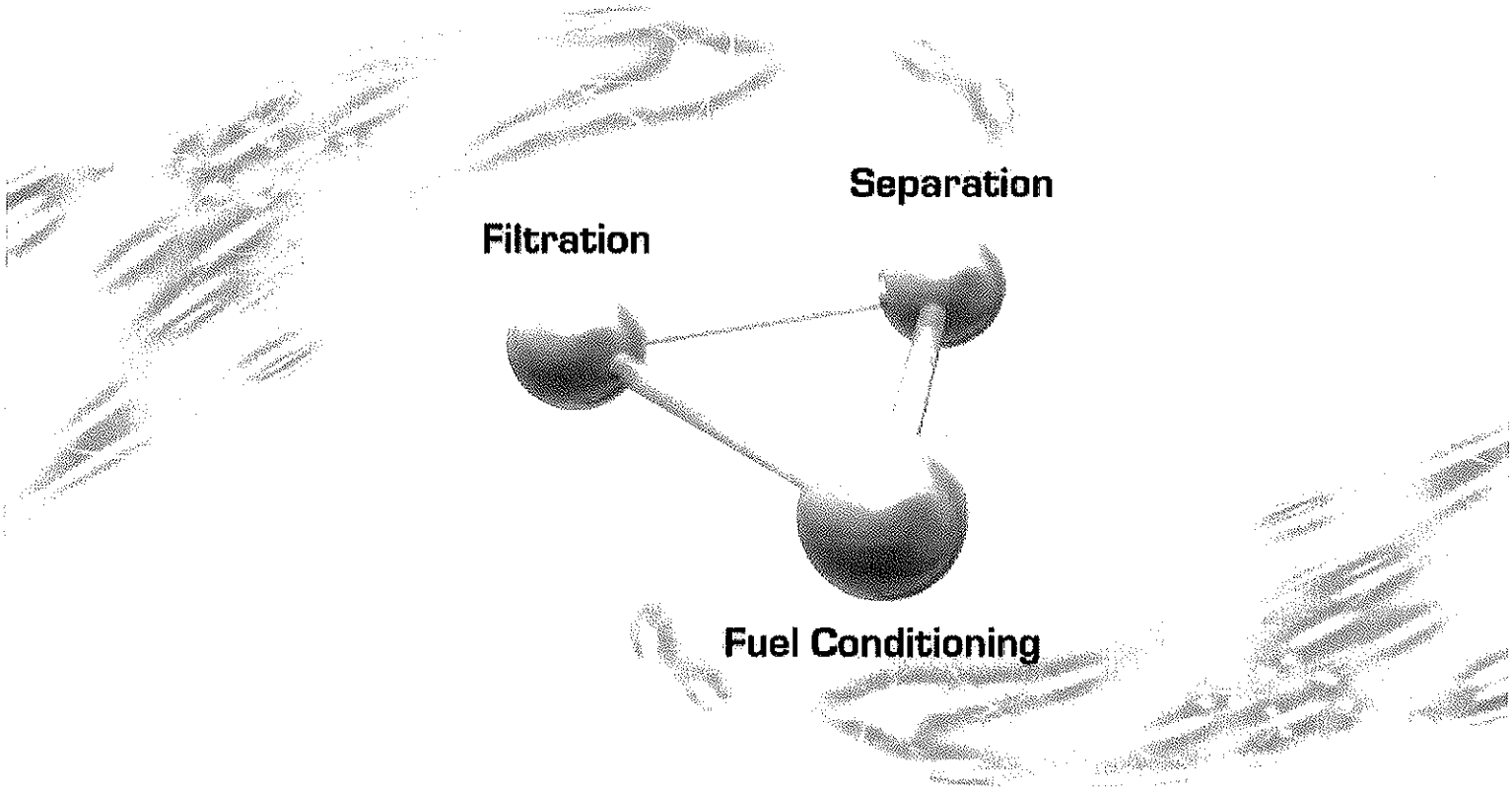
ALGAE-X International

Fuel Optimization

Systems & Equipment Catalogue



Optimal Fuel Quality

Reliable Power Supply

Keeps the Lights On

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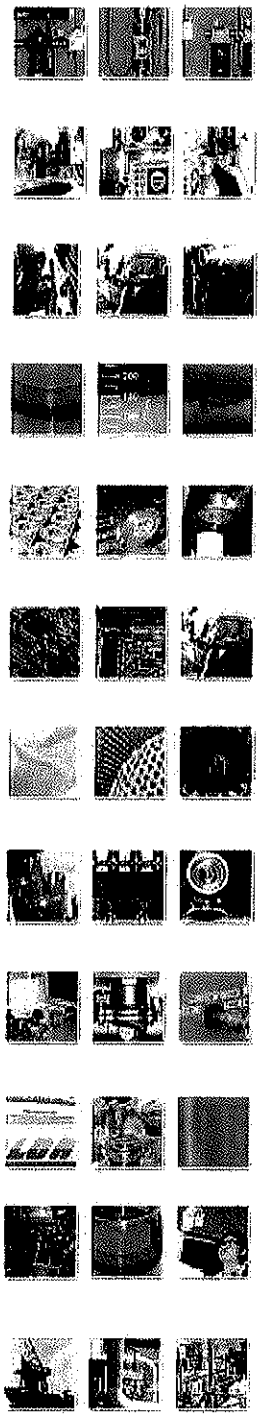


When the Lights Go Out...
...it's Too Late to Clean Your Tanks

Most Emergency Power and Engine Performance failures start in the Fuel Tank and are caused by the inherent instability of fuel.

Fuel degradation is a natural process that causes the formation of sediment, tank sludge and acid. It starts at the refinery and continues until the fuel has been used. Heat, pressure, temperature changes, water and microbial contamination accelerate the fuel breakdown process.

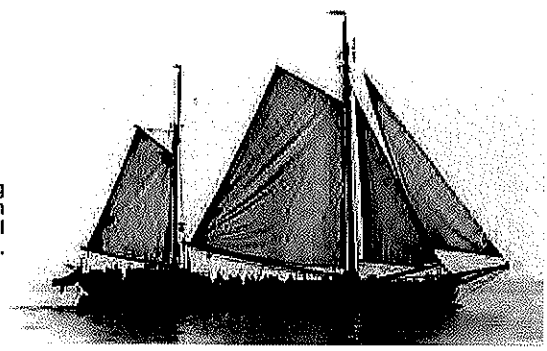
The mandated use of biofuels has caused a dramatic increase in fuel re-polymerization. This is causing rampant filter plugging, fuel injection system failures and a significant reduction of stored fuel shelf life.

Advancements in engine and injection system design demand perfect fuel. However, changes in fuel production methods combined with the use of biofuels are seriously endangering engine performance and the reliability of critical power. Traditionally, the solution has been to periodically replace stored fuel and clean tanks. This is a very expensive and partial solution at best.

AXI provides equipment based on its unique and innovative approach to fuel quality optimization, maintenance and tank cleaning to improve the stability, filtration and combustion of fuel.

Implementing **AXI**'s Green Clean Certified® equipment and fuel maintenance programs will eliminate the need for periodically cleaning tanks and replacing fuel. Optimizing and maintaining fuel quality preserves its integrity. It extends filter change intervals, protects engines and injection systems and reduces harmful emissions.

AXI Fuel Quality Optimization, Maintenance & Tank Cleaning provide Reliability and Protection of Engines & Turbines far beyond traditional filtration & separation.



AXI's heritage started on board a 104-year-old traditional Dutch sailing vessel with the inspiration to offer the market a new perspective on resolving performance & reliability problems associated with fuel filtration, critical equipment failures and downtime.

