GLOBAL FILTRATION SYSTEMS

OPERATING MANUAL

MODEL:

EN-1205 / EN-1206

(& EN-12552/62 FILTER SECTION)

TABLE OF CONTENTS

CONSTRUCTION CHECKLIST

Model: _____ Serial # _____

Const.:	PVC_____	CPVC #1 _____	CPVC #2 _____	
Filter Tubes:	N/A _____	CPVC _____ HD____	PVC _____	Titanium _____
Spargers:	N/A _____	CPVC _____	PVC _____	
Hose (ft.):	N/A _____	suction _____	discharge _____	Sludge bag _____
Hose barbs:	N/A _____	PVC _____	Nylon _____	PP _____
Sleeves:	N/A _____	0200 _____	0500 _____	0700 _____
	1500 _____	5000 _____	12500 _____	special _____
		yes	no	
Trap Filter:		_____	_____	
Pump Protection:		_____	_____	
Water Flush Kit		_____	_____	
DD-2468		_____	_____	
Pump style	_____		none _____	
Voltage	N/A _____	115 volt _____	230 volt _____	460 volt _____
Starter	N/A _____	single phase _____	Three phase _____	

Special instructions:

_____

_____

_____

_____

_____

_____

QUALITY ASSURANCE CERTIFICATE

This Global Filtration Systems filter and or carbon unit has been fully tested and inspected against material defects of any kind and has passed the Global Filtration Systems quality test for individual performance certification.

Test Results (on water)

Running test for 30 min._____

Pressure tested at _____P.S.I.G. _____

Checked out _____ _____ _____

Filter G.P.H. _____

Filter Inlet running pressure (open discharge)_____P.S.I.G.

Filter Discharge running pressure (open discharge) _____P.S.I.G.

Carbon unit pressure tested (if applicable) at _____P.S.I.G.

Test Volts _____Phase _ _____

Average amps _____ _____ _____

Pressure relief valve set at __ _____ _____ P.S.I.G.

Approved _____ Date _____

Model: _____ Serial # _____

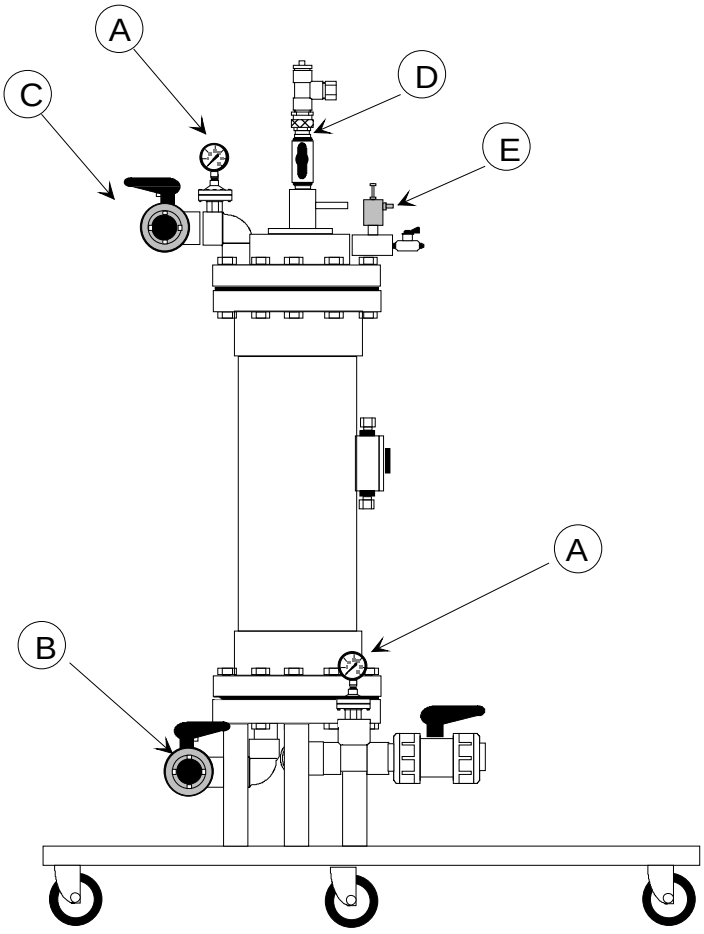
The following parts (may) have been removed from your filter for shipping. Use the diagram in this section to identify the part and it's location on the filter unit. Please read the Introduction (section C) and the Set-up instructions (section D) for each part before installing them. Correct installation of these parts will insure proper operation of the equipment.

MODEL: EN-1205 / EN-1206 & EN-12552 / EN-12562

KEY	PART	COMPONENTS
A.	Pressure gauges:	(2) At inlet & discharge of filter
B.	Dual drain assembly:	1 PVC/CPVC tee with union, 1.5” 2 PVC/CPVC ball valves, 1.5”
C.	Discharge valve #3:	1 PVC/CPVC ball valve, 2”
D.	Backwash assembly:	1 PVC ball valve, ¾" 1 PVC thread TEE, ¾" Male & female brass quick disconnects Air and water reducing bushings PVC close nipple, ¾"
E.	Pressure relief valve:	1 PVC relief valve w / hose adapt.

not shown: Hose, hose adapters and clamps (if applicable).

FILTER: PARTS REMOVED FOR SHIPPING



THE GLOBAL FILTRATION SYSTEMS' FILTER: HOW DOES IT WORK.

The Global Filtration Systems filter has a pump and chamber comparable to most disposable media type filters. How is our design different?

There are five support tubes, made of PVC, CPVC or titanium, inside the chamber of each filter. Each tube is surrounded by a polypropylene sleeve held in place by O-rings. These sleeves are available in a wide range of micron sizes. The five tubes are locked to a polypropylene disc which fits inside the chamber. The disc also has an O-ring on the rim which prevents solution from bypassing the sleeve. The normal filter flow is from the processing tank, through the pump, into the chamber and through the sleeves and support tubes. Contaminants are left on the outside surface of the sleeve as the solution continues up the tube to the discharge outlet and back to the processing tank. (See Fig. 1)

Two pressure gauges are included to indicate the inlet and outlet pressures as the sleeves pick up particulate. Global Filtration Systems recommends that you backflush (clean) the filter daily, anytime the pressure reaches the backwash setpoint (more on this in the detailed operating instructions) and prior to shutdown periods.

