

INSTALLATION, OPERATION AND MAINTENANCE MANUAL AT MOBILE SEPARATOR (ATMS)



Mayfran International, Incorporated

**P.O. BOX 43038
6650 BETA DRIVE
CLEVELAND, OHIO 44143**

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WARRANTY STATEMENT

(a) Mayfran International Inc. ("Mayfran") warrants to the original purchaser that during the first 2000 hours of operation, but in no event more than one year from the date of shipment (the "Warranty Period"), the equipment sold will conform to the design, construction, and performance, if any, specifications set forth in Mayfran's proposal, quotation, or sales order acknowledgment for the equipment and will be free from significant defects in material and workmanship (the "Product Warranty"). The Product Warranty does not apply if: (i) the equipment has been subject to misuse, negligence, improper maintenance (including improper lubrication), or improper handling, (ii) the defect or non-conformity arises out of the failure to follow Mayfran's oral or written instructions regarding the equipment, including instructions as to storage, installation, commissioning, use or maintenance; (iii) the equipment has been reconstructed, repaired or altered by parties other than Mayfran or its authorized representatives; or (iv) the equipment has been used with any third-party products, hardware or product that has not been previously approved in writing by Mayfran. As the sole and exclusive remedy (and Mayfran's entire liability) for a breach of the Product Warranty, during the Warranty Period Mayfran will, at Mayfran's cost and option, repair any nonconformity on site or replace any nonconforming part. Notwithstanding the foregoing, purchaser is responsible for labor charges to install replacement parts.

(b) EXCEPT FOR THE PRODUCT WARRANTY SET FORTH ABOVE, (1) NEITHER MAYFRAN NOR ANY PERSON ON MAYFRAN'S BEHALF HAS MADE OR MAKES ANY EXPRESS OR IMPLIED REPRESENTATION OR WARRANTY WHATSOEVER, EITHER ORAL OR WRITTEN, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR PERFORMANCE OF EQUIPMENT (INCLUDING THROUGH-PUT PERFORMANCE) TO STANDARDS SPECIFIC TO THE PURCHASER'S NEEDS, WHETHER ARISING BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, ALL OF WHICH ARE EXPRESSLY DISCLAIMED, AND (2) THE PURCHASER ACKNOWLEDGES THAT IT HAS NOT RELIED UPON ANY REPRESENTATION OR WARRANTY MADE BY SELLER, OR ANY OTHER PERSON ON SELLER'S BEHALF, EXCEPT FOR THE PRODUCT WARRANTY.

(c) Mayfran does not warrant any equipment, parts, or components where Mayfran is not the manufacturer. For equipment, parts and components not manufactured by Mayfran, only the warranty, if any, provided by the manufacturer is available, a copy of which will be provided on request.

(d) Mayfran is not liable for consequential, indirect, incidental, special, exemplary, punitive or enhanced damages, for lost profits or revenues, or for diminution in value, arising out of or relating to any breach of the Product Warranty or otherwise, regardless of (i) whether such damages were foreseeable, (ii) whether or not the purchaser was advised of the possibility of such damages or (iii) the legal or equitable theory (contract, tort or otherwise) upon which the claim is based, and notwithstanding the failure of any agreed or other remedy of its essential purpose.

Rev 17-0314

SAFETY INFORMATION

THE SAFETY INFORMATION CONTAINED HEREIN MUST BE COMMUNICATED BY THE CUSTOMER, OWNER, OR END USER TO ALL PERSONNEL WHO WILL ACTUALLY OPERATE, MAINTAIN, REPAIR, OR ADJUST THIS EQUIPMENT, OR WHO ARE ASSIGNED TO WORK IN THE VICINITY OF THIS EQUIPMENT.

