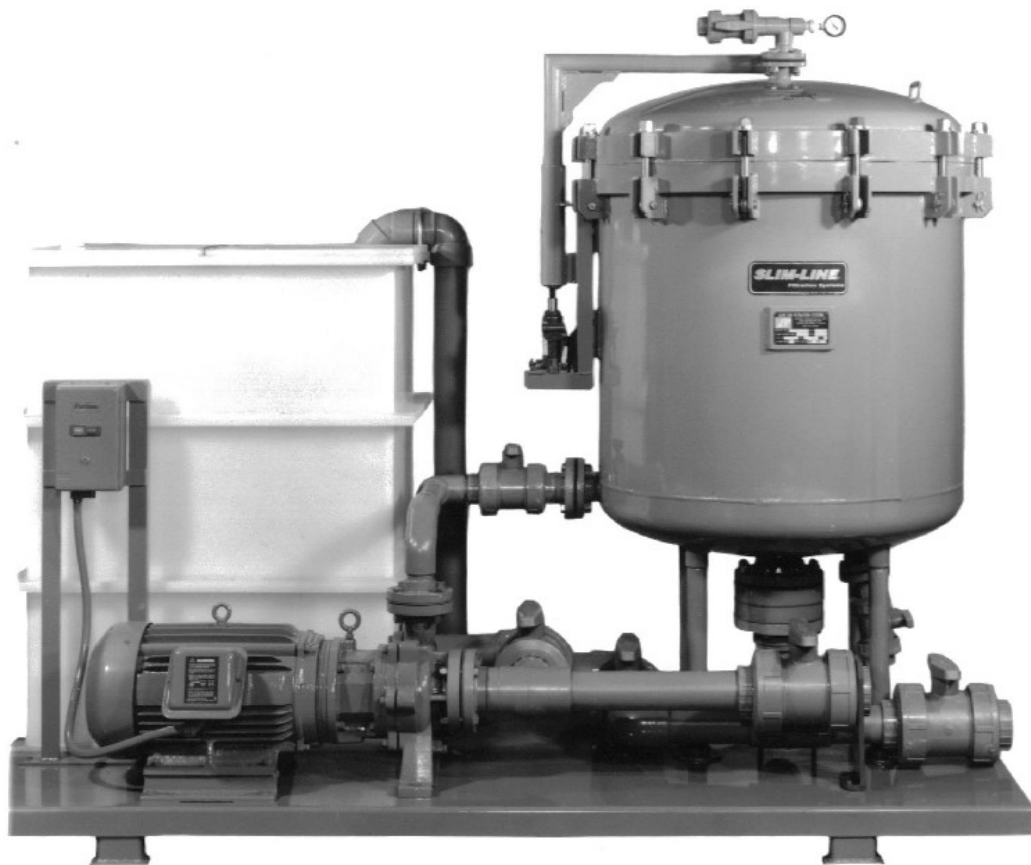




ANODE PRODUCTS COMPANY, INC.

INSTRUCTION MANUAL



- **OPERATION MANUAL**
- **SPECIFICATIONS**
- **EXPLODED VIEW**

INTRODUCTION:

THIS MANUAL INCLUDES GENERAL OPERATING PROCEDURES FOR YOUR SLIM-LINE® SLX FILTRATION SYSTEM. ALL NUMBERS THAT APPEAR IN BRACKETS [ITEM #XX] REFER TO THE

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES

EXPLODED VIEW INCLUDED IN THIS MANUAL. USING THESE ILLUSTRATIONS WILL SIMPLIFY SERVICING UNTIL YOU BECOME FAMILIAR WITH THE FILTER. PLEASE READ PRIOR TO INSTALLATION.

APPLICATIONS:

SLIM-LINE® FILTRATION SYSTEMS HAVE BEEN DESIGNED CORROSION RESISTANT TO MOST PLATING SOLUTIONS UNDER NORMAL CONDITIONS. HOWEVER IT SHOULD BE NOTED THAT CERTAIN SOLUTIONS HAVE A SEVERE CORROSIVE EFFECT ON THE CERTAIN PARTS & ELASTOMERS AND SHOULD BE ORDERED WITH OPTIONAL MATERIALS COMPATIBLE WITH THE APPLICATION.

CAUTIONS:

- SOLUTION NOT TO EXCEED 180 °
- DO NOT RUN PUMP DRY
- RUN ONLY AT THE CORRECT VOLTAGE MOTOR IS WIRED FOR
- DISCONNECT THE POWER WHEN SERVICING THE FILTER
- WEAR PROTECTIVE CLOTHING, GLOVES AND EYEWEAR WHEN SERVICING THE FILTER
- FLUSH ALL FILTER PARTS WITH WATER WHEN PERFORMING MAINTENANCE ON THE UNIT.

FILTER INSTALLATION

UPON ARRIVAL:

THE UNIT SHOULD BE INSPECTED IMMEDIATELY UPON ARRIVAL AND ANY DAMAGE DUE TO SHIPMENT SHOULD BE REPORTED TO THE CARRIER.