Backflushing is a simple, clean, 5 minute operation. It is performed without disconnecting or opening the filter and solution remaining in the chamber can be returned to the tank before backflushing. The normal backflush flow sprays pressurized air and water through five spargers centered in the support tubes. This flow drives through the sleeves, washing contaminants from the sleeves and out through the filter drain to waste treatment (see Fig 2). The patented diverter valve lets you thoroughly clean each filter sleeve individually. After cleaning, the filter is ready to run again at 100% efficiency.

As you read through the detailed set-up and operating instructions there are several things we would like you to take special note of, These are:

1. Air and water pressure for backflushing should be set at 40 to 60 PSIG and should be balanced. Air pressure should never exceed water pressure. Set air pressure to be 5-10 PSI less than the minimum water pressure.

2. There should be little or no restriction in the inlet piping of the filter.

3. Use the pressure gauges, especially when the filter is first installed, to monitor the condition of the filter sleeves and determine proper backflushing frequency.

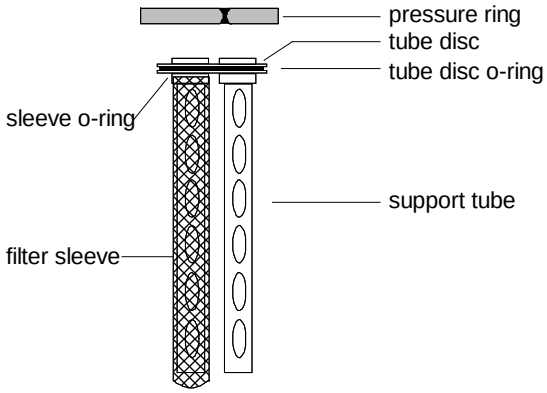
4. Make sure that the filter is cleaned before being left idle, and change the filter sleeves at least once a year.

5. Never let the pump run dry.

Once again, please take the time to read and <u>understand</u> the operating instructions. You will be rewarded with years of trouble free service from your Global Filtration Systems filter.

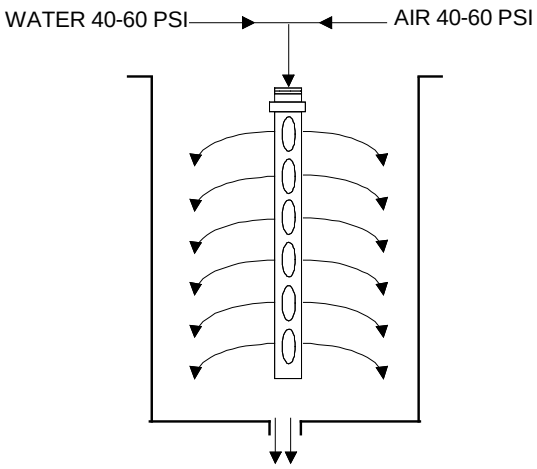
OVERVIEW: DIAGRAM

FIG. 1



TUBE BUNDLE

FIG. 2



BACKFLUSH ACTION

SPECIFICATIONS

Model:		EN-1205,06 & EN-12552,62
Pump:	Models:	JB-1332 Direct Drive or JB-3255/60 Mag. Drive
	HP	5, 7.5 HP
	Electrical	230/460 volt, three phase, 50/60 Hz
	Maximum pump pressure	Not to exceed 45 / 55 P.S.I.G.
Filter:	Overall dimensions	28" x 48" x 87" high (EN-1205,06) 28" x 60" x 87" high (EN-12552,62)
	Pump suction	3”
	Filter discharge & drains	2”, 1 ½”
	Carbon discharge & drains	2”, 1 ½’ (if applicable)
	Maximum open flow rate	Not to exceed approximately 9,600 GPH (*05, *552) Not to exceed approximately 12,100 GPH (*06, *562)
	Approx. shipping weight	Approx. 350-400 Lbs.
	Filter chamber fluid volume	Approx. 23 Gallons
	Carbon chamber fluid volume	Approx. 14 Gallons
	Max. operating temperature	All PVC - 130ºF, #2 hi temp - 150ºF, #3 high temp - 180ºF
	Max. backflush air pressure	60 PSIG regulated (set to 5-10 PSI less than H20 pressure)
	Max. backflush water pressure	60 PSIG regulated

Media: 5 polypropylene (or other) filtration sleeves standard (various micron ratings).

Options: High temperature construction
Quick disconnect fitting with proportioning valve for carbon unit
PVDF pump
Pump protection package
Filter Sentinel - II, system control package
Full automation package

INSTALLATION OF THE Global Filtration Systems' Filter

MODEL: EN-1205 / 1206 & EN-12552 / 12562

NOTE: Always use plumbing and electrical procedures that are approved for your locale

SAFETY PRECAUTIONS

1. Make sure that the labcock is closed.
2. Securely fasten the free end of all hoses
3. Make sure that all electrical connections are secure and safe from spray.
4. Maximum Air and Water pressures are regulated at or below 60 P.S.I.G. (Air should be set to 5-10 PSI less than minimum static water pressure).

I. LOCATION (refer to piping diagram in this section [D])

A. The filter location should be chosen such that the pump suction line and the filter discharge line can be located at opposite ends of the processing tank if at all possible

B. The filter top flange can be rotated to make plumbing connections easier. The filter has been shipped with the discharge piping on the top flange facing the pump. If you wish to orientate the head differently, remove the stainless steel bolts and lift the head from the filter. Using a clock analogy, make the direction that will be the discharge of the filter 12:00 O'clock. Spin the tube bundle inside the chamber so that one of the tube openings lines up with 6:00 O'clock. This will assure that the spargers are centered in the filter support tubes. Replace the filter top head with the discharge piping aimed toward 12:00 O'clock and replace the bolts. (make sure the head is torqued properly - see torquing instructions in section F).

II. INSTALL THE PARTS THAT WERE REMOVED FOR SHIPPING.

A. Pressure gauges. The pressure gauges are delicate instruments and should be treated with care. Wrap the threads with Teflon tape and thread the gauges into TEE's. Do not use the gauge body to tighten the gauge and do not overtighten.

