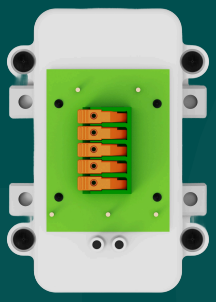
InstIQ

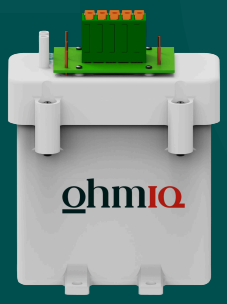
Instant, on-demand hot water without standby heating cycles.

InstIQ is a high-efficiency, tankless system for coffee makers, vending machines, and food services. Unlike traditional heaters, it eliminates delays and wasted energy, delivering hot water only when needed.



Prevents scaling and reduces energy use for long-term efficiency.

Conventional systems suffer from scaling, inefficiency, and energy loss due to constant heating. InstIQ cuts energy use by 30%, prevents mineral buildup, and maintains performance, lowering maintenance costs and extending lifespan.



OhmIQ's technology ensures rapid heat-up with zero scaling.

InstIQ's ohmic heating transfers energy directly to water for fast, scale-free heating. Its compact, plug-and-play design integrates easily, reducing footprint, weight, and shipping costs.

SteamIQ

Instant, precise steam for food and beverage applications.

SteamIQ is a high-performance steam solution for espresso machines, coffee roasters, steam ovens, and commercial kitchens. It delivers on-demand steam without the inefficiencies of traditional boilers.

No scaling, improved efficiency, and lower maintenance.

Traditional systems lose heat, respond slowly, and suffer from scaling, degrading performance. SteamIQ prevents buildup, providing reliable, long-lasting steam while cutting energy waste.

Powered by OhmIQ for rapid, efficient steam generation.

Using advanced ohmic heating, SteamIQ creates steam instantly with no heating elements. This eliminates downtime, improves temperature control, and maximizes efficiency.

STEP

Scale elimination – by eliminating lime scale build-up the Ohmiq technology reduces scale-driven warranty events, overall service costs (including the need to descale) and extends the useful life of the product. By improving product reliability, brand image, health are enhanced.

Time – Ohmiq technology drastically reduces time to temperature and eliminates the need to maintain tanks at temperature, resulting in further energy consumption savings.

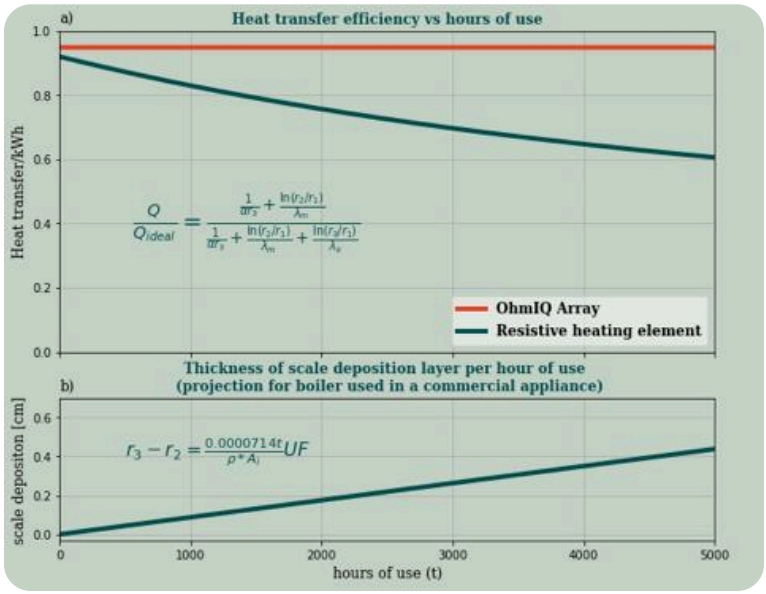
Energy Efficiency – Ohmiq heating is 6% more energy efficient in transforming energy into heat resulting in reduced electricity consumption & cost on a sustained basis.

Precision - Ohmiq technology eliminate the need to provide a "margin of error" and precisely delivers the exact temperature requirements.

Moreover, OhmIQ technology reduces the physical footprint of the water heating function and eliminates the need for a low water cutoff. This will enable value engineering gains and reduce the shipping weight of the product (Plastics vs stainless also gives you a clear thermal advantage).

Conductors of Heat

In traditional boilers with heating elements like this, lime scaling is unavoidable, leading to reduced performance and damage over time.



Inset (a) shows how heat transfer rate decreases as an insulating layer of scale accumulates on a resistive heating element. In the heat transfer equation [1], Q is the heat transfer rate, R_1 is the ID radius of the element, R_2 is the OD radius of the element, R_3 is the radius of the layer of scale deposition, λ_m is the thermal conductivity of the element, λ_s is the thermal conductivity of the scale, and α is the heat transfer coefficient. The rate of scale accumulation shown in inset (b) 0.0000714 g/kWh was calculated using data collected by the Battelle Memorial Institute [2]. Here, ρ is the density of scale and A, is the internal area of the appliance, and UF is the usage factor for the appliance (mean kWh used per hour). The accumulation of scale and heat transfer function are plotted for 5000 hours of use. In practice, heating elements are often either descaled or replaced when they drop below 70% efficiency.

[1] Dobersek, D., Goricanec, D. (2007). Influence of Water Scale on Thermal Flow Losses of Domestic Appliances. International Journal of Mathematical Models and Methods in Applied Science. 2(1), 35-61.

[2] Paul, D. D., Godhard, V. V., Evers, D. P., Goshe, M. E., Thornton, D. A. (2013). Final Report: Study on Benefits of Removal of Water Hardness (Calcium and Magnesium Ions) from a Water Supply. Battelle Memorial Institute.

Learn more

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