CARE SHOULD BE TAKEN WHEN UNCRATING THE FILTER. A COPY OF THIS MANUAL AS WELL AS INSTRUCTION SHEETS FOR VARIOUS COMPONENTS (SUCH AS PUMP) MAY BE INCLUDED IN THE SHIPMENT. PLEASE PUT THESE PAPERS IN A SAFE PLACE FOR READY REFERENCE WHEN NEEDED. FILTER PARTS AND ACCESSORIES MAY BE PACKED INSIDE SHIPPING CONTAINERS OR ATTACHED TO SKID IN INDIVIDUAL PACKAGES. INSPECT ALL CONTAINERS, CRATES AND SKIDS BEFORE DISCARDING.

STORAGE AND PRESERVATION:

OUR NORMAL DOMESTIC SHIPPING PREPARATION IS SUITABLE FOR PROTECTING THE UNIT IN

TRANSIT. OUR CRATING ALSO PROVIDES FOR PROTECTION IN YOUR PLANT FOR THE INTERVAL BETWEEN ARRIVAL, INSTALLATION AND START UP. IF THE FILTER IS TO BE STORED AND/OR EXPOSED TO THE ELEMENTS FOR EXTENDED PERIODS (EITHER BEFORE OR AFTER INSTALLATION) SPECIAL PRECAUTION SHOULD BE TAKEN. UNIT SHOULD BE STORED IN A LEVEL POSITION WITH NO STRAINS APPLIED.

LOCATIONS:

PLACE THE FILTER IN AN ACCESSIBLE PLACE AND **AS CLOSE TO THE SOURCE OF LIQUID TO BE FILTERED AS POSSIBLE**. ALLOW ADEQUATE SPACE FOR OPERATION AS WELL AS MAINTENANCE.

HEADROOM IS AN IMPORTANT CONSIDERATION AS ROOM IS NEEDED TO REMOVE THE FILTER PLATES FROM THE CHAMBER DURING NORMAL CLEANING OPERATIONS. MAKE SURE ANY EQUIPMENT USED TO LIFT THE UNIT OR ANY OF ITS COMPONENTS IS CAPABLE OF SUPPORTING THE WEIGHT ENCOUNTERED. ALSO CONSIDERATION MUST BE GIVEN TO THE ENVIRONMENT AS PUMPS ARE DRIVEN BY ELECTRIC MOTORS. PROPER VENTILATION IS NEEDED; CORROSIVE FUMES AND EXTREME DAMPNES OR HEAT SHOULD BE AVOIDED.

FOUNDATION:

THE FOUNDATION SHOULD BE SUFFICIENTLY RIGID AND SUBSTANTIAL ENOUGH TO SUPPORT THE WEIGHT OF THE UNIT. (REMEMBER THAT SOME UNITS WEIGH IN EXCESS OF 2000lbs.) IT SHOULD SUPPORT 1-1/2 TIMES THE WEIGHT OF THE UNIT AND BE REASONABLY LEVEL.

LEVELING THE BASEPLATE:

THE ENTIRE ASSEMBLY IS MOUNTED ON AN INTEGRAL BASE. WE SUGGEST THE UNIT BE REMOVED FROM THE CRATING SKID AND BLOCKED OFF THE FLOOR TO PROVIDE ACCESS TO THE UNDERSIDE ON THE UNIT FOR MAINTENANCE. CHECK THAT THE BASE IS LEVEL AND NO STRAINS ARE BEING APPLIED TO PUMP OR VALVES PRIOR TO INSTALLING PIPING.

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES

PIPING:

AFTER THE FILTER HAS BEEN MOUNTED AND LEVELED, THE SUCTION AND DISCHARGE PIPING CAN BE CONNECTED. ALL PIPING AND HOSE SHOULD BE SUPPORTED INDEPENDENTLY OF THE UNIT AND CARE SHOULD BE TAKEN WHEN MAKING UP FITTINGS TO AVOID PLACING A STRAIN ON THE SUCTION AND DISCHARGE VALVES. ALL PIPING SHOULD BE MADE DIRECT, WITH AS FEW ELBOWS AS POSSIBLE IN ORDER TO REDUCE FRICTIONAL LOSSES OF FLOW. ALSO INSURE PROPER SELECTION OF PIPING MATERIAL IS COMPATIBLE WITH SOLUTION TO BE FILTERED.

SUCTION PIPING:

THE SUCTION LINE SHOULD BE AS SHORT AS POSSIBLE BUT NEVER LONGER THAN 20FT. WE RECOMMENDED INCREASING THE SUCTION PIPE ONE SIZE LARGER IF SUCTION LINE IS SO LONG THAT IT SIGNIFICANTLY AFFECTS PUMP OPERATION. **NEVER REDUCE THE SUCTION PIPING SIZE.** MOUNT SUCTION INLET LOW IN THE TANK SO THAT SUSPENDED SOLIDS THAT TEND TO SETTLE TO THE BOTTOM CAN BE DRAWN INTO THE FILTER. MAKE SURE SUCTION LINE IS AWAY FROM AIR-SPARGERS AS WELL AS ANY HEAT SOURCES. A SUCTION STRAINER IS HIGHLY RECOMMENDED TO PREVENT ANY LARGE OBJECTS FROM ENTERING THE PUMP.

