

THE

US

Boiler Report



Published by U.S. Boiler Company
Manufacturer of Burnham® Brand Products

October, 2014 • Vol 2, Issue 10



HIGH Performance

It's also called Chhogori/Qogir, Ketu/ Kechu, and Mount Godwin-Austen, but the second-highest mountain peak in the world is more widely known as "K2". Sharing the same name, the K2 boiler coincidentally (or perhaps NOT coincidentally) also has left an impression in regard to altitude.

No, it won't require a treacherous expedition to get to the top of the boiler, but it does have the distinction of being an incredible performer when installed in high altitude locations.

So, what's so important about the high altitude thing anyway?

Well, it's quite simple actually. Boiler

output and performance is rated for "sea level" elevation. This makes sense, as much of the hydronic market is, in fact, along the eastern seaboard, and at elevations less than 2,000 feet above sea level. What happens if you install a boiler at an altitude above that? Well, in most cases, you have to calculate boiler input based upon a "derate" factor. This is based on a percentage of input lost per 1,000 feet.

The industry-standard derate calculation may reduce boiler performance by 4% per 1,000 feet of elevation, however that severe derate does not apply to the K2. The K2 boiler has been tested and certified to retain performance that is closer to sea-level values. For example, K2's natural gas derates range from 0 to 2% per 1,000 feet for installations up to 10,000 feet!

Here's the bottom line...

What all this means is that if you install a K2 boiler at high altitudes, your

customers are paying for the boiler that they actually need, rather than buying additional excess capacity to make up for operational loss. This is a key benefit that K2 offers over its competition. Another key feature of the K2 is that it is capable of this impressive high altitude performance without the addition of extra parts, kits, or specific high-altitude model numbers. A simple selection on the touch screen display will tell the Sage2.1 controller to adjust operation for a high altitude installation. All K2 boilers will have this capability built-in.

You've probably heard that we are calling the K2, "***The boiler designed with you in mind***". The simple and straightforward approach to high altitude installation serves as additional evidence to back that claim.

US
UNMATCHED
ANYWHERE

US
UNMATCHED
ANYWHERE

What's Inside...

Online Reviews; Everyone's a Critic.....2

Ellen Rohr's Bare Bones BizTips3

Beck Tips: Coils vs. Indirects4

Feature: Absolute Precision..... 5-6

Young People in the Trades7

K2 Intro Promotion.....8

U.S. Boiler Company

Everyone's a Critic:

by
Lindsey
Quinn,
Special to
the USBR

How to Leverage Online Reviews

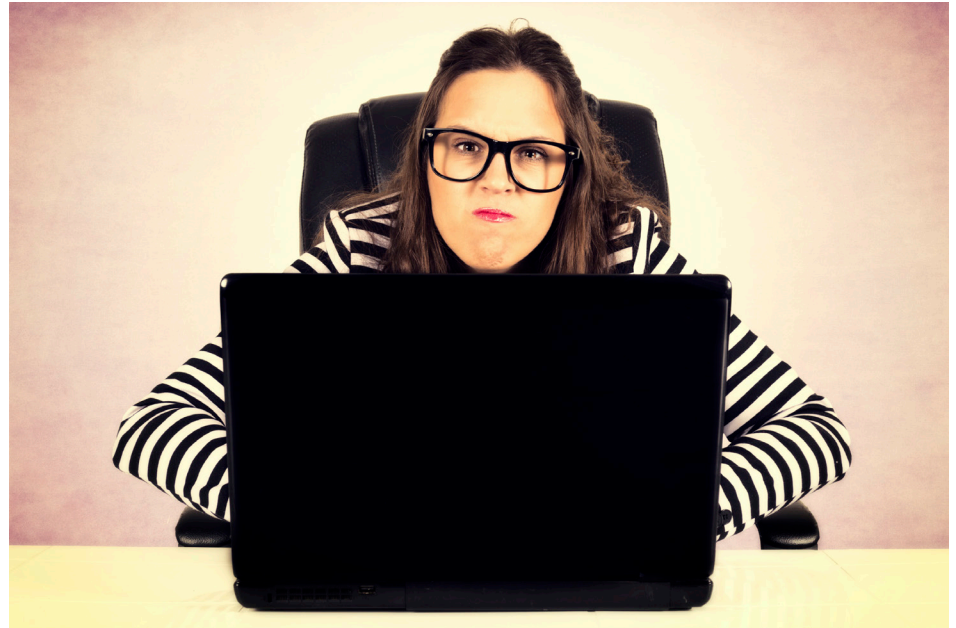
As a small business owner or independent contractor, a negative online review can be potentially debilitating to future growth. Unfortunately, this is one thorn in your side that won't be going away any time soon. Today, 90 percent of customers report being swayed by online reviews, and with [Yelp](#) stock prices nearly doubling since 2012, the authority of business review sites only continues to grow. So how can *you* use this powerful influence to your advantage? Here are a few ways to leverage both positive and negative internet content.

