



FOODSERVICE INSIGHT

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SPECIAL
REPORT

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Tailored solutions

Ensuring food is kept for longer at the right temperature and quality

A critical role

Maintaining food safety, quality, and operational efficiency

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FOOD WARMING EQUIPMENT CUSTOMIZATION WHITEPAPER

HOW CUSTOMIZATION HELPS
OPERATORS MAXIMIZE EFFICIENCY
AND OPTIMIZE THEIR FOOD OFFERING



HOT HOLDING: THE CASE FOR CUSTOMIZED EQUIPMENT

Though manufacturers have a vast array of hot holding and food warming products in their catalogs, sometimes only customized units will maximize efficiency and enable operators to optimize their food offering. In this paper, sponsored by FWE, leading FCSI The Americas Professional member-consultants explain why customization is no longer a luxury but a necessity for many innovative foodservice operations

INTRODUCTION

In the foodservice industry, maintaining the optimal temperature of food is essential for both safety and quality. Standard food warming equipment can sometimes fall short of meeting the unique demands of various foodservice scenarios, making customization a critical factor in achieving operational success.

Temperature alone isn't enough – operators must also regulate humidity to preserve product quality while ensuring food is held at sellable standards to boost margins. Additionally, space constraints in many kitchens and serving areas demand equipment that can do more within a smaller footprint.

Customization enables the creation of bespoke units designed to meet specific needs, ensuring food remains at the right temperature and quality for longer, and is served fresh and, most importantly, safe. In certain cases, innovative models, such as frictionless retail with camera technology for tracking purchases, require entirely new types of holding equipment.

This whitepaper highlights the vital role of customized food warming equipment in the foodservice industry, focusing on its importance in maintaining food safety, quality, and operational efficiency.

With insights from leading manufacturer FWE and foodservice consultants from various market segments, this paper demonstrates how tailored solutions effectively fill gaps left by standard equipment. It also emphasizes that investing in customized food warming solutions is often essential for meeting specialized dietary needs, supporting new operational models, enhancing customer satisfaction, and driving sustainable success in today's competitive foodservice environment.

KEY TAKEAWAYS

Customized food warming solutions can be essential for meeting specialized dietary needs, delivering new operating models, ensuring customer satisfaction, and achieving sustainable success.

“Customization allows for the creation of bespoke units that are tailored to the specific needs, ensuring food is kept for longer at the right temperature and quality”



MEETING MANY NEEDS

Different types of food require different warming conditions. For instance, delicate pastries need gentle warming to prevent them from drying out, while a hearty stew requires consistent, even heat to remain palatable. In many cases, standardized equipment will lack the versatility to accommodate these variations in temperature conditions, so customized units may provide the best solution.

Customized equipment can be designed with temperature and humidity controls that allow operators to specify their own settings in order to meet the holding requirements of different products.

“There are things designed for specific temperature ranges,” says Marcin Zmiejko FCSI, associate principal at Young Caruso. “Baked goods and some proteins that cannot go below the food safe zone – but also must not be held at temperatures hot enough to cook further – must be held at stable temperature so that they do not overdry,” he adds.

“It can take weeks of development in the lab to determine what is needed, so a manufacturer builds a prototype to see what works and how it needs to be changed, and the resulting equipment can be a one-off or can result in thousands of items sold, if it becomes a standard product,” he adds.

Customization need not be complex. In fact, it is often just a simple change that is made, but it allows operators to extend the life or improve the quality of the food they offer. The key priorities are holding food safely and at good quality for longer.

With margins low and labor costs rising, operators need to have the right solution to hold food warm for longer in order to maximize sales, which is one driver of customization. Other factors are also at play, including concerns over space, cost, and maximizing the use of time. In some cases, customization may result in highly bespoke products, but often a simple modification is all that is required to suit a particular product.

Michael Rabakon, national sales manager at manufacturer FWE, gives the examples of a proofing unit designed specifically for donuts. Typically, the

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customer had to wait 40 minutes for donuts to proof, but with a cabinet built to a custom size and with precise temperature controls, a new design emerged that allowed the same proofing process to take place in just 15 minutes.

Another example is a unit designed with a timer for each individual shelf, rather than for the unit as a whole. This provides an indicator of which product needs to be used first, so that food is maintained at the right temperature for the right length of time.

“Modifications for specific customers can open up a space in the market,” Rabakon remarks. “Things have been drawn on napkins on a factory visit that becomes something they use every day in their operation. We work with customers to get them what they need because modification is something we embrace. It can be as simple as providing an extra 30 minutes of hold time, or quicker recovery time after the door is opened and closed.”