ADJUSTMENT, MAINTENANCE AND CLEANING SHOULD BE CONDUCTED ONLY BY PERSONNEL TRAINED BY THE OWNER OR END USER IN THE OPERATION OF ALL ASSOCIATED EQUIPMENT. PERSONNEL SHOULD BE TRAINED IN OSHA COMPLIANT LOCK-OUT / TAG-OUT AND ELECTRICAL SAFETY PROCEDURES. RECORDS OF TRAINING SHOULD BE MAINTAINED BY THE OWNER OR END USER. RECORDS OF TRAINING FOR THE SAFE OPERATION OF THIS EQUIPMENT MUST ALSO BE MAINTAINED. NEVER SHOULD ADJUSTMENT, MAINTENANCE, OR CLEANING BE PERFORMED WITHOUT FOLLOWING PROPER SAFETY PROCEDURES.

DO NOT operate any equipment or machinery without reading and understanding this manual completely.

DO NOT operate any equipment or machinery unless fully trained and qualified by the owner or end user.

DO NOT operate any equipment or machinery (or any portion) unless all personnel are clear of any rotating or moving parts (or parts that may potentially move or rotate).

DO NOT operate any equipment or machinery unless all guards and/or emergency stops are in place and functioning as designed.

DO NOT perform any maintenance, repairs, or adjustments on this equipment without first locking out all electrical controls.

DO NOT clean the equipment or the areas adjacent to or below the machinery without first locking out all electrical controls.

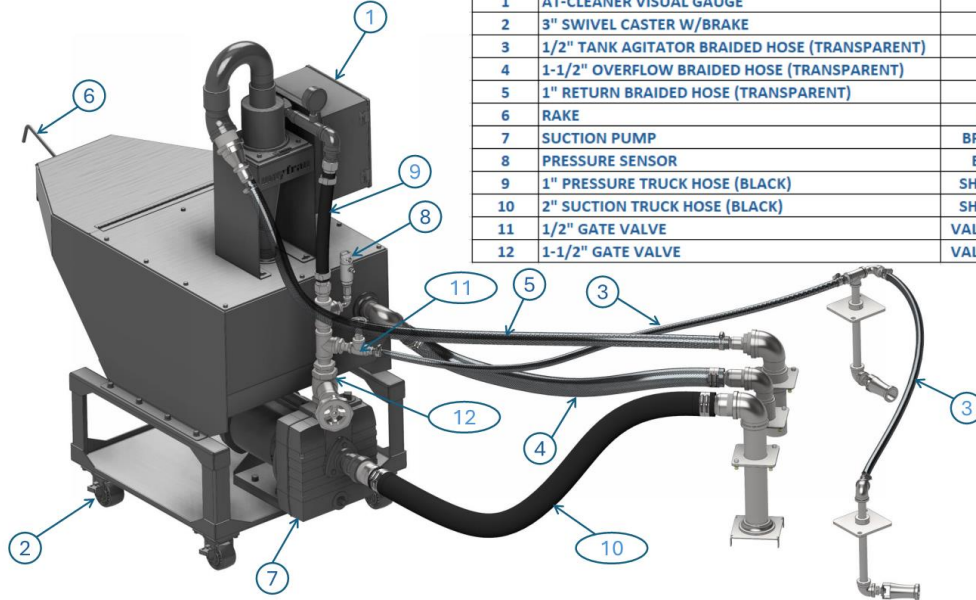
DO NOT remove any covers or guards without disconnecting the power.

DO NOT remove or cover any warning labels.

DO NOT climb on the components of the equipment.

MAYFRAN INTERNATIONAL, INCORPORATED WILL NOT BE RESPONSIBLE FOR ANY WORK PERFORMED, OR ALTERATIONS MADE TO ANY OF ITS PRODUCTS UNLESS PRIOR APPROVAL HAS BEEN GRANTED IN WRITING BY AN AUTHORIZED MAYFRAN REPRESENTATIVE. ANY OTHER WORK WILL VOID ANY AND ALL WARRANTIES AND LIABILITIES. ALL WARRANTIES AND LIABILITIES SHALL ALSO BE VOID IF PARTS MANUFACTURED BY MAYFRAN INTERNATIONAL ARE REPLACED WITH PARTS OBTAINED FROM A SOURCE OTHER THAN MAYFRAN INTERNATIONAL.