Address weaknesses before your customers

Adopting a realistic view of your company's shortcomings and taking proactive steps to fix them can go a long way in avoiding an internet scandal. A disgruntled customer is one thing, but if your business has glaring inefficiencies, don't be surprised if your clients draw attention to them. Performing a basic SWOT analysis (strengths, weaknesses, opportunities, and threats) of your business can help you identify things that you are doing well, as well as where you can improve your service.

Monitor your online presence

Take time each week to read through



your customer comments and address any negative reviews promptly. A single critical comment can deter potential customers and should be dealt with as soon as possible.

Mitigate the damage

If you have attempted to delete a particularly nasty review, you probably know how difficult it is. Review sites like [Yelp](#) or [Angie's List](#) rarely remove user content, unless the poster is a proven business competitor. The best and most ethical way to handle negative content is to respond in a professional tone and publicly acknowledge the mistake. Avoid taking an argumentative tone, and instead apologize and offer a complimentary service if reasonable. If the offer is accepted, the customer will likely change the review. If not, it is still a sign of goodwill to potential clients.

Provide your own outlet

A critical post is often due to a disconnect in communication. The more opportunities you provide for your customers to voice their concerns, the less likely they will be to sound off on a public platform. Creating your own online response form, or following up with a phone call after the service is a

great way to get constructive feedback without damaging client relations.

Draw attention to the positive

Use your response to highlight your company's strengths and direct readers to other positive customer reviews. On [Yelp](#), first time reviewers are less likely to gain visibility due to the site's built-in filters. Asking customers for permission to post their positive reviews on your professional website can help to differentiate you from your competition.

With the increasing number of consumers consulting review sites prior to a purchase, online feedback should be taken as an opportunity to improve your service and customer relations. Staying in tuned to your social media presence and opening lines of communication for your clients can help you avoid an online critic crisis, and better yet, increase your positive visibility.

Lindsey Quinn is a part time social business coordinator and full time technology enthusiast in the greater Pittsburgh, PA area. Contact her for freelancing and online reputation consulting at lquinn170@gmail.com.



Bare Bones BizTips

By
Ellen Rohr

As a Small Shop Owner, one of your responsibilities is making sure that you, and the people who work for you, have the information necessary to do their job. That job may be selling, driving, cleaning, filling out paperwork troubleshooting boilers, etc. You're the trainer, the teacher. And once someone knows the basics, it's your job to help them master the finer points, too.

Consider the US Marine Corps. Their slogan: We're looking for a few good men (and, a few good women!) Notice that the Marines don't require candidates to have weapons handling experience, foreign language skills or be in excellent physical condition. They are looking for good people, and then they will train those people to the USMC standards to shine their shoes as well as all kinds of specialized tasks.

The better your training program, the less skilled your prospective employees need to be. In other words, the more and better training you do, the more choices you have when it comes to building your team...and getting things done.

