



# AUTOMATIC FABRIC FILTRATION SYSTEM

## MODELS DF-1.5 TO DF-113

OPERATION AND  
SERVICE GUIDE  
O-280H  
SEPTEMBER 2006

Refer to Bulletin F-701 and Parts Lists  
P-7900, P-8000, P-8100 and P-8200.

### **SAFETY PRECAUTIONS BEFORE STARTING**

1. Read operating instructions and instructions supplied with chemicals to be used.
2. Refer to a chemical resistance data chart for compatibility of materials in unit with solution to be used.
3. Personnel should always wear suitable protective clothing: face mask or goggles, apron and gloves.
4. Ensure that all fittings and connections are properly tightened.

### **BEFORE CHANGING APPLICATION OR PERFORMING MAINTENANCE**

1. Wear protective clothing as described in item 3 above.
2. Flush unit thoroughly with a neutralizing solution to prevent possible harm to personnel.
3. Verify compatibility of materials as stated in item 2 of Safety Precautions above.

### **PRE START-UP**

1. Install filter in a level position.
2. Record model number and serial number of filter, pump and motor for reference.
3. Check power supply for proper voltage since filter system is available with single or three phase motor and starter.
4. Provide power supply to starter, but do not energize motor until correct heater overloads are verified for supply voltage.

Starter has three positions-

**OFF:** Shuts off power to drive motor.

**HAND:** Will start motor to drive conveyor. Push "OFF" button to stop operation.

**AUTO:** Will operate drive only when liquid on fabric reaches the correct level or when float arm is lifted manually.

5. Install in-tank pump and level control assembly, if provided.
6. Complete the piping from the in-tank or gravity overflow drain if provided.
7. When feeding filter media roll into DF system, pay close attention to the orientation of the roll. Feed filter media paper under Red bar, and bring it up over the top of the Green bar, DF1.5 does not have green bar (see figure below). Advance the filter media all the way to the other end of conveyor belt, then tuck it under the seal strip.

Wetting the fabric while on the conveyor will also aid in the advancement of the first few feet of new media. Succeeding rolls may be fed into the filter by merely taping a few inches of the leading edge of the fresh roll to the trailing edge of the old fabric. From this point the filter will index the fresh fabric into the filter automatically on demand.

### **START-UP & OPERATION**

1. Dirty liquid from source should be directed into the diffuser tray suspended across the filter bed.
2. Observe filter operation for one full cycle to verify flow rate, clarity, proper operation of the float switch and indexing. (Fabric will not index properly if liquid level is low).
3. The float is set at the factory. The float should cause the fabric to index when the liquid level reaches a point approximately

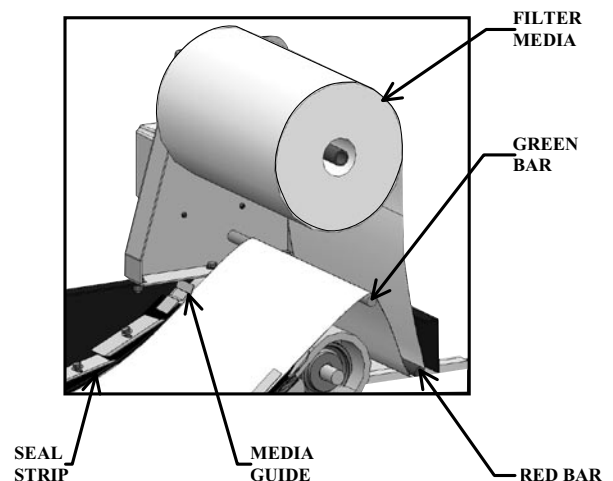
4.  $\frac{3}{4}$ " below the side rails of the filter. To adjust the indexing level, remove the nameplate cover over the float rod. Loosen the hex screw at the pawl and move the pawl to change the indexing level. Retighten and replace the cover. Note: On DF-1.5 models the float rod cover is over the discharge end of the conveyor.
5. If the gear reducer shaft rotates, but the conveyor does not move, tighten the large nut on the torque limiter one quarter turn at a time until the conveyor moves.
6. Sludge and spent fabric will be deposited in the sludge box which should be emptied when full.
7. If the unit is supplied with a sump pump and float switch for pumping clean liquid out of the reservoir, verify operation of the liquid level control for pumping out of the clean reservoir.
8. Adjustments to liquid level are accomplished by raising or lowering the adjustable stops on the float rod and/or adjusting the counter balance spring in the float actuated starter. Verify float starter, motor and pump performance after making any adjustments to level control apparatus.

