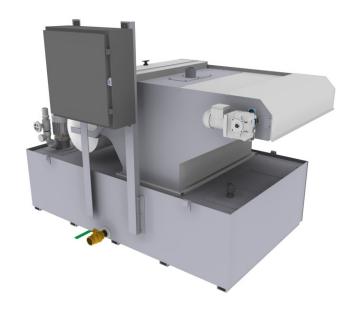
OPERATION AND MAINTENANCE MANUAL



MAYFRAN MODEL HPF HYDROSTATIC DEEP BED PAPER FILTER



Mayfran International, Incorporated P.O. Box 43038 6650 Beta Drive Cleveland, Ohio 44143 (440) 461-4100 tel. (440) 461-5565 fax

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CONVEYOR / SYSTEM INFORMATION

ustomer:	
chine Type:	
fg. Year:	Serial No:
oltage/Phase	Cycle:
spected by:	
Y PERIOD ofran's Warranty is given on t	the following page.

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)

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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 to be provided by it 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 (1) year after shipment, Mayfran will, upon prompt notification thereof and substantiation that the equipment has been installed, maintained and operated in accordance with good industry practice and with 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) <u>Performance.</u> The only performance warranties extended by Mayfran are contained on the pages entitled "Performance Warranties" in Mayfran's Proposal, if any. Any through-put rates contained on the Performance Warranties pages 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 this performance warranty shall be considered fulfilled and the equipment accepted if performance tests show that the equipment meets the conditions of performance specified by the Performance Warranties, 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 free of charge to Buyer.
- (c) <u>General.</u> Mayfran shall not be held responsible nor shall allowance be made for work done, equipment furnished or 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 its Proposal, Mayfran shall be responsible for the proper selection and specification requirements to the suppliers. Warranties for such items are limited to those extended to Mayfran by the 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 or 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.

PARTS ORDERING INSTUCTIONS

When ordering parts, please specify the following information:

- 1. **Serial number:** This is a seven-digit alpha numeric designation with the following form: (19W3000). The first two digits indicate the year of manufacture, and the remaining five is a Mayfran identification number for that particular conveyor. Note: This is also the Mayfran order, or job number.
- 2. **Part Number**: Specify the Mayfran part number as given in this manual or as found on the drawings for the particular conveyor.
- 3. **Quantity:** Specify how many are required.
- 4. **Name of Part:** Use the proper description or title, given in the owner's manual.
- 5. **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. Freight costs will be paid by customer.
- 6. **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.
- 7. **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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PHONE: (440) 461-4100 FAX: (440) 461-5565

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.

ADJUSTMENT, MAINTENANCE, CLEANING AND LUBRICATION SHOULD BE CARRIED OUT ONLY BY PERSONNEL TRAINED BY THE OWNER OR END USER IN THE OPERATION OF ALL ASSOCIATED CONVEYORS AND PROCESS 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 MACHINERY MUST ALSO BE MAINTAINED. NEVER SHOULD ADJUSTMENT, MAINTENANCE, CLEANING OR LUBRICATION BE PERFORMED WITHOUT FOLLOWING PROPER SAFETY PROCEDURES.

<u>DO NOT</u> operate any machinery without reading and understanding this manual completely.

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

<u>DO NOT</u> 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).

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

<u>DO NOT</u> perform any maintenance, repairs or adjustments on this machinery without first locking out all electrical controls.

<u>DO NOT</u> perform any maintenance on moving conveyor parts.

DO NOT lubricate any machinery without first locking out all electrical controls.

<u>DO NOT</u> clean this machinery or the areas adjacent to or below the machinery without first locking out all electrical controls.

<u>DO NOT</u> touch any moving conveyor parts.

DO NOT remove any covers or guards without locking out all electrical controls.

<u>DO NOT</u> perform any maintenance or repairs on power lines feeding this machinery without first locking out power at the source.

DO NOT remove or cover any warning labels.

<u>DO NOT</u> wear loose clothing or uncovered long hair that can get caught in moving parts.

<u>DO NOT</u> repair or replace electrical, hydraulic, or pneumatic devices without power or air off.

<u>DO NOT</u> remove jammed product with conveyor running. OSHA compliant lock-out / tag-out procedures must be followed prior to clearing a jam of any type.

<u>DO NOT</u> operate a conveyor equipped with rope pull safety switches if the rope pull switches are not functioning properly.

<u>DO NOT</u> cross over a conveyor, whether or not it is operating, other than on an elevated walkway that provides safe access and prevents contact with the conveyor.

