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Currents

a newsletter for plumbing and hydronic heating professionals

Fall 2009

GREEN BUILD

Greenbuild 2009 is the place to go and learn how green can **GROW** your business. This year's expo hall in Phoenix, Arizona boasts 1,800 exhibit booths showcasing the latest in innovative products and services. Visit Lochinvar at booth 405, November 10-12, to see how we are committed to our environment.



ASHRAE
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East Coast Contractor Modernizes HVAC System for Modern Group Ltd.

When Modern Group Ltd, a privately owned distributor of material handling, construction and maintenance products in the Mid-Atlantic region, decided to improve energy efficiency at their world headquarters in Bristol, PA, facilities manager Joe Dutco approached area plumbing and heating expert K.E. Seifert, Inc. for a solution.

Having grown frustrated with high operating costs, lost revenues and maintenance problems, Dutco tasked Bob Pietrangelo and his staff at K.E. Seifert with updating the HVAC system for Modern Group's 65,000 square-foot facility, which houses both offices and warehouse space.

Upon inspection, Pietrangelo and his team learned that the building was heated by a 40-year old, 1.8 million Btu/hr boiler that had been previously converted from oil to gas. Always running, the boiler featured a 1,000-foot, three-inch constant loop of heated water. Heat was provided by a combination of hydro coils and unregulated baseboard and electric heaters. This aging system resulted in a lack of individual zone control, failing equipment and incredibly inefficient heating and cooling.

Though the original assignment given to K.E. Seifert simply involved replacing the equipment for energy efficiency based on engineer-generated specifications, Pietrangelo and the team changed the entire scope of the job after examining the existing design and listening to the client's wish list of comfort requirements.

They redesigned the entire HVAC system, properly calculating load requirements, providing individual area controls and installing Lochinvar® KNIGHT® Heating Boilers for energy-efficient heating.

From Retrofit To Redesign

To ensure energy efficiency and customer satisfaction, the K.E. Seifert team completely redesigned the system by eliminating almost all of the existing piping and splitting it into zones with indi-



vidual area controls for better control and efficiency. To conserve additional energy, unoccupied settings were also utilized.

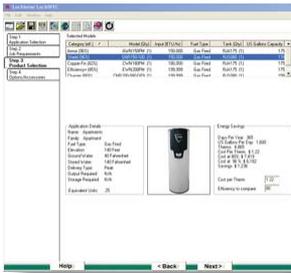
Where there was once a single baseboard zone for 11 offices and three other areas of the building, they installed a new baseboard circuit with 14 separate zones, each with individual controls to allow for consistent, stable temperatures throughout the building. The first and second floor air handler circuits were split up, the bathroom areas were grouped together under a separate control circuit and the lobby/atrium area was separated into its own circuit.



LochSPEC Commercial Water Heater Sizing Program



LochSPEC Commercial Water Heating Sizing Program has been re-released this fall. The updates



to the program reflect the modifications made to Lochinvar's PowerFin product line and also includes the Shield Commercial Water Heater and larger sizes of the Armor Condensing Water Heater. Lochinvar designed LochSPEC to provide the specifying engineer community with a tool to easily and accurately size Lochinvar water heating equipment for most any application. After entering hot water demand fixture counts into the program, behind-the-scenes calculations determine which of Lochinvar's extensive products most accurately match the needs specified.

This proprietary software is downloadable from Lochinvar's corporate website at www.lochinvar.com.



What is LEED?

Frequently Asked Questions Concerning the LEED Program
by Mike Juhnke, Product Program Manager



"The U.S. Green Building Council (USGBC) is a 501(c)(3) non profit composed of leaders from every sector of the building industry working to promote buildings and communities that are environmentally responsible, profitable and healthy places to live and work."

Q: What is LEED®?

A: LEED is the Leadership in Energy and Environmental Design, (LEED) Green Building Rating System™

LEED is a third party certification program and a nationally accepted benchmark for the design, construction and operation of high performance green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

Q: What Lochinvar products are LEED certified?

A: USGBC does not certify, endorse or promote any products, services or companies, nor do they track, list or report data related to products and their environmental qualities.

Q: How do I get LEED points?

A: LEED is a certification system that deals with the environmental performance of buildings based on overall characteristics of the project. They do not award credits based on the use of particular products but rather upon meeting the performance standards set forth in the rating systems. It is up to project teams to determine which products are most appropriate for credit achievement and program requirements.

Q: What are the LEED ratings?

A: Different LEED versions have varied scoring systems based on a set of required "prerequisites" and a variety of "credits". Buildings can qualify for four levels of certification:

- Certified - 26-32 points
- Silver - 33-38 points
- Gold - 39-51 points
- Platinum - 52-69 points



Q: How do I get LEED certification?