STS
Automated Fuel Filtration Systems



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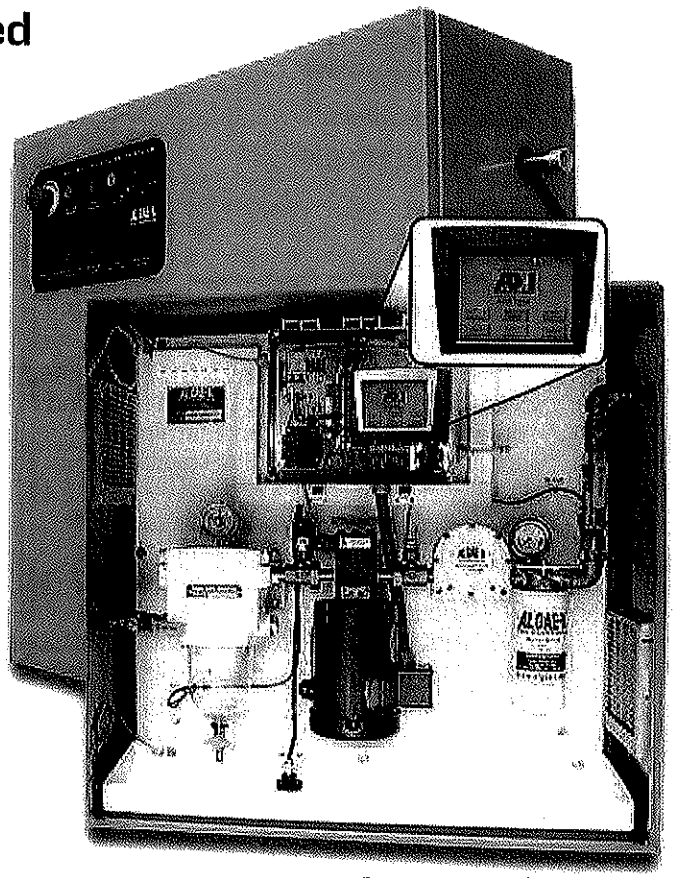
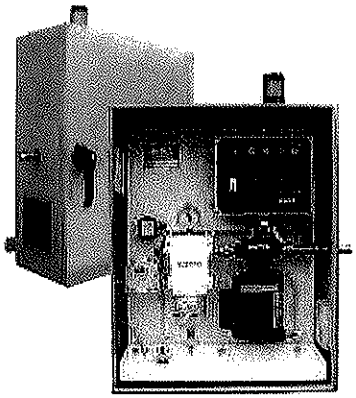
Programmable Automated Fuel Filtration Systems

STS 7000 Series Programmable Automated Fuel Filtration Systems are self-contained, stand-alone systems that remove and prevent the buildup of water, sludge and contaminants in fuel systems.

The STS Series is equipped with remote-ready, programmable Touch Screen Controllers to seamlessly integrate with building management systems. Installed in a "Fuel Dialysis Loop," STS Systems stabilize the fuel, eliminate microbial contamination and permanently preserve fuel integrity to assure peak engine performance and reliable power whenever it is needed.



- UL 508a Touch Screen Controller
- Modbus, TCP/IP, LAN and Internet Connectivity
- E-mail & SMS Maintenance Alerts
- Multiple Tank Functionality
- On-Screen Help
- NEMA Certified Powder Coated Cabinet
- Continuous Duty Pump with Viton Seals
- Stainless Steel Plumbing
- Stand Alone, Reliable & Turn-Key



STS 6000-SX

STS 6000-SX

Flow Rate	150 GPH
Primary Filter/Water Separator	10 or 30 µ Fine Filter or 60 µ Stainless Steel Screen
Fuel Conditioner	LG-X 500
Smart Filtration Controller	SFC-50
Pump	Continuous Duty Internal Gear Pump
Power	110V 60Hz 15A or 230V 50Hz 15A
Plumbing	Stainless Steel
Ports	In 3/4" NPT Out 1/2" NPT
Weatherproof Cabinet	NEMA 12, 13, 4 Powder Coat or Stainless
Dimensions	35" x 24" x 10" (89 x 61 x 25 cm)
Weight	≈ 135 lbs

The STS-6000 and STS 7000 Series are equipped with different Smart Filtration Controllers (SFC)