(THE SUCTION STRAINER IS VERY IMPORTANT TO PREVENT DAMAGE TO THE PUMP AND IMPELLER. THE SUCTION STRAINER MUST HAVE A NET "FREE AREA" OF AT LEAST THREE TIMES THE SUCTION PIPE AREA)

DISCHARGE PIPING:

DISCHARGE LINE SHOULD BE AS SHORT AS POSSIBLE BUT NEVER LONGER THAN 35FT. MOUNT THE DISCHARGE NEAR THE SURFACE AT THE OPPOSITE END OF THE TANK. THE INCOMING AND OUTGOING LINES SHOULD BE PLACED AS FAR APART AS POSSIBLE TO PREVENT SHORT CIRCULATING THE SYSTEM. A CHECK VALVE SHOULD BE INSTALLED BETWEEN TANK AND FILTER TO PREVENT BACK FLOW WHICH COULD BREAK FILTER PACK.

(THE CHECK VALVE IS VERY IMPORTANT TO PREVENT BACK FLOW FROM BREAKING THE FILTER

CAKE CAUSING THE SOLUTION TO BYPASS THROUGH CRACKS IN THE FILTER CAKE)

INITIAL START UP:

BEFORE STARTING THE FILTER CHECK ALL VALVES, FITTINGS AND HARDWARE FOR PROPER TIGHTNESS REMOVE ANY PARTS SHIPPED IN SLURRY TANK.

ELECTRICAL CONNECTIONS:

CONFIRM THAT MOTOR AND STARTER ARE WIRED FOR THE VOLTAGE YOU WILL BE OPERATING. ALSO CHECK PROPER MOTOR ROTATION. THE MOTOR MUST ROTATE IN THE DIRECTION INDICATED BY THE ARROW ON THE MOTOR. PUMP WILL BE DAMAGED IF ROTATED IN THE WRONG DIRECTION OR BY NOT HAVING THE PROPER FLOW RATE FOR CORRECT OPERATION.

PRIMING THE FILTER:

FILL BOTH THE FILTER CHAMBER AND SLURRY TANK WITH WATER OR THE SOLUTION TO BE FILTERED. REPLACE CHAMBER COVER [ITEM #58] AND TIGHTEN COVER BOLTS [ITEM #67] EVENLY TO 65 FT-LBS MINIMUM. OPEN VALVES #1, #2 & #3 THIS ALLOWS THE PUMP TO BE FLOODED ALLOWING STARTUP. START PUMP, IF PUMP DOESN'T START PUMPING IMMEDIATELY TURN OFF AND ALLOW ANY AIR TRAPPED TO DISPERSE. REPEAT STARTUP, AFTER FLOW COMMENCES OPEN VALVE #7 TO ALLOW AIR TRAPPED IN CHAMBER TO BE RELIEVED THEN CLOSE VALVE #7.

PRIME THE SUCTION LINE FROM THE MAIN TANK. WITH FILTER IN SLURRY RE-CIRCULATION MODE SLIGHTLY OPEN VALVE #4 UNTIL LIQUID LEVEL RISES IN THE SLURRY TANK INDICATING THAT THE SUCTION LINE IS PRIMED. THIS OPERATION MAY TAKE SEVERAL MINUETS. IF DURING THIS PROCESS THE PUMP LOSES PRIME, STOP PUMP, CLOSE VALVE #4 AND REPEAT PROCEDURE AS OUTLINED ABOVE.

THE FILTER IS NOW READY TO BE PRECOATED PER THE INSTRUCTIONS PROVIDED.

FILTER OPERATION

#1 FILTER SHUT DOWN:

THE FIRST STEP IN SHUTTING DOWN THE FILTER IS TO DRAW DOWN THE LIQUID LEVEL IN THE SLURRY TANK. THIS ALLOWS THE SLURRY TANK

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES

TO ACCEPT THE ENTIRE VOLUME OF THE FILTER CHAMBER WITHOUT OVERFLOWING. OPEN VALVE # 1 WITH THE FILTER PUMPING TO THE MAIN TANK UNTIL THE LEVEL IN THE SLURRY TANK IS JUST ABOVE THE SUCTION PORT LOCATED ON THE BOTTOM OF THE TANK CLOSE VALVE #1 BEFORE THE PUMP STARTS DRAWING AIR FROM THAT PORT.

