Energy efficiency drives tankless market

The manufacturers appear in alphabetical particular order. Information can be attributed to each company's marketing department.

A.O. Smith
www.aosmith.com

Company History: A. O. Smith produced its first residential water heater in 1939, establishing a tradition of innovation that continues to this day. In 1953, A. O. Smith shipped its first commercial water heater equipped with a “glass-lined” tank, which remains the industry standard for protecting steel from the corrosive effects of water.

The company has continued to build on its legacy of innovation, launching a new era in high efficiency products. Since 2010, A. O. Smith has introduced a comprehensive line of innovative new products including hybrid gas, hybrid electric, solar and ultra-low NOx technologies.

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News: A. O. Smith announced the launch of a new line of tankless high efficiency condensing water heaters. Powerful enough to deliver continuous maximum flow rates of up to 10 gallons per minute, the new products operate with ultra-low NOx emissions in compliance with regulations and lead-free standards in California and Texas. Featuring the latest in tankless technology, all products in the new line are ENERGY STAR® qualified, each providing 0.95 EF. The new products are available in three sizes of both indoor and outdoor models to fit a range of needs. At 160,000, 180,000 and 199,000 BTUs, the largest unit can be linked to up to four units and used in both commercial and residential applications. All models are built with durable double heat exchangers to combat the effects of erosion and corrosion.

Forecast: Despite a modest decline in 2012, A.O. Smith anticipates growth in the tankless market prompted by federal and local incentives. Earlier this year, President Obama reinstated the 2011 Federal Tax Credits. Through the end of 2013, tankless and other high efficiency installations are eligible for a tax credit of up to $300.

Tankless Tips: There are two key points to consider for tankless installations. First, due to the higher BTU input, tankless models require at least a ¾-inch gas line to the unit. Most homes utilize a ½-inch gas line to the water heater, so in replacement applications particularly, the homeowner will most likely need to upgrade to a larger gas line. This is a major expense in replacement applications. In addition, non-condensing tankless models require stainless steel vent material and cannot use the exiting B-vent commonly used with most conventional tank-type water heaters. Stainless venting can be expensive, although tankless models can be vented horizontally through an outside wall, which can help offset the venting cost. Condensing tankless models can use PVC venting, which is less expensive than stainless steel venting. In warmer climates, tankless models can be installed outdoors, eliminating the need for venting altogether.

The Bosch Group
www.bosch-climate.us

Company History: The Bosch Group has been a leading global supplier of technology and services in the areas of automotive, industrial technology, Consumer Goods and Building Technology for over 100 years. The company was founded in Stuttgart, Germany, in 1886 and today has more than 350 subsidiaries in over 150 countries.

Bosch Thermotechnology in North America is a leading source of high quality water heating and comfort heating systems. In particular, the company offers Bosch tankless, heat pump and point-of-use water heaters, Bosch solar thermal systems, Bosch wall-mounted boilers, Bosch geothermal heat pumps and the Buderus brand of boiler tanks and solar solutions. Bosch Thermotechnology is committed to reinventing energy efficiency by offering smart products that work together as integrated systems in an environmentally friendly manner.

News: Bosch Thermotechnology Corp. announced its energy-efficient line of Greentherm condensing gas tankless water heaters. The new Greentherm models C950 and C1050 have improved Energy Factor up to 0.94. They feature condensing technology for efficient domestic hot water generation on demand. The efficiency of the water heater is boosted by approximately 10 percent over non-condensing models. New venting options include concen-
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Opening in May, the Bosch Thermotechnology Corp. Experience Center will be an educational and interactive demonstration center in partnership with Serenbe and include a 1,000-acre sustainable eco-conscious community development. Visitors will have the opportunity to experience an array of Bosch products and solutions. The center will feature a functional demonstration of a geothermal heating and cooling system and a solar thermal system. It will also showcase related thermotechnology solutions as well as energy efficient appliances, security and sound systems, power tools, aluminum structural materials and automotive clean diesel technology from Bosch.

