



REVRACK

Rack around the clock

The rack oven is one of the most important bits of equipment for bakers who need reliability and quality day-in, day-out, says **Andrew Don**

David Hall, managing director of wholesale baker London Bread & Cake Company, says the key to baking quality goods is matching the right product to the right oven. He uses a Revorack, which cost about £17,000 including installation, and a smaller Sveba-Dahlen, costing about £5,000.

Hall makes 10,000 bagels daily in the larger oven, which he says bakes to very high temperatures and circulates air around the product, maintaining the heat even when the door is opened. He also finds rack ovens good for certain patisserie, such as croissants, Danish and buns, as well as high loaves, such as cottage bread or farmhouse.

"I use both rack ovens every day and we are going virtually 24 hours seven days a week. There is rarely any breakdown or maintenance needs. Sometimes you need to clean the steam pipes out when they scale up, but it's straightforward."

Hall says he would not be able to produce a quality Danish, croissant or bagel if it were not for his rack ovens. "When we've tried to make them in other ovens, we could not get a good-quality product. Racks are critical for optimising quality."

Alex Fleck, managing director of Bread Roll Bakery in Darwen, Lancashire, however, explains that there are some products

he cannot bake in a rack oven because of customer preference. He says rack ovens bake morning goods until they are brown all the way around. "Our customers do not like them like that – it's the colour of them. It is just our customers' preference to have them baked in the deck oven."

"We bake pies the most in the rack and we can get 640 units in there. We could get more, but we spread them out to get better heat dispersion."

Increased capacity

Archie Paterson, co-founder and managing director of Nevis Bakery, near Fort William, in Scotland, installed a four-rack Double D Rack Oven supplied by JBT FoodTech about a year ago, taking the total number of his Double D rack ovens to three. This enabled him to increase capacity by 70%. Paterson says his deck and reel ovens are excellent for certain products, such as morning rolls, but they could not handle the capacity he needed at the 12,000sq ft bakery. "The rack ovens make life much simpler, because there is no need to constantly load up individual loaf tins. We can simply programme the oven and let it do its job."

Consistent product is crucial for a



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bakery that supplies catering outlets, multiple retailers and grocery stores throughout the UK. Paterson says such consistency is made possible by the rotating turntable and Double D's airflow system, which bakes evenly across each tray and from the top to the bottom of the rack. "We are also able to experiment by adjusting the CCS2 Controller for time, temperature and venting, so we can make sure each different product is baked exactly the way the customers want it."

Keith Stalker, managing director of European Process Plant (EPP), supplier of the new energy-saving rack oven MIWE roll-in e+, says it can be daunting to buy such an important piece of equipment, but that rack ovens are the answer if a quality convection bake, batch after batch, is required.

David Charlesworth, technical sales engineer at Norbake, adds that rack ovens save time, labour and energy. "You fill the rack with bread cakes or bread and you just wheel it in without having to handle the trays again." He says they are not as versatile as decks,

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but as Duncan Macfarlane, sales director of Scobie & McIntosh, agent for Revent, points out, different manufacturers' models can vary dramatically in performance. "The way the air is pushed into the oven is important to get an even bake. The steaming system is important as well... If designed in such a way that it is made with steel balls sitting on trays, that gives you greater surface area than a steel rod, so you will turn more water into steam in a quicker period." This results in a more even distribution of the steam and saves heat loss, making it more energy-efficient, he says.

Conserving energy

Energy efficiency is what it is all about today. EPP says some bakers involved in trials of MIWE roll-in e+, which has a USB port on the front and an Ethernet-interface installed, are noting potential energy savings of up to 25%. Stalker says many bakers also reported a more uniform colour, a shinier crust and a "more beautiful crust crack" from their