Fluid Sampling line of products. Please make sure the **samples are taken from the bottom of the tank** (in the deepest spot).

An old and tried method is also “**sticking the tank**”. This means using a stick with “**Kolor Kut**” **paste** on the end that reaches through the top all the way to the bottom of the tank. Kolor Kut paste will show the water level in the tank and indicate how much water and sludge will have to be removed. Call Algae-X[®] for further information on other fuel sampling equipment.

OPERATING PROCEDURES / TIPS

AIR INLET

Maximum allowed air inlet pressure is 120 PSI. Check air filter / regulator frequently for water and debris and drain if required (don't exceed maximum liquid level marked on sight glass). Clean / replace air filter if necessary; air filter should be 50 Micron or smaller.

HOSES

The intake/suction hose is a clear, see-through reinforced vacuum hose. The return hose is black, reinforced, discharge fuel hose. Both hoses are equipped with Cam & Groove couplings. Dust caps and plugs are provided and should be attached when the MTC or hoses are not being used (especially during transportation).

“VACUUM ATTACHMENTS”

We highly recommend attaching a straight wand or pipe (cut at an angle at the end that goes into the tank) with minimum the same inner diameter as the suction hose to the suction hose to reach the lowest part of the tank bottom.

Note: Never restrict the flow on the suction side of an MTC; e.g. by using a smaller ID hose or pipe or attaching the suction hose to a fitting on the tank that has a smaller ID than the hose. This will lead to excessive pump load, noise and ultimately damage the pump.

VALVE POSITIONS

Verify inlet and outlet valve positions for proper operation mode and make sure all drain and air vent valves are closed and the system is set up in a stable and safe position.

GROUNDING / BONDING

The complete **MTC system needs to be properly grounded.** Use provided grounding reel to ground system as well as **securely bond the system to the fuel tank and / or disposal containers.**

GAUGE VENTING / ACCURACY

After shipment, pointer of gauges may not rest at zero due to internal case pressure buildup caused by temperature variations. Accuracy may be significantly reduced. To restore gauge to operating condition, move yellow lever of fill plug to the “open” position or remove small plug from top of gauge and leave open.

SYSTEM GAUGES

The MTC-HC50 is equipped with several gauges to monitor pump and system status as well as filter condition.

#	Gauge description	What is measured	Normal range	Max. allowed
1	Air inlet pressure	Air pressure to the pump after the regulator (adjustable)	20 – 60 PSI	120 PSI
2	System inlet vacuum	Fuel lift, losses in hoses, any restriction prior to inlet port	0-15”HG	18”HG
3	Pump inlet vacuum	#2 plus pressure drop of bag filter	0-15”HG	18”HG
4	Differential pressure / primary filter (#3 - #2)	Calculated value (filter bag condition)		15”HG = change filter
6	Pump discharge pressure	Total discharge pressure of pump	0 – 30 PSI	60 PSI
7	Fine Filter pressure	#8 plus pressure drop of secondary fine filter element	0 - 25 PSI	30 PSI
8	System outlet pressure	Discharge head, losses in hoses, any restriction after outlet port	0 - 5 PSI	30 PSI
9	Differential pressure / fine filter (#7 - #8)	Calculated value (filter element condition)		25 PSI = change filter

PRIMING THE SYSTEM

There is no need to fill the system with fuel prior to startup. The diaphragm pump is self-priming. **It is however very important to prevent pump damage by slowly starting the pump with low air pressure values between 20 to 30 PSI** – especially if there is no liquid in the pump. Once the complete system and hoses are primed and full of fuel you can increase the air pressure to achieve the desired flow rate.

Another advantage of starting the process with low air pressure and therefore low flow rate is that you can observe the liquid coming from the bottom of tank and see if you are pumping water, debris and/or fuel.



! IMPORTANT ! Never exceed 18”HG on vacuum gauge located before of pump.

TANK CLEANING STEPS

PHASE ONE: Initially remove bulk water and sludge from the bottom of the tank into a separate suitable disposal container (**use discharge port 1**).

Note: Disposal of tank sludge, water and filter elements should be done in accordance with Federal, State and Local regulations.

PHASE TWO: After removing the bulk of the sludge and water from the tank and draining the separator, insert discharge hose – after **connecting it to port 2** - into tank as far away from the suction hose as possible. Verify that both hoses are properly placed in the fuel tank and that the valves on the MTC system are in the correct position.