Responsibilities vs. Procedures

Position Descriptions list the Responsibilities for each Position. Responsibilities are WHAT to do. Procedures are HOW to do it. For each listed Responsibility, there should be one or more Procedures. Procedures are the curriculum for your training program. Procedures are lists of behaviors that you teach your team members to DO.



Level One and Level Two Training

Level One is the training you provide so that team members can perform their assigned Procedures to the minimum acceptable level. Level One Training ends when your employee can do the Procedure well enough to be held accountable for it.

Level Two is the training you provide to enhance your employees skills and abilities beyond the minimum levels. Level Two Training is for increasing performance and efficiency.

For example: You could teach me how to do a "free throw" shot in basketball. I could learn what line to stand behind and which hoop to aim at when I throw the ball. That's Level One training on the Procedure. I could "sign off" on that after a few minutes of training.

To get good at shooting "free throws" I would work on my technique. I may need to try holding the ball in different ways. I may do some specialized weight training. I may need to practice shooting the ball 50 times in a row. That's Level Two Training.

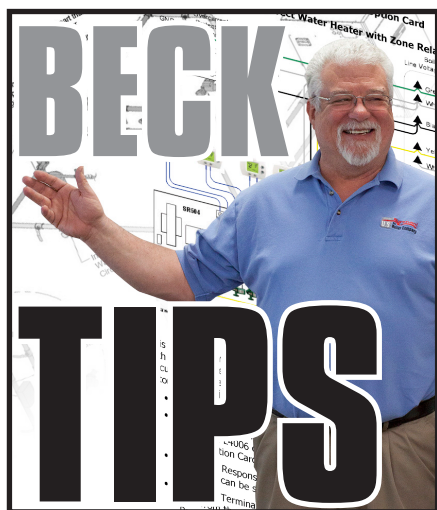
Truck restock is Level One training. No-heat Troubleshooting is Level Two. Start by making sure all your team members

are trained on the Procedures – Level One. Then, add the Level Two Training, for the Positions and Procedures that require it.

Ready to go? Or help them grow!

Putting together a formal training program may seem daunting. Keep it simple. Procedures can be written in pencil on a piece of paper, three-hole punched and put in your Operations Manual – a three ring binder. Now, you have a curriculum. Don't count on finding super skilled people who will miraculously make all your business dreams come true. Look for willing team members. Offer them the opportunity to be part of something great...your extraordinary business. Promise to help them succeed...by training the basics and exploring the expert levels of performance.

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

If I brush the dust off my grey matter, I can remember back in the days of being a service manager and reading about this fresh idea of indirect water heaters. I call it a fresh idea because it was definitely not a new idea, but was at the time gaining some traction for residential applications. We searched high and low for an indirect-fired water heater, and nobody in town stocked one. I spoke with the manager of our favorite supply house, and he said they didn't offer or stock them, but the factory rep just happened to be there. Carl, the branch manager said "talk to him I'm sure we can get you one."

I'm sure he thought - in a land of oil boilers and at that time when domestic hot water coils were King - why rock the boat? This tank made so much sense, and I was persistent. We ended up installing our first Indirect Water Heater (IWH) prior to 1985.

A boiler DHW coil is submersed in the boiler water while the boiler stays hot all the time. The inside of that coil is subject to water conditions from the fresh water supply. Many of the coil lifespans were - and still are - dramatically shortened due to mineral build-up reducing flow and temperature to the faucets. This isn't a very efficient way of making hot water, especially at today's oil prices. The boilers have to remain hot all the time

Internal Coils vs. Indirect Hot Water Heaters

so the DHW is available at all hours, year-around.

Let's evaluate this scenario a bit. The boiler is hot 24 hours a day which slightly lowers the boiler efficiency. And due to being warm all the time, the boiler maintains a higher draft in the chimney. As a result, more heat is pulled out of the boiler and wasted. To maintain temperature 24/7/365, the boiler re-fires, even though hot water may not have been drawn. Needless to say, maintaining high temperatures means that the boiler's standby losses are higher.

