

## **Clean and Green Energy Savings**

Scale Removal, Prevention & **Control for Water Systems** 

Innovative Scale Control Technology for Heat Exchangers, Boilers, Condensers, HVAC Systems, Humidifiers, etc.

#### Scale Buildup Costs Money\* Fuel Money wasted Scale Thickness wasted 1/8" +25% \$17,027 \$27,244 1/4" +40% 1/2" +70% \$47,677

Millions of dollars in extra fuel costs are wasted each year due to mineral scale deposit buildup.

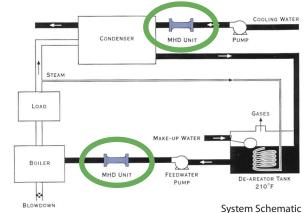
These rock-hard deposits increase fuel costs, repair and maintenance expenditures and equipment downtime. Excessive scale buildup can increase the possibility of pipe ruptures, equipment failure and even explosions.

#### A Better Alternative To Chemical Treatment

MHD units are self-powered by a permanent magnetic field treating the fluid to prevent scale buildup and remove existing scale downstream.

MHD systems are compact, require no external power sources and no maintenance. They have no moving parts, and can be custom built to virtually any size, to meet the needs of any fluid process or operation.

Magnetohydrodynamics is a well established science, initially demonstrated in 1839 by Michael Faraday.



- Prevents Scale Build-up
- Removes Existing Scale
- · No Use of Hazardous Chemicals
- Provides Higher Heat Transfer Capacity
- \* Annual extra fuel costs, based on a 200 HP boiler, operating 10 hours per day, 260 days per year; Natural Gas price based on \$3.11 per 1000 cubic feet (MMBTU).
  - No Moving Parts
- No Operating Costs
- Save Energy Costs
- Eliminate Pollution
- **Self-Contained Units**
- Improve Efficiency
- No Maintenance
- No Electrical Connections

### **MHD Light Commercial**



MagnetoHydroDynamic Units



**Before** 

After





Before

90 Days After

www.mhdsystems.com



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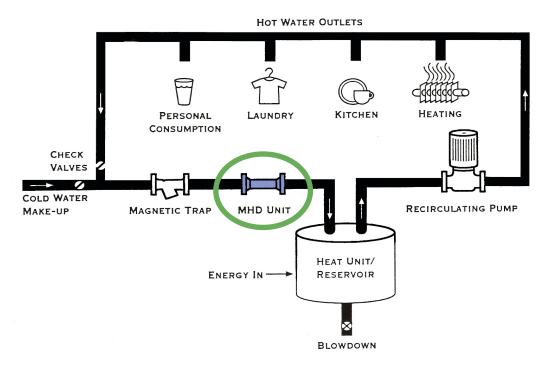
Scale Removal, Prevention & Control for Energy Savings and Longer Life

### **Fuel Costs Due to Boiler Scale:**

Test Results by U.S. Bureau of Standards

Boiler Horsepower:		100 HP	200 HP	
Annual Fuel Cost, Clean Boiler (80% efficient)		\$34,055 \$68,110		
Scale Thickness	% Extra Fuel Cost	Extra Cost:	Extra Cost:	
1/8"	+ 25%	\$8,513	\$17,027	
1/4"	1/4" + 40%		\$27,244	
1/2" + 70%		\$23,838	\$47,677	

Annual extra fuel costs are based on a boiler operating 10 hours per day, 260 days per year. Natural Gas price is based on \$3.11 per 1000 cubic feet (MMBTU).



## Sizes and Models of Light Commercial MHD Units:

Model	Diameter (inches)	Flow Rate (USGPM)	Model	Diameter (inches)	Flow Rate (USGPM)
LC-3	0.50"	3	LC-36	1.50"	36
LC-6	0.50"	6	LC-50	2.00"	50
LC-9	0.75"	9	LC-75	2.50"	75
LC-12	0.75"	12	LC-100	3.00"	100
LC-18	1.00"	18	LC-200	4.00"	200
LC-27	1.25"	27			