Forecast: In 2012, the U.S. tankless market was estimated to be flat compared to the previous year. Resilience was shown in the product segment of gas and electric tankless water heaters, in a market that was in decline in sales of traditional tank-type water heaters. In 2013, with slight improvement in the construction sector and in the U.S. economy in general, as well as the re-instatement of the Federal tax credit for gas tankless water heaters, a 3 to 5 percent growth of the tankless water heater market is expected.

Tankless Tips: According to the U.S. Department of Energy, only heating and air conditioning systems consume more energy than residential direct-fired tank storage heaters in the home. Bosch tankless water heaters work “on-demand” to produce hot water when needed, for as long as needed. There is no storage tank, so there is no concern about running out of hot water or waiting for the tank to recover, even during peak use. Depending on which model of tankless water heater is purchased, which fuel it uses and what size storage tank is currently installed, a user can save anywhere from 5 to 69 percent on their hot water heating bill. Although a tankless water heater may initially cost more to purchase and install, it saves significantly in annual operating costs.

A tankless water heater may be installed in place of an existing direct fired storage tank by mounting on a wall or optional floor-mounted stand. The tankless heater requires less floor space and can be mounted higher off the floor – especially useful in potential flood zones. There are simple to use sizing tools available, such as Bosch Thermotechnology’s water heater sizing app for mobile devices that can be downloaded for free from iTunes or Android stores.

Chronomite Laboratories
www.chronomite.com

Company History: Since 1966, Chronomite Laboratories Inc. has been the leader in providing solutions for commercial and industrial tankless plumbing applications. Chronomite first tackled the challenge of heating water right where it was needed and only when needed. The company’s tankless electric water heaters use electricity to create hot water as close to the point of use as possible. As Chronomite grew in the 1970s, engineers aimed to reduce the amount of water used. Chronomite had already minimized distance travelled and delivery time of hot water; however, flow rate was also important in the efficiency equation. The flow rate could be reduced and hot water could be produced without sacrificing pressure. In 1992, Chronomite patented microprocessor technology for tankless water heaters, which enabled the same convenient and eco-friendly product to be manufactured with 99 percent energy efficiency, delivering instant, unlimited hot water.

News: Chronomite Laboratories is always looking at ways to innovate. We are in the process of developing several new products that will help us keep our competitive and quality advantage. New lead-free laws will go into effect nationwide in 2014. For Chronomite, the harmful effects of lead have always been a major concern in the manufacturing of our products, and our general policy has been to use lead-free materials whenever possible. For Chronomite, lead is unsafe at any point of use, whether it is used for hand washing or drinking water. This is why our entire line of instantaneous water heaters has been certified with IAPMO. Chronomite is proud to ensure our products deliver water in the safest way possible: lead-free.

Forecast: Chronomite Laboratories is very optimistic about the future of the tankless market; we have
seen a large increase in sales and we think that will continue because the features and benefits of tankless water heaters like Chronomite’s align very well with what the market is looking for. For example, it is clear that conserving energy and water are a priority when considering products for new construction or renovation. Chronomite’s instantaneous electric water heaters are 99 percent energy efficient; they save water by eliminating the need to wait for the water to warm up. Water and energy savings saves money. Environmentally-friendly features are appealing to the market. The benefits that Chronomite water heaters provide, such as a compact size, ease of installation, operation and maintenance, add to the products’ appeal.

Eemax
www.eemax.com

Company History: Eemax was established in 1988 with a line of tankless water heaters specifically targeted at commercial applications. The original Eemax technology was patented and quickly emerged as the most flexible technology on the market. Eemax quickly expanded its market leadership position throughout the 1990’s by addressing higher flow rate applications.


News: Over the last three years, Eemax has shown more than double-digit year-over-year growth, making a move of the Eemax headquarters into a newer, larger facility necessary. The new facility is about twice the size as the previous facility, and boasts a new state-of-the-art engineering test lab, as well as a training room.