PARTS LIST FOR AT MOBILE SEPARATOR



REPLACEMENT PARTS		
ITEM	DESCRIPTION	PART NUMBER
1	AT-CLEANER VISUAL GAUGE	525215
2	3" SWIVEL CASTER W/BRAKE	590213
3	1/2" TANK AGITATOR BRAIDED HOSE (TRANSPARENT)	831424
4	1-1/2" OVERFLOW BRAIDED HOSE (TRANSPARENT)	831428
5	1" RETURN BRAIDED HOSE (TRANSPARENT)	831429
6	RAKE	63909-F
7	SUCTION PUMP	BRMBSPCCE3
8	PRESSURE SENSOR	EFEPN2596
9	1" PRESSURE TRUCK HOSE (BLACK)	SHA7216-1002
10	2" SUCTION TRUCK HOSE (BLACK)	SHA7216-2002
11	1/2" GATE VALVE	VALVEGA125-0.5
12	1-1/2" GATE VALVE	VALVEGA125-1.5

OPERATION

AT MOBILE SEPARATOR is designed to continuously polish 15 GPM of machine coolant by removing particles greater than 10-micron nominal when used with a Mayfran separator type conveyor, with the added flexibility to move between machines. ATMS is strictly a secondary filtration. If used in tank that has a chip conveyor performance may vary.

PUMP SPECIFICATIONS

Motor HP	Voltage	Amps	RPM
1.5	208-230V	5.0A (6.8 Max)	3450
1.5	460V	2.5A (3.4 Max)	3450

PARTS ORDERING INSTRUCTIONS

When ordering parts, please specify the following information:

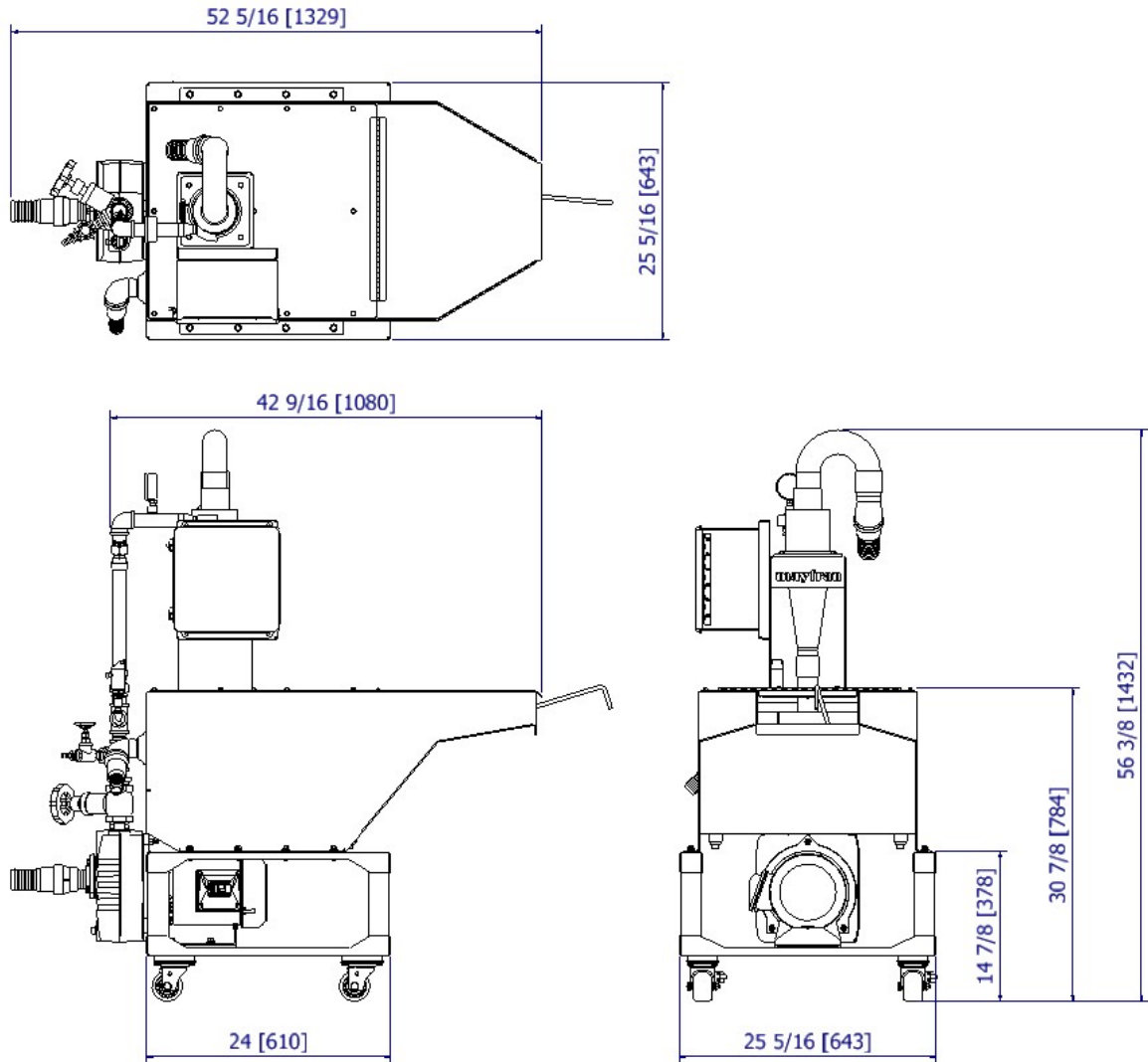
1. **Part Number:** Specify the Mayfran part number as given in this manual.
2. **Quantity:** Specify how many are required (lengths in feet if ordering hose).
3. **Name of Part:** Use the proper description or title, given in the owner's manual.
4. **Shipping Instructions:** Specify complete shipping instructions: Such as parcel post, truck, 2nd day air freight, or overnight air freight, along with the required ship date. When no instructions are given, shipping method will be best way, depending on nature of part and urgency of repair. Customer will pay freight costs.
5. **Return Address:** When ordering parts, always include your complete address with phone number. Keep in mind that parts cannot be delivered to a Post Office box.
6. **Returned Parts:** New parts returned to the factory will be subject to a restocking charge incurred unless parts were sent by mistake from the factory. No part may be returned to the factory without prior written authorization from Mayfran (RGT #).
8. **Shortage:** If any parts are missing, other than parts marked back ordered, call the factory immediately.



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FLOOR LAYOUT



INSTALLATION / START-UP / MAINTENANCE

UNLOADING

Upon receipt of the equipment on site, a thorough inspection should be performed to spot any damage that may have occurred during transit. It is the responsibility of the installer to check and sign for all items contained on the shipment, as well as verify that all items have arrived, and are in good condition.

The packing slip, which accompanies the shipment, will contain a detailed listing, with descriptions, of all items on the shipment. Please cross-check the packing slip to assure all items have been received.

REPORTING DISCREPANCIES OR DAMAGED ITEMS

Any damage, however slight, should be noted on the bill of lading. Any discrepancies between the packing list and received items, or, any pieces damaged, must be reported immediately to Mayfran International. Pictures of damaged equipment while still on the truck are helpful. Notify the Traffic Manager at Mayfran International at: (440) 461-4100.

If the unit is accepted damaged, and not noted on the bill of lading, the customer is responsible to file a damage claim within 15 days of acceptance of the equipment with the trucking company.