NEXT TURN OFF POWER TO PUMP, QUICKLY CLOSING ALL VALVES. VENT ALL PRESSURE FROM CHAMBER BY OPENING VALVE #7. FILTER IS NOW READY TO BE SERVICED. IF FILTER WILL BE SHUT DOWN FOR AN EXTENDED PERIOD (8 HOURS OR MORE) IT IS VERY IMPORTANT TO DRAIN AND FLUSH THE PUMP WITH CLEAN WATER AS THIS WILL PREVENT THE SOLUTION FROM CRYSTALLIZING INSIDE THE PUMP HOUSING THAT COULD DAMAGE MECHANICAL SEAL COMPONENTS.

REMEMBER TO ALWAYS START THE FILTER IN SLURRY RE-CIRCULATION MODE TO PREVENT THE FILTER CAKE FROM BEING DISTURBED.

#2 FILTER DISASSEMBLY:

(IMPORTANT WEAR PROTECTIVE CLOTHING, GLOVES AND EYEWEAR WHEN SERVICING THE FILTER)

THE FILTER SYSTEM ARRIVED WITH 17-MICRON FILTER PAPER MEDIA INSTALLED. CONSULT YOUR CHEMICAL SUPPLIER REGARDING PROPER FILTER MEDIA. REFER TO THE TABLE REGARDING THE NUMBER OF FILTER MEDIA REQUIRED FOR YOUR MODEL.

SHUT DOWN FILTER AS EXPLAINED IN SECTION #1. DISCONNECT POWER AND CLOSE ALL VALVES. OPEN AIR VENT VALVE #7 AND SLURRY DISCHARGE VALVE #1 AS THIS WILL DROP THE LIQUID LEVEL BELOW CHAMBER RIM, LOOSEN COVER BOLTS [ITEM #67] EVENLY AND REMOVE COVER [ITEM #58] FROM THE FILTER CHAMBER, REMOVE LOCKING NUT [ITEM #57] ALONG WITH WASHER [ITEM #56] AND TOP SEALING CAP [ITEM #55].

OPTION:

WITH A COMPRESSED AIR SUPPLY YOU CAN BLOW DOWN THE CONTENTS OF THE FILTER CHAMBER

INTO THE SLURRY TANK FOR A CLEANER CHANGE OUT.

NEXT LIFT EACH FILTER PLATE [ITEM # 54] TILTING THE PLATE SLIGHTLY TO ALLOW THE LIQUID ON TOP OF THE PLATE TO DRAIN OFF. THEN REMOVE THE PLATE FROM THE CHAMBER DISPOSING OF THE FILTER PAPER IN THE PROCESS. THIS CAN BE ACCOMPLISHED BY TURNING THE PLATE OVER TO ALLOW THE FILTER PAPER AND SLUDGE TO FALL OFF. A LARGE SHALLOW TUB WILL HELP TO MAKE THIS OPERATION CLEANER. CONTINUE THIS PROCESS UNTIL ALL FILTER PLATES HAVE BEEN REMOVED. AT THIS TIME IF THE BLOW DOWN OPTION HAS NOT BEEN USED YOU SHOULD DRAIN DOWN THE FILTER CHAMBER TO A LEVEL EVEN WITH THE TOP OF THE BASE HUB ASSEMBLY [ITEM #46] THIS WILL MAKE INSTALLING THE FIRST FILTER PLATE MUCH EASIER.

#3 CLEANING THE FILTER:

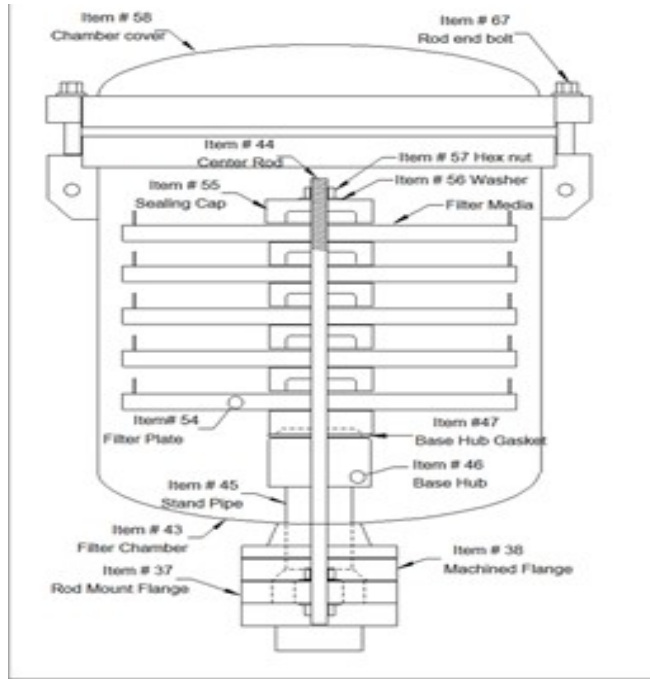
TO CLEAN THE FILTER FOLLOW STEPS 1& 2 AS PREVIOUSLY DESCRIBED. CLEAN ALL FILTER COMPONENTS BY LIGHTLY HOSE OFF THE FILTER PLATES. THE PLATES DO NOT HAVE TO BE PERFECTLY CLEAN, JUST HOSE OFF THE MAJORITY OF THE DIRT AND SLUDGE. MAKE SURE ALL HOLES IN THE FILTER PLATES ARE OPEN. CHECK FOR TORN FILTER CLOTHS. EXAMINE SEALING CAP [ITEM #55] FOR CRACKS AND CENTER ROD [ITEM #44] FOR TIGHTNESS AND WORN THREADS. CLEAN AND INSPECT THE BASE HUB GASKET [ITEM #47] LOCATED IN THE BOTTOM OF THE FILTER CHAMBER.