Eemax’s recent introduction of AccuMix has been a tremendous success with plumbing contractors. This product has an integrated ASSE 1070-2004 code compliant mixing valve and meets UPC 413.1. In 2013, Eemax is rolling out a new product line based on its proven direct heating element technology. Parabolic Heat Design (PHD) is an enhanced design that heats the water faster, more effectively, and more precisely.

Forecast: The residential segment is continuing to grow. Eemax has seen a growing percentage of inbound calls requesting information for residential applications.

Tankless Tips: Eemax has seen a great uptick in consumers calling in to inquire about point of use water heaters and installations. Our customer care team has an average of over 10 years with Eemax. The group handles about 75,000 calls per year.

Grand Hall/Eternal Hybrid
www.eternalwaterheater.com

Company History: Grand Hall is an international company that has been a leading manufacturer of innovative gas appliances and components for more than 30 years. In 1985, Grand Hall opened the U.S. office operating out of Dallas, Texas. Today, the 200,000 square foot distribution facility also houses customer support, administration and marketing. The original Eternal hybrid was launched in 2006 and won many industry accolades. In 2010, Eternal introduced the new Eternal hybrid that is compact, up to 98 percent efficient, and able to supply consistent hot water to multiple applications without sacrificing water pressure.

News: Eternal revealed the launch of its new and more robust Eternal hybrid water heaters. The new models, GU125T and GU160T, provide continuous hot water, like a tankless, but contain a 20 gallon storage tank inside so residential users with high gallons per minute requirements can run simultaneous applications with-
ny expects to gain market share over traditional, basic water heaters by offering consumers high efficiency and advanced features that are associated with tankless models, yet unexpected from a unit that is based on tank-style technology. As this new line launches, the company expects the business to see additional growth for the second half of the year.

**Tankless Tips:** Eternal’s tankless water heater can support multiple applications simultaneously with consistent water temperature and adequate water pressure. Eternal also has a dual mode activation that mimics operational characteristics of both tank and tankless. The hybrid design eliminates the minimum activation problem commonly associated with tankless. Eternal utilizes a patented multi-pass design that harnesses and recycles combustion heat to achieve greater efficiency. The small storage also provides a tempering buffer so the heating system does not have to work as hard. Proper gas, water and air supply is needed for it to perform correctly. The gas line must be sized sufficiently to carry the BTU load for all the gas appliances in the building. The water connection is the standard ¾-inch for cold inlet and hot outlet. Combustion air is needed if a separate intake vent is not installed. Eternal is vented with 3-inch schedule 40 PVC and is compatible with most recirculation systems.

**Hubbell Electric Heater Company**

**www.hubbellheaters.com**

**Company History:** Headquartered in Stratford, Conn., Hubbell Electric Heater Company is an industry-leading manufacturer of engineered water heating solutions for the Commercial, Industrial, Marine/Offshore and Naval markets. Hubbell’s wide ranging expertise in manufacturing water heating products ensures the company provides the most suitable water heating technology to meet the needs of its customers. Hubbell’s lineup meets a broad range of client water heating needs including electric tankless and tank type, heat pump water heaters, Condensing Gas tankless, cement-lined storage tanks and even steam and boiler fired water heaters. All Hubbell products are U.S. designed and assembled.

**News:** Hubbell is launching a New Condensing Gas Tankless Water Heater that will utilize a free floating 316L S.S. heat exchanger and has a thermal efficiency of 94 percent. This state-of-the-art product will be ultra-low NOX, SC AQMD compliant, Energy Star approved (200,000 BTU or less) and utilize a simple 3-inch PVC/CPVC or polyprolene venting. To support the launch, Hubbell will also release a new website and product brochure as part of a campaign designed to educate consumers to the numerous benefits of gas and electric tankless water heaters. The company’s new website, www.buytankless.com, will feature detailed information about Hubbell’s tankless water heaters in an easy-to-understand format, providing consumers with the tools necessary to choose the right tankless heater for their individual needs.