Depending on the amount of contaminant in the tank, we recommend you stop the pump frequently and check for free water and sludge by draining the water separator. It may be necessary to depress the air purge valve on top of the separator after opening the drain valve.

Monitor the bag filter and change the bag filter element when the vacuum reaches 15”HG.

The MTC should be kept running in the Phase Two recirculating mode until clean fuel samples can be drained from the separator. Then, we are ready for final polishing.

Now is the time to **add Algae-X® AFC-705 Fuel Catalyst** in a dose of 1 : 2500 or 1 gal of AFC-705 for 2500 gallons of fuel. Higher doses of AFC-705 may be necessary depending on condition of fuel.

Note: The separator/coalescer has to be full at all times to perform properly. You can do so by using the air purge valve located on top.

PHASE THREE is the final fine filtration cycle. The fuel now returns back to the tank through the **discharge hose connected to Port 3**. The fuel now also flows through the water block / fine filter that removes even the finest invisible particles down to 1 micron (depending on filter element) as well as entrained and emulsified water (make sure you are using Water Block filters) and restores the fuel to its optimal pristine and sparkling condition.

Monitor the pressure gauge on the filter vessel. **When the pressure reaches 20 - 25 PSI, it is time to change the filter.**

Note: Some fine (secondary) filters are only for particulate removal and will allow water to pass through – for complete water elimination we highly recommend to finish a tank cleaning job with a Water Blocking secondary filter.

DIGITAL FLOW METER (OPTIONAL)

The digital flow meter is an excellent tool to monitor flow rate and system performance as well as count the amount of liquid that has been processed.

Note: If your MTC is equipped with the optional flow meter in the discharge hose please make sure to use at least a 800 micron filter bag in the primary filter to protect the meter.

PUMP STALLING

Excessive pump back pressure will cause the diaphragm pump to stall.



! WARNING ! Never run an MTC system unattended.

SFC-50-MTC SMART FILTRATION CONTROLLER (OPTIONAL)

Make sure that the systems power requirements and rated voltage / frequency match your electrical system (See wiring diagram and / or marking on SFC-50-MTC). The SFC-50-MTC may only be connected to properly grounded power sources for operator safety. Do not run over, crush or pull the power supply cable and wiring harness otherwise it may be damaged. Protect the cables from oil, heat and sharp edges.



! WARNING ! The system must be properly grounded for operator safety.

The system is equipped with a vacuum switch on the input side of the pump. Vacuum values readings reaching 15" HG vacuum indicate excessive debris in the primary filter (or a flow restriction or too high suction height and therefore pressure drop in the suction line) and will result in pump shutdown and activate the high vacuum alarm.

Note: 15" HG vacuum = clogged primary filter or suction line flow restriction / excessive lift.

System pressure over 25 PSI will trigger a high-pressure alarm and will automatically shut down the pump.

PUMP OPERATION

Apply control power to unit. Place breaker on the Algae-X SFC-50-MTC Smart Filtration Controller in the "ON" position.

Automatic:

Place the selector switch in the "AUTO" position. When the pendant switch is pushed, the pump will start and run until the pendant switch is pressed again, the system is switched to "OFF" mode or till an alarm has been tripped.

Manual:

Place the selector switch in the "MANUAL" position. The pump motor will run until the switch is returned to the "OFF" or "AUTO" mode positions or till an alarm has been tripped.

FILTERS – MTC-HC50

Note: Always have an adequate supply of filter elements on hand.

CHANGING PRIMARY BAG FILTER

The vacuum gauges on the bag filter vessel show the pressure drop over the filter. **15"HG vacuum indicates** the bag filter element should be replaced.

1. For a "no mess" bag filter change the bag filter vessel should be pumped empty.
2. Close the inlet ball valve and then open the air purge valve on the top of the bag filter housing to allow air to enter.
3. Turn on the pump at low air pressure (low flow) for a couple strokes till fuel is removed from the bag filter vessel (pumped dry).
4. Make sure pump is turned off, pressure is released and discharge valve after the pump is closed (close all discharge valves), then open the lid.
5. Replace bag filter element and make sure it seals tight within the perforated basket. For best results bag should be fully extended into the basket. Check inner housing and basket for debris and sludge and remove if necessary. Also ensure that the basket is seated correctly and tight on the O-Ring within the bag filter vessel.
6. Apply a film of lubricating oil to the lid gasket. Replace O-Ring if worn or damaged.
7. Tighten lid screws evenly (alternating the screws) to ensure no air can enter the system and lid is fully seated onto O-Ring gasket.