SAFETY FIRST

Maintaining specific temperatures for certain foods is critical not just for quality, but for safety. When food falls outside its safe temperature range, it can quickly become unfit for consumption, posing serious health risks. A single food safety issue can have devastating consequences for an operator's business, making temperature control and food safety vitally important.

Customized warming equipment can help in this regard by incorporating innovative features. Precise temperature control, as discussed above, is one key feature. Another could be an alarm that alerts staff if food is at risk of crossing a specific temperature boundary. Enabling staff to take action could ensure that food stays within the safe temperature range, reducing the risk of foodborne illnesses.

“The food safety component is very important, and one advantage of modifying existing equipment is that the necessary testing will already have been done,” says Zmiejko. “This can be particularly important in market segments like healthcare, where customized equipment is often in demand.”



Top: FWE's
Michael Rabakon
Above: Marcin
Zmiejko FCSI of
Young Caruso

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A prime example is in a hospital setting, where food must be transported from the kitchen - possibly a satellite or ghost kitchen - to a patient's bed. If heated cabinets go into a truck to a different location 20 miles away, then there is a need to show how the food can be kept in a food-safe temperature zone during the journey.

"You have to show that you have the right heating element, for example, and have proof that it will work," says Zmiejko. "Customization might play a critical role here."

The same setting also highlights how customized equipment can help operators cater to different dietary needs. With the rise of specialized diets and food allergies, it is essential to have equipment that can safely handle different types of food. Customization can, for example, ensure that there are separate warming units for allergen-free foods, thus reducing the risk of cross-contamination and catering to the needs of all customers. "We have worked on multiple cabinets with different cavities to store food at different temperatures," explains Rabakon. "Limiting cross-contamination is something we have to consider very carefully, and customization can be used to suit cabinets to specific food products."

"In many cases, you customize things to be compliant with dietary needs," adds Zmiejko. "In the healthcare world, for example, things need to be kept at a certain temperature, perhaps because a patient's diet requires it. Also, kosher or halal meals require some modification. Generally, everyone would like a custom piece of equipment though it costs more, as it must be designed, documented, and built."

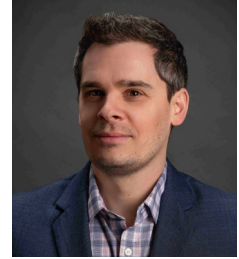
ENHANCING EFFICIENCY

Customized food warming equipment can be tailored to not only enhance food safety and quality, but also to fit the specific workflow and layout of a kitchen. The payoff here is an improvement in operational efficiency. For example, equipment can be designed to fit into specific spaces or to accommodate the volume of food that an establishment typically serves. This not only saves space but also improves the speed and efficiency of service.

Rabakon refers back to the innovative unit created for the proofing of donuts. "We suited the unit to the dish size, and in doing so we freed up 25 minutes every time the proofing process took place," he explains. "The client had to change their processes around it because of the time saving, and this led to more enquiries from them about other changes that they could make in the kitchen. Working faster means lower labor cost," he adds.

"Efficiency can mean less checking on the product because individual shelf timers allow staff to do other things," he adds. "Labor is, therefore, used more efficiently and can stay focused on other tasks, which helps in a fast-paced environment. There are 'set it and forget it' items for schools, where they reheat and store large volumes of food. These create huge operational efficiencies."

When existing units are modified to meet specific operational needs, it can be to overcome limitations on space - as many kitchens and service areas become smaller - or to minimize the human touchpoints, so that staffing levels can be reduced.



Top: S20's
Ryan Rongo FCSI
Above: Spencer
Ressa of
JME Design

"Limiting cross-contamination is something we have to consider very carefully, and customization can be used to suit cabinets to specific food products"



“As holding becomes more efficient and better over time you can shift and change the entire design of the operation,” says FCSI Senior Associate Spencer Ressa of JME Design. “As we look at efficiency, food safety and cost savings, it is really about technology that supports bulk production with better holding, so you can move more food at better quality for less cost on the operations side.”

“In higher education, hospitals, long-term care and resort hospitality, for example, you can look ahead and make things in bulk rather than looking at responding to what is happening in the short term, so there is less doubling back and doing more work,” he adds.

Success in foodservice is always about offering something different to the competition and doing so in a more cost-effective way to improve margins. Customized equipment, though it can come with a higher price tag initially, can help operators achieve both in the long run.

One example is the change that has taken place in small bakeries, which once had to use gigantic ovens from manufacturers’ catalogs, just like their larger competitors. Starting with customized units, mini rack ovens with half the capacity have emerged as a game-changing technology. Taking up less space and using less energy, they deliver benefits from both the cost and space perspectives.