B. Dual discharge valve #3. The standard dual discharge TEE is shipped, installed, with a plug on one side of the TEE. Remove the plug if you will be installing a carbon unit and attach the piping for the carbon unit (Carbon unit installation instructions are in the carbon unit manual if applicable). Install the discharge valve, labeled #3, on the open side of the TEE. The plug and valve may be reversed if it is more convenient for your situation.

C. Dual drain TEE. All Global Filtration Systems' filters come with a dual drain TEE. The drain valves are labeled #6 and #7. Valve #6 will direct solution back to your processing tank when you purge the filter chamber prior to backflushing. Valve #7 will direct the backflush effluent to waste processing. Install the TEE on the Filter drain line which comes off the middle of the bottom flange.

Install valve #6, and plumb it back to your processing tank (or thru an in-line trap filter). Locate the discharge end of the piping in the processing tank such that minor splashing will not be a problem. A return into a sump / weir portion of the tank is best. An anode (or other) bag may be secured to the end of this line as an additional measure for returned solution purity, to capture any inadvertently dislodged solids.

Install valve #7 and plumb it into a line directed to waste treatment.

D. Backflush assembly. Thread the backflush assembly into the diverter stem on top of the filter top flange. Plumb air into the top of the backflush TEE, and water into the side. Air and water should be regulated and set at 40 - 60 P.S.I. Both air and water should have shutoff valves. Please note: Air and water pressure must be regulated and limited to 60 P.S.I. Max. Air pressure must be set to 5-10 psi less than minimum static water pressure.

If the air pressure exceeds the water pressure it can make the backflush in-effective.

E. Relief valve. Install the relief valve, adapter, and labcock on the diverter body. (see the diverter assembly diagram in section F). Permanently attach a 1/2" hose to the relief valve discharge and run it to a suitable drain. Securely fasten the hose at the drain. Close the labcock valve. The labcock valve is used only for manually draining the filter during maintenance. NOTE: The relief valve is preset (see section A).

III. FILTER DISCHARGE PLUMBING

A. Install a 1 ½" line from the filter discharge valve (#3) back to the processing tank. You should install an isolation valve at the tank if this line runs below normal solution level. If this line is hard plumbed, install a union near the discharge valve to facilitate removing the top flange for maintenance.

IV. PUMP INLET PLUMBING

A. Global Filtration Systems' pumps have plastic casings. Use a minimum of thread sealant, and do not overtighten fittings.

B. Precautions

1. If at all possible, install the pump with a flooded suction.
2. Put an Isolation valve in the suction line of the pump. This valve should be a ball valve and should be located as close to the tank as possible.
3. The suction piping should be no more than 15 feet long. If a longer run is necessary, increase the pipe diameter by 1" for each additional 15 feet. See the specifications sheet (section C) for the pipe size for your pump.
4. Minimize the number of elbows in the suction piping, and put no elbows within 1 foot of the pump suction. Each elbow is the equivalent of 4 to 5 additional feet of pipe. Adjust the pipe size accordingly.
5. Install a full flow strainer in the suction line to prevent foreign matter from being drawn into the pump.

If your filter has a double seal type pump (JB-1211 or JB-1332) then please refer to the water flush kit installation instructions in section F of this manual prior to starting the pump. **It is imperative that the water flush kit be operating properly before starting the pump.**

V. ELECTRICAL

A. Connect the pump starter to a proper source of electrical power. See Section A, or the motor nameplate for voltage and current requirements.

B. A pump/filter protection package is available which will protect the pump from dry running, and allows various protection sensors to be included in the starter circuit. Contact Global Filtration Systems for information.

VI. PRIMING A NON-FLOODED SUCTION. NOTE: The best situation is a flooded suction which always assures that the pump is primed.

A. Check to see that all valves are closed (including any associated with an attached carbon unit.

B. Open the filter inlet valve (#4)

C. Open the backflush valve (#1)

D. Index the diverter valve to position #1.

E. Turn on the water to the backflush TEE.

F. Run water into the filter until bubbles stop coming out of the pump suction.

G. Turn off the water, close the backwash valve (#1), and index the diverter valve to the neutral "N" position.

H. Open the filter discharge valve (#3)

I. Check the rotation of the pump (three phase only) by momentarily jogging the starter. Rewire if necessary.

J. Close the Filter inlet valve (#4) and filter discharge valve (#3).

K. At this point refer to the filter operating instructions (Section E) to start the filter and record the "clean" running pressure from the pressure gauge. Record it here and in the Startup section of the operating instructions (section E).

"CLEAN" running pressure - Inlet _____PSIG _____DATE

"CLEAN" running pressure - Discharge _____PSIG _____DATE

L. Shut down the filter in accordance with the operating instructions.

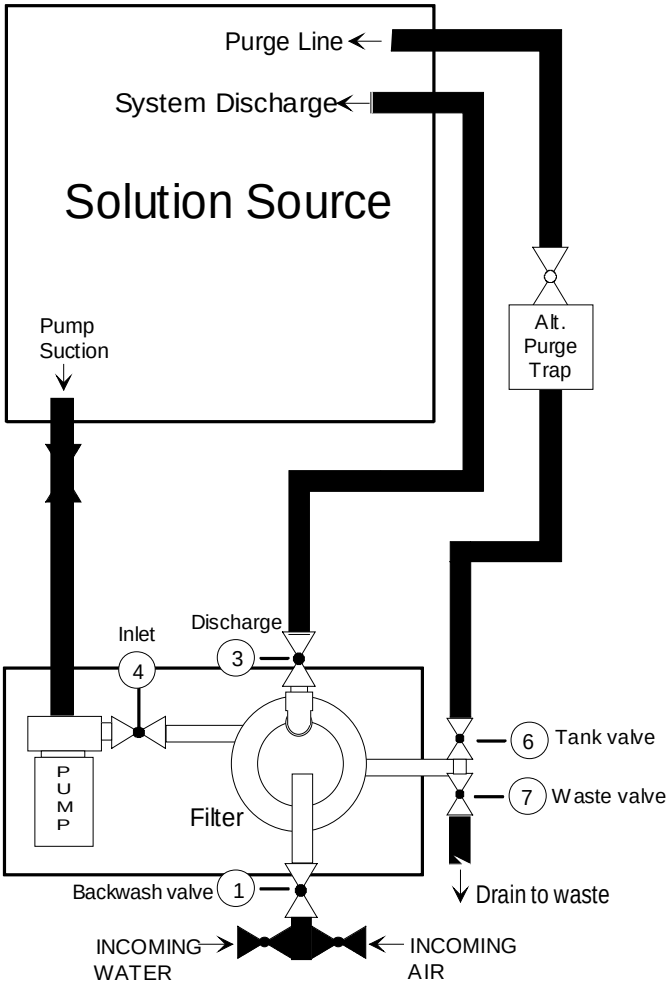
M. If unit is supplied with Factory pump, use the Backwash Setpoint Charts in Section F to determine the filter inlet pressure at which you should backwash the filter. Record it here and in the Backwash section of the operating instruction (section E).