INSTALLATION

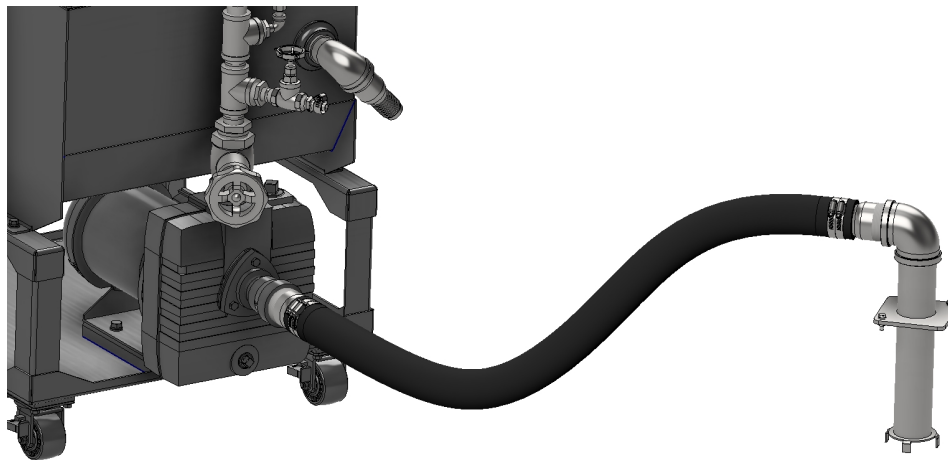
Remove ATMS from pallet and all materials from box(es). There will be five (5) hose assemblies with fittings, mounting plates, worm drive clamps and piping, two of which include tank agitators.

Attach four (4) of the five (5) hoses to the ATMS using the supplied worm drive clamps as shown below.
(one agitator hose will be installed in-line with the tank agitators)

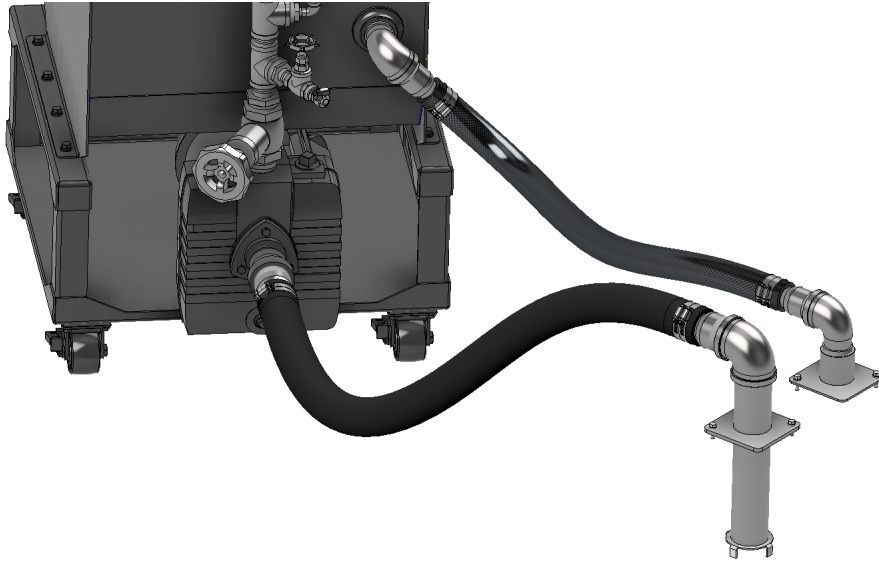
*****WARNING – PUMP MUST BE PRIMED BEFORE USE*****

See pg.11 for priming instruction.