<u>DO NOT</u> climb on the components of a conveyor.

DO NOT ride or walk on any conveyor.

<u>DO NOT</u> touch moving conveyor parts.

<u>DO NOT</u> walk under conveyor where product can fall.

<u>DO NOT</u> operate conveyor without a visual or audible "all clear".

SAFETY INFORMATION, CONTINUED

- If the entire conveyor cannot be seen from the operating station, an audible and/or visual warning shall be provided to warn of conveyor actuation.
- ♦ Conveyors should be used to transport only the material for which they were specifically designed.
- No conveyor shall be used in excess of its maximum rated speed and capacity.
- Casings, guards, safety switches, and other safety devices shall not be removed, bypassed, or disengaged during conveyor operation.
- Only trained operators shall be permitted to operate conveyors.
- ♦ All necessary guards, switches and other safety devices shall be installed so that a loss of power to the conveyor shall not render the guards, switches or safety devices inoperative.
- Each conveyor shall be kept free of accumulations of material that could inhibit its safe operation.
- Emergency controls shall be installed so that they cannot be overridden from other locations.
- Guards shall be kept in place at all times unless the electrical power is off and the conveyor is locked out
- ♦ 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.
- Do not work near a conveyor without knowing where and how to shut it off.
- After a conveyor has been repaired, tested or serviced, it shall not be operated until all guards and safety devices have been reinstalled, all maintenance equipment has been removed and a visual inspection of the conveyor and immediate area has been completed.
- Material should not be discharged onto a conveyor that is not operating. Conversely, when stopping a conveyor or conveyor system, stop discharge of material onto initial receiving conveyor first, then continue stopping conveyors in succession after each has been cleared of its load.
- ♦ When working on the conveyor, be sure to turn the electrical disconnect <u>OFF</u> and <u>LOCK OUT</u> the power to the conveyor.
- Operators should be instructed to report any impairment of guards, emergency stop, or safety switches to their supervisors.

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.

INSTALLATION

MECHANICAL INSTALLATION

Each filter has a unique set of installation variables governing the placement of the filter. In general the filter will be placed per the General Arrangement drawing supplied as part of the approval process. This drawing should be the document of record. If any discrepancies are found, the end user/installer should contact Mayfran International to resolve any problems. However, the following guidelines should be observed for any filter installation:

Plant facilities (electrical, air, chilled water) should be readily available and at a sufficient enough volume to operate the filter. Refer to the approval drawing for the required utilities.

There should be adequate clearance at the head of the filter for changing the paper supply and at the discharge end to contain and remove the used paper and filtered waste.

Sufficient clearance should be allowed for personnel to reach the electrical control panel, pneumatic panels, pushbutton stations, etc.... that require normal and periodic maintenance.

The ambient temperature of the filter location should be above freezing. Care should be taken not to locate the filter near large shipping and receiving docks or doors.

The filter should be installed as close as possible to the point of origin of the coolant to be filtered. The location should be determined on the General Arrangement drawing supplied for approval.

Level the HPF filter as needed using the four jack screws located at the filter connection to the clean tank.

ELECTRICAL INSTALLATION

Each filter has a unique set of electrical installation variables governing the electrical installation of the filter. For most installations, power will be brought to the filter by the end user or the installer. The filter is prewired and tested prior to shipping. If any interlock wiring is required between the filter and the machine tool, all of the field wiring will be provided by the end user or installer. Refer to the field wiring diagram drawing in the electrical drawing set for exact interconnection wiring required.

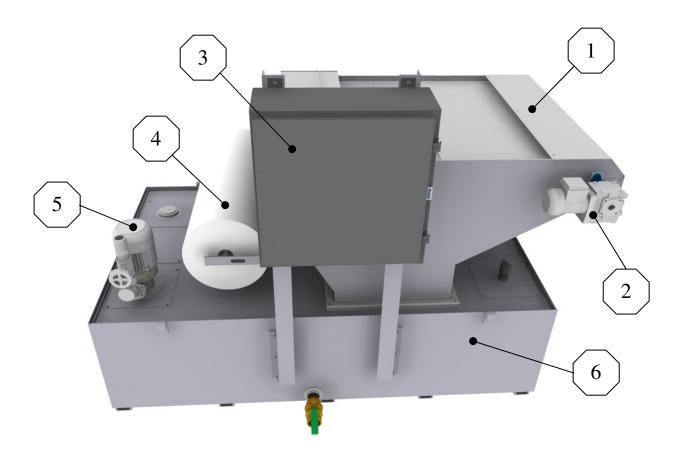
START UP AND ADJUSTMENTS

PRE START-UP

Once the filter has been completely installed in a desirable location, the following items should be checked or confirmed during the pre start-up phase.