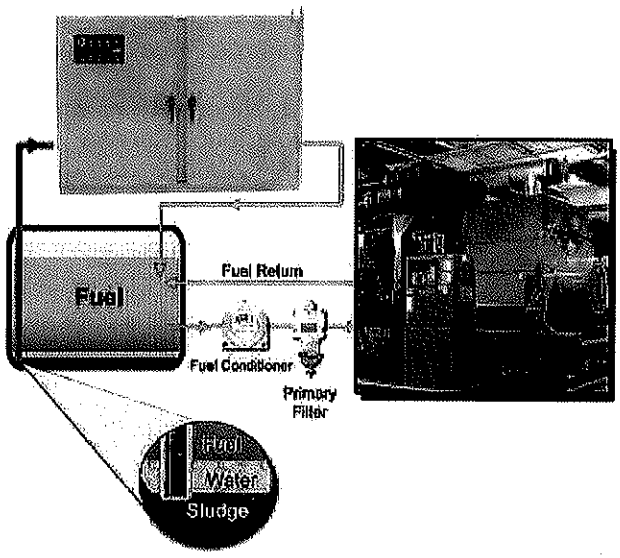


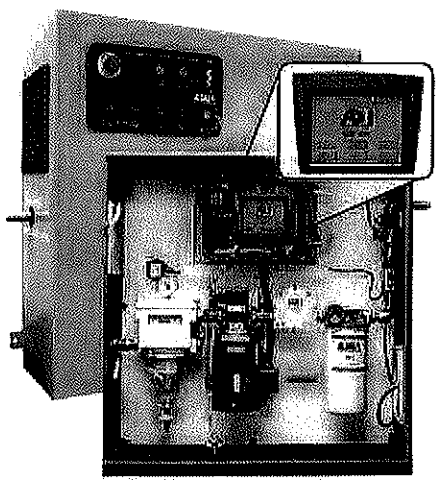
STS-6000 Systems feature a PLC based controller with unique safety, alarm and monitoring functions for seamless integration with BMS/BAS systems.



STS-7000 Systems are equipped with an HMI, Touch Screen SFC-70 Smart Filtration Controller with Modbus, TCP/IP, LAN and Internet connectivity for E-mail & SMS maintenance alerts providing intuitive setup, control and monitoring from remote locations.

See page 21 for details.



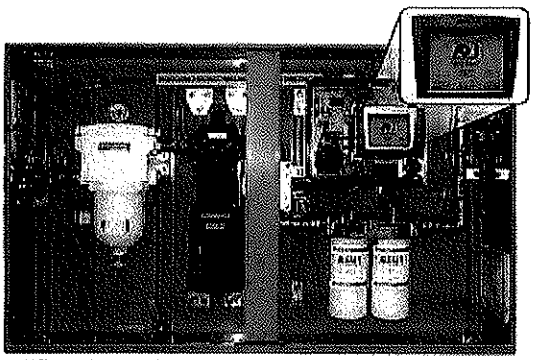


STS 7004

STS 7004

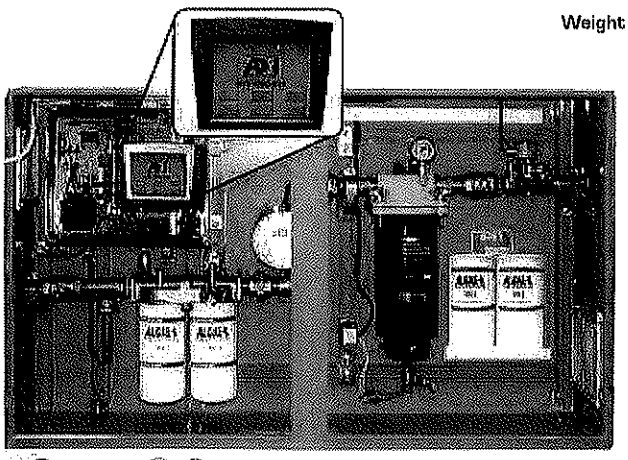
Flow Rate	4 GPM
Primary Filter/Water Separator	10 or 30 µ Fine Filter or 60 µ Stainless Screen
Secondary Filter/ Water Separator	1, 3, 10 or 25 µ Particulate or 3, 10 µ Water Block
Fuel Conditioner	LG-X 1500
Smart Filtration Controller	HMI PLC Controller with Touch Screen and remote monitoring
Pump	Continuous Duty Internal Gear Pump
Power	110V 60Hz 15A or 230V 50Hz 15A
Plumbing	Stainless Steel
Ports	3/4" NPT In/Out
Weatherproof Cabinet	NEMA 12, 13, 4 Powder Coat or Stainless
Dimensions	36" x 36" x 12" (91 x 91 x 30 cm)
Weight	≈ 200 lbs