THE SYSTEM IS EQUIPPED WITH FILTER PAPER MEDIA, AND THEY MUST BE REPLACED WITH NEW FILTER MEDIA. IF USING REUSABLE MEDIA, QUITE OFTEN THESE ITEMS WILL HARDEN WITH AGE, RINSING WITH DILUTED HYDROCHLORIC ACID CAN SOFTEN THEM AGAIN OTHERWISE THEY WILL HAVE TO BE REPLACED.

#4 FILTER ASSEMBLY:

THE FOLLOWING INSTRUCTIONS ASSUME THAT THE FILTER PACK HAS BEEN DISASSEMBLED AND CLEANED.

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES



RESULT IN DAMAGE TO CHAMBER GASKET. ALSO WHEN TIGHTENING THE COVER BOLTS DO NOT STOP UNTIL ALL BOLTS HAVE BEEN TORQUED THIS WILL PREVENT STARTING THE FILTER WITH THE COVER BOLTS LOOSE.

#5 PRE-COATING THE FILTER:

THE USE OF FILTER AID IS HIGHLY RECOMMENDED BECAUSE IT EXTENDS THE LIFE OF THE FILTER MEDIA AND GREATLY IMPROVES PARTICLE RETENTION OF THE MEDIA. AN ADDITIONAL PRECOAT OF POWERED CARBON HELPS REMOVE ORGANICS FROM SOLUTIONS REQUIRING THIS TREATMENT. IN ORDER TO ENSURE COMPATIBILITY CONSULT YOUR CHEMICAL SUPPLIER AS TO PROPER FILTER AID.

THE SPECIFICATIONS AND PERFORMANCE TABLE INCLUDED WITH THIS MANUAL SUGGESTS THE PROPER AMOUNT OF FILTER AID TO USE WITH YOUR FILTER. THIS AMOUNT IS ONLY A STARTING POINT. FOR MAXIMUM PERFORMANCE YOU SHOULD EXPERIMENT WITH DIFFERENT AMOUNTS FOR LONGEST FILTER CYCLE LIFE.

FIRST, INSTALL A FILTER PAPER ON TO THE FILTER PLATE [ITEM #54]. PLACE FILTER MEDIA ONTO THE FILTER PLATE WETTING THE MEDIA WITH WATER TO KEEP FROM LIFTING DURING CHAMBER FILLING PROCEDURE.

INSTALL EACH FILTER PLATE [ITEM # 54] WITH PAPER INSTALLED INTO FILTER CHAMBER [ITEM # 43] WITH FILTER CLOTHS FACING UPWARD. **IT IS VERY IMPORTANT THAT YOU PROPERLY SEAT THE FIRST FILTER PLATE ONTO THE BASE HUB.** REPEAT THIS PROCESS UNTIL LAST DISC IS INSTALLED.

PLACE TOP SEALING CAP [ITEM # 55] OVER CENTER ROD [ITEM 44] FOLLOWED WITH THE WASHER [ITEM #56] AND LOCKING NUT [ITEM #57]. TIGHTEN SECURELY 20-30 FT LBS. **THE FILTER STACK MUST BE TIGHT IN ORDER TO PREVENT BYPASSING THE FILTER MEDIA.**

REPLACE FILTER CHAMBER COVER [ITEM #58] TIGHTEN THE COVER BOLTS [ITEM #67] EVENLY TO 65 FT-LBS MINIMUM. FILTER IS NOW READY TO BE PRE-COATED AS EXPLAINED IN SECTION #5.

IMPORTANT ALWAYS TIGHTEN & LOOSEN COVER BOLTS EVENLY AS YOU WOULD AN AUTOMOBILE WHEEL. FAILURE TO DO THIS WILL

IMPORTANT

DO NOT INTRODUCE ALL THE FILTER AID NEEDED AT ONE TIME. BUT RATHER SPLIT THIS AMOUNT INTO SMALL PARTS ADDING UNTIL THE RECOMMENDED AMOUNT HAS BEEN APPLIED, THIS WILL ASSURE AN EVEN PRECOAT OVER ALL THE FILTER PLATES, ALSO WHEN ADDING CARBON ADD EQUAL AMOUNTS OF FILTER AID TO KEEP THE CARBON FROM PLUGGING THE FILTER CAKE. THE ADDITION OF POWERED CARBON IS FOR ABSORPTION OF ORGANICS NOT AS A FILTER AID.