**Hubbell Tankless water heaters are truly green. They are smaller, and therefore use less material and natural resources.**

**Forecast:** The tankless water heating market is growing every year as a result of consumers becoming more energy conscious with the rising energy costs. Consumers have become considerably more educated on the benefits and cost savings of high efficiency water heating. Hubbell hopes to be a component of that growth by continuing to offer the highest quality, longest lasting heaters in the industry. With the addition of the new Condensing Gas Tankless this year, the company hopes to more than double its tankless sales in 2013.

**Tankless Tips:** A conventional tank-type water heater must keep 40-80 gallons of water heated to between 120-160°F, 24 hours a day, 7 days a week, 365 days a year. That’s compared to the 10-12 minutes per day per person that someone actually turn on a hot water tap, shower, dishwasher, etc. The Hubbell Electronic Tankless Water Heater only consumes electricity when hot water is in use. The Hubbell product line will reduce hot water heating costs by up to 50 percent, while providing an endless supply of hot water. Unlike existing tank-type hot water heaters, the materials used in its construction resist corrosion to prevent water leaks from ruptured tanks that can ruin carpets, baseboards, drywall, etc. The Hubbell unit mounts on the wall and is controlled using an advanced electronic temperature controller which utilizes a precisely calibrated flow meter to ensure consistent hot water outlet temperatures as low as 0.2 GPM. There’s no need to purchase a recirculation system, because Hubbell Gas tankless water heaters have the pump built in, with programmable modes for the type of recirculation that fits your application. Hubbell systems work with or without the use of a recirculation line. For existing installations, an optional thermostatic valve can be fitted under the most remote fixture in minutes, which will eliminate the need for a return line. However, for new construction, the Hubbell can be programmed to work with a dedicated return line.

The materials used in Hubbell’s Model GX are 99 percent recyclable, and eliminate excess waste that ends up in landfills. Hubbell tankless heaters use condensing technology to extract considerably more heat from combustion. This means less natural gas is required, and less CO2 is released. Hubbell also reduces water wastage with the built-in recirculation.

*Tankless Report continued on page 66*
Company History: In 2006, Navien America, Inc. was established to open new markets in the U.S. and Canada for parent company KD Navien. Navien America has since become one of the fastest growing companies in the home comfort sector in North America, providing condensing tankless gas water heaters and wall hung condensing combination boilers.

News: Navien America launched the new NPE Premium Condensing Tankless Gas Water heater in the fourth quarter of 2012. The new NPE Series greatly reduces time and labor for a typical tankless retrofit by utilizing existing ½-inch gas lines and existing chase to run the new 2-inch PVC venting. In fact, this new technology allows installation time to be reduced by half compared to other tankless water heaters. All these technical advances make the Navien NPE tankless series ideal for old tank water heater replacement. The new NPE series can also be installed outside in warmer climates with the optional vent cap. Navien offers free informational webinars. For details on the tankless series, visit TanklessMadeSimple.com/Training.

Forecast: The water heater market is going to continue its trend towards more efficient products, and Navien is positioned to capitalize on these trends with its NPE condensing tankless water heater. The company expects to see the tankless market continue to expand as more homeowners desire more efficient products and are rewarded with rebates from gas companies.

Tankless Tips: With Navien Tankless water heaters, users can use a recirculation pumps without reducing their warranty. Navien includes a recirculation pump and insulated buffer tank in all “A” models. Tankless water heaters don’t provide instant hot water the way a point of use instant water heater does for a single fixture. Tankless water heaters heat water only as you need it and provide endless hot water to your whole home.

In most situations, ½-inch gas lines up to 24 inches can be used with the NPE series providing 199,000 Btu/h. In the majority of cases, not only does the gas line, but the gas meter needs to be checked to make sure the whole home’s gas demand is satisfied. Navien recommends consulting a local plumber to make sure the whole gas system sized properly to meet the whole home consumption.

Navien America
www.navien.com

Company History: Navien America launched the new NPE Premium Condensing Tankless Gas Water heater in the fourth quarter of 2012.