A: LEED certification is obtained after submitting an application documenting compliance with the requirements of the rating system as well as paying registration and certification fees. Certification is granted solely by the Green Building Council responsible for issuing the LEED system used on the project.

East Coast Contractor Modernizes HVAC System for Modern Group Ltd. (Continued from Pg. 1)

They eliminated the continuous perimeter three-inch supply and return and brought each zone back to a central area in the boiler room. All new piping was installed above drop ceilings.

Properly Sizing for a Perfect Solution

After discarding all of the provided design and load criteria, the K.E. Seifert team performed a proper load calculation and discovered that the true load requirement was actually 400,000 Btu/hr, or 30 percent, less than



After

what they were initially told. This revelation, coupled with Pietrangelo's experience with the Lochinvar KNIGHT Heating Boiler and knowledge of its advanced features, prompted the team to recommend two KNIGHT 399,000 Btu/hr boiler models rather than the originally specified 600,000 Btu/hr boilers recommended by a different manufacturer.

Before



"We recommended the KNIGHT Boiler for this job, as well as many other residential and commercial projects, because it is a superior product that offers the ultimate in energy efficiency," stated Pietrangelo. "Not only is the KNIGHT incredibly easy to operate, but Lochinvar provides incomparable technical support and training, and the SMART SYSTEM™ control makes troubleshooting a breeze."

Through the redesign of the HVAC system, K.E. Seifert was able to convert the boiler room at the Modern Group headquarters from a dirty, dungeon-like room to a clean, organized space that showcases the quality of the equipment and installation. Since Modern Group also sells, services and installs commercial backup generators, they are now utilizing the remainder of this area as usable showroom for their generator controls and equipment.

In terms of energy cost savings, the KNIGHT has reduced the heating bill by more than half. In November 2007, Modern Group used 87.9 ccf to heat its facility, while only 32.6 ccf were used in November 2008. Since the degree days were the same for both periods, 44 degrees, Joseph Dutko, Director Safety & Facilities for Modern Group, states, "It certainly looks like we have made the right decisions with the plumbing and heating equipment." ❄️

The result is an energy savings of 63 percent!

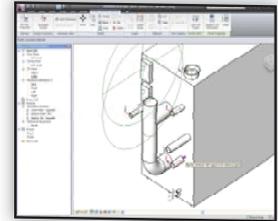


GOT A QUESTION? Email lhix@lochinvar.com
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Design with D.G.

Do you BIM? No, we're not asking "Do You Believe in Magic"? The question is...do you use Building Information Modeling?



Building Information Modeling is a new Computer Aided Design (CAD) format that allows for intelligent, 3D and parametric object-based design. BIM drawings are often called Revit drawings because of the "Revit" software package produced by Autodesk.

Used by mechanical designers, architects and more, Revit/BIM models produce photorealistic computer models of building and all the internal, mechanical equipment and connections.

In October 2009, Lochinvar placed the first group of Revit models on the Lochinvar website for free download. The first group produced is the popular SYNC boiler in all three model sizes. The next group to be produced will be the Knight boilers followed by the Shield water heaters.

In the next few months, Lochinvar will produce Revit/BIM models of all its commercial boilers, water heaters, pool heaters, storage tanks and more.

If you have Revit software, we invite you to visit the Lochinvar website and test drive the high quality SYNC Revit/BIM models. You will believe in magic. ❄️

David George is a Product Manager at Lochinvar and welcomes your questions and feedback. David can be reached via e-mail at dgeorge@lochinvar.com

discover more at:
Lochinvar.com

Lochinvar®
High Efficiency Water Heaters, Boilers and Pool Heaters
300 Maddox Simpson Parkway
Lebanon, TN 37090

ARMOR®

CONDENSING WATER HEATER



**More
Models!**



LOCHINVAR® Adds New Models To ARMOR® Water Heater Line
98% Thermally Efficient Water Heater
Now Available with Inputs up to 800,000 Btu/hr

Lochinvar Corporation is expanding its line of high-efficiency ARMOR® Water Heaters with the introduction of three new models. Now available with inputs ranging from 150,000 to 800,000 Btu/hr, the industry-leading ARMOR is the ideal choice for commercial applications of any size. Offering the same proven design and advanced technology, ARMOR features a stainless steel heat exchanger, 5:1 modulating turndown and Lochinvar's SMART SYSTEM™ operating control.

Designed to be installed with a separate storage tank, ARMOR also eliminates many potential problems encountered with traditional tank-type water heaters. Log on to www.lochinvar.com for more information about this exciting addition to Lochinvar's product offering. 