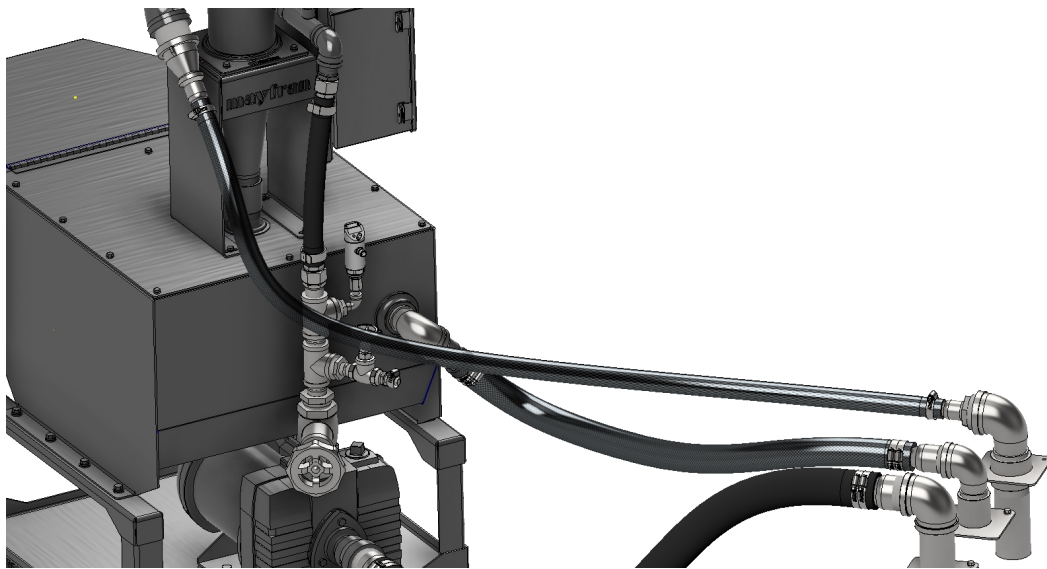
- 1) REQUIRED, using provided worm drive clamps connect 2" suction truck hose (black) to 2" barbed nipple located on suction pump. *(Loosely install worm drive clamps on hose prior to sliding hose on barbed nipple for ease of installation.)*



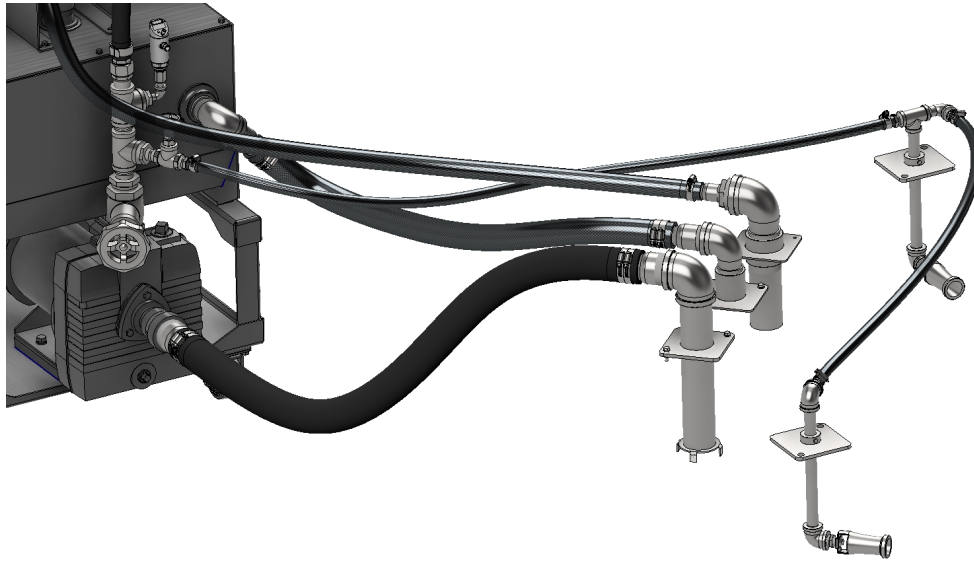
- 2) REQUIRED, using provided worm drive clamps (2ea) connect 1-1/2" overflow braided hose (transparent) to 1-1/2" barbed nipple located on back of ATMS unit. *(Loosely install worm drive clamps on hose prior to sliding hose on barbed nipple for ease of installation.)*



