



White Paper

Versatile Steam Ovens

The Best Way to Keep Pace with Fast-Changing Customer Tastes

September 2016

Executive Summary

In large cooking environments from hospitals to restaurants to schools, the kitchen brigade scrambles to fill orders during peak dining hours. Even the mom and pops with no ability to delegate need help. Trends in eating out are shifting continuously and competition to stay profitable relies on the cooks and on the restaurant chain management, mom and pop owner or newest food channel operator to make the best buying and implementation decisions.

Newer, Better

Choosing equipment for a commercial kitchen of any size takes research. There are many choices—among them the convection oven, combination oven, conveyor oven, steamer, and deck or pizza oven with variations on a theme for each of them. Then within those, finding the sizes, features and specifications that are the very best for your kitchen takes even more investigation. One of the more recent additions to the lineup is Baxter Manufacturing's steam assisted Rotating Rack Oven. This rotating rack oven (rack oven for short) is not a combi-oven. In fact, the standard combi-oven falls short in head on comparisons with a rack oven.

The Baxter rack oven *can* do convection cooking and reheating, but it also has a patented spherical cast steam system augmented by precision airflow to complement the automatic rotating racks for perfect outcomes every time.

These ovens save time and money and increase hotel and restaurants' profitability and decrease costs for non-profits and governments by reducing handling, decreasing cooking times, and enhancing the quality of the finished product. Here's how: advancements in steam technology allow the benefits of steam assisted cooking that used to be relegated to the bakery to spill over into delis and cooking kitchens. Many folks aren't aware of how steam assisted cooking works, and don't associate it with cooking meats and vegetables. But that's a mistake.

