

THE US Boiler Report



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Manufacturer of Burnham® Brand Products

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THE TIME HAS COME.

K2

professionals to see what they wanted in a next-generation condensing boiler. Overwhelmingly, the response was to have a product which delivered high efficiency, but was also very simple to install and service. Last, but certainly not least, it all needed to be offered at a value price.

serves as the mounting location for the control system. While providing easy access to the heat exchanger, the door isolates the controls from the heat exchanger, while keeping them front & center for easy access.

Speaking of controls, the K2 features the same Sage2.1 Boiler Control that is used on the flagship Burnham Alpine boiler. This control system has been praised by heating professionals for its reliability, custom capabilities, and most of all, the ability to provide "out of the box" performance through factory pre-sets.

This is just scratching the surface of what this boiler offers. Shortly after Labor Day, K2 will officially launch and complete information will be posted on our website. If you would like printed literature *now*, please ask your sales representative or distributor of Burnham brand products.

US
UNMATCHED
ANYWHERE

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Putting all of that in the same package is no small feat, but we were up to the challenge.

The K2 operates at AFUEs up to 94%. and is available in five models, ranging from 80-180 MBH. It features an updated stainless steel heat exchanger which has been engineered for improved access and easier servicing. The heat exchanger is accessed via a hinged door which also

We gave a sneak preview of it at AHR in New York. We teased it in the June issue of the USBR. Now we can FINALLY show you the K2. So what's special about it?

As we've said all along, it's the boiler designed with you in mind.

We conducted exhaustive product research and interviews with heating

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U.S. Boiler Company

Radiant Gets Rapid

In the April issue of the *USBR* we looked the different types of radiant tubing on the market, from PEX to EPDM. Each has its respective strengths and weaknesses; affordability is generally sacrificed for tubing with broader application possibilities.

But the selection of tubing pales in comparison to the vast array of radiant “accessories” on the market today. Manifolds, valves, mixing blocks, heat exchangers and heat transfer plates from companies like Caleffi, Taco, Uponor, Viega and Watts offer endless installation options. Aside from increasing application possibilities, comfort and efficiency, some of the new technology really cuts installation hours.

High on the list of time-saving products are a few new radiant panel systems you might want to take a look at.

Watts SmartTrac®



The new Watts Radiant SmartTrac composite modular panel system has pre-cut grooves for three-eighths inch PE-RT or PEX tubing, and is adhered to the subfloor. The grooves are on eight-inch centers, and for areas where the standard groove pattern doesn't work, “utility panels” are available with a four-inch grid pattern. When circuits come together at the manifold the utility panels facilitate any path the tubing may need to take.

After panels are screwed and/or adhered to subflooring, tubing is pressed into the grooves and requires no adhesive, whether the panels are installed on the floor, wall, or ceiling. The system – which includes only two SKUs (standard panel and utility panel), was designed to be simple and intuitive.

“We’ve used a number of different panel and track systems for radiant jobs where pouring a slab isn’t an option,” said Ray Gircys, operations manager for Farina Corporation in Boston. “After one day of learning curve with the SmartTrack, the install *flew*.”

The panels are made of minimum 92 percent recycled content, making them CARB ULEF exempt.

Uponor Fast Trak™



Uponor’s Fast Trak panel system is used to fasten tubing to an existing floor before a concrete overpour is applied. The preformed plastic panels are covered in knobs that hold PEX tubing in place. Panels are available without insulation for 5/16” tubing or with insulation for 3/8” and 1/2” tubing.

The back side of each panel is covered in adhesive, so that it sticks to the existing subfloor until concrete is poured. Panels are installed very rapidly, and tubing is then snapped between the knobs.

Uponor also offers a modular panel system, called Quik Trak, that installs easily over a variety of subfloors, and accommodates nearly all flooring materials. The grooved plywood panels incorporate an aluminum heat emission plate for even BTU distribution across the floor.

Viega

Viega offers one of the largest selections of radiant panel products, with narrow single-groove, aluminum-backed plywood panels allowing either eight or 10-inch pipe centers. The same product is also available as a hinged assembly of six panels for speedy installation.

