## VENTLESS ELECTRIC

FOODSERVICE





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BECAUSE THE RIGHT **EQUIPMENT** IS EVERYTHING™

# Uncovering the Myths and Concerns of Electric Ventless Cooking Equipment in Foodservice Operations

It starts with answers to important questions.

## Will ventless cooking equipment work for my menu?

There once was a time when ventless equipment was limited on some of the proteins it could cook. Not anymore. With ventless combi ovens, rapid cook ovens, ventless fryers, impingement ovens, ventless griddles, and more, it's possible to deliver on any culinary requirement or menu, in any location. Ventless cooking equipment can open up design and concept possibilities that otherwise may not exist – or at the very least be cost-prohibitive – making Type I Hood constraints and restrictions a thing of the past.



## Can ventless equipment keep up with demand?

The answer is yes. Another myth associated with ventless cooking is that throughput levels aren't as high and electric-powered units are slower to recover. The truth is that chefs utilizing electric equipment can execute with as much precision and recovery efficiency as any gas option.

## Is compliance an issue?

There is a misconception that ventless cooking equipment is hard to get approved due to compliance issues, but the reality is AHJs (authorities having jurisdiction) in 98 major metro areas throughout North America have formally approved ventless installations.

Source: The Middleby Corporation, Advice From The Experts On Ventless Cooking Equipment

## What are the Advantages Operators Can Expect with an Electric Kitchen?

## **Cost Savings**

With the elimination of expensive hoods and ventilation systems needed for gas equipment, operators can save significant money upfront while also saving time, labor, and money associated with cleaning and maintaining ventilation systems.

### **Kitchen Flexibility**

In an electric kitchen, layout and design flexibility allow kitchens to utilize more space in a smaller footprint, move equipment in and out of play, and add to the equipment line-up as needed.

## **Mobility for Profit Centers**

Without the constraint of running under a hood, operators can move equipment to different areas of the operation, bringing the culinary experience closer to customers and maximizing revenue opportunities.

#### **Energy Efficiency**

Utilizing electric equipment saves food service operations thousands of dollars in utility costs annually. The two factors for energy efficiency savings are 1) electricity is more efficient than gas, and 2) the restaurant's heat and air conditioning do not escape through a hood, making the systems work harder to maintain temperature.

#### **Portability and Control**

Restaurant owners with electric ventless equipment have more control over their equipment investments. Where they place the equipment today doesn't have to be the final decision. The advantage of adaptability is especially advantageous for businesses with multiple properties.

#### **Adaptability for Future Readiness**

Electric kitchen equipment has come a long way with technological advances that bring automation, menu controls, and more. There's also the matter of green initiatives that are more important than ever for operators and consumers.



## Look who's flipping over ventless cooking equipment!

**Burger Bars!** Electric griddles, countertop ovens, induction cookers, and even ventless fryers are offering cooking versatility in places where it might not otherwise be available.

Electric broilers enable you to cook steaks and burgers to perfection while reducing carbon emissions by more than 75% compared with gas appliances.

Both vented and ventless ovens come with their advantages, but ultimately, the decision comes down to operational needs and future goals.

#### Sources:

The Middleby Corporation, Building the Ultimate Burger Bar with Ventless Foodservice Equipment

Scott Heim, President, Ventless Solutions, The Middleby Corporation

## The Emissions and Environmental Concern Motivation for Electric Kitchens

Information from the EPA states restaurants use up to ten times more energy than other commercial properties. With environmental concerns high on the agenda for many states, many are introducing changes to reduce emissions within their jurisdictions.

The debate about gas versus electric stoves heated up in 2023 as opposing sides fought over possible bans on gas stoves. A federal ban seems unlikely as the House passed the Gas Stove Protection and Freedom Act. However, some states are taking matters into their hands.

Even as the debate rages on in the halls of Congress and state legislatures, the reality is the future is looking a lot more electric.

Watch for questions, answers, facts, advantages, concerns, and opportunities throughout this publication.



## turbofan

# Fresh air thinking. No limits cooking & baking.

Introducing Turbofan ventless hood solutions by Moffat.

- Removes need for installation canopy or ducted oven hood
- Complies with EPA202 Test Method for less than
   5mg/m3 grease laden effluent limits when fitted to Turbofan
- UL197, NSF2/ANSI 2 certified
- 3 stage filters
- Condensing heat exchanger
- Self-contained condensate collection
- Remote condensate drain option
- Oven interlocked operation
- Two automatic 2-speed extraction fans



Save thousands of dollars per linear square foot vs traditional hood systems!



## Why do Colleges and Universities Prefer Ventless Equipment?

## **Labor Savings**

With a limited food service staff, labor-saving equipment is a priority. Vented equipment releases more byproducts and grease, requiring labor-intensive cleaning and maintenance. Electric ventless ovens are very easy to clean and maintain. To take labor savings even further, check into electric equipment with innovative technology, such as menu programming.

#### **Budget**

Ventless ovens are a good option when working with a tight budget. The upfront cost does not include a hood ventilation system and high installation charges, making them an excellent choice in this arena.