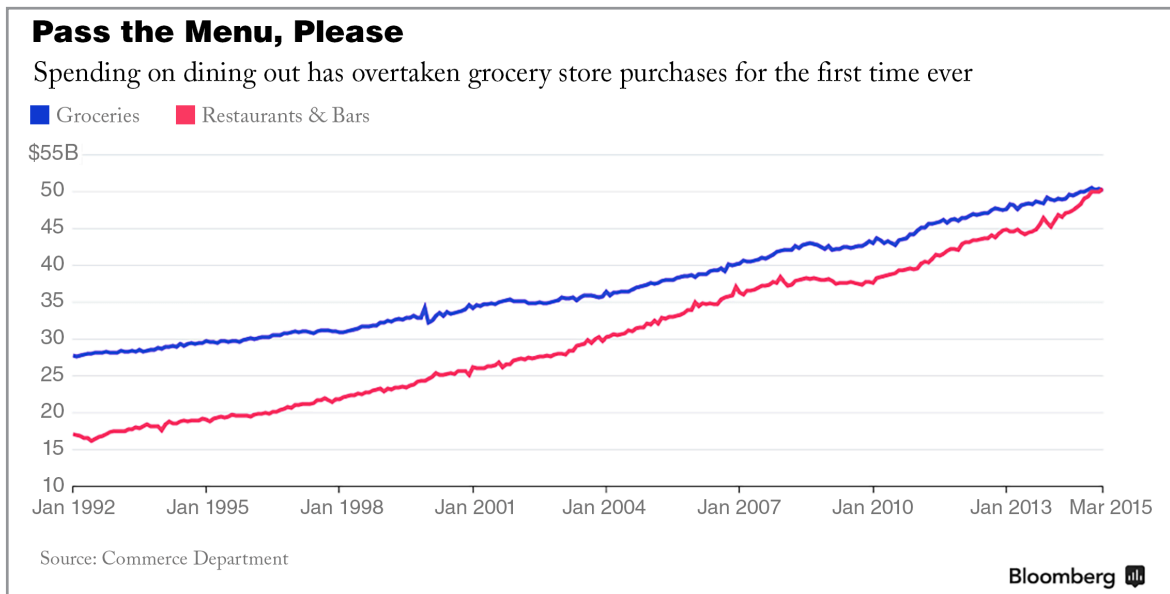
About Steam Cooking

In particular, the **flash steam system** in an automatic rotating steam-assisted oven can increase the humidity level from a low of 1-2% to as high as 80-90% within one minute. The tightness of the cooking chamber can retain much of that moisture for several minutes into the cooking process. While the large steam system raises humidity quickly, the controller can be *easily* programmed to **pulse** the steam system at set intervals throughout the cooking process to help maintain a moist environment throughout the entire cycle. This system now has chefs and cooks considering cooking proteins and vegetables in a steam-assisted cooking oven. Breads baked in a steam oven have a shinier, crisper crust with steam allowing the heat to reach the center of the bread quickly, thus eliminating blow-out.

Furthermore, proteins "steam cooked" in automatic rotating rack ovens cook more quickly—up to 20% faster depending on the item—and retain up to 5% more moisture than cooking dry. Vegetables can be steam cooked with nutrients, vitamins and minerals being retained for healthier meals. A University of Wisconsin research team measured up to 31% lower loss of iron for steamed vs. boiled spinach. Plus, steaming is more gentle than boiling, and steaming does not dry contents like a straight convection oven would.

One oven can do it all. There's no need to buy a convection oven, a steamer, and a combi oven separately. The result is more efficient, energy-saving cooking that provides cost-savings from decreased cooking time, plus reduced labor costs and increased safety from less mid-cooking-cycle handling.

History and Trends



Dining out dollars peak grocery sales

An April 14, 2015 Bloomberg report stated that Americans' spending on dining out surpassed grocery sales for the first time since 1992.¹ And while the major demographic pushing the trend is Millennials (even though Boomers tend to eat out less than their offspring) the overall rise in eating out is great news for restaurateurs. Other trends, however, are not so encouraging.

Changing habits when eating out

The 2016 IDDBA, International Dairy and Deli Baking Association, cites this alarming statistic: **84% of consumers said they have changed their habits** when eating out in the past year. Across these demographic groups—Millennials, Gen X and Boomers—the top stated behaviors were “spending less for foodservice meals” and “ordering healthier options.”² Only 16% of Americans are eating the same thing as a year ago! Knowing of their customers' changing tastes becomes all the more frustrating if the food preparers cannot respond to them.

Sales channels are continuing to evolve

Traditional channels of the past are losing share to new non-traditional channels. “Deli is winning.” From Progressive Grocer and Nielsen Perishables Group, total in-store deli department dollar sales grew 27% and volume grew 18% from 2010 to 2014.³ Moreover, convenience stores, drive-through, “meal-deals,” and online purchases compete with traditional restaurants for the dine-out experience.⁴

So, not only do restaurants need to adjust, but also food service providers within the newer channels have to stay one step ahead of their competitors as well.

Economic growth, labor costs, vulnerability to social media⁵

Slow economic growth in traditional retail restaurant sales and price erosion due to digital upstarts like Amazon, Blue Apron, Über (delivery), Google Express, and Instacart increase a growing sense of insecurity in this sector. Rising labor costs challenge profitability in the kitchen and at tableside. Online social media transparency integrates service and health reviews to increase backlash susceptibility. Controlling the economy is not possible, but there are ways to cut labor costs through efficiencies and to reduce online vulnerability through healthier cooking.

Why a Steam Oven?

It's difficult to change "what we always knew." It would be so much easier if everything wasn't evolving so quickly these days! We like to hold onto the few things that haven't changed. In fact, Baxter Manufacturing Company has not changed in the respect that it remains a leader in designing and manufacturing quality foodservice and bakery equipment worldwide after 50 years in business. But Baxter knows that in today's game, advanced technology is there for one reason: to help their customers create an authentic experience for *their* patrons. They know that it's important to create that special look of real artisan bread. They understand how the scent of fresh food being cooked on site can literally bring in people off the street. They appreciate the appeal of a beautifully plated, delectable entrée being served tableside, or a quick rotisserie chicken being popped steaming into a happy customer's takeout bag. Baxter no longer just makes bakery ovens. They have expanded like a loaf of bread in the oven, so to speak. Because there's this maxim: "Man does not live by bread alone."