The company also offers two different hi-impact polystyrene grid-fastening systems for installation under a concrete slab. The uninsulated panel accommodates 1/2” PEX, while the insulated panel features R10 insulation and accommodates 3/8”, 1/2” or 5/8” tubing.

Find the right one

Regardless of manufacturer, radiant panels have found a permanent place in the market. Each product shines in the right application, depending on phase of construction, other materials used, specific heating/cooling requirements, etc. Talk with reps, attend training seminars, and generally educate yourself. You might end up finding new applications for radiant technology, or shaving a bunch of time off a project.



Do's and Don'ts for Super Sales

To make a change, be willing to drop old beliefs and actions to allow for improved thought and performance. Here are a few things to stop thinking and doing, and start thinking and doing, that will have a powerful impact on your Sales.

DO understand that you are in business for the money.

DON'T be ashamed about that.

DO base your selling price on your costs of doing business.

DON'T pay any attention to what your competitors are charging. How do you know they aren't up to their eyeballs in debt?

DO create a line item in your budget for "customer satisfaction costs." Allow 1-2% of total sales.

DO understand that the proper selling price is the first and most important step in making more money for yourself and your employees.

DON'T call me if you are convinced you can't raise prices in your neighborhood.

DO call me if you want to discuss how to do it.

DO whatever it takes to make a customer happy, even if it means giving them all their money back. If you think you are being taken advantage of, then...

DON'T work for that customer again. However, debrief every calls and study

the ones that went wrong. There is always a lesson in there.

DO spend more time asking questions than talking about you and your products.

DON'T make a sale if it isn't in the best interests of the customer.

DON'T forget what they are really buying: Time. Their time. Because of you, they don't have to spend their time worrying, wondering, calling around, shopping, or cleaning it themselves.

DO ask the customer for feedback. Send a report card, or follow up with a phone call.

DO ask for the sale every time. Then, be quiet. Not a peep until they say, "Yes," or "No." Let them think.

DO congratulate them on a good decision when they say, "Yes." And get to work.

DON'T worry when they say, "No."

DO ask if you can ask them one more question.

DO ask, "What made you say, 'No?'" and see if you can fix it.

DO feel free to say, "No" to customers who won't let you make a profit.

DON'T underestimate the power of a handshake, a smile and a sincere, "Thank you!"

DO switch to Flat Rate pricing (instead

of Time and Materials) because your customers want to know "how much" before they buy.

DO feel free to call it something other than Flat Rate. Up Front Pricing. Or Contract Pricing. Or No Surprises Pricing.

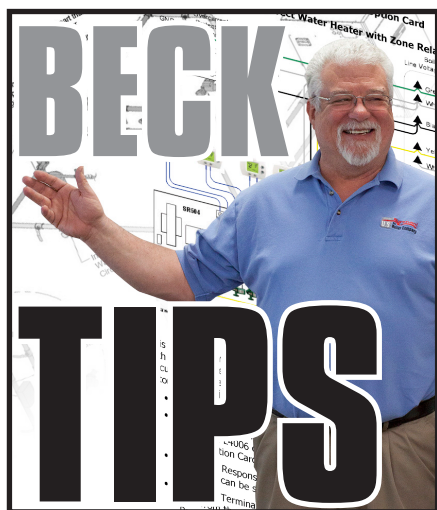
DO offer service with a smile. Look around at all the wrinkled, frowning faces in this world. Smiling is a nice thing to do. Customers will respond to it.

DO keep score in the sales game. Competition is good fun and good for you.

DO read a Zig Ziglar book. Zig is the Godfather of Sales.

DO listen to old people. You are going to be old someday, if you're lucky. And you'll want the plumber to listen to you.

A business plan can get you all on the same page! Less stress and drama, MORE MONEY! Download Ellen's free Biz Planning Video Series at: www.BareBonesBiz.com You can also find "ellenrohr" on Facebook, Twitter and Google+.



By Ron Beck,
U.S. Boiler Company

How Does ODR work?