"Backwash Setpoint" pressure_____PSIG _____DATE

THIS COMPLETES THE FILTER INSTALLATION

If a Global Filtration Systems carbon unit, either No-Frills model, or In-Series model is to be installed with this unit, see additional installation pages in the manual included with the carbon unit.

PIPING DIAGRAM: Filter with purge return line



NOTE: Shaded valves and piping are items not supplied with the filter unit as standard equipment

D1112L.drw

DAILY CHECKS BEFORE OPERATION:

1. Check that all valves including the labcock are closed.
2. Check all plumbing and electrical connections.
3. Check that all hoses are securely fastened.
4. Check that pump prime has been maintained.
5. As applicable: Check that water to the pump seal is properly established (see water flush kit instructions in section F)

START UP

1. Open the filter discharge valve (valve # 3).
2. Open the filter inlet valve (valve # 4).
3. Start the pump.
4. Check that the filter inlet and dicharge pressures are normal for a clean filter. Inlet_____P.S.I.G. Discharge_____P.S.I.G. (these pressures should have been recorded during installation of the filter). Remember to check the pressures frequently in order to monitor the condition of the filter media. **When the inlet pressure increases to the backwash setpoint pressure _____PSIG, it is time to backflush the filter. Generally, the unit should be backflushed at no less that 50% of the clean flow rate. This will maximize the full cleaning ability of the backflush cycle.**
5. Check the discharge hose to see that flow through the filter is normal.

SHUT DOWN

1. Stop the pump, and wait several seconds for flow to cease.
2. Close the filter inlet valve (valve #4).
3. Close the filter discharge valve (valve #3).
4. Backflush the filter if it is to remain idle for more than a few minutes.

BACKFLUSHING THE FILTER

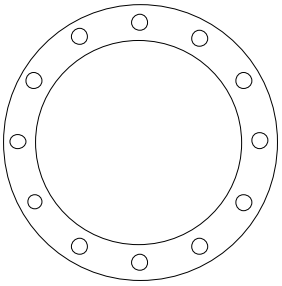
When the inlet pressure increases to its backwash setpoint, _____PSIG, it is time to backflush the filter.

1. Stop the pump, and wait several seconds for flow to cease.
2. Close the filter inlet valve (valve #4).
3. Close the filter discharge valve (valve #3).
4. Open the return-to-tank valve (valve #6). There may be a trap in this line to strain the volume of solution being purged, prior to backflushing. Valve #6 is not used on waste treament type applications or any application where solution remaining in the chamber prior to the backflush cycle is of no value and therefore is not saved (or returned to source). If this is the case, then open valve #7 at this point and continue procedure.
5. Index the diverter handle to position #1.
6. Open the backwash valve (valve # 1).
7. SLIGHTLY open the air valve. Admit only a small amount of air into the chamber to slowly purge the good solution back to the processing tank (or out to drain). Do not shock the unit with large air volume during the purge portion. You will be able to hear or see when the chamber empties.
8. Open the drain-to-waste valve (valve #7), then close the return-to-tank valve (#6)
9. At this point open the water valve then fully open the air valve. Air and water are now spraying through sparger tube #1, cleaning the first sleeve. Allow the sleeve to clean for approximately one minute.
10. Index the diverter handle sequentially to positions 2, 3, 4, and 5, for one minute each.
11. After sleeve #5 has been cleaned,shut the water valve, wait 10 seconds, then shut the air valve.
12. Shut the backwash valve (#1).
13. Index the diverter handle to position "N".
14. Shut the waste valve (#7).

This concludes the backflushing process. and the filter is shut down and may be left idle. If you wish to return to filtering, repeat the Start Up instructions above.

FLANGE TORQUE INSTRUCTIONS

Your filter is equipped with 1/8" thick, full face flange gaskets. Please make sure the gasket is in good condition, and properly oriented each time you re-install the top or bottom filter flanges.

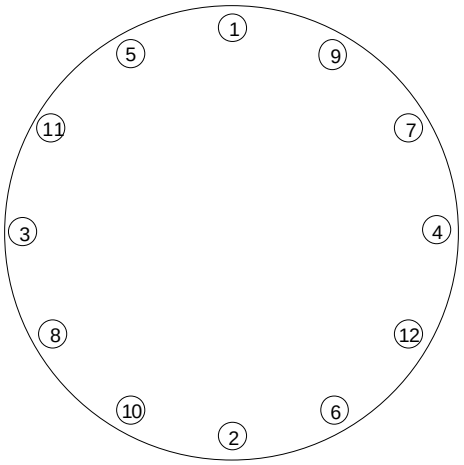


Type B

Recommended procedure for tightening flange bolts on 12" diameter filter units (19" flange)