8. Verify inlet and outlet valve positions for proper operation mode and make sure all drain and air vent valves are closed. Check for leaks and air intrusion when re-starting the system.

The material trapped inside the filter bag can be inspected to better understand the types of contaminants that have been removed from the tank.

Note: Disposal of tank sludge, water and filter elements should be done in accordance with Federal, State and Local regulations.

CHANGING SECONDARY FINE / WATER BLOCK FILTER

There are two types of **Algae-X[®] fine filters** available.

1. 1 to 100 micron particulate filter
2. 1 TO 100 micron **water block fine filter**

The **Algae-X[®] Water Block** removes entrained and emulsified water from fuel and oil.

The pressure gauges on the fine filter vessel show the pressure drop over the filter. **20-25 PSI indicates** when the filter element should be replaced.

The water block filters are used to remove entrained and emulsified water from the fuel stream. Saturation of water block filter will cause the pressure drop over the filter to increase (even if the pleated filter paper does not show any contaminates).

1. Optional: To remove some fuel from the fine filter vessel use steps 1 through 3 from above.
2. Before replacing the filter element, close the valves prior and after the fine filter vessel for complete isolation. Make sure all pressure in the system has been released (open air vent valves carefully and slowly).
3. Make sure pump is turned off, and then open the lid.
4. Replace filter element and hand tighten top seal plate nut. Check inner housing and basket for debris and sludge and remove if necessary.
5. Apply a film of lubricating oil to the lid gasket. Replace O-Ring if worn or damaged.
6. Tighten lid screws evenly (alternating the screws) to ensure lid is fully seated onto O-Ring gasket.
7. Verify inlet and outlet valve positions for proper operation mode and make sure all drain and air vent valves are closed.
8. Check for leaks and vent air from filter housing when re-starting the system.

The material trapped inside the filter can be inspected to better understand the types of contaminants that have been removed from the tank.

Note: Disposal of tank sludge, water and filter elements should be done in accordance with Federal, State and Local regulations.

AFTER CLEANING THE TANKS

1. Stabilize the Fuel

AFC-705 should always be used to **stabilize the fuel** in tanks used for long-term fuel storage. When no Algae-X[®] re-circulating system or STS Automatic Filtration System is in place, **AFC-705** will maintain fuel quality and prevent formation of solids for six to twelve months. Added during the tank cleaning phase it is not necessary to use **AFC-705** again for 6 months or more.

2. Prevent Water from Accumulating

The use of **Algae-X[®] Water Eliminators** will **prevent water** from accumulating in the tank. The water eliminators will absorb and remove any future water from condensation or other sources. Preventing water accumulation eliminates microbial growth and the need for toxic biocides.

3. Monitor Fuel Quality

Liqui-Cult Fuel Test Kits are ideal to monitor your fuel supply for microbial contamination. The tests quantify bacterial and fungal activity.

- **Algae-X[®] Tank Cleaning Systems significantly lower operating costs, save fuel, eliminate periodic tank cleaning and the build up of solids, sludge and acids.**
- **Algae-X[®] Technology enhances personnel safety and addresses environmental concerns by preventing the need for costly toxic biocides.**
- **Larger capacity Mobile and Stationary Tank Cleaning Systems are available.**

MTC MAINTENANCE



! IMPORTANT ! It is recommended that only qualified, experienced personnel, familiar with this equipment, who have read and understood all the instructions in this manual should install, operate and maintain the system.



! IMPORTANT ! Always disconnect the system from the air and electric power supply before working or servicing it. Do not proceed with any maintenance unless the pressure or vacuum has been released, the system has been allowed to reach ambient temperature and all fluids have been drained.

DRAINING AND STORING THE SYSTEM

1. **Before releasing the quick disconnect couplings**, allow all fuel to flow out of the hoses by draining the system or **take the suction hose out of the tank while the pump is still running and wait till system is purged and empty.**
2. Place an appropriate container under each drain valve. Use the air purge valve on top of the separator to make sure all of the fluid can be drained from the system.

FUEL / OIL SEPARATOR / COALESCER

The separator is a closed dynamic separator / coalescer that does not require any consumables. When draining water and sludge from the separator:

1. Place an appropriate container under the drain valve
2. Open the drain valve and close when observing clean fuel

3. Push the air-purge valve to allow air in and fuel to flow out

The Separator needs to **be serviced and flushed from time to time**. This can be done by removing the top plug, opening the drain valve on the bottom and flushing the separator to make sure no debris and contaminants restrict the flow.