More recently, Baxter has enhanced their steam ovens with patents and technology to quickly, efficiently and more beautifully execute entire menus with fewer man-hours and easier controls than ever before. Because restaurateurs face ever more challenges, they can benefit from learning about steam cooking. And while the steam assisted oven presents "one more thing to learn" for the harried overworked cook, the ease of programming and using a Baxter OV300 or OV500 series, coupled with less handling, no spits for rotisserie chicken, and no need to rotate the food for even cooking make it a "hot" item for the busy cook.

There's not a lot more to know: Simply put, steam-assisted cooking has basic laws of physics to back up the fact that it is very effective beyond the realm of baking alone.

The science behind the steam-assisted oven is this—Water molecules expand 1600 times more quickly than solids. Moisture enters into the pores of the cooked item more gently and rapidly than by other means. Tests results show that this method is quicker, gentler, moister and healthier.

Who Benefits?

Two very important categories of folks can benefit from a Baxter Automatic Rotating Rack Oven:

- 1) The Kitchen Brigade (OR a smaller team of cooks) and
- 2) The CFO or purchasing agent/restaurant owner

Advantages to the Kitchen Brigade (or smaller cooking staff)

1. *Ease of use*

- Ninety-nine (99!) menus can be stored in the oven's controller for easy replication.
- Easy to program. The steam oven controls are "easier to use" than combi ovens.
- No one has to rotate the hot pans for even cooking—the racks rotate automatically
- A lower manpower complement is needed, and
- Chance of cooking personnel sustaining burns is reduced.

"Learning how to operate the Baxter ovens was a piece of cake. Recipes are simple to program and timers are easy to hear. We can cook a variety of foods at the same time, just on different racks. Pans and vats come out of the oven and go right into the hot case or soup kiosk for sale."

—Georgia Smith, Deli Manager at Schnuck Markets, Inc. a chain of 100 stores in seven states.

2. *Performance and food quality*

- Bread crusts are shiny and crisp.
- Meat is “plumper.”
- Chicken takes half the time of rotisserie cooking.

3. *Variety*

- Versatility allows faster response to changing tastes.
- One oven handles an assortment of cooked foods and ways to cook them.

4. **Many ovens in one**

- It’s a convection oven *and* a reheating oven, too.
- It can be used for roasting, baking and cooking so it saves on floor space.
- Needing fewer ovens means a lower investment on equipment.

For first-hand experience, watch the short testimonial on the OV310 Mini Rotating Rack Oven from Carlos Bakery’s Buddy Valastro: <https://www.youtube.com/watch?v=2s-phpjyek>.

*“At first I was skeptical.
... But I was made a
believer.”*

—Buddy Valastro

Advantages to management (CFO) or the purchaser of the oven

1. **Reliability**

- 10 year tube warranty—the only one in the industry.
- Backed by Illinois Tool Works, parent company of premier brands like Hobart, Traulsen, Vulcan, and many more.
- Excellent reputations back up the quality.
- Less down time.

2. **Quality**

- Food is healthier (more nutrients saved in steaming vs. boiling).
- Cooked foods contain more moisture.
- Crisp, beautiful bread that’s easier to sell.
- Less “shrink” on meats because the moisture (weight) is retained. Thus, the sale is more profitable for menu items that sell by the pound (i.e., an 8-ounce ribeye on the restaurant menu.)

3. **Factory Support**

- Baxter is a U.S. Company with U.S.-made parts.
- Easy access to manufacturing facilities for better service, quicker turnaround.