- 1. Confirm proper voltage is being supplied to the main panel.
- 2. Confirm that the HPF filter's frame is level +/- 1/16" at media discharge and load ends.
- 3. Confirm that the paper is present and properly installed per the instructions in this manual.
- 4. Confirm a bin is present under the discharge of the filter.
- 5. Confirm vent plugs are in all reducers and reducers are filled with oil.
- 6. Confirm bag filters or cartridges are installed in the canisters on the duplex bag filter. (If required)
- 7. Confirm proper rotation of all motors. Motors will be marked with a rotation arrow. Pumps should be bumped only if coolant has not been charged into the filter. If the pump(s) are run for an extended amount of time without coolant, damage may result.
- 8. Fill the system with clean coolant by introducing the coolant into the clean tank. The coolant will fill the clean tank, then overflow through the overflow pipe and begin to fill be filter tank below. Be certain not to overfill the lower filter tank. It should be filled to the level indicated on the Approval drawing supplied as part of this manual.

HPF Model Hydrostatic Deep Bed Paper Filter



Note: The assembly shown above is a typical assembly only. The actual componeents supplied on tyour specific system may vary.

General Arrangement BOM:

- 1 HPF Filter Assembly
- 2 Gearmotor Drive Assembly
- 3 Electrical Control Assembly
- 4 Filter Paper
- 5 System Pump [optional equipment]
- 6 System Clean Tank

HPF - DEEP BED PAPER FILTER OPERATIONS

HOW IT WORKS:

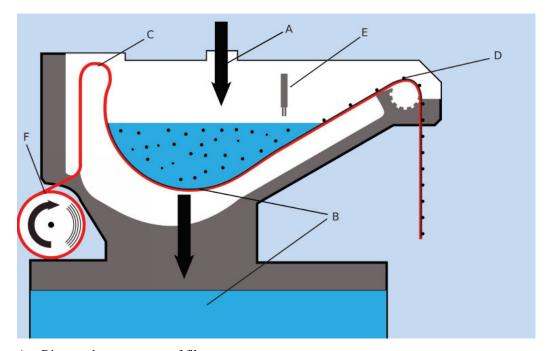
The HPF [Hydrostatic Paper Filter] is a high efficiency, deep bed gravity filter that utilizes paper filter media. It is a fully automatic unit, used for cleaning coolants in a variety of industrial applications.

The HPF combines the highest level of chip removal with the most effective coolant filtration due in part to its unique side seal technology. This design prevents chips and particulate from entering the clean tank.

The HPF has a significantly smaller overall footprint when compared to other flat bed paper filters, while achieving greater filtration levels per square foot of floor space.

HPF models can process from 100 to 1000 liters per minute of water-based coolants, containing both metallic and non-metallic particles. It allows for various types of filter paper media to optimize coolant filtration.

HPF Filter Model	Flow Rate [Liters / GPM]	Frame Size	Available Media Width
HPF 100	100 / 25	Small	20 in.
HPF 300	300 / 75	Small	38 in.
HPF 500	500 / 125	Medium	38 in.
HPF 700	700 / 175	Medium	51 in.



- A. Dirty coolant enters top of filter
- B. The dirty coolant is filtered via gravity force through the paper media that rides on the carrier belt
- C. The carrier belt supports the media and is part of the patented Side Seal technology.
- D. Dirt particles are trapped on the media and a filter cake forms as more particulate is introduced
- E. As the filter cake blinds the media and decreases the coolant flow, the level rises and activates the index sensor. This will energize the filter motor and the carrier belt moves clean media into the filter
- F. Media low warning sensor indicates when the media roll needs replacement

HPF - MEDIA CARRIER BELT ASSEMBY [TYPICAL]

Flat Wire Belting

TYPICAL PROCEDURE FOR ASSEMBLING FLAT WIRE BELTING

- 1. The flat wire belt assembly is constructed from high carbon steel and assembled to the exact length required for each HPF model at Mayfran factory
 - a. The flat wire belt assembly requires no field maintenance or take up adjustment
 - b. Should the flat wire belt assembly require replacement in the future, contact Mayfran Parts Dept. to order a COMPLETE belt assembly



Flat Wire Belt Assembly [typical construction shown]