PUMP

Check pump for leaks, worn and damaged parts. **Detailed safety, operation and maintenance instructions are available in the supplied pump manual**. We highly recommend carrying a spare pump or a pump spare parts kit.

LG-X FUEL CONDITIONER

Ferrous particles and rust can collect inside the LG-X unit and over time cause a **flow restriction and/or diminish its effectiveness**. Open the lid of the LG-X Fuel Conditioner by unscrewing the lid screws and clean the magnet and fuel chamber. Inspect O-rings prior to reassembly.

SUCTION AND DISCHARGE HOSES

We recommend **replacing the suction hose every year** and the **discharge hose every two years**. Heavy use, visual deterioration, damage or poor condition and excessive wear can require an even earlier change.

SAFETY NOTES

The MTC Pump is designed to be used with diesel fuel and oils only. The pump is **NOT** designed for gasoline, alcohol or other explosive or corrosive liquids.

Please contact us if you are not sure if the liquid you are intending to polish and clean is compatible with the MTC system.

Biocides are extremely toxic and may enter the body through the skin. It is recommended to use adequate protection and avoid skin contact with **biocide-treated fuels and oil**.



! WARNING ! DO NOT USE WITH GASOLINE. This System is not meant for use with gasoline nor with other flammable liquids having a flash point less than 100°F (38°C). Use with gasoline or any flammable liquids at a temperature exceeding their flash point, presents explosion and fire hazards.



! WARNING ! Care must be taken not to operate the pump with either the suction (inlet) or discharge (outlet) lines closed or obstructed. Only run the system when you are able to supervise it. Unattended Operating of the MTC is NOT recommended.



! WARNING ! Some fuels may have been treated with biocides. Biocides are extremely toxic and may enter the body through the skin. Use adequate protection and avoid contact.

Note: Disposal of tank sludge, water and filter elements should be done in accordance with Federal, State and Local regulations. These materials need to be treated as chemical waste.

TROUBLESHOOTING

No fuel delivery

1. Pump does not run
2. Fuel supply or return blocked
3. Primary filter clogged
4. Lift is too high
5. Air leak in fuel supply to pump
6. Intake or outlet valve closed
7. Liquid too viscous (thick)
8. Foot valve clogged / inoperative

Insufficient fuel delivered

1. Air leak at inlet
2. Insufficient air supply
3. Lift too high
4. Pump worn
5. Inoperative / too small foot valve
6. Flow restriction in hose / plumbing / primary filter
7. Liquid too viscous
8. Filter plugged

Vacuum gauge shows more than 15”HG:

1. Restriction on inlet side too high
2. Lift too high
3. Inoperative foot valve
4. Inlet ball valve not fully open
5. Suction line / Primary filter clogged

Pressure gauge more than 20 – 25 PSI with clean or new filter element installed

1. Restriction on discharge side too high
2. Head (lift) on discharge side too high
3. Check filter for water saturation (WB only)
4. Outlet ball valve not fully open
5. Discharge line clogged

Noisy operation

1. Insufficient fuel supply
2. Air leaks in the inlet pipe
3. Excessive pump load (vacuum > 15”HG)
4. Air or gas on the suction side

Pump requires frequent re-priming

1. Inoperative foot valve
2. Pump cavitations
3. Plumbing air leaks
4. Lift too high
5. Leaking pump seal

Note: We highly recommend installing the optional Digital Flow Meter in the discharge hose of the MTC (can also be factory equipped – if requested). The Digital Flow Meter is an excellent tool to monitor the performance of the equipment and will measure how much fuel has been processed through the MTC.