4. **Three Ovens in One**

- It’s a convection, roasting, and reheating oven (with a proofer, besides).
- One purchase for many uses saves money and floor space.

5. **High Sustainability Marks**

- The OV500G1-EE and OV500G2-EE gas rack ovens are now ENERGY STAR® rated.
- They are the first rack ovens in the industry to receive this certification.



Conclusion

Restaurants and commercial kitchens in general face increased competition from supermarkets and convenience stores, and online channels such as Amazon and Uber. Increasing minimum wages challenge profitability in the traditional restaurant setting. Dining habits are changing frequently. Americans spent more money on dining out in 2015 than on groceries for the first time since 1992. Millennials eat out more than Boomers, but their habits are fickle, and their reactions to food and service are shared instantly and broadly through social media. Nutritious and healthy meal concerns vie for popularity with foreign food experimentation and changing service expectations. Convenience stores and in-the-grocery-store delis represent just a few of the newer ways to grab “something to eat.”

All of these trends should encourage a restaurant chain or a mom and pop, a school cafeteria or a Big Box retailer (i.e. Costco) to understand the importance of delivering higher food quality in less time and with lower costs. Being flexible and versatile is easier with the rotating rack steam-assisted cooking systems offered by the Baxter OV500 or OV300 series ovens.

The existence of health concerns along with social media plus the upcoming (December 1, 2016) Food and Menu-Ingredient Transparency Requirements suggest finding a cooking method that will ensure the survival of the traditional kitchen. Surviving and then thriving will come from pushing past traditional foodservice preparation and being comfortable in the rapidly evolving future of foodservice operations. With a Baxter rotating rack oven, the required flexibility and responsiveness are achievable.

The Product Line

500 Series Product Offering:

OV500E1 ELEC. | OV500E2 ELEC.
OV500G1-EE GAS | OV500G2-EE GAS

300 Series Product Offering:

OV310E (ELECTRIC) ML-132495
OV310G (GAS) ML-132494

For more information visit our website: <http://www.baxtermfg.com/>

Or contact us here: <http://www.baxtermfg.com/baxtercontactusform.aspx?id=93>

References

¹<http://www.bloomberg.com/news/articles/2015-04-14/americans-spending-on-dining-out-just-overtook-grocery-sales-for-the-first-time-ever>

²*What's in Store*, 2016 IDDBA 30th edition, Page 29. Source: “Wellness, Sustainability and Where to Eat 2015 Report,” The Hartman Group.

³*What's in Store*, 2016 IDDBA 30th edition, Page 138. Source: Nielsen Perishables Group.

⁴Acosta: The Why? Behind the Dine™ 1st Edition study fielded July 2014, Acosta.com.

⁵*What's in Store*, 2016 IDDBA 30th edition, Page 2. Source: Tim O'Connor, vice president, RetailNet Group.

About Baxter Manufacturing

Baxter Manufacturing prides itself on high-tech manufacturing combined with personal service. The company has a global presence combined with small-town roots and values. In 50-plus years in business, the company has been a leader in designing and manufacturing quality foodservice and bakery equipment worldwide serving customers in the school, grocery store, hospital, hotel, restaurant, resort, correctional facility and military industries worldwide.

The company understands that advanced technology is there for one thing: to help customers create an authentic experience for their customers—the look of artisan bread, the scent of fresh food being baked on site, the appeal of seeing a tempting entrée being prepared.

Since becoming part of Illinois Tool Works (ITW), Baxter has further improved its customer support, design quality and manufacturing capabilities. Founded in Tacoma, Washington in 1958 by Max Baxter, the company is now located at 19220 WA-162, Orting, WA 98360. A part of the Food Equipment Industry, Baxter Manufacturing has 51-200 employees. Its gas single & double rack OV500 ovens received the EPA's first ENERGY STAR® qualification for rack ovens in 2015. Website: <http://www.baxtermfg.com/>. Phone: 800-777-2828.