Everyone just considered it free domestic hot water in the winter, since the boiler was running for heat anyway. I'm sure you've heard many times "Nothing is free." A rule of thumb back then was 50,000 BTUs per gallon of heated domestic hot water from the coil. I realized DHW was not free, so I was looking for an efficient alternative to the internal coil approach. My thoughts were, "Why sell domestic hot water coils in boilers and maintain temperature, when I can sell IWH's and convert boilers to cold start and save the customer some fuel."

While the US Boiler Alliance stone-lined IWH has a submersible coil, one main difference is that the coil in the IWH houses boiler water, *not* fresh water. The coil heats the potable water in a very well insulated tank with standby losses between .5-1°F.

After all the piping is done (I suggest 1" pipe or larger, depending on the size of the tank) we need to wire the tank to communicate with the boiler. This has been simplified on the cast iron water boilers with the new Intelligent Hydronic Control (IHC) that was introduced in September 2012 to comply

with DOE regulation. The IHC has not only T-T terminals for heat and circulator control it also has DHW input terminals and DHW circulator control. There's a priority setting in the parameter menu that can be turned on or off, and is factory defaulted on.

The Sage2 control on the Alpine and K2 high efficiency boilers also offers IWH input terminals and circulator control.



Next month we'll talk about whether or not to prioritize your IWH.

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!***



Incentives Drive, Internet Directs



(left) Ken Roberts, president (L) and Nick Smith, plumbing technician, hang an Alpine 150.

(above) Ollie, is the "secret weapon" of Absolute Precision, and has proven to be a valuable asset when it comes to closing a sale!

"We live and die by Yelp and Google," said Ken Roberts, president of Absolute Precision Plumbing, Heating & AC Inc. A good looking ad might grab attention, but these days you need reviews to seal the deal. Today's customer wants to hear about the experiences that others have had with your company. The rules have changed in the 30 years since I started the company."

Roberts, his five employees and his secret sales weapon - a cocker spaniel/shih tzu mix named Ollie - serve Boston's North Metro residential market. Everyone in the firm shares the emphasis on unwavering customer satisfaction. Their efforts have yielded an A-rating on Angie's List, five-star rating on both Yelp and Google, and an A+ score with the Better Business Bureau, where they've also taken home the

Super Service Award for the past two years.

"Mark Jenkins and Randy Lewis have each been with the company for 14 years," said Roberts. "Nick Smith is our new arrival, and is proving to be a fantastic mechanic. Kim Tucker is my administrative assistant and marketing guru, and she's been here 10 years. My son, Bradley, is a technician. He started seven years ago. The company wouldn't be where it is today without them. I'd like to think the retention rate is indicative of a great work environment and a rewarding career, but I'm fairly certain they stay because of Ollie."

The little dog helps Ken with estimating, and has proven to help secure work. Courtney Keizer, owner of a recently-installed Alpine boiler, says that Ollie was the real selling point.

No more steam

Keizer's home is a 2,500 square-foot, 100 year-old Cape Cod that had an ailing steam system. It had barely made it through the rough winter, and suffered leaky return piping. After finding Absolute Precision on Google, Keizer explained that she wanted more control than the existing single zone provided, and a smaller fuel bill would be nice.

After discussing the economically-feasible options - which included installing a new steam boiler or replacing the entire system with either a traditional or condensing water boiler and fin-tube baseboard - it was decided that the 55 year-old steam boiler would be replaced with a 150 MBH Alpine and 160 lineal feet of 3/4-inch baseboard.

During the seven-day project,

Kaiser was astounded by how neatly the entire project progressed; she had feared the worst, due to the removal of the cast iron radiators.

"The radiators were a challenge, but that was expected," said Roberts. "For Ollie, the biggest challenge was Kaiser's pit bull terrier. He was as friendly as can be, but intimidating just the same."