TANK CLEANING SYSTEMS WARRANTY

LIMITED WARRANTY

ALGAE-X® International makes every effort to assure that its products meet high quality and durability standards and expressly warrants the products described herein, against defects in material and workmanship for a period of one (1) year from the date of purchase. This warranty is not intended to supplant normal inspection, care and service of the products covered by the user, and shall not obligate ALGAE-X® to provide free service during the warranty period to correct breakage, maladjustment or other difficulties arising out of abuse, misuse, or improper care and maintenance of such products. Our express warranty is subject to the following terms and conditions:

1. This warranty shall only extend to and is only for the benefit of original purchasers who use the products covered hereby
2. Any warranty claim received by ALGAE-X® after one (1) year from the date of purchase will not be honored even if it is claimed that the defect occurred prior to one (1) year from the date of purchase.
3. This warranty shall not apply to products (1) which have been tampered with, altered or repaired by anyone other than ALGAE-X® without the express prior written consent of ALGAE-X® (2) which have been installed improperly or subject to misuse, abuse, accident, negligence of others, improper operation or maintenance, neglect or modification, or (3) which have had the serial number altered, defaced or removed.
4. The liability of ALGAE-X® under this warranty is limited to the repair or replacement of the defective product. ALGAE-X® assumes NO LIABILITY for labor charges or other costs incurred by any purchaser incidental to the service, adjustment, repair, return, removal or replacement of products. ALGAE-X® ASSUMES NO LIABILITY FOR ANY GENERAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL, CONTINGENT OR OTHER DAMAGES UNDER ANY WARRANTY, EXPRESS OR IMPLIED, AND ALL SUCH LIABILITY IS HEREBY EXPRESSLY EXCLUDED.
5. ALGAE-X® MAKES NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WITH RESPECT TO THE PRODUCTS COVERED BY THIS WARRANTY POLICY, EXCEPT AS EXPRESSLY PROVIDED FOR HEREIN. NO EMPLOYEE, AGENT, REPRESENTATIVE OR DISTRIBUTOR IS AUTHORIZED TO MAKE ANY WARRANTY ON BEHALF OF ALGAE-X® OTHER THAN THE EXPRESS WARRANTY PROVIDED FOR HEREIN.
6. ALGAE-X® reserves the right at any time to make changes in the design, material, function and specifications of its products. Any such changes shall not obligate ALGAE-X® to make similar changes in such products that were previously manufactured.

WARRANTY CLAIM PROCEDURE

To make a claim under this warranty, please call our ALGAE-X® at (239) 690 9589 or (877) 425-4239, and provide: Name and location where unit was purchased, the date and receipt of purchase, model number, serial number, and a detailed explanation of the problem you are experiencing. The Customer Service Representative may, at the discretion of ALGAE-X®, arrange for a Field Engineer to inspect your system. If the inspection discloses a defect covered by its limited warranty, ALGAE-X® will either repair or replace the defective parts or products. ALGAE-X® assumes no liability, if upon inspection, ALGAE-X® or its representative determines that there is no defect or that the damage to the system resulted from causes not within the scope of this limited warranty. For service and sales, please contact ALGAE-X®:

ALGAE-X® International
5400-1 Division Drive, Fort Myers, FL 33905 • 877-425-4239 • Fax: 239-690-1195
Internet: www.algae-x.net • Email: algae-x@algae-x.net

TECHNICAL ASSISTANCE AND ORDERING

Please write to, fax, email or call:

ALGAE-X® International
5400-1 Division Drive
Fort Myers, FL 33905
Tel: 239-690-9589
Fax: 239-690-1195
Email: algae-x@algae-x.net
Internet: www.algae-x.net

Please provide the following information:

Serial Number of your MTC (located on the metal serial plate) the required part numbers and quantity.

REPLACEMENT FILTER ELEMENTS

Primary (Bag) Filter:

PFB-30-10 10 Micron bag, felt, polyester
PFB-30-25 25 Micron bag, felt, polyester
PFB-30-75 75 Micron bag, felt, polyester
PFB-30-250 250 Micron bag, multifilament mesh, polyester
PFB-30-800 800 Micron bag, multifilament mesh, polyester
Other micron sizes and materials available

Secondary (Fine) Filter:

CF-618-5 Filter Cartridge - particulate - 5 micron
CF-618-10 Filter Cartridge - particulate - 10 micron
CFWB-618-5 Filter Cartridge - Water Block - 5 micron
CFWB-618-10 Filter Cartridge - Water Block - 10 micron
Other micron sizes available

Also available:

- SFC-50-MTC Smart Filtration Controller
- Extra suction and discharge hoses
- Digital Flow Meter
- Rotor Sight Glass
- Casters, pneumatic wheels
- Larger capacity, custom designed systems for higher flow rates and larger tanks

MTC-HC50 SYSTEM IDENTIFICATION

Serial Number: _____ (e.g. B 090010 – HC50)

Voltage (Controller): 110 V AC / 60 Hz
 230 V AC / 50 Hz

Inspected by: _____ Date: _____