

**WE HAVE A HEATSPONGE  
TO FIT ANY SIZE BOILER:**

All HeatSponge models include the features that distinguish us in the market including the replaceable tube elements, condensation collection system and easy access removable panel. Standard tube materials available include SA-178 A carbon steel, 304 and 316 stainless steel and 2205 duplex stainless steel. The standard casing for our rectangular models is carbon steel and can be upgraded to full stainless steel construction. The SHORTY model includes stainless steel tubes, fins, and inner casing as a standard.



**SHORTY:**

The SHORTY represents our high value added take on the small boiler economizer market for installations under 300 HP. Since most boilers in this capacity range typically do not have deaerated feedwater and see a great deal of thermal cycling all SHORTY economizers feature stainless steel construction of the tubes, fins, and entire inner casing as a standard to provide for a maximum longevity. SHORTY units feature a patent-pending industry first replaceable helical coil design providing for economic procurement and long term maintainability.



**BOSS:**

The BOSS is the base model rectangular HeatSponge. The BOSS was designed to optimize performance and capital cost in the firetube boiler capacity range.



**MAGNUM:**

The MAGNUM is the intermediate size HeatSponge. Selection of this model provides higher energy savings than a BOSS. Selection of this model provides better heat recovery than a BOSS but at a lower price than a SUPER unit.



**SUPER:**

The SUPER provides for a highest heat recovery in most boiler applications.



**TITAN:**

The TITAN is for extremely large industrial boilers.

Boilerroom Equipment, Inc. also offers the EXTREME model. This is a custom-engineered design for extremely industrial large boilers. This design features larger tubes and is custom selected on a project basis. Contact your local representative for assistance on selecting a HeatSponge EXTREME.

HEAT SPONGE ECONOMIZER IS ENGINEERED AND MANUFACTURED BY: BOILERROOM EQUIPMENT, INC.  
**1-866-666-8977**

Visit us online at [www.heat.sponge.com](http://www.heat.sponge.com) where you can calculate your savings and find more information.

# HeatSponge

by Boilerroom Equipment, Inc.

## Economizers Designed to Outlive Your Boiler



**HIGH-VALUE-ADDED  
HIGH PERFORMANCE  
HEAT RECOVERY SYSTEMS**

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## High fuel prices are here to stay. HeatSponge Economizers save you money.

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[HeatSponge.com](http://HeatSponge.com)

High energy prices have fundamentally changed the economics of boiler heat recovery. The HeatSponge economizer was custom designed from a clean sheet of paper to address the realities of modern boiler operation and economics. Over two years of R&D was invested in the development of the core design. The end result is the HeatSponge, designed to be the most advanced economizer offered in the industry featuring the highest levels application flexibility as well as long term maintainability. The state-of-the-art HeatSponge has made older and non-repairable economizer designs obsolete.

**What Is An Economizer?**

An economizer is a heat exchanger designed to recover wasted energy in a gas stream and transfer that energy into a liquid stream. In a boiler application it recovers energy from flue gases and transfers it into boiler feedwater or some other liquid stream.

**What is a High-Value-Added Design?**

The high-value-added design refers to features engineered into all HeatSponge economizers to address issues that were

problematic for older designs. These features are as follows:

**Individually replaceable tubes:** All industrial machinery encounters issues through its operational life. Tube failure is the single biggest concern of any economizer. The HeatSponge was designed to provide for fast and inexpensive tube replacement with no requirement for welders. Our unique tube element connects to the water headers via a conventional compression fitting. Replacement of a failed element consist of simply removing the bolted rear access door, breaking the two compression fittings, removing the failed element, and installing the new one in its place. Most tube repairs can be accomplished with site maintenance personnel usually in less than an hour or two.

**Rugged and Advanced Casing Design:** All HeatSponges feature a condensation collection system in the lower section of the unit. This system collects and drains water from inside the unit before it can enter the boiler potentially causing damage. All HeatSponges are supplied as a fully insulated single piece unit and are manufactured to rugged standards. The rear door can be removed providing access

to the inside of the unit for easy routine cleaning and inspection.

**Flexibility in Application:** HeatSponges can be supplied with a wide variety of tube and casing metallurgies allowing the core design to be utilized in applications ranging from conventional deaerated boiler feedwater heating to full condensing applications. HeatSponge offers the flexibility to tailor the economizer to the application and not the other way around as had been the norm in the industry for decades.

**Two-Stage Economizers:**

HeatSponge offers two-stage economizers designed to heat two separate water streams. A common example of a two-stage application would be a boiler with 100% make-up water. The first stage preheats boiler feedwater and the second stage would use the heat exhausting from the first stage to preheat the make-up water. Efficiency gains of 6% to 10% or even greater are possible depending on the amount of cold water available. Two-stage economizers are equally suited for new or retrofit applications. This technology is the heart of a new generation of high-efficiency steam boilers.

**Meet Bruce, your On-Line Sales Engineer:**

We were not satisfied with simply having the most advanced product available, we wanted to revolutionize an entire industry. We wanted to take the process of evaluating an economizer out of a sales engineer's cubicle and provide that power to anyone in the industry. This was the reason we created "Bruce", one of the most sophisticated and powerful computer systems ever developed. An internet-based program, Bruce provides his services on-line and in real-time. Bruce can evaluate an application, provide a recommended HeatSponge selection including part-load performance and a savings analysis, options recommendations, and when the user is satisfied Bruce will email them a full proposal including pricing, performance, recommend piping diagrams, cut sheets, and even unit pictures. Bruce can evaluate and design HeatSponges for conventional applications as well as partial condensing and even external full condensing units. Bruce has reduced an evaluation and quotation process that took hours at best and days on average to mere minutes.

[www.heat.sponge.com](http://www.heat.sponge.com)

**A HeatSponge can save you 3%-8% on your fuel bill for the life of your boiler.**