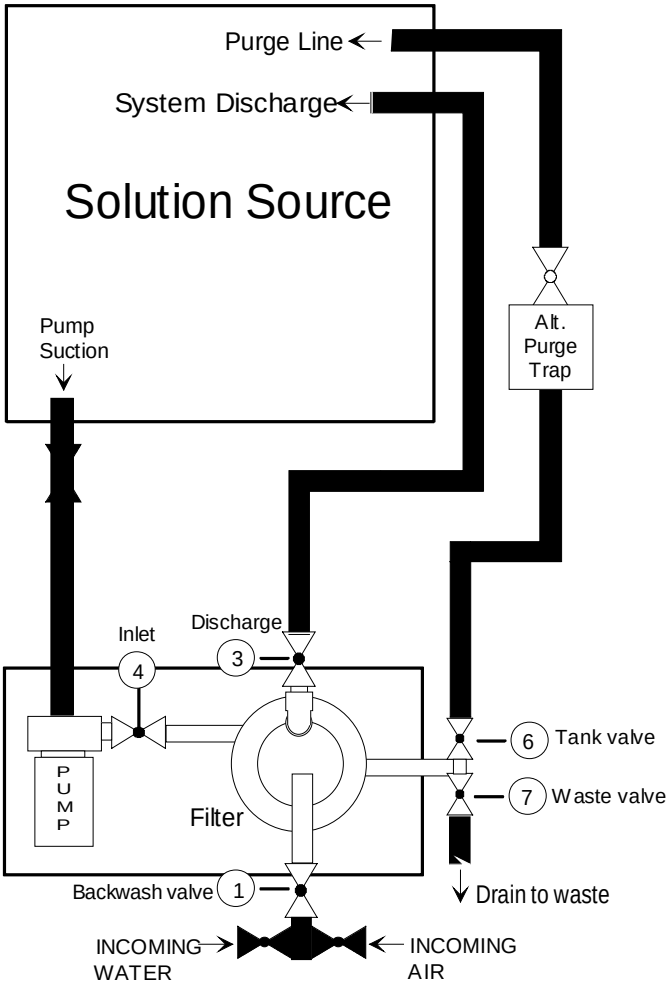
1. Follow the numbered sequence below and tighten each bolt snugly

2 Repeat step 1 tightening each bolt to the specified torque (Type B = 60 Ft-Lbs)



D1092A.drw

PIPING DIAGRAM: Filter with purge return line



NOTE: Shaded valves and piping are items not supplied with the filter unit as standard equipment

D1112L.drw

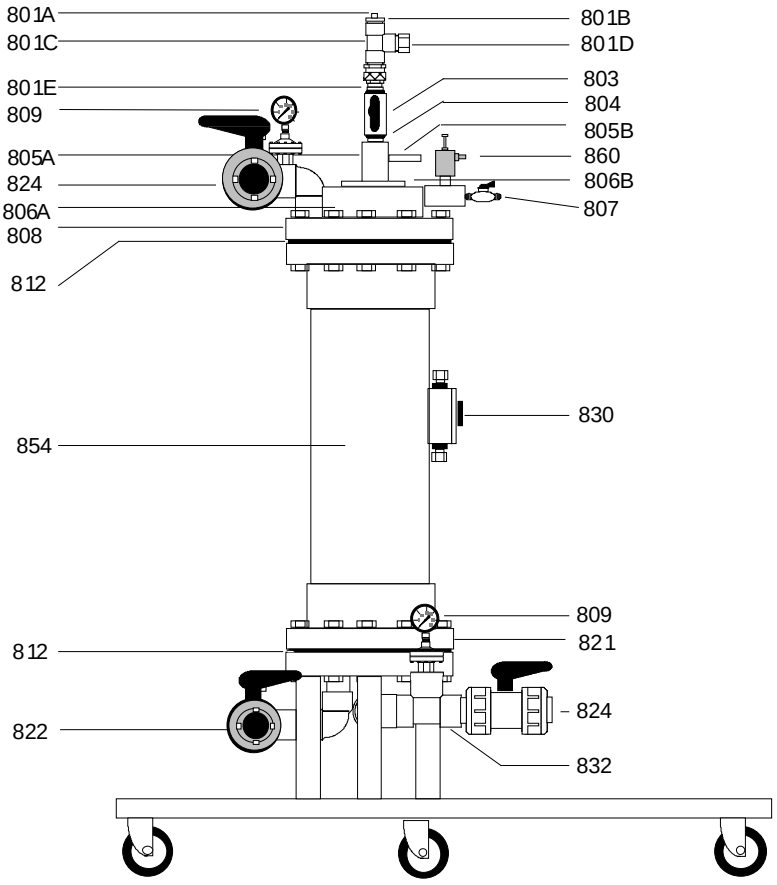
TROUBLE SHOOTING "GLOBAL FILTRATION SYSTEMS" FILTERS

PROBLEM	INDICATION	POSSIBLE CAUSES
Pump does not start	No flow / pump does not start	- no electricity - magnetic starter tripped - incorrect wiring
Pump will not run.	Pump starts but will not continue to run.	- incorrect overload setting - incorrect wiring
pump runs, but does not pump	motor running / no flow or pressure	- broken spindle (mag drive) - jammed or frozen impeller - starved pump suction - obstructed pump suction - improper pump rotation
Leaking pump: magnetic drive	Solution leaking at pump housing	- worn or broken O-ring - cracked housing
Leaking pump: direct drive	Water leaking from seal or pressure collar	- worn seal - worn or damaged O-ring
	Solution leaking from seal or pressure collar	- insufficient water pressure in pressure collar
	Solution leaking from pump housing	- worn or broken O-ring - cracked housing
Insufficient solution flow	visual indication of lower than normal flow	- dirty filter media - clogged media
	Improper pressure reading	- same as above
Insufficient filtration	filter effluent quality	- worn out media - insufficient flow - media or filter being bypassed - modify media micron retention
	Pressure does not return to clean reading after backflushing/backpulsing	- improper air or water pressure (or relationship of air to water pressure) - incorrect backflushing / backpulsing - media clogged
	Pressure reading never changes	- filter media being bypassed - damaged filter media - all particulate size lower than media size - damaged pressure gauge(s)