µ = Microns



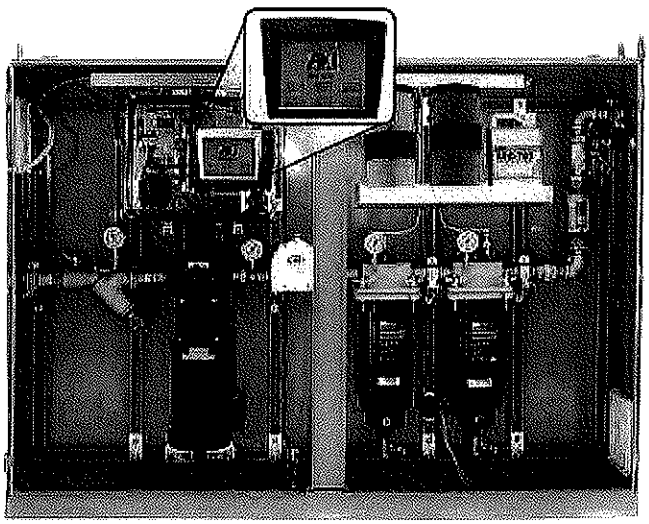
STS 7010

	STS 7010	STS 7010-2T
Flow Rate	10 GPM	10 GPM for Two Tanks
Primary Filter/Water Separator/ Coalescer	10 or 30 µ Fine Filter or 60 µ Stainless Screen	10 or 30 µ Fine Filter or 60 µ Stainless Screen
Secondary Filter/ Water Block	10 µ Fine Filter or 3 µ Water block	1, 3, 10 or 25 µ Particulate or 3, 10 µ Water Block
Fuel Conditioner	LG-X 3000	LG-X 3000
Smart Filtration Controller	HMI PLC Controller with Touch Screen and remote monitoring	HMI PLC Controller with Touch Screen and remote monitoring
Actuators & Solenoids	N/A	NEMA 4X, internal low power heater 24V DC
Pump	Continuous Duty Internal Gear Pump	Continuous Duty Internal Gear Pump
Power	110V 60Hz 20A or 230V 50Hz 15A	110V 60Hz 20A or 230V 50Hz 15A
Plumbing	Stainless Steel	Stainless Steel
Ports	1" NPT In/Out	1" NPT In/Out
Weatherproof Cabinet	NEMA 12, 13, 4 Powder Coat or Stainless	NEMA 12, 13, 4 Powder Coat or Stainless
Dimensions	37" x 60" x 12" (94 x 152 x 30 cm)	37" x 82" x 12" (94 x 208 x 30 cm)
Weight	≈ 400 lbs	≈ 400 lbs



STS 7000-P35

	STS 7000-P35
Flow Rate	Up to 35 GPM utilizing submersible pumps
Primary Filter/Water Block/ Coalescer	1, 5, 10 or 25 µ Particulate, Water Block or Coalescing
Secondary Filter/Water Block	Dual 1, 3, 10 or 25 µ Particulate
Fuel Conditioner	LG-X 4000
Smart Filtration Controller	HMI PLC Controller with Touch Screen and remote monitoring
Pump	Utilizes Existing Tank Pump
Power	120V 60Hz 20A
Plumbing	Stainless Steel
Ports	1.5" NPT In/Out
Weatherproof Cabinet	NEMA 12, 13, 4 Powder Coat or Stainless
Dimensions	42" x 68" x 14" (107 x 176 x 36 cm)
Weight	≈ 400 lbs



STS 7030

	STS 7030
Flow Rate	30 GPM
Primary Filter/Water Separator	1, 5, 10 or 25 µ Particulate or Coalescing
Secondary Filter/Water Block/ Coalescer	1, 5, 10 or 25 µ Particulate or Water Block
Fuel Conditioner	LG-X 4000
Smart Filtration Controller	HMI PLC Controller with Touch Screen and remote monitoring
Pump	Continuous Duty Internal Gear Pump
Power	208-230V 60Hz 20A or 230V 50Hz 15A
Plumbing	Stainless Steel
Ports	In 2" NPT Out 1.5" NPT
Weatherproof Cabinet	NEMA 12, 13, 4 Powder Coat or Stainless
Dimensions	56" x 72" x 17" (142 x 183 x 43 cm)
Weight	≈ 690 lbs

µ = Microns