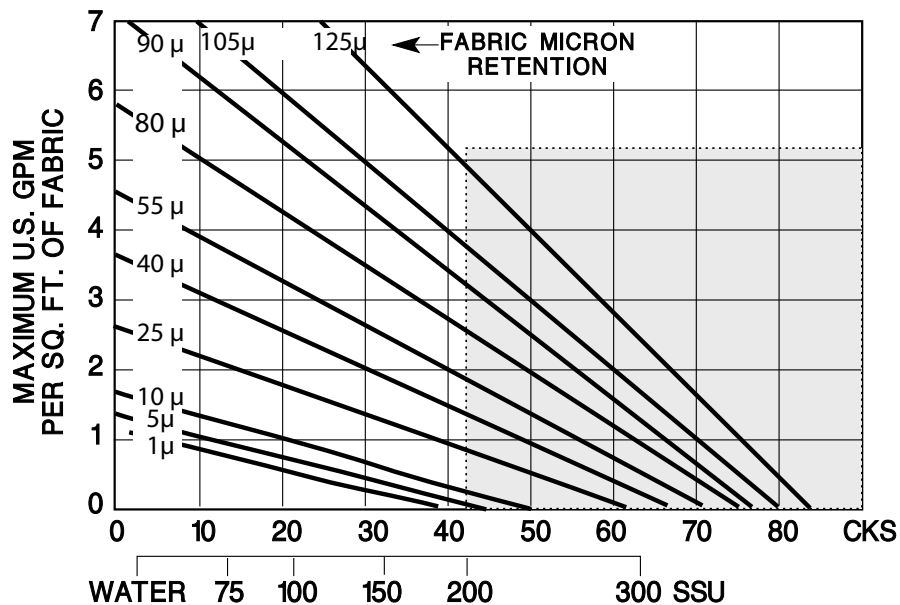
### **MAINTENANCE**

1. The filter should require little maintenance other than the changing of filter fabric.
2. The track on which the conveyor rides is surfaced with nylon wear strips. These pieces are replaceable.
3. Several different grades of filter fabric are listed on the Product Bulletin. Refer to the Selection Chart or consult the Application Engineering Dept. for a recommendation.

### **FILTRATION TIPS**

1. This filter will only operate properly when used under correct operating conditions; with a pool of liquid on top of the filter fabric. Do not expect the fabric to index properly until the pool has reached its maximum depth. If the filter does not index due to mechanical failure or some other reason, the liquid will overflow into the tank below the filter.
2. Order a replacement roll of filter fabric so it is immediately available for installation when the original roll is consumed.
3. When ordering replacement parts, please specify filter model, serial number and parts number.



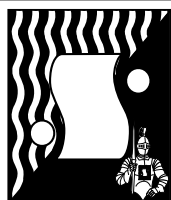


If you are unsure of the micron level you need, contact our Application Engineering Department to request fabric samples with which you can perform on-site testing. Confirm data beyond 200 SSU by testing fluid with fabric media.

### FABRIC SELECTION CHART

APPLICATION		MICRON										
		125	105	90	80	55	40	25	10	5	1	
RAYON / PE*	WATER SOLUTIONS	Paint spray booth - water Zinc & iron phosphating	•	•	•	•	•	•	•			
		Caustic washing solutions Waste treat - metal hydroxide	•	•	•	•	•	•	•	•	•	•
		Grinding - steel Grinding - cast iron	•	•	•	•	•	•	•	•		
		Grinding - aluminum Grinding - carbide			•	•	•	•	•	•		
		Belt grinding - steel Belt grinding - zinc	•	•	•	•	•	•	•			
		Grinding - hard plastics Grinding - soft plastics		•	•	•	•	•				
		Grinding - steel roll Grinding - brass		•	•	•	•	•	•	•		
		Grinding - bronze Grinding - aluminum		•	•	•	•	•	•	•		
PP* or RAYON / PE	OIL	Lapping (Oil 30 - 100) Honing (Oil 20 - 100)					•	•	•	•	•	
		Quenching Grinding - aluminum		•	•	•	•	•	•	•	•	
		Belt grinding - steel Belt polishing - zinc copper	•	•	•	•	•	•	•			
		Belt grinding - steel Thread grinding - steel	•	•	•							
PP* or RAYON / PE	OIL	Flute - tap die grinding Crush & form grinding	•	•	•							
			•	•	•							
	SYNTHETIC	Machine tool turning/milling			•	•	•	•	•			

\* recommended material



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