Last month we talked about the setup parameters of the outdoor reset control. Let's pick up now where we left off, and take a deeper look into how exactly the ODR control works.

As you saw last month, it takes a number of parameters to make the ODR work well. The ODR works off of a heating curve. This curve will determine what water temperature will be sent out to the heating system on a thermostat demand. The ODR card comes with an OD air sensor and is wired to the ODR card terminals 1 & 2. The OD air sensor measures the outdoor temperature and through the parameter settings determines a system water temperature. If due to the parameter settings the system water temperature is higher than it needs to be, you do not maximize the savings and comfort. If the water temperature is too cool, the home will not be warm enough.

Again I want to reiterate that the parameters *will* work out of the box and save the customer money, but properly adjusting the parameters will maximize the savings.

There may be applications where the minimum system water temperature will be limited by an adjustable or

The Outdoor Reset Card Part 2 of 2

non-adjustable water sensor that will limit how low you can set the system water temperature. One that comes to mind would be a kickspace heater under cabinets. They usually have a water sensor to start the fan at a given temperature of maybe 130°F. You could adjust the minimum water temperature on the ODR card at the setting of that sensor. Anytime the boiler has a demand for heat, the minimum water temperature the system would see would be the minimum water temperature parameter setting on the ODR card.

The best parameter setting for maximum fuel savings is the lowest water temperature that will heat the home at any given outdoor temperature. When ODR is properly adjusted, the zones should run quite awhile. The longer the better. The biggest controlling factor here again is proper boiler sizing.

There are limitations. With the gas fired, cast iron boilers offered with the OCP to allow the ODR card, the minimum return water temperature is 110°F. Temperatures colder than this will cause flue gas condensation in the boiler flueways. In this application we must get the return water temperature above 110°F or reduce the flow through the boiler. Standard heating zones were normally designed at a 20°F delta-T. The high efficiency boilers made of stainless steel can bring back much cooler water.

Last but not least is operating ODR with night setback thermostats. They each reset in their own way. One turns down heating water temperature, the second turns down indoor air temperature. They can encounter conflicts. Too deep of a

night setback by the thermostat will take longer to recover the heat in the home when the heating system water temperature is cooler. Properly adjusted ODR curves may take hours to come up 5°F. Thermostats with what is called "Intelligent" recovery will help some here. Two options to overcome this long recovery time is less night setback or less aggressive ODR curves. The ODR will save more money and create more comfort, so I lean toward limiting night setback to 2-3 degrees and keeping stronger reset curves.

As a side note - many ODR options were disconnected during the recent arctic blast winter. If you encounter a boiler that was disconnected, it means that the ODR was never adjusted properly to begin with. A properly adjusted ODR curve will work at any OD air temperature. When your area gets to the OD design for your area the system water temperature will be at its max. Reconnect and set it up properly for next winter

Ron Beck is Outside Technical Advisor and Manager of Training for U.S. Boiler Company, where he's been since 1998. Ron's 34 years of experience in the heating industry include climbing the ranks of a HVAC company, from apprentice to service manager. Currently, he's the de-facto, go-to solution guy for contractors in the field.

Ron can be reached at: RBeck@usboiler.net or (717) 877-9738



Look for this logo to find unique features that set U.S. Boiler Company apart from the competition. It's a quick, easy way to identify a product or service our competitors don't have – like **The US Boiler Report!**



Alan, Dale Jr. & Dale Sr...three generations of the company, along with Joann who has been the company secretary for about 15 years.

"We've learned to leave work at work," said Dale Gross Sr., whose father founded Alan S. Gross Plumbing & Heating in 1975. "At the end of the day, Pops and I can still go get dinner."

The Suffolk County, NY company is now in its third generation, with Dale Jr., 26, as a project manager. The nine-employee firm focuses on plumbing and hydronic heating on Long Island. When asked what's made the business tick over the years, they'll say it's their return customers and diversification. Since Alan started the company, there hasn't been a strong focus

on any certain size or type of work. They do it all, from leaky toilets to industrial new construction.