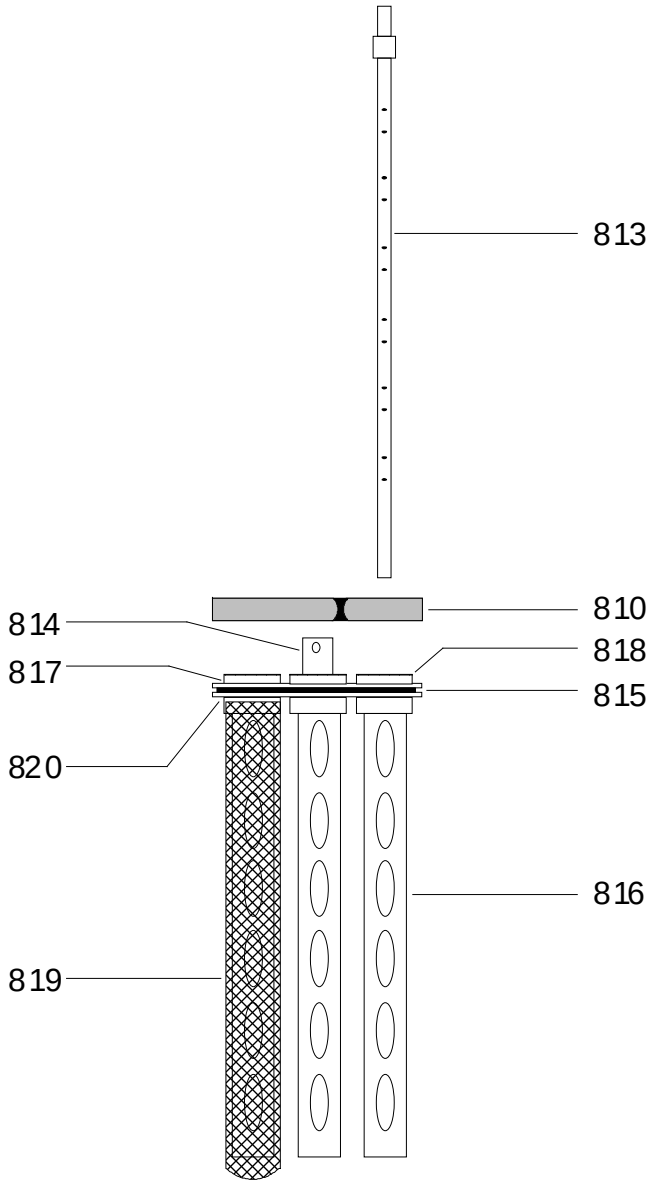
FILTER PARTS LIST (SEE PARTS DIAGRAM) MODEL: EN-1205/06 (& EN-12552/62 FILTER SECTION)

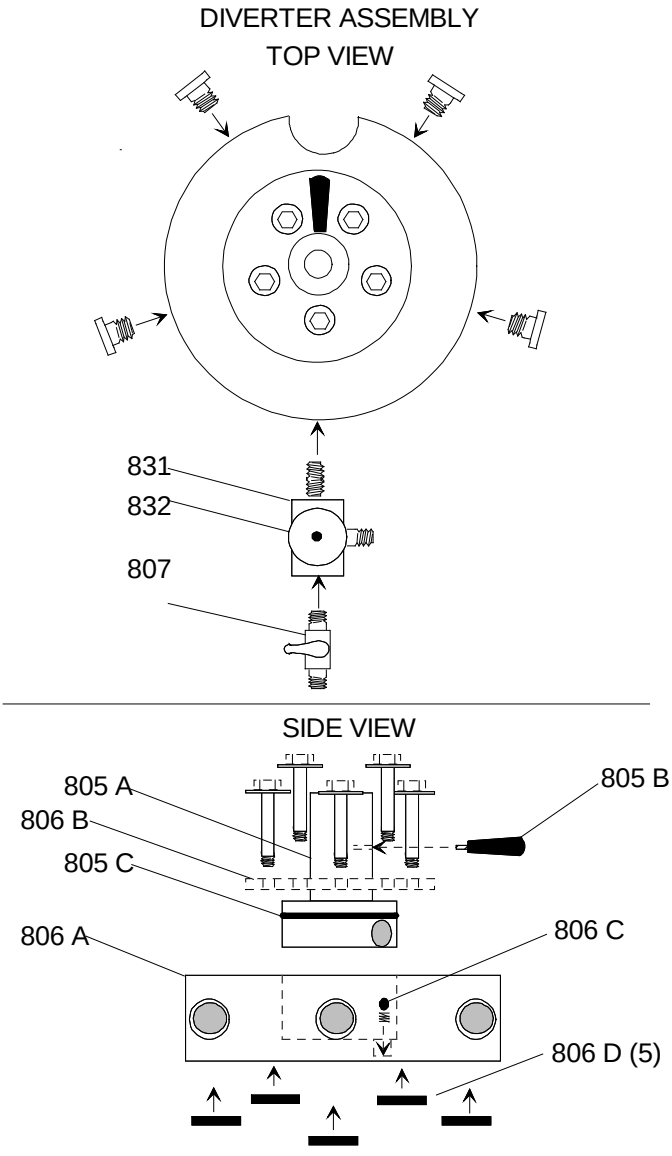
Key	P/N	Description	Quan / filter
801 A	6503147	Male plug	1
801 B	6503095	Reducing bushing	1
801 C	6503048	Backwash Tee	1
801 D	6503062	Hose Adapter	1
801 E	6503250	Male Quick Disconnect	1
802	6503251	Female quick disconnect	1
803	1071007	Backwash valve (valve #1)	1
804	6503171	Threaded connector	1
805 A	6506060	Diverter stem	1
805 B	6519115	Diverter stem handle	1
805 C	6513018	Diverter stem O-ring	1
806 A	6506059	Diverter body	1
806 B	6506061	Diverter coverplate	1
806 C	6501036	Diverter Spring	1
806 C	6501037	Diverter Ball	1
806 D	6513015	Sparger gasket	5
807	1077002	Labcock	1
808		Top Flange with piping	1
		6520121 PVC	
		6520124 CPVC	
809	6521002	Pressure guage	1
810		Pressure ring	1
		6520035 PVC	
		6520036 CPVC	
812	6513013	Flange gasket	2
813		Backwash sparger	5
		6520040 PVC	
		6520042 CPVC	
814	6521005	Tube disc with handle	1
815	6513017	Tube disc O-ring	1
816		Filter support tube	5
		6520123 Titanium/PVC	
		6520065 Titanium/CPVC	
817	6513019	Tube seal O-ring	5
818	6506022	Support tube nut	5
819		Filter sleeve (set of 5, various microns - Call for Part Number)	1 set
820	6513016	Filter Sleeve O-rings	10
821		Bottom Flange with piping	1
		6520122 PVC	
		6520124 CPVC	
822		Drain valves (valve #6 or valve #7)	2
		1071015 PVC (1.5")	
		1073015 CPVC (1.5")	
824		Inlet valve (valve #4) or Discharge valve (valve #3)	2
		1071020 PVC (2")	
		1073020 CPVC (2")	
830		Motor starter box (various ratings - call for Part Number)	1
854		Filter chamber	1
		6520020 PVC	
		6520024 (CPVC with PVC socket flanges)	
		6520025 CPVC	

FILTER: EXTERNAL PARTS



FILTER: INTERNAL PARTS




DIVERTER ASSEMBLY
TOP VIEW
831
832
807
SIDE VIEW
805 A
805 B
806 B
805 C
806 A
806 C
806 D (5)

BACKWASH SETPOINTS

Backwash Setpoint charts for model EN-1205 / EN-12552 with the JB-3255 pump operating on a solution with a specific gravity of 1.1. For readings, use only the pressure gauge between the pump discharge and the filter inlet at the bottom of the chamber.