THE SLURRY TANK PROVIDED WITH THE FILTER IS TO SIMPLIFY THE ADDITION OF PRECOATING MATERIALS.

TO PRECOAT THE FILTER SET THE VALVES NUMBERS 1 & 2 TO OPEN AND VALVES NUMBER 4 & 5 TO CLOSED POSITION. THROTTLE VALVE #3 TO ALMOST CLOSED, AS THIS WILL SLOW THE FLOW ACROSS THE FILTER PLATES ALLOWING THE FILTER AID TO DISTRIBUTE EVENLY. THIS WILL ALSO ALLOW THE FILTER CHAMBER TO FILL SLOWLY PREVENTING THE FILTER PAPERS

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES

FROM LIFTING DURING THE FILLING PROCEDURE. START PUMP. LIQUID IS NOW PUMPING FROM THE SLURRY TANK INTO THE FILTER CHAMBER THEN BACK TO THE SLURRY TANK. OPEN VALVE #7 TO VENT AIR TRAPPED IN THE FILTER CHAMBER THIS MAY TAKE SEVERAL MINUETS AS THE CHAMBERS FILLS. CLOSE VALVE #7 AFTER HOSE RUNS CLEAR OF ALL AIR. SLOWLY ADD THE FILTER AID MATERIAL IN SMALL AMOUNTS UNTIL THE RECOMMENDED AMOUNT HAS BEEN USED. THIS RECIRCULATING MODE MUST CONTINUE UNTIL THE LIQUID IN THE SLURRY TANK IS CLEAR OF PRECOAT MATERIAL INDICATING THAT ALL THE FILTER AID HAS BEEN DEPOSITED ONTO THE FILTER PLATES. WHEN ADDING POWERED CARBON IT IS VERY IMPORTANT THAT A GOOD CAKE OF FILTER AID IS APPLIED TO THE FILTER PLATES FIRST OTHERWISE THE CARBON CAN PASS THOUGH THE FILTER MEDIA.

WHEN THE SLURRY RUNS CLEAR OF ALL FILTER AID AND CARBON OPEN VALVE #3 TO FULL OPEN POSITION.

THE LAST STEP IN THE PRECOATING PROCEDURE IS TO TAKE A SAMPLE FROM THE SLURRY TANK WITH A CLEAR BEAKER TO VISUALLY INSPECT THE SOLUTION FOR CLARITY.

THE FILTER CAN NOW BE PLACED ON LINE.

TIPS:

- INSPECT BASE HUB GASKET BEFORE INSTALLING FIRST FILTER PLATE.
- WET THE FILTER PAPER TO KEEP IT IN PLACE.



TIGHTEN CHAMBER COVER EVENLY

TORQUE TO 65FT LBS. RE TORQUE AFTER A FEW HOURS OF OPERATION TO PREVENT LEAKAGE.

- FILL CHAMBER SLOWLY TO PREVENT FILTER PAPER FROM LIFTING BY THROTTLING THE INLET VALVE.
- KEEP INLET VALVE TO CHAMBER THROTTLED DURING PRECOATING TO ASSURE AN EVEN PACK ACROSS ALL PLATES.
- ALWAYS ADD FILTER AID IN SMALL AMOUNTS.
- MIX POWDERED CARBON WITH FILTER AID TO KEEP THE CARBON FROM PLUGGING THE FILTER.
- VENT AIR FROM CHAMBER OFTEN DURING PRECOATING.
- ALWAYS CHECK CLARITY BEFORE PLACING FILTER BACK ON LINE.
- OPERATE VALVES SLOWLY TO PREVENT “WATER” HAMMER.
- WEAR PROTECTIVE CLOTHING, GLOVES AND EYEWEAR WHEN SERVICING THE FILTER
- ALWAYS START THE FILTER SYSTEM IN SLURRY RECIRCULATION MODE THIS WILL ASSURE THE FILTER PACK IS PROPERLY PACKED BEFORE PLACING THE FILTER ON LINE.

TO PLACE FILTER ON MAIN TANK, SET THE VALVES #5 #4 & #3 TO FULL OPEN AND VALVES #2 & #1 TO FULL CLOSED POSITION. LIQUID IS NOW PUMPING FROM THE MAIN TANK INTO THE FILTER CHAMBER THEN BACK TO THE MAIN TANK

TO PLACE FILTER ON LINE FOLLOW SEQUENCE LISTED.

STEP #1

OPEN VALVE #5 THEN CLOSE VALVE #2

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES

STEP #2

OPEN VALVE # 4 THEN CLOSE VALVE #1

STEP #3

VENT CHAMBER OF ALL AIR BY OPENING VALVE #7 UNTIL ALL AIR IS PURGED FROM CHAMBER THEN CLOSE VALVE #7.

BY OPENING VALVE # 5 AND CLOSING VALVE #2 FIRST. YOU PREVENT ANY CHANCE OF OVER FLOWING THE SLURRY TANK. HOWEVER YOU MUST QUICKLY COMPLETE THE VALVE STEP #2 TO PREVENT DRAWING AIR FROM THE SLURRY TANK WHICH COULD RESULT IN LOSS OF PRIME TO THE PUMP.

