

INTRODUCING



A MORE SUSTAINABLE APPROACH TO HVAC SYSTEM OPERATION AND MAINTENANCE

Traditional HVAC and process loop maintenance requires significant energy and chemical inputs to preserve efficient system operation. Griswold Water Systems' GreenLine family of products is working to change that. Our GreenLine family of products are complimentary and work together to:

- create significant energy savings compared to the traditional industry approach
- create water savings and enable reuse of water onsite
- eliminate or reduce toxic chemical discharge
- monitor system operation and communicate problems to eliminate operational failures and system upsets
- significantly improve bottom line operational savings with no significant capital cost outlay over traditional industry products

Yes, we still make our industry competitive products to meet existing specifications. But we'd rather lead the charge of environmentally and fiscally responsible innovation. That's why our GreenLine family of products costs the same as our standard products – but provide advanced operational cost savings for the customer. In this spirit, we're working to create win/win results. What's good for your bottom line can also be good for the planet.

ENERGY SAVINGS OF GREENLINE SYSTEMS COMPARED TO INDUSTRY TRADITION

Tons	200	500	1,000
Full Flow GPM	600	1,500	3,000
Side Stream GPM (12%)	72	180	360
Greenline TSS Annual Savings	\$ 2,340	\$ 4,195	\$ 7,359
2 Years (\$0.12 / KWhr)	\$ 4,680	\$ 8,390	\$ 14,718
5 Years	\$ 11,700	\$ 20,975	\$ 36,795
10 Years	\$ 23,400	\$ 41,950	\$ 73,590
15 Years	\$ 35,100	\$ 62,925	\$ 110,385
20 Years	\$ 46,800	\$ 83,900	\$ 147,180
Greenline GLS Annual Savings	\$ 2,283	\$ 3,971	\$ 7,148
2 Years	\$ 4,566	\$ 7,942	\$ 14,296
5 Years	\$ 11,415	\$ 19,855	\$ 35,740
10 Years	\$ 22,830	\$ 39,710	\$ 71,480
15 Years	\$ 34,245	\$ 59,565	\$ 107,220
20 Years	\$ 45,660	\$ 79,420	\$ 142,960

The traditional industry approach to creating clean water in HVAC and process loops focuses on a combination of chemical injection and high head filtration. Griswold Water Systems believes we should expand the focus of clean water in the 21st century to include environmental and fiscal imperatives. Our GreenLine family of products is designed to do precisely that: save significant amounts of money, energy, and water and reduce our environmental impact. The application guide below shows how you can use Griswold Water Systems' family of GreenLine approved products to lower your operating costs and minimize our environmental impact:

- ✓ Use Griswold Water Systems GreenLine low head sweeper system instead of industry standard eductors or nozzles for energy savings.
- ✓ Use Griswold GreenLine low head separators for energy savings
- ✓ Use Griswold GreenLine low head separators instead of sand filters for water, energy, weight, and cost savings.

over for more -->

applications guidelines continued

- ✓ Install your GreenLine separator system adjacent to the cooling tower basin to reduce energy consumption.
- ✓ Use our GreenLine Wave™ for water treatment in recirculation lines and for scale control in single pass applications to reduce chemical discharge into the environment
- ✓ Use our GreenLine Tower Sentry Monitor to eliminate operational system upsets between service calls. Because open loop cooling systems are subject to operational problems between service calls, a TSM avoids system upsets by communicate real-time with a service professional.
- ✓ Use our GreenLine standard automatic filter purge systems on open loops instead of recovery tanks with bag filters that need frequent maintenance. Bag filters that are cleaned out and reused require more labor, introduce more downtime, are worse for the environment because of manufacturing, shipment, and disposal of bags, and require the stocking of parts.
- ✓ Use our GreenLine Wave™ system to allow for onsite water re-use and enhanced water savings through higher cycles of concentration and the elimination of sewer discharge fees. Water reuse is subject to makeup water quality and local environmental regulations.
- ✓ Consult factory for complicated installations and possible rainwater reuse systems.



LOOK FOR THIS LOGO ON OUR GREENLINE PRODUCTS.

OUR GREENLINE FAMILY OF PRODUCTS INCLUDE THE FOLLOWING:



WAVE™

SUSTAINABLE WATER TREATMENT

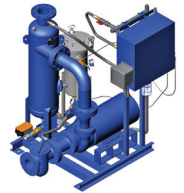
- Reduce water consumption
- Reuse water
- Eliminate discharge of toxic chemical to Environment
- Obtain LEED credit



GREENLINE SEPARATOR SYSTEMS

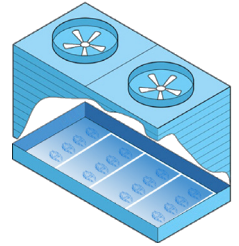
EFFICIENT HVAC AND PROCESS LOOP FILTRATION

- Eliminate/reduce sediment build up
- Enhance tower cleanliness
- Reduce legionella liability
- Experience significant, bottom-line energy savings over life of product compared to industry standard products



GREENLINE SWEEPER SYSTEM

- Cooling equipment basin sweeper jets
- Improved sweeping capacity
- Enables more efficient flow
- Prebuilt components save contractor labor
- Easier to maintain and subject to fewer clogs
- Lower power requirement



TOWER SENTRY MONITOR

INEXPENSIVE REMOTE MONITORING OF TOWER PERFORMANCE

- Communicate multiple data streams including conductivity, flow, pH, etc. wirelessly and remotely
- Eliminate system upsets due to operational error
- Extend run-time and address operational problems before they create bigger problems



TOWER SENTRY SYSTEM

COMPLETE WATER TREATMENT AND FILTRATION PACKAGE INCLUDES:

GreenLine Separator, Wave™ Water Treatment System, Conductivity Control, Tower Sentry Monitor, and more.

- Packaged system option provides single point, accessible, comprehensive solution for water treatment, filtration, and conductivity control
- Completely engineered product for site specific application
- Excellent return-on-investment



PROPOSALS & ENGINEERING

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