## **Kitchen Space**

A ventless oven is a perfect solution if there's limited back-of-house space in a school's kitchen layout. Ventless ovens can go on any wall—not just an exterior-facing wall—and don't take up as much square footage. They can be easily moved from one location to another, which is very attractive to colleges and universities.



#### **Menu Demands**

School menus constantly change to include students' dietary needs and taste preferences. The right ventless oven can help operators keep up with the current food trends. Many ventless ovens have more innovative features that support the diverse tastes of diners today.

Electric, ventless equipment provides menu versatility in non traditional spaces to generate additional revenue. For example, a ventless high speed oven could allow a library cafe to serve hot food. Campus foodservice directors are thinking out of the box.

Let students and faculty know your environmental initiatives to help reduce the carbon footprint.

## They're interested.

Decarbonization is more than a trend, it is a way of operating that is here to stay. So, what does decarbonization mean?

Decarbonization refers to reducing carbon dioxide emissions with the goal of zero net carbon (ZNC) or carbon neutrality. Electrification refers to a way that commercial kitchens may achieve this goal.

Most climate scientists contend that we are behind the curve in reducing carbon emissions. As a result, state and local governments established codes, standards and laws to drive change. California leads the way, having reduced greenhouse gas emissions (GHG) to pre-1990 levels. The state also developed a road map to achieve ZNC. Now the state set its sights on 2030 and a further 40% reduction of GHG. The goal: total carbon neutrality by 2045.

Ventless, electric equipment takes safety one step further with internal filtration systems to keep impurities out of the air, while remaining cool to the touch at all times.

#### **FACTS**

Ventless cooking equipment is only available in electric models.

Students are more informed than ever about the way their food is prepared.

It is being said that electric, ventless cooking equipment is the future.

## **VOLLRATH**



## FlexVent<sup>™</sup> Slide-In

Unparalleled flexibility for presentation cooking by eliminating the need for a bulky exhaust hood





Scan here to learn more or visit **VollrathFoodservice.com** 



## CONCERNS ABOUT MAKING THE CHANGE

Electric, ventless commercial kitchens are on the rise for many reasons. But, it's important to address concerns.

From the beginning, culinary professionals and restaurant owners have preferred gas cooking equipment in their commercial kitchens. Today, electric kitchens are thriving for many reasons. Changing to an electric kitchen could make complete sense for many reasons, but there are still preferences and questions among many chefs.

Empowering your culinary team to be part of the decision-making process when considering a switch to electric kitchens is crucial. After all, cooking is a belief system. If you're contemplating a shift from gas to electric, consider allowing your staff to test the new equipment. This not only engages your team but also ensures they are well-equipped with the necessary training.

Electric char stations, for instance, can maintain the distinct chargrilled flavor when cooking steaks. Similarly, induction cooking appliances offer the advantage of faster and more precise cooking compared to their gas counterparts. It's worth noting that with the advancements in electric cooking equipment, even gas-powered equipment is now available in electric models.

Be sure to thoroughly illustrate the benefits of working with electric, ventless equipment.

With so many changes in the industry in the last few years came new challenges, solutions, opportunities, and visions. Sustainability and efficiency initiatives became a top priority. The status quo was no longer an option, and the top equipment manufacturers in the industry stepped up to the plate and brought innovative solutions to the next level.



## AT A GLANCE

## CHALLENGES FOR THE TEAM

- Change in innate preferences.
- Questions about food quality.
- · Possible learning curve.

## BENEFITS FOR THE TEAM

- If you can't stand the heat.. you know the rest. An electric kitchen provides a cooler and much more comfortable working environment.
- Increase in kitchen safety.
- Indoor air quality improvement.
- Time-consuming and unpleasant tasks of cleaning and maintaining hoods is off the list.
- Opportunities to utilize technology for automation, menu programming, and more.
- Sustainability and environmental advantages.

It's really a matter of what works best for you.

## How to Choose the Right Ventless Equipment

With so many ventless equipment options available, how does an operator choose what's right for their establishment?

Middleby says there are three factors to consider: menu, volume, and location.

#### Menu

Consider your menu and what you are going to need to cook—this will dictate the type of equipment your establishment requires whether that's a griddle, fryer, combi oven, or something else.

#### **Volume**

What's the demand at your venue? Do you have large volumes and a need for speed? Are there certain dayparts that are busier, requiring more from specific pieces of equipment?

#### Location

What type of square footage are you working with? Are you in a non-traditional space that requires a ventless solution?

By considering these three factors, you'll be able to land on the ventless equipment that's perfect for your operation.

#### Sources:

Restaurant and Bar News, The Growing Capabilities of Ventless Kitchens

Scott Heim, President, Ventless Solutions, The Middleby Corporation



## Does ventless equipment cost more?

Before determining the cost of ventless equipment it's important to ask yourself the right questions.

Are you currently able to take advantage of unused or unproductive spaces in your restaurant environment?

Could the utility bills be reduced without a Type I hood that exhausts grease and smoke externally, pulling air-conditioned or heated air out of the restaurant? Could the cost of make-up air be dramatically reduced?