HPF – DEEP BED PAPER FILTER OPERATIONS

SEQUENCE OF OPERATIONS:

The HPF [Hydrostatic Paper Filter] sequence of operation will vary based on the level of controls that was purchased with the unit. The unit base control is a relay logic panel and it operates as follows:

RELAY LOGIC OPERATION:

- 1. Turn power on to the HPF by pressing the MASTER CONTROL POWER button
- 2. Press the "START" pushbutton.
 - a. The system pump(s) up to 2 will start running.
 - b. Media carrier belt will index if the output from the dirty tank level sensor is high
 - i. Gearmotor runs to ADVANCE media carrier belt and filter paper at high level sensor factory setting
 - ii. Filter paper to advance for a factory set time
 - Media carrier belt will run forward if the "JOG FILTER" pushbutton is pressed on the main control enclosure.

FAULTS:

- 1. The FAULT LIGHT will illuminate if any of the following conditions are TRUE:
 - a. Motor CBOL tripped [filter pump or gearmotor]
 - b. E-STOP button is pressed
- 2. The FILTER will STOP all functions.

PLC CONTROLLER LOGIC OPERATION:

The HPF [Hydrostatic Paper Filter] sequence of operation will vary based on the level of controls that was purchased with the unit. The unit is available with a PLC programmable logic controller and it has more functionality and adjustability than the base RELAY logic controls. Typical PLC operation as follows:

MANUAL OPERATION:

- 3. Turn power on to the HPF by pressing the MASTER CONTROL POWER button
- 4. Turn filter unit mode switch to MANUAL position
 - a. Press the JOG GEARMOTOR button to advance filter paper media
 - b. Press the JOG CLEAN PUMP button to run the clean tank pump [if supplied]
- 5. The belt indexing sensor and clean tank level sensor are not recognized in MANUAL operation

AUTOMATIC OPERATION:

- 1. Turn power on to the HPF by pressing the MASTER CONTROL POWER button
- 2. Turn filter unit mode switch to AUTO position
 - a. System pump runs if the output from the clean tank level sensor is high
 - i. Pump ON at high level sensor factory setting
 - ii. Pump OFF at low level sensor factory setting
 - b. Media carrier belt will index if the output from the dirty tank level sensor is high
 - i. Gearmotor runs to ADVANCE media carrier belt and filter paper at high level sensor factory setting
 - ii. Filter paper to advance for pre-programmed time
 - 1. The filter is programmed to index a maximum of 5 times if the high level sensor is not deactivated by the advancement of the paper filter media

FAULTS:

- 3. The FILTER UNIT FAULT LIGHT will illuminate if any of the following conditions are TRUE:
 - a. Motor CBOL tripped [filter pump or gearmotor]
 - b. The filter indexes 5 times with no change to the high level indexing sensor
 - c. The OUT OF PAPER photo sensor is OFF
 - d. E-STOP button is pressed
- 4. The FILTER will STOP all functions if any one of criteria a, b, c, or d are TRUE

SYSTEM INTERLOCKS:

- 1. The INFEED equipment to the HPF filter MUST STOP if any of the following conditions are TRUE:
 - a. Motor CBOL trip [filter pump or gearmotor]
 - b. Filter indexes 5 times with no change to the high level indexing sensor
 - c. The OUT OF PAPER photo sensor is OFF [HPF will continue indexing cycle if in progress]
 - d. E-STOP button is pressed
 - i. Any of the above conditions will cause the HPF filter to STOP RUNNING and turn filter running interlock OFF
 - e. FILTER RUNNING INTERLOCK is OFF
 - f. Dirty Tank (if equipped) is at emergency high level
 - g. Auxiliary (if equipped) Tank is at emergency low level level
- 2. The INFEED EQUIPMENT to the HPF filter will be **WARNED** (see HPF Filter HMI for details) of if the following condition is TRUE:
 - a. The LOW PAPER photo sensor is OFF
 - b. The clean tank is at refill level (if equipped)
 - c. Secondary filter dirty (bag filter type) OR Faulted (backflushing type)

MAINTENANCE

PREVENTIVE MAINTENANCE

- Periodically check the condition of the HPF system and clean HPF filter and/or tank as necessary. Removing
 excess material build-up or trapped material will prolong the life of the carrier belt, bearings, and reducer, and,
 when applicable, insure that electronic sensors will perform as they were designed. The frequency of machine
 cleaning depends on the type and amount of material being conveyed.
- Properly lubricate all components of the conveyor. This includes the bearings and reducer [see filling instructions, below], as applicable.