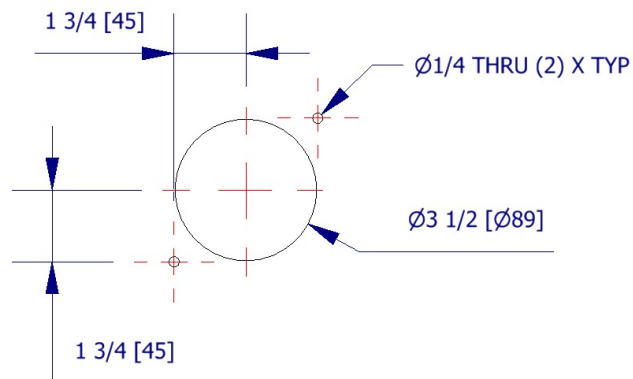
- 3) REQUIRED, using provided worm drive clamp (1ea) connect 1" return truck hose (black) to 1" barbed nipple located on AT-Cleaner on ATMS unit. *(Loosely install worm drive clamps on hose prior to sliding hose on barbed nipple for ease of installation.)*



- 4) OPTIONAL, using provided worm drive clamp (1ea) connect 1/2" tank agitator braided hose (transparent) to 1/2" barbed nipple located on 1/2" valve on ATMS unit. *(Loosely install worm drive clamps on hose prior to sliding hose on barbed nipple for ease of installation.)*



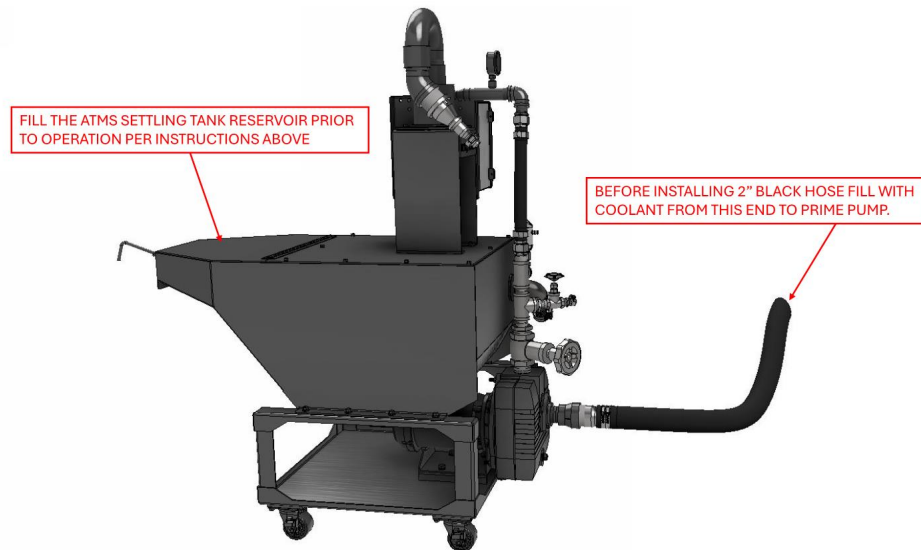
- 5) Position ATMS near accessible area of the coolant tank, normally the system pumps side of the tank.
- 6) Using the dimensions below, drill clearance and bolt holes in coolant tank for each line, e.g., 2" suction line, 1-1/2" overflow line, and 1" return line. Hole pattern locations noted below. *(if utilizing the tank agitators, two additional hole patterns will be required)*
 - a. 2" suction hose / pipe assembly should be located as close to the coolant discharge of the conveyor as possible.
 - b. 1-1/2" overflow hose / pipe assembly can be located anywhere near the system pumps if possible.
 - c. 1" return hose / pipe assembly should be located as close to the system pumps as possible.
 - d. OPTIONAL: Tank agitators are to be located in separate areas of the tank with the nozzle directing particulates toward the suction hose / pipe assembly.



- 7) Install hose and piping assemblies on tank using mounting plates and provided M6 bolts and nuts.