"Nearly all our clients are return customers," said Dale Sr., VP. "You treat people right, and they'll be back. I've replaced boilers that I installed 25 years ago. The homeowners are ready for higher efficiencies, and they've stayed in touch over the years by having us come out for maintenance and small plumbing issues."

Long term relationships

One such partnership has

been in place between the Gross and King families, from the time each started out in business decades ago. John King is the owner of what is now one of the largest food distributors in the tri-state area. When he needs a new warehouse, or his daughter is building a home, Alan S. Gross gets the call. So when King built his own home earlier this year, Dale was there at the design phase.

"Gross is my go-to mechanical company because it's refreshing to work with someone who runs their business the way I run mine, with the needs of customer placed above all else."

said King. "Their work is exemplary, and it's an added benefit that they're qualified to do both commercial and residential work."

"Who builds a multi-million dollar house in less than eight months? King does," said Gross. "The big challenge was simply keeping up with the pace of construction." To get the ball rolling, Gross enlisted the help of Venco's engineering department. The manufacturer's rep firm has four full-time design staff to help design systems for installers.

After the plans were

— Continues, see "Generations", page 6

—“Generations”, continued

approved, it was a non-stop whirlwind of work at the jobsite. Upstairs, 13 zones of 5/8-inch PEX in gypcrete thin-slab provide heat to the living space. Downstairs, Gross took advantage of the home's slab-on-grade construction and put 13 zones in the home's insulated slab. Three hydronic fan coils provide full back-up.

“Since it's a big place, there are interior rooms that have a significantly lower heat-loss than rooms around the perimeter,” said Gross. “When he did the radiant layout, Serge Lemite, at Venco, accommodated varying heat loads and floor coverings by changing the width of the PEX centers in different rooms.”

To heat the modern farmhouse-style home, Gross installed two natural gas-fired Burnham brand Alpine 210s in a lead-lag configuration, with a 100-gallon DHW sidearm tank for the seven bathrooms. Twinning the boilers in this fashion effectively gives the system a 10-1 turn-down. Because the home is built on the banks of the Connetquot River, the boilers and water heater are placed on blocks.

“I like the Alpine because it offers everything that other mod-cons do, but in my opinion it's more user-friendly,” said Gross. “And it seems that it's always getting easier to install and service. US Boiler does a good job of listening to the people who are out here installing their products.”

Unique solution

The King's project began in October of 2012, and it wasn't long until the structure was under roof. PEX was installed both upstairs and down by the time the windows were covered for winter. The boilers had yet to be installed, but work inside didn't halt for the cold weather. To protect components and keep workers warm, Gross had a temporary heating solution.

“We heated the first-floor slab with an electric water heater,” said Gross. “There wasn't much control at that point, but by pumping through that tank, we were able to keep the home warm enough for all the sub-contractors to continue working.” A glycol solution kept the in-slab pipe safe regardless of whether or not the tank was running.

The right representation

“The King residence is the perfect example of why we use Burnham brand products,” continued Gross. “Having Venco's help with the elaborate radiant layout was a huge advantage. I use Burnham brand boilers because I think they're the best, but if there ever is an equipment problem, I know Venco and the technical staff at U.S. Boiler have my back, and the system will be up and running quickly. That's especially important when I've given my word to a long standing customer, like King.”

“I remember a mid-winter job years ago, when I was installing a big 9-Series



The two Alpine boilers at the King residence are elevated on cinder blocks because of the home's proximity to the river.



(L-R) Joey, Mike, Dale Sr., Alan, Chuck (Alan's Brother), Dale Jr., Alex



boiler in a public building,” said Gross. “I was pressing the last section into place when it cracked. In an hour-and-a-half, I had a new one without ever leaving the boiler room. Although much has changed since then, the stellar representation hasn't!”

According to Gross, the combination of a good product and great representation means value not only to the installer, but to the property owner as well.

“In the beginning, I was a little concerned whether or not radiant was the best way to heat our home, because of the high ceilings,” said King. “But Dale assured me that ours was the perfect application for an in-floor system. From both a financial and comfort standpoint, I can absolutely say it was the best decision we made on this house.”

