

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

for:

MAYFRAN AT-CLEANER



Mayfran International, Incorporated

P.O. Box 43038

6650 Beta Drive

Cleveland, Ohio 44143

(440) 461-4100 tel.

(440) 461-5565 fax

TABLE OF CONTENTS

Table of Contents	ii
Conveyor / System Information	1
Warranty Statement	2
Safety Information	3
Operation	4
Installation / Start-Up	4
Unloading	4
Reporting Discrepancies or Damage Items	4
Lifting Guidelines for Conveyors	4
Maintenance	5
Preventive Maintenance	5
Troubleshooting	6
Overview	6

CONVEYOR / SYSTEM INFORMATION

MACHINE INFO

Customer:	_____		
Machine Type:	_____		
Mfg. Year:	_____	Serial No:	_____
Voltage/Phase	_____	Cycle:	_____
Inspected by:	_____		

YOUR WARRANTY PERIOD

Mayfran's Warranty is given on the following page.
Your Warranty period: Date shipped _____ through _____

CUSTOMER SERVICE / PARTS ORDERS

If you have any questions or need to order parts, please contact Mayfran International at:
(440) 461-4100 Fax: (440) 461-5565 8:00 a.m. to 5:00 p.m. (EST)

THIS GUIDE IS COPYRIGHTED

Copyright © 1997
All rights are reserved. This manual may not, in whole or in part, be copied, photocopied, reproduced or reduced to any form of electronic medium or machine readable form without prior consent, in writing from:

Mayfran International, Incorporated
P. O. Box 43038
Cleveland, OH 44143

Information in this manual is subject to change and is furnished to supplement, not modify the terms and conditions of Mayfran's order acknowledgment and/or signed contract with the customer.

WARRANTY STATEMENT

- (a) Material and Workmanship. Mayfran International Inc. ("Mayfran") warrants that the equipment it provides shall be of the design and construction described in its Proposal and shall be free of defects in workmanship or materials. Should any failure to conform to this warranty appear within the first 2000 hours of operation, but not later than one year after shipment, Mayfran will, upon prompt notification thereof and substantiation that the equipment has been installed, maintained, and operated in accordance with both good industry practice and any specific recommendations, correct such nonconformity (including nonconformity to the specifications in Mayfran's Proposal) by in-place repair or, at its option, by furnishing a replacement part F.O.B. shipping point. Labor and equipment necessary to effect in-place repairs or component replacement are to be provided by the Buyer. Mayfran will only provide instructions and supervision to support each in-place repair. The effects of misuse, abuse, neglect, lack of proper maintenance (e.g. lubrication), corrosion, operation at other than design condition, or normal wear are specifically excluded from Mayfran's warranty.
- (b) Performance. All equipment will be inspected/tested/run to ensure proper operation and, to the extent practical, Mayfran will provide a one hour continuous runoff of equipment that is shipped pre-assembled. A 20-hour continuous dry runoff will be quoted upon request and may affect the price and delivery of the equipment quoted.

The only performance warranties extended by Mayfran are contained in Mayfran's Proposal, if any. Any through-put rates contained in the Proposal are based upon continuous operation of the equipment over the period specified, without regard to whether such operation will meet Buyer's needs. Mayfran disclaims all liabilities and responsibility with respect to Buyer's needs.

Mayfran's total responsibility under its performance warranty shall be considered fulfilled and the equipment accepted if performance tests show that the equipment meets the conditions of performance specified in the Proposal, if any, or if the equipment is not tested within 180 days of initial operation. In the event the equipment fails to meet the specified conditions of performance after properly conducted and evaluated tests, Mayfran reserves the right to make such alterations as may be necessary to meet the specified conditions.

- (c) General. Mayfran shall not be held responsible, nor shall allowance be made, for work done, equipment furnished, repairs or replacements made by Buyer or by others, unless prior written approval is given to Buyer by Mayfran.

With respect to accessory equipment and other vendor furnished-apparatus included in Mayfran's Proposal, warranties are limited to those extended to Mayfran by the respective manufacturers.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXCEPT THAT OF TITLE, WHETHER WRITTEN, ORAL OR IMPLIED, IN FACT OR IN LAW (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). Correction of nonconformities whether, patent or latent, in the manner and within the period of time provided above, shall constitute the fulfillment of all liabilities of Mayfran with respect to the equipment, whether based on contract, tort, strict liability or other legal theory.