Noritz
www.noritz.com

Company History: Noritz America Corp., a subsidiary of Noritz Japan, has corporate offices in Fountain Valley, Calif., and Atlanta, offering a full line of tankless water heaters to meet the hot water demands of residential and commercial applications. Noritz supports its products with a national network of skilled representatives and employees who are committed to providing the finest products and services to our communities by helping consumers live in a more comfortable, efficient and healthy lifestyle. Noritz has been an innovator in the water heating industry for over 60 years, introducing a modern, electronically controlled tankless water heater in 1981. The company is also a leader in energy savings and superior hot water delivery.

News: The new NRC661 condensing tankless water heater will be available in May. This heater will expand upon Noritz’s already deep condensing lineup. The new NRC661 will offer a 120K BTUH Condensing tankless. Available in both Direct Vent (DV) as well as Outdoor (OD), this new product will feature a new display window, making service a breeze even without a remote control, and a new lower fire 15,000 BTUH, great for warm weather climates.

Tankless Forecast: The tankless market saw its first drop in the last 10 years in 2012. Noritz attributes that to a number of different things: the economy, tax credits being eliminated and market conditions. Noritz grew in 2012, even when others saw a downtick. The company feels that the tankless market is poised to make some strong growth over the next few years. The new construction market seems to be coming back, the tax credit has returned, and tankless technology continues to catch the attention of homeowners.

Tankless Tips: With Noritz Tankless water heaters, a contractor pays for a popular Noritz heater has probably gone up $40-50 in the last four years. The price of a tank type 40-gallon heater has more than doubled in the same timeframe. They are getting closer in price, but not because tankless is getting cheaper. Tanks continue to try to catch up to tankless efficiency and technology.
Raypak
www.raypak.com

Company History: Founded by Al Whittel in 1970, Raypak grew quickly from the original production facilities in El Monte to ITSModern 151,000 square-foot facility in Westlake Village. By 2000, Raypak had outgrown the facility and moved to its new 300,000 square-foot building in Oxnard, Calif.

News: Raypak continues to expand its products by working within its distribution network to familiarize partners with the value of tankless products.

Forecast: Raypak currently offers premium quality near condensing commercial duty tankless water heaters and will also offer a line of commercial duty condensing tankless water heaters in 2013.

Tankless Tips: Raypak receives questions related to commercial applications, such as the proper way to tie a controller to multiple heaters, and the proper way to manifold fuel and water pipes for multiple heater applications. Raypak provides piping diagrams and live technical support from its service call center and application department to address common contractor questions.

Rinnai
www.rinnai.us

Company History: Rinnai America Corp., a subsidiary of Rinnai Corp. in Nagoya, Japan, was established in 1974 and is headquartered in Peachtree City, Ga. Rinnai manufactures a variety of gas appliances, including tankless water heaters, direct vent wall furnaces and boilers. As a technology leader in its industry, Rinnai is a large gas appliance manufacturer in Japan and has been successful in tankless water heaters sales in North America.

News: In 2013, Rinnai will be engineering new technologies to make tankless water heater installation faster and easier for professionals and less expensive for homeowners. The company seeks to provide homeowners with the most comfortable hot-water experience as energy efficiently as possible. Currently, Rinnai is investing in a major field-training initiative to help dealers better understand the technology, changes and updates to products. In addition, Rinnai continues to increase awareness of tankless technology among professionals and consumers, with increased marketing efforts, an enhanced website and advertising campaign.

Forecast: Rinnai agrees with BRG Building Solutions’ speculation that the heating-product markets should see the beginning of a sustained, more substantial market recovery in 2013. Additionally, an increasing rate of growth is expected for the overall industry through 2016, which should see a return to the historical pre-recession levels of 2007. Rinnai knows that tankless water heaters currently account for about 5 percent of the total water-heating market.

Tankless Tips: Tankless water heaters operate only when the need for hot water is detected and shut down when the demand for hot water ceases, so they use less energy—in some cases up to 40 percent less—than tank-style water heaters and produce an endless supply of hot water. In addition, tankless units offer a longer lifespan than tank water heaters. They save space and are ENERGY STAR® qualified. For larger commercial applications, up to 25 units can be linked together to operate as one large water-heating system, providing an unending supply of hot water to any commercial application. Together, these attributes make tankless technology a superior source for hot water. Tankless water heater technology is applicable to both residential and commercial markets, including multifamily, hotels, restaurants and more. The primary market for tankless units is the residential replacement market, where homeowners choose to upgrade their water heater from tank to tankless to achieve greater energy efficiency, save space and avoid running out of hot water.