The Road to Great Customer Service

by Erin Kranch,
Customer Service Representative,
U.S. Boiler Company

Part 1 of a series of articles devoted to helping you optimize your Customer Service experience with U.S. Boiler Company, and with your own customers as well!

Whether working as a Customer Service Representative for U.S. Boiler Company, or doing it for your own company, customer service isn't always easy. While 100% customer satisfaction is the ideal, the reality is that this is very challenging to attain. In striving to achieve that goal, you will find that being able to make a customer happy is extremely rewarding...even if the road to doing so is sometimes difficult.

Companies that are rated among the highest in customer satisfaction place a large focus on developing customer service programs, training employees in effective customer service techniques, and preparing employees for challenging situations. Success in

this area comes from providing quality service and maintaining customer satisfaction. To help achieve that, the following concepts are essential.

Communication is critical.

Communication is the most important factor in customer service, and poor communication is bad for business. When a customer is unable to communicate with a representative from a company that he or she is attempting to contact, the customer is dissatisfied.

Ultimately, what customers want is to feel valued and be given the proper attention. When the lines of communication are closed, customer expectations are not being met.

Information should be clearly communicated and easily accessible.

Companies employ various strategies to communicate with customers, and ensuring that customers have access to information goes hand in hand with effective communication. Whether it's presented on a company website, in printed literature, or through social media, information should be clearly communicated and easily accessible. For companies that have them, websites should be particularly user friendly to ensure that customers can navigate without issue.

The goal is to provide customers with as many resources as possible so

they can locate information independently instead of forcing them to pick up a phone to find what they need.

We are customers (and customer service) to each other.

Customer service is not solely the responsibility of Customer Service Representatives. When it comes right down to it, we're all in the customer service business, and our customers are each other as well. Whether it is in a corporate setting or a small service company, respect and support are contagious. Making this a part of company culture will have positive results. Everyone is

– Continues, please see "Road", page 8

– “Road”, continued

a customer, and everyone is customer service.

It can be complicated.

A common misconception is that customer service can be boiled down to one simple phrase: ***The customer is always right.*** Coined in Marshall Field’s department store over a century ago, this well-known expression has become synonymous with customer service, but the reality is that customer service can be complicated. It can be challenging to find a clear resolution with a customer, and compromise is sometimes necessary to achieve a positive outcome.

Be a hero!

In customer service, being a hero means going the extra mile for a customer. When an employee spends more time than is typical to help a customer, or completes a task that a customer can handle, the extra effort does not go unnoticed. In fact, actions like that can be the very thing that keeps customers loyal and builds long term business relationships.

Indeed, truly great customer service isn’t an easy road, but it is certainly a rewarding one. By putting a few of these customer service principles into action, you will be well on your way.

Erin Kranch is a Customer Service

Representative for U.S. Boiler Company. She has a B.A. in Journalism from Penn State.

With a background in both customer service and journalism, she provides a unique perspective to the core communication that is required of both fields.

If you have any customer service questions or suggestions for future articles please

email (attention: Erin) at info@usboiler.net

WHAT ELSE IS COOL ABOUT THE NEW K2?

In addition to the features that are mentioned in the lead article on page one of this issue, there’s some MORE really good stuff packed into the new K2 boiler. Here’s a bigger (but still not complete) sampling of what you will find inside (and out) of the new, value-packed K2.

- FREE 5-year parts and labor warranty included (registration within 90 days of installation required)
- Advanced testing, verified performance
- High capacity pre-installed boiler loop circulator, easy side panel access
- Split voltage junction box

- Flexible copper/stainless steel piping
- Outdoor reset with sensor
- 5:1 turndown
- “Cold burner door” design recovers heat for additional energy savings
- Universal vent termination (polypropylene and PVC)
- Easy clean-out condensate trap
- Attractive styling with *Awesome-looking logo graphic**

*OK, that last one was added because the author of this article also designed the graphic, so...



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Dan Vastyen (Delta C): 717-587-9595
Mike Hook (U.S. Boiler): 717-397-4701

Distributor Line: 866-659-3927
Tech Line: 866-684-1463



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