DETERMINE SETPOINT

1. During Installation (section D), determine the "CLEAN" running pressure of the filter with your piping configuration.
2. Find the clean pressure in column 1 of the chart below.
3. Find the Backwash Setpoint for that pressure from the last column. This represents a reduction in flow to 60% of the clean flow.

JB-3255 Backwash setpoint chart				Sp. Gr. = 1.1
CLEAN PRESSURE ⇩	CLEAN FLOW GPH		DIRTY FLOW GPH	BACKWASH SET-POINT ⇩
0.0	13,800		8,280	33
9.5	12,400		7,440	36
14.3	11,600		6,960	39
19.0	10,900		6,540	41
23.8	10,200		6,120	43
28.6	9,300		5,580	44
33.3	8,100		4,860	48
38.1	7,200		4,320	49
42.9	6,300		3,780	50
47.6	4,800		2,880	51
52.4	2,400		1,440	53
54.8	0			

WARRANTY ON GLOBAL FILTRATION SYSTEMS' FILTRATION AND CARBON SYSTEMS

ITEMS COVERED UNDER THIS WARRANTY

Any removable or non-removable part of the filter unit, except all pumps and motors, that fail due to manufacturing or material defect within one year (365 days) from the date of shipment will be repaired or replaced at no charge to the purchaser. All pumps and motors have a 90 day warranty for failure due to manufacturing or material defect.

The express warranty contained herein is in lieu of all other warranties, either expressed or implied, or statutory, including without limitation any warranty of merchantability or fitness for a particular use. In no event will Global Filtration Systems be liable to the purchaser for any damages, including special, incidental, indirect or consequential damages.

HOW TO OBTAIN SERVICE (REPLACEMENT PARTS):

Replacement parts can be obtained for your Global Filtration Systems filter by the following method:

1. Determine the items that need replacement by using the parts breakdown sheet supplied in the filter manual.
2. Place a purchase order with Global Filtration Systems for those items. The items will be shipped and invoiced to you from stock.
3. Return the damaged items, freight prepaid, within 30 days to Global Filtration Systems for inspection. If it is determined by Global Filtration Systems that the damage is due to manufacturing or material defect, a full credit against the above mentioned invoice will be issued to your company, which includes our standard means of shipment (UPS regular in most cases), but does not include any additional customer requested shipping charges for air freight, etc.

ITEMS NOT COVERED UNDER THIS WARRANTY

1. Any part broken due to physical abuse.
2. Any part damaged due to non-compliance with the manufacturer's installation / operating instructions.
3. Any replacement parts not purchased through Global Filtration Systems either directly or indirectly.
4. Any maintenance performed on the filter / carbon unit or modifications made to the filter / carbon unit without written consent from Global Filtration Systems.

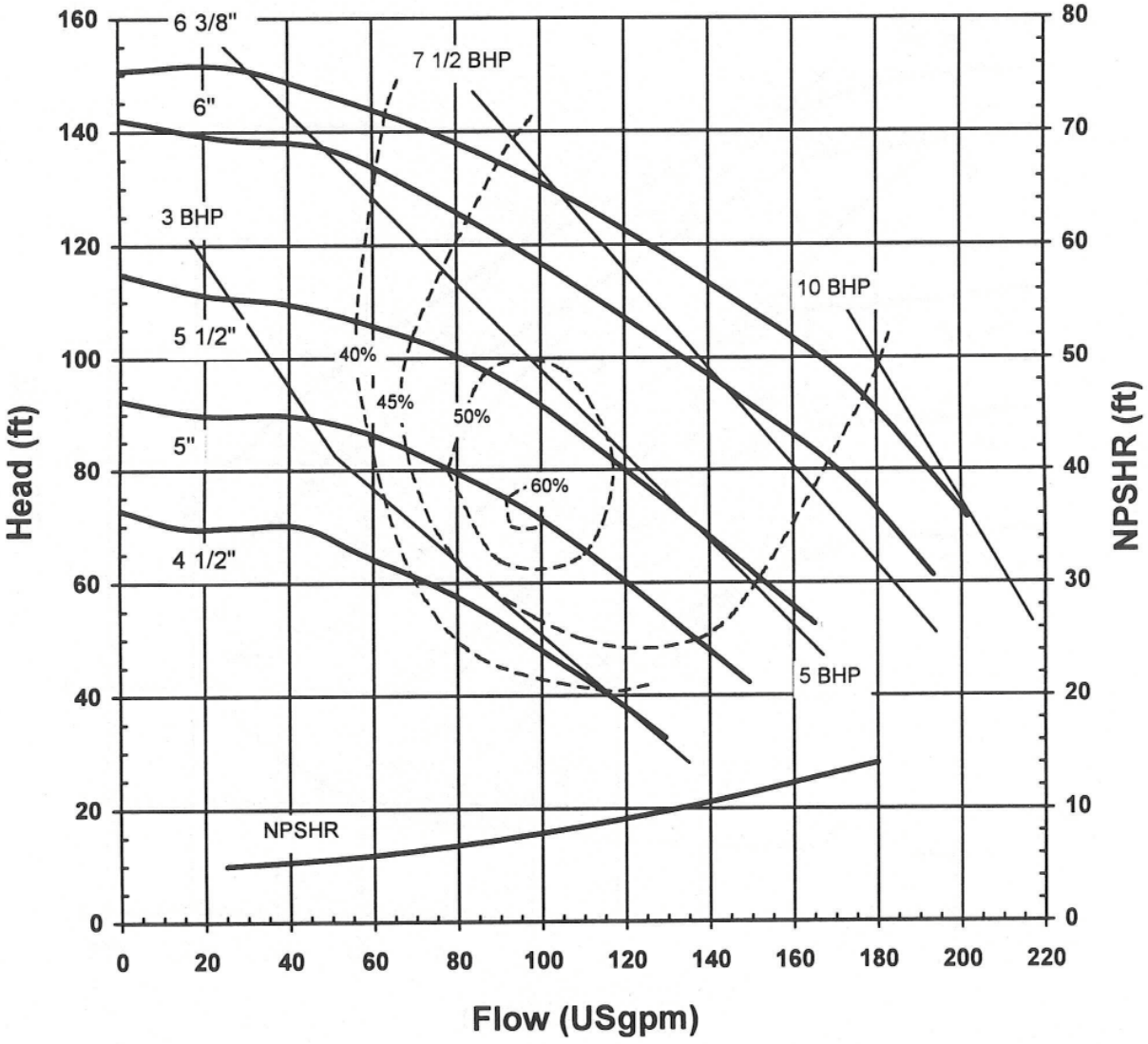
If you have any questions concerning this warranty, please contact:

Global Filtration Systems
Route 25, PO Box 10
Tamworth, NH 03894

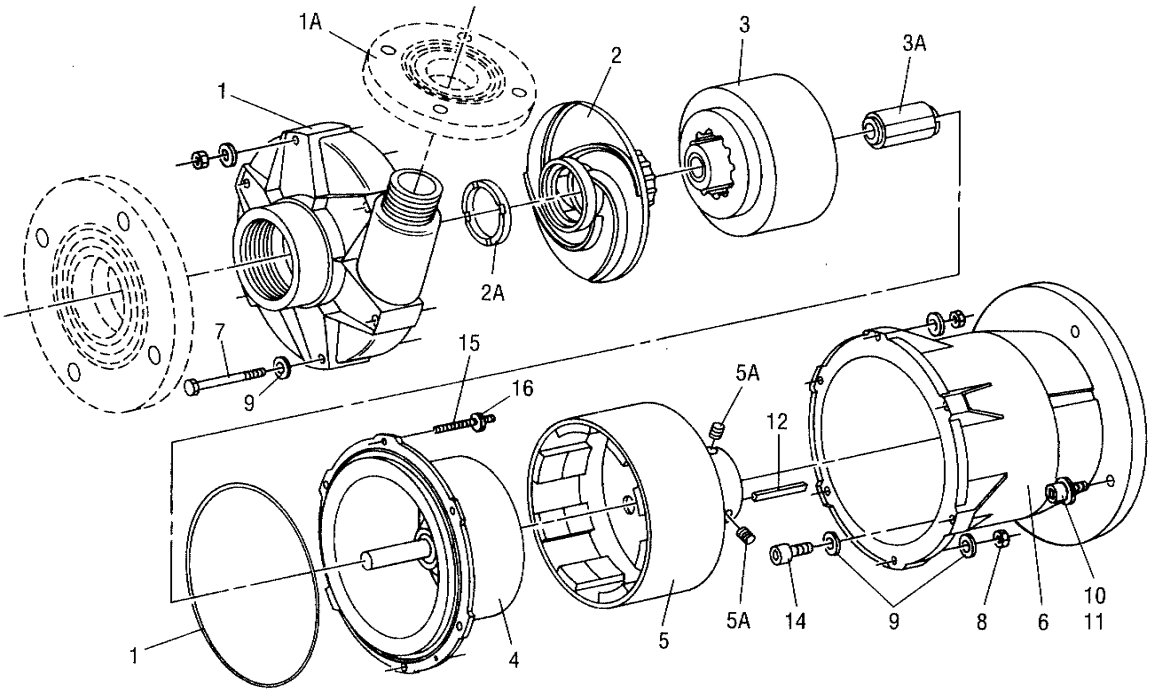
PH# 603-323-7777
FX# 603-323-7007
E-Mail: FilterGFS@aol.com
Or info@globalfiltrationsystems.com

PUMP CURVE: JB-3200 SERIES CL

Model:	JB-3245, 3250, 3255, 3260
Style:	3450 RPM, 60 Hz
Suction:	3” flange / 2” FNPT
Discharge:	2” Flange / 2” MNPT
Impeller Type:	Closed



MODEL: JB-3255 & JB-3255K PUMP PARTS LIST



ITEM	DESCRIPTION	PART No.
1	Impeller Housing (polypro)	6502416
	Impeller Housing (PVDF)	6502417
2/3	Impeller with carbon bushing (polypro)	6502418
	Impeller with carbon bushing (PVDF)	6502419
2A	Thrust Ring - Teflon	6502361
3A	Impeller Bushing - Carbon	6502360
4	Barrier with spindle (polypro)	6502438
	Barrier with spindle (PVDF)	6502439
6	Motor Adapter – 56C	6502364
5	Drive Magnet with set screws	6502365
5A	Set Screw – knurled point	6502366
13	Impeller Housing O-ring - Viton	6502367
7/9	Housing Bolt Set (Bolt/Nut) - 6 required	6502368
10/11	Motor Adapter Bolt Set (Bolt/Lock) – 4 required	6502369
	Motor Adapter Plug	6502370
	Complete Wet End Only: Items 1-3 + 6 (polypro)	6502371
	Complete Wet End Only: Items 1-3 + 6 (PVDF)	6502372
	Complete Pump & Motor – 3 PH, 5 HP (polypro)	6502373
	Complete Pump & Motor – 3 PH, 5 HP (PVDF)	6502374
	Complete Pump & Motor – 3 PH, 7.5 HP (Polypro)	6502075
	Complete Pump & Motor – 3 PH, 7.5 HP (PVDF)	6502376
	Motor Only – 3 PH, 5 HP, 230/460V	6502377
	Motor Only – 3 PH, 7.5 HP, 230/460V	6502378

NOTE: Order by part number, not item number

GLOBAL FILTRATION SYSTEMS, INC.

EN-1205/6 Manual Pages File: PAGES-09.DOC