O GEAR REDUCER OIL FILLING INSTRUCTIONS:

The gear reducers for all HPF filter equipment are typically filled with oil at their factory. However, occasionally the unit may be shipped dry and will need to be filled at installation by the equipment installer. In either case, the reducer must first be checked to verify the presence and level of oil.

CAUTION: Before running the drive, the reducer must be filled with the correct amount of appropriate oil or serious damage to the unit will result. Damage to the reducer due to operating without oil will void the manufacturers' warranty.

Perform periodic inspection and testing of the equipment components. The following table lists recommended
maintenance items and minimum intervals. It is recommended that the end user's maintenance manager
produce their own preventive maintenance schedule based on these recommendations. It is recommended that
the end user keep accurate records of all maintenance performed on this equipment.

ITEM	DESCRIPTION	INTERVAL
1	Check condition of all labels and safety decals. Replace if missing, damaged, or difficult to read.	Weekly
2	Check condition of HPF equipment and remove debris as necessary	Monthly
3	Check condition of system tank and clean out as necessary	Every 3 months
4	Check reducer oil level	Every 6 months
5	Check belt and filter paper media operation	Every 6 months
6	Lubricate bearings	Every 6 months
7	Check limit switch / sensor operation	Every 3 months

REPLACING THE FILTER PAPER

- 1. Unspool several feet of media and cut it off squarely at the roll. Leave the tail of the paper hanging behind the filter.
- 2. Remove empty paper spool.
- 3. Install new spool of media on spool supports. Observe proper rotation of media.
- 4. Pull the old and new paper together, laying the new paper over the top of the old. Make sure the new paper is aligned with the old. Using a stapler, staple the paper together down the side of the overlapping section in 4 or 5 places on each side.
- 5. Manually jog the filter belt until the new paper has started to feed under the seal plates.

- a. The paper will automatically feed as the filter indexes during normal usage.
- b. For the initial loading only, use the manual conveyor function until the paper appears at the discharge end of the filter.

TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	POSSIBLE SOLUTION
Excessive jams without apparent blockage	Carrier belt jamming or damage	Check condition of flat wire belting and repair or replace
		*** DO NOT REVERSE TO CLEAR JAM ***
Excessive jams without apparent blockage	Filter paper jamming or damaged	Check condition of filter paper at all transitional points and reposition or rerun new paper through filter
		*** DO NOT REVERSE TO CLEAR JAM ***
Excessive amperage draw	Excessive load or material jammed in carrier belt or filter paper path	Remove excess material – check carrier belt path for jammed material and remove
		Reposition or rerun filter paper through filter
		*** DO NOT REVERSE TO CLEAR JAM ***
HPF filter operation stops	Undersized circuit breaker overload	Install properly sized circuit breaker overload based on FLA of motor
	Defective gearmotor	Replace gearmotor

CHECKOUT SHEET FOR HPF PAPER FILTER EQUIPMENT

SITE / PLANT	MOTOR HP
LOCATION	MOTOR VOLTAGE / F.L.A. RATING
EQUIPMENT SERIAL NO.	

ITEM	BY	DATE	NOTES
ELECTRICAL CHECKOUT COMPLETE			
DEBRIS, IF ANY, REMOVED FROM BETWEEN BELT STRANDS			
ALL FASTENERS INSTALLED & TIGHTENED			
ALL SLOTTED ADJUSTMENT HOLES HAVE FLAT WASHERS NEXT TO SLOT			
ALL ANCHORS INSTALLED & TIGHT			
HPF FILTER FRAME IS LEVEL +/- 1/16" AT DISCHARGE			
HPF FILTER FRAME IS LEVEL +/- 1/16" AT MEDIA LOAD			
ELECTRICAL POWER TO MOTOR			
MOTOR ROTATION CORRECT			
REDUCER OIL LEVEL CORRECT, REDUCER VENTED			
FILTER PAPER PROPERLY MOUNTED ON EQUIPMENT			
FILTER PAPER PROPERLY INSTALLED IN EQUIPMENT			
FILTER PAPER SENSORS PROPERLY MOUNTED & INSTALLED			
ALL SENSORS PROPERLY MOUNTED & INSTALLED			
ALL GUARDS INSTALLED			
AMPERAGE DRAW & VOLTAGE COMPARED TO RATINGS ON MOTOR NAMEPLATE			READINGS:
ALL SAFETY AND WARNING LABELS ARE PRESENT			



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