INITIAL START-UP

- 1) To prime suction pump, remove 2" suction truck hose (black) and fill hose so coolant fills both the hose and pump casting completely from inlet side.
- 2) Fill ATMS settling tank reservoir with coolant until fluid begins to drain back to the machine tank through overflow hose. (Roughly 16 gallons of coolant will be required)



- 3) Connect control panel to 230VAC, 3PH, 60HZ power supply.

Note: Verify that electrical supply to the ATMS has been switched off at main disconnect switch. Follow local electrical codes when making connections. Electrical connections should be made by qualified personnel.

- 4) Turn the disconnect switch on the ATMS control panel to the "ON" position.
- 5) Press and hold the black "START" button until output pressure on the visual site gauge stays steady above 15 PSI.

Note: red "FAULT" light will turn off when proper operating pressure is reached at which point the "START" button can be released. Green "RUNNING" light will illuminate as soon as "START" button is pressed and will continue to illuminate after "START" button is released, as long as the output pressure does not drop below operating range.

- 6) Once "START" button is released, ATMS will continuously separate coolant until the unit is turned off. Be sure to periodically use the provided rake tool to scrape out chips/sludge accumulation at the bottom of the ATMS sludge tank over the lip and into a waste bin or bucket. To minimize coolant carryout when scraping chips/sludge, let sludge settle on the angled portion of the ATMS to allow coolant to drain from sludge/chips back into the tank.
- 7) To stop the ATMS, press the red "STOP" button and turn the disconnect switch to the "OFF" position.

MAINTENANCE

PREVENTIVE MAINTENANCE

The most important preventive maintenance activity is to keep the Mayfran AT-Cleaner operating between 14 to 18 PSI. Perform a periodic inspection of the AT-Cleaner. The following table lists recommended maintenance items and minimum intervals. It is recommended that the end users maintenance manager produce their own preventive maintenance schedule based on these minimums. Accurate records of any maintenance performed must be maintained.

ITEM	DESCRIPTION	INTERVAL
1	Check that all tank lids are in place.	Every shift
2	Check that the AT-Cleaner is operating between 14 to 18 PSI.	Every shift *
3	Check that the inlet and outlet hoses are securely attached.	Daily
4	Check that the AT-Cleaner suction pump inlet is not plugged.	Daily
5	Check the sludge tank for buildup. Over a period of time, the sludge build-up of superfine particles will accumulate inside the tank.	As required

* In order for the AT-Cleaner to operate efficiently, the inlet pressure must be kept between 14 to 18 PSI. A valve and pressure gauge are supplied to regulate the flow into the AT-Cleaner.

TROUBLE SHOOTING GUIDE

The AT-Cleaner is maintenance-free and normally trouble-free. However, problems may occur on occasion. Problems are normally discovered visually by the operator.

SYMPTOM	PROBABLE CAUSE	POSSIBLE SOLUTION
Excessive foaming	High coolant concentration.	Check with the coolant supplier for the correct concentration level and adjust it accordingly.
	New coolant. New coolants may foam more until the coolant emulsifies.	Let the system pumps circulate and mix the coolant.
	Suction pump cavitating.	Add coolant to the tank.
	Machining process creating foam. Pumping coolant with foam may create more foam.	Evaluate the machining process and tooling to determine how to minimize the foam.

Coolant clarity not within 10-micron nominal range.	At-Cleaner is not operating between 14 –18 PSI.	Adjust the valve on the AT-Cleaner intake until the pressure falls within range.
	The coolant is oil based.	The AT-Cleaner is recommended for water-soluble applications only. Switch coolants.
	Foam present in system.	See above.

Red “FAULT” light continues to illuminate.	Circuit breaker overload tripped	Reset circuit breaker overload.
	Output pressure has not reached proper operating range.	Prime pump and hose.

REVISIONS

Rev. 1: Added row to “PUMP SPECIFICATIONS” showing 460V specs. – CFitzgibbon (10/9/24)



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