AT THIS TIME, IT IS ADVISABLE TO OPEN VALVE #1 TO DRAW DOWN THE SLURRY TANK TO THE LOWEST LEVEL POSSIBLE. IN ADDITION AS A PREVENTIVE MAINTENANCE MEASURE HOSE OFF THE EXTERIOR OF THE SYSTEM TO PREVENT CORROSION.

WHEN TO CLEAN FILTER:

THE KEY INDICATOR OF WHEN TO CHANGE THE FILTER MEDIA IS BY READING THE PRESSURE GAUGE MOUNTED ON THE CHAMBER. A PRESSURE READING OF 45-50 PSI INDICATES THAT THE FILTER MEDIA HAS BECOME LOADED WITH SOLIDS REDUCING THE FLOW ACROSS THE FILTER PLATES. ANOTHER METHOD IS A SCHEDULED TIME BETWEEN CLEANINGS. HOWEVER THERE IS A DRAWBACK TO THIS METHOD. AS EITHER THE FILTER COULD BE BLINDED WITH SOLIDS OR NOT NEED CLEANING THEREBY WASTING TIME AND MATERIALS. OUR RECOMMENDATION IS TO RELY ON THE PRESSURE GAUGE AS TO WHEN THE FILTER NEEDS CLEANING.

PREVENTIVE MAINTENANCE:

CORRECT ALL LEAKS AS SOON AS THEY OCCUR.

GREASE LIFTER ARM AND ANY MOTOR OR PUMP FITTINGS EVERY 3 MONTHS.

HOSE OFF FILTER SYSTEM WITH CLEAN WATER AFTER SERVICING.

DON'T RUN FILTER ABOVE 50 PSI FOR EXTENDED PERIODS AS THIS WILL GREATLY REDUCE PUMP LIFE.

CHECK OIL LEVEL IN PUMP BEARING FRAME REGULARLY.

APPLY ANTI SEIZE COMPOUND TO THE ROD END BOLTS TO PREVENT GALLING COMMON WITH STAINLESS STEEL.

TEST PUMP PROTECTION DEVICE IF EQUIPPED EVERY WEEK.

DO NOT USE PIPES OR VALVES AS A STEP.

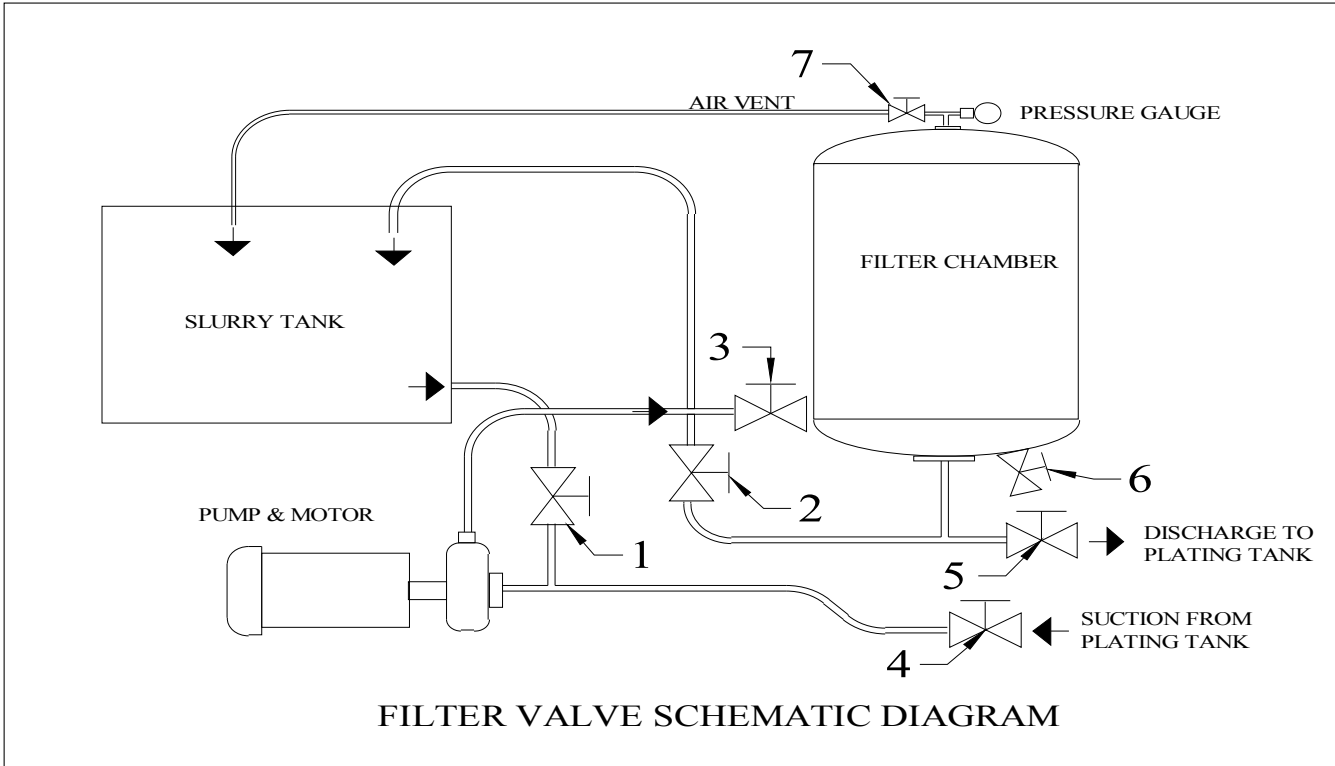
FLUSH SYSTEM WITH WATER WHEN SHUT DOWN FOR AN EXTENDED PERIOD.