Stiebel Eltron
www.stiebel-eltron-usa.com

Company History: Stiebel Eltron USA is a world leader in solar thermal and heat pump technology. In the 1950s, Stiebel Eltron was one of the largest manufacturers of tankless, electric water heaters in the world. The solar water heating and heat pump systems have been developed over the last 30 years and Stiebel Eltron is a world leader in solar thermal and heat pump technology as well. The sales and service operation for the North American market is located in West Hatfield, Mass. There, Stiebel Eltron maintains a sales, service, distribution and spare parts facility. The company has been in North America since 1980.

News: Massachusetts and Rhode Island residents who replace their electric tank water heater with a...
Tempra® and DHC tankless electric water heaters, piping connections have been made easier for the installer. Installers simply pipe up near to the unit in any code-approved material, leaving about a 1.5 feet of space for connection of flexible braided steel hoses to our NPT fittings. This provides quick and easy access to the cold water inline filter screen for periodic checks of any debris build-up. Also, it allows the unit to be isolated and a means to quickly remove any debris trapped in the inlet line due to work in the street, etc.

Electric tankless units do not need to be vented, which therefore allows for greater flexibility in choosing the mounting location for the unit, upstairs or down, especially in light of the compact size. Location is always best as close to the main points of use as possible. It is important to do research upfront when considering tankless water heaters. Correct sizing is key. The TEMPRAPRA sizing chart is available the Steibel Eltron website and in the TEMPRAPRA product literature. Also, check to make sure the size of the incoming electric service is sufficient. The installation of a tankless water heater is easy but should be carried out by licensed plumbers and electricians. If locating the unit where a tank-type once stood, all that is necessary is to bring the cold and hot connections to the inlet and outlet points on the TEMPRAPRA and utilize the existing household pipe runs. The existing wiring and breakers for the tank-type will likely have to be replaced, which is an easy job for the electrician. After the installation, the filter screen on the cold water inlet should be checked for any debris caught in the line from solder, pipe rests or teflon tape, etc. which can obstruct the water flow and affect the minimum water flow to activate.

ETS/WaiWela
www.waiwela.com

Company History: Efficient Technology Sales, Inc (ETS) was incorporated in 2003 approximately 26 years after we began selling tankless water heaters in 1977. ETS tankless roots can be traced to Camden, Maine to William Sepe, a local architect, who designed energy efficient, smaller homes. Every home had a propane fueled Paloma water heater.

News: Privately owned ETS, Inc. is directed by second generation, family member, Seth Greenzweig, who successfully directed the company through the Great Recession. The 2013 year-to-date sales are
up double digits, as residential home building restarts.

**Forecast:** Tankless water heaters sales will continue to take a growing share of the total water heater market in 2013 because energy costs will increase and the demand concept of water heating makes sense. Tankless awareness has grown and there is less to explain to installers and consumers. ETS aims to fill market niches with product choices to maintain and enhance tankless. Six-gallon WaiWela mini tank water heaters are used to buffer tankless and eliminate cold water sandwich, solar thermal preheat systems integrate well with tankless. Ongoing testing of solar cooling and related technologies will lead ETS to building summer loads for solar thermal. High efficiency, natural gas fueled, tankless has a bright future.

**Tankless Tips:** Most common questions focus on capacity to deliver hot water at a specific temperature. Scaleability allows ETS to meet most large commercial demands while enjoying energy cost savings on the off peak times. ETS tankless water heaters can heat a large shower system but only when data is sized properly. Mineral scale buildup can be cleaned with a WaiWela descaling kit and the WaiWela tankless WH will display error code 1L telling when to descale. Valve sets and service, including descaling, however, is the user’s job.