The home now has three zones; upstairs, downstairs and the family room. Domestic hot water is produced by the 95% AFUE Alpine via the use of a 64-gallon indirect water heater set to priority.

"We've been installing lots of Alpines over the past six months, but recently we're averaging one or two

— Continues, see
"Absolute", page 6

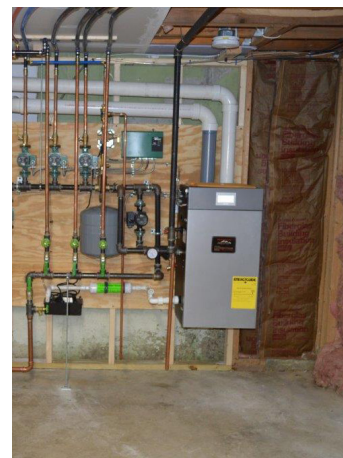
—“Absolute”, continued



Despite a healthy old oil boiler, the owner wanted to capitalize on efficiency incentives before they expired.



The Grasso family's new system, no longer in the middle of the basement floor.



Without a convenient place to hang the boiler, Absolute precision studded out the basement wall.

per week,” said Roberts. “Everyone is in a rush to cash in on the Mass Save energy rebates that ended on September 30th, or the utility incentives which are over before November.

“I’ve been using Burnham products for 30 years,” continued Roberts. “It’s American made and comes with a better track record and warranty than the competition. They’ve done a good job with the Alpine; Lightweight, easy to pipe, and we like the self-diagnosing screen menus.”

If the home doesn’t qualify for an energy rebate, the owner typically chooses an ESC, he says. Where only oil is available, Roberts will install a Burnham V8.

Saving space and energy

Not far from the Absolute shop in Middleton, Mass is the Grasso residence

- another home that capitalized on the efficiency rebate, and was installed in time for last heating season. The home’s existing cast-iron radiation was in fine shape, so all attention was quickly turned to the basement.

“There were seven-foot ceilings, with much of the old near-boiler piping hanging as low as four feet,” Roberts. “In order for the homeowner to use his basement for storage, we tore out all the old steel piping and used 5/8-inch PEX to distribute water to two Viega manifolds, one for each of the new zones.”

Heat for the whole shootin’ match comes from a 150 MBH, wall-hung Alpine. The system uses Taco pumps on the boiler, all zones, and the 65-gallon indirect-fired water heater.

After the job, the Grassos were ecstatic with their

increased comfort level and energy savings. The following spring, they called Ken to let him know that their average heating costs went from about \$800/month for oil, to \$300/month for gas.

Since the new system is mounted against the wall, the extra floor space in the middle of the basement was a plus, too. They were happy to leave a review on Yelp, even though they found Absolute Precision in the phonebook.

Times, they are a changin’

“We put great emphasis on our online reputation, but I’m not ready to completely eliminate my traditional ad presence,” said Roberts. “I advertise in the newspaper, and I still have the same full-page ad in the phone book that I’ve had for 30 years. I’m the first HVAC/P company in the lineup, and I’m not

about to give up that spot.”

Because of Kim’s marketing background, she’s able to handle direct marketing on Facebook, and keeping an eye on the review pages on top of her office duties.

“After I pick up the last check from the client, I tell them I’d very much appreciate it they took five minutes to leave an honest review on Yelp, Google, or Angie’s List,” said Roberts. “Nobody seems to mind, and it’s positive reinforcement that motivates us to keep up the good work.”

Kaiser’s review was a full page of praise, but said in conclusion, “We’re very happy with the work that Ken did in upgrading our hot water and heating system, and I would highly recommend this company. We now have an impressive and efficient heating system that will get us through many cold winters.”

Young People in the Trades

Part 1 of 4

The State of the Trades

by Allie Perez

It's been more than a month since kids have gone back to school. By now, it's settled in with recent high school graduates that they really aren't going back. It's a time of transition and the beginning of a new chapter. But where do they go from here? Many are off to college. Others will slip into dead-end jobs. And a dwindling number pursue a rewarding career in the trades.