IF FILTER SEEMS TO RUN AT HIGH PRESSURE AFTER CLEANING THIS MAY INDICATE THAT THE FILTER CLOTHS HAVE BECOME BLINDED. SOAKING THE PLATES IN DILUTED HYDROCHLORIC ACID WILL USUALLY REMOVE ANY BUILDUP THAT MAY HAVE OCCURRED.

SOMETIMES THE PUMP WILL BE NOISY WHEN THE FILTER IS UNDER LOW PRESSURE THIS IS USUALLY CAUSED BY LONG SUCTION LINES. BY THROTTLING THE DISCHARGE VALVE YOU CAN BRING UP THE PRESSURE TO ALLOW THE PUMP TO OPERATE IN THE CORRECT FLOW RANGE THIS WILL GREATLY EXTEND PUMP LIFE.



SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES



Filter Model		LG 12-36	LG 24-26	LG 24-36	SLX 24-20	SLX 24-30	SLX 30-30	SLX 36-30	SLX 36-40
Overall Dimensions	Width	24"	36"	36"	39"	39"	42"	48"	48"
	Length	48"	60"	60"	76"	76"	86"	96"	96"
	Height	55"	49"	59"	69"	79"	79"	76"	86"
Net Weight:		800#	1000#	1100#	1200#	1300#	1800#	2100#	2300#
Suction Port:		1.5"	1.5"	1.5"	2"	2"	3"	3"	4"
Discharge Port:		1"	1.5"	1.5"	2"	2"	3"	3"	3"
Max Open Flow Rate:		2,500	4,500	6,500	4,500	6,500	12,000	18,000	30,000
Max Pre Coated Flow Rate:		2,000	4,000	6,000	4,000	6,000	10,000	15,000	25,000
Filter Area:		11.5	22.75	38.75	22.75	38.75	57.2	114	148
Number of Filter Plates:		21 (10")	10 (22")	16 (22")	10 (22")	16 (22")	16 (27")	21 (33")	27 (33")
Filter Aid Capacity: 3o/z sq ft		2.25#	4.2#	7.1#	4.2#	7.1#	10.6#	16.1#	21.1#
Carbon Capacity: 1/2 oz sq ft		.75#	1#	1.25#	1#	1.25#	1.75#	2.6#	3.5#
Filter Media:*		(21) 10" Dia	(10) 20.5" Dia	(16) 20.5" Dia	(10) 20.5" Dia	(16) 20.5" Dia	(16) 25.5" Dia	(21) 31.25" Dia	(27) 31.25" Dia
* Number of media varies with micron rating		** SLX 42-30 Discontinued Jan 2003							



NODE PRODUCTS COMPANY, INC.

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES



NODE PRODUCTS COMPANY, INC.

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES

WARRANTY

ANODE PRODUCTS COMPANY, INC. WARRANTIES THE SLIM-LINE & LI'L GUY FILTRATION SYSTEMS FOR A PERIOD OF ONE YEAR AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP. UPON INSPECTION, WE WILL REPAIR OR REPLACE AT OUR FACTORY ANY PART FOUND TO BE DEFECTIVE. IF DEFECT IS CAUSED BY NEGLIGENCE OR MISUSE, BUYER SHALL PAY COSTS INCURRED.

UNDER THE TERMS OF OUR WARRANTY, WE DO NOT ACCEPT RESPONSIBILITY FOR THE SPOILAGE OF MATERIAL OR OTHER LOSSES WHICH MAY RESULT FROM THE OPERATION OF THIS EQUIPMENT, OR ITS IMPROPER USE, INCLUDING IMPROPER INSTALLATION. FURTHER NOTE, ANY MODIFICATIONS MADE TO THIS SYSTEM WITHOUT PROPER CONSENT FROM ANODE PRODUCTS COMPANY, INC. WILL NULLIFY THIS WARRANTY.

This warranty does not cover the pump or pump seal (see pump manufacturer warranty).

Please contact the trucking company if there has been any damage to the unit in shipping.



NODE PRODUCTS COMPANY, INC.

SLIM LINE INSTRUCTION MANUAL SLX & LG SERIES