In no event shall Mayfran or its contractors, subcontractors, vendors or suppliers, be liable in contract, tort, warranty, strict liability or other legal theory for any special, indirect, incidental or consequential damages such as, but not limited to, loss of anticipated profits or revenue, non-operation, increased expense of operation of other equipment or costs of capital. The remedies of Buyer set forth herein are exclusive and the liability of Mayfran with respect to its contract or anything done in connection therewith, whether in contract, tort, warranty, strict liability or other legal theory, shall not exceed the purchase price of the equipment upon which liability is based. Buyer (if it will not be the ultimate owner or user of the equipment) shall obtain from the owner a written agreement that the owner will be bound by the remedies provided for herein. Buyer will also obtain from the owner a written release from consequential damages, to the extent provided for herein, in favor of Mayfran and its contractors, subcontractors, vendors, and suppliers.

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 MACHINERY, OR WHO ARE ASSIGNED TO WORK IN THE VICINITY OF THIS MACHINERY.

ONLY PERSONNEL TRAINED BY THE OWNER OR END USER IN THE OPERATION OF ALL ASSOCIATED CONVEYORS AND PROCESS EQUIPMENT SHOULD CARRY OUT ADJUSTMENT, MAINTENANCE, AND CLEANING.

PERSONNEL SHOULD BE TRAINED IN OSHA COMPLIANT LOCK-OUT / TAG-OUT AND ELECTRICAL SAFETY PROCEDURES. THE OWNER OR END USER SHOULD MAINTAIN RECORDS OF TRAINING. RECORDS OF TRAINING FOR THE SAFE OPERATION OF THIS MACHINERY MUST ALSO BE MAINTAINED.

ADJUSTMENT, MAINTENANCE, OR CLEANING MUST NEVER BE PERFORMED WITHOUT FOLLOWING PROPER SAFETY PROCEDURES.

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

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

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

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

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

DO NOT remove or cover any labels.

DO NOT repair or replace hydraulic devices without power off.

DO NOT climb on the components of the AT-Cleaner.

Note: All repairs and services shall be performed only by qualified personnel. Before repairs, tests or services are begun, all power controls shall be locked out in accordance with OSHA compliant procedures.

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.

OPERATION

The Mayfran AT-Cleaner is normally used in conjunction with a Mayfran ConSep series separator conveyor. The AT-Cleaner is a centrifugal separator that is maintenance-free and does not require a disposable filter media. The Mayfran AT-Cleaner cleans the coolant down to 10 to 15 micron nominal.

The inlet pressure of the coolant entering the AT-Cleaner must be between 14 to 18 PSI. A valve and pressure gauge are provided to set and periodically regulate the inlet pressure as required. The AT-Cleaner must run continuously. The AT-Cleaner is designed to work with water-soluble coolant only. The AT-Cleaner is not recommended for oil applications.

INSTALLATION / START-UP

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 verifies 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 of the items on a particular shipment. All items should be checked against this list.

REPORTING DISCREPANCIES OR DAMAGE 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: (216) 461-4100, extension 267.

If 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 conveyor with the trucking company.

LIFTING GUIDELINES

The Mayfran AT-Cleaner is normally shipped connected to a Mayfran conveyor or coolant tank. Unloading should be performed in a safe and professional manner to protect both workers and the equipment. Rigging cables, slings, chains, or chokers should be of correct size and in good condition and placed on the equipment in a way that minimizes structural and paint damage. Care must be taken when lifting prevent distortion. Avoid impacts to frames that might cause distortion and misalignment problems during installation. Lifting hooks are normally provided on Mayfran conveyors and tanks. Only use hooks that are designated for lifting. Be sure that slings will not deform any parts. A spreader must be used if it appears that side panels, guards, etc. may be deformed by the sling.

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 feed pump inlet is not plugged.	Daily
5	Check the sludge tank, if applicable, for build up. Over a period of time, the sludge build up of superfine particles will accumulate inside the tank.	As required
6	Check the condition of the sludge conveyor, if applicable. Refer to the conveyor manual for information and preventive maintenance intervals.	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 is supplied to regulate the flow into the AT-Cleaner.

TROUBLESHOOTING

OVERVIEW

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.
	Feed 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 to 15 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.



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

PHONE: (440) 461-4100
FAX: (440) 461-5565