“You also have holding heated units that are designed because they need to fit a specific footprint,” adds Zmiejko. “There is not much empty space in a foodservice operation, so when a new item is introduced and there is not the room to hold it, operators need something that does not already exist to put it on the holding shelf. They need a custom item.”

ADAPTING TO NEW TRENDS

The foodservice industry is constantly evolving, with new trends and cuisines emerging regularly. Customized equipment allows establishments to quickly adapt to these changes. Whether it’s a new cooking technique or a shift



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towards more sustainable practices, having the ability to customize equipment means that businesses can stay ahead of the curve.

This evolution can be as simple as a change in a menu, which requires operators to hold different proteins, starches, and vegetables at the right temperature for the right length of time. Alternatively, it could be a change to the operating model, as was required with the onset of the Covid pandemic, when many restaurants had to quickly adopt a grab-and-go model, change their menus, and incorporate new products.

Such change might require new heated shelving in different heights and with different capacities to suit either a curb-side model, or a change in the volume of a particular menu item. Although Covid is behind us, new operating models are still evolving, and frictionless shopping is the latest example. A recent trend in retail – enabling shoppers to simply fill their baskets and leave the shop without checking out – the frictionless model relies on camera technology to scan goods taken from the shelves, so customers can be billed automatically when leaving the premises. In foodservice, customized equipment is vital to the adoption of this model in sports stadiums.

“In sports, we are really seeing the implementation of frictionless markets, seeing entire stadiums being designed with it,” says Ryan Rongo FCSI, project manager for S2O Consultants, Inc., who has implemented such a system for a major NBA franchise.

“The camera systems follow you through the concessions market and track what you buy – like Amazon Go – and they are based in the ceiling and need a good view onto the countertop. Hot food is served on slides and cameras must be able to see into those slides and see the entire transaction, so you need to modify countertop heating systems,” he explains. “For one stadium, we went back and forth to the manufacturer with revisions and modifications to suit the camera system, and it was challenging to get it to work, but for the frictionless model the simple flat heated shelf would not work. We ended up with one of the first frictionless concepts to use multi-tiered units.”

Customized equipment lends itself to a frictionless retail model

“The camera systems follow you through the concessions market and track what you buy and they are based in the ceiling and need a good view onto the countertop”

CONCLUSION: LONG-TERM COST-EFFECTIVENESS

While customized equipment may have a higher initial cost, it can ultimately lead to long-term savings. Equipment tailored to specific needs tends to be more efficient and durable, reducing the need for frequent replacements and repairs. Additionally, it can help minimize food waste by keeping food in optimal condition for longer.

Customized units are tailored to the menu operators want to sell, in the quantity and at the quality they desire. They ensure operators have enough space to store the food they produce, and at the right temperature. Though upfront costs may be higher, they benefit from units tailored to their operations, thus providing cost and labor savings, efficiency of space, and minimal wastage.

Ultimately, customization in food warming equipment is not just a luxury but a necessity for many specialized foodservice operations. It allows businesses to meet diverse requirements, enhance efficiency, improve food safety, cater to different dietary needs, adapt to new trends, and ultimately, be more cost-effective. Investing in customized solutions can lead to better service, higher customer satisfaction, and a more successful operation overall.

“Customization is actually somewhat of a dirty word,” says Rabakon. “When we bring people to the factory, tell them we are able to customize, ask what they want and tell them we will build it for them, they are often shocked. Most manufacturers don’t do it.”

As the market in the US comes to resemble the model in the UK and Europe, where off-site prep with a small kitchen to finish is becoming more popular, customized hot holding will be a key component for many operators. Holding food safely for longer will be the key ingredient in making money and meeting quality requirements, so manufacturers who understand customization will come into their own.



ABOUT FWE

Food Warming Equipment Company (FWE) has a history spanning over nine decades.

In 1948, Oren Klemm founded FWE and pioneered the “HOT-SERVE” line of Food Warming Conveying Cabinets that are known throughout the foodservice industry today as heated banquet cabinets and carts. FWE was later incorporated on Aug. 1, 1953.

Oren Klemm helped change the concept and availability of mass feeding and built a company culture that placed teamwork, innovation, pride, customer service and value above all else. These founding attributes remain strong pillars of our culture today.

Today FWE Co., Inc. is a premier global foodservice manufacturer and supplier to some of the largest brands and facilities in the food industry. Under the ownership of Hatco® Corporation, FWE continues to move forward serving the industry with long-lasting quality and dependability.

For more information visit fwe.com

Customized hot holding has significant advantages



FURTHER INFORMATION:

For more information about FCSI,
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