Can front-of-the-house and open kitchens be designed with clean and clear sightlines to the cooking process?

It's important to compare apples to apples when it comes to expenses by reviewing everything from the cost of the Type I ventilation hood, ducting, flashing on the roof, fire suppression, and compressors on the roof. And each additional vertical story adds \$7,500 to \$9,000 to the hood and ducting costs.

Source: The Middleby Corporation, Advice From The Experts On Ventless Cooking Equipment

## **YOLLRATH**



## It's Like Cooking with Gas, Only Better.

From portable single-burner setups to four-hob back-of-house ranges and even woks, we have one of the broadest lines of induction cooking and warming solutions in the industry that will bring the power of our award-winning induction technology to your professional foodservice operation.





## The Advantages of Induction Cooking

The benefits of an induction cooktop are vast and impact the entire workflow of most kitchens. They also have multiple applications within a kitchen, making induction a valuable choice for many operations. Here are the ways induction cooktops will boost your operation's capabilities.

#### Cook time and even heating

Induction cooktops cook food at incredible speed with no lag time. For example, a 3600-watt induction unit will boil six cups of water in only three minutes. In addition to a quick cooking time, induction cooktops evenly distribute heat throughout the entire pan because the pan is the heating element.

#### Temperature control and range

Innovative technology gives induction cooktops a wide range of temperatures and precise heating controls. In addition, rapid responsiveness is a valuable feature that provides an almost instant boil, quick cooling, and close to immediate recovery. Crank the controls and quickly sear a tasty steak. Or turn it down and gently melt and temper the chocolate without scorching or burning.

## **Eco-friendly**

Earth-conscious equipment helps conserve resources for our environment, but the benefits go even further. Induction cooktops are energy-savers partly due to their ability to heat food quickly at precise temperatures. But, they also deliver 85% to 95% of the energy they consume directly to the food. In comparison, a gas range delivers 35% to 40% of the energy used to the food, and an electric range delivers 45%-50%. A whopping 60% savings in energy consumption can go a long way regarding sustainability practices and utility costs.

In addition to incredible heating efficiency, quality induction units run cool. Equipment that runs cool helps limit the amount of heat in the kitchen environment. Cooking with induction units often lowers air conditioning costs and boosts employee comfort.

#### **Flexibility**

The small footprint of induction cooktops and no gas hookup requirements open the flexibility of future kitchen modernizations. Induction equipment is also uniquely engineered with drop-in and portable options that work for the back-of-house as well as multiple front-of-house applications.

## Haten INDUCTION DROP-IN & COUNTERTOP SOLUTIONS

## **Drop-In Induction Dry Wells**

Hatco's Drop-In Induction Dry Well Warmers features a simple, robust design and offers an energy efficient, plumbing-free solution to any food holding needs. This unit is adjustable with little effort and can hold either a 2½" or 4" deep, full-size pan. The Induction Dry Well evenly and consistently heats the pan.

#### **STANDARD FEATURES:**

- Made for use with normal, stainless steel pans with no need for expensive, "induction-ready" specialized pans
- Easily adjustable to hold either 21/2" or 4" deep pans
- Two individual temperature zones capable of holding two 1/2 size pans at different temperatures
- Energy efficient, quiet and safe operation



## Rapide Cuisine® Countertop Induction Ranges

Rapide Cuisine® Induction Ranges offer industry-leading features and true back-of-house power in a commercial kitchen-proof package. Its Magnetic Power System (MPS) delivers the highest power in its class. With safety features such as automatic shut-off to prevent overheating and large controls for precise fine control.



## Safety

Since the pan is the heating element, induction cooktop surfaces stay cool. Many units also have automatic shut-off capabilities and pan-sensing technology that reduce burn and fire risks. In addition, there's no fuel or flame with induction cooking, which limits the number of chemicals released into the air. Cooking with induction cooktops helps create a cleaner and safer kitchen environment.



## Easy cleanup

A cool surface means more than a safer unit; it also means no scorched food and an easier cleaning process. Induction cooktops are typically smooth surfaces that can quickly be wiped down. Anyone in foodservice management knows efficiency is key for a smooth-running operation. Easy cleanup means fewer labor hours, increased sanitation, and happier employees.

Learn more: www.hatcocorp.com

#### **Automation**

Automation continues to gain ground and wow food service establishments everywhere. Programmable recipe presets allow the operator to input preset temperatures and cook times for different recipes. These presets boost efficiency and allow staff to recreate recipes, pleasing diners every time. Equipment manufacturers offer different automation capabilities, so ensure you get the features you want most.

Source: Hatco Corp., Pros and Cons of Induction Cooktops in Commercial Kitchens





## WHY GO ELECTRIC?

Cooler kitchens • Lower maintenance Better air quality • Quicker install Energy efficient



## **ELECTRIC COUNTERTOPS**

9" diameter sealed round plate elements with easy-to-clean Teflon surface.

4 KW serpentine elements located under entire griddle plate





## **ELECTRIC RANGES**

Solid top prevents spills from entering unit and makes clean-up easy.

High performance 5.3 KW element provides even heating throughout the oven