In a recovering economy, only a few industries starve for quality, skilled workers. Leading the pack are the HVAC, refrigeration and plumbing trades. Given the high unemployment rates, it begs the question: why are the trades lacking quality workers?

Educational focus shift

Shifting focus away from vocational and trade schools, high schools now guide students toward 4-5 year college plans. Enrollment in vocational courses dropped more than 8% from 1982 to 1998, according to ManPower Group. Meanwhile, other areas - like general coursework and college prep programs - have increased.

The allure of "college life"

Colleges, as businesses, spend millions upon millions in marketing dollars to attract students to their prestigious institutions. They paint a picture of young

people in control of their destinies while enjoying meal plans, dorm life and Frisbee in the park. Some individuals go to college to "figure out" what they want to do, often wasting valuable years of their youth without direction and accumulating heaps of debt without any useful skills after they graduate. The trades, meanwhile, empower individuals to focus their energies on a specific talent or interest and make money in that field while they do so.

Qualifications

Licensed tradespeople require years of training and passable test scores. While most tradespeople balk at the idea of conventional schooling, they're expected to perform to specific industry standards. The problem - many tradesmen and women are good with their hands and possess outstanding problem solving skills, but lack college-level math and reading skills in test situations.

How do we fix this?

Acknowledge there is a problem.

The average age of a plumber in my native state of Texas is 58! At this rate, Texas will lose a huge portion of its workforce to retirement in the next five to seven years! According to Forbes.com, in 2012, 53% of skilled workers were age 45 or older. This is a national problem. Who



will install our boilers, fix our sinks, wire high-rise buildings and weld critical components?

Get the Big Wigs Involved

The military spends \$1 billion dollars *per year* to recruit, and private universities spend about \$2200 *per student*. Money is being spent. We need to get suppliers, manufacturers and other trade-based businesses to step up and contribute to a marketing plan for the trades as a whole. Use some of their marketing dollars to attract workers to the trades or they won't have anyone to sell to in a decade.

Give young people options

Local and national unions and trade organizations

link apprentices with business owners and provide continuing education for existing plumbers. Many kids are just unaware of these programs. These unions and organizations need to take a hint from colleges and create a marketing campaign geared towards young people who may not feel college is the right choice for them. Present options!

What am I doing?

Career days

I attend between ten and twenty career days each year. I present the trades to young people from elementary to high school. I demonstrate plumbing and present about

- Continues, see "Trades", page 8

"Trades", continued

my life in the trades. Kids have a great time learning about water supply and drains. It's good to hear, "I want to be a plumber, when I grow up." If we can paint a realistic picture of the trades as a fantastic career opportunity to people at a young age, they can prepare themselves scholastically for a rewarding life in the trades

Texas Women in Trades I started an organization to spread awareness of the trades and recruit women, young people and minorities to the trades. This organization has accumulated mentors to aid those interested in a future in the trades.

If you're interested in recruitment opportunities in your area, please feel free to contact Allie directly at allie@mrplumber.com

mrplumber.com

Allie Perez is CEO & Founder at Texas Women in Trades, Owner/CEO at Allie Katz Business Services and Consulting, and Director of Operations at Mr. Plumber Plumbing Co.

Be Sure to Take Advantage of Our K2 Launch Promotion!

In celebration of the launch of our new K2 boiler, we are proud to offer the K2 intro promotion Between 9/1 and 12/31/14, contractors can get a \$100 Visa Gift Card for buying and installing their FIRST new K2 Boiler! For further details, please see your local sales representative of Burnham Brand products.



The U.S. Boiler Report is a monthly publication produced by Delta C, LLC in conjunction with U.S. Boiler Company. For inquiries or additional information regarding article submissions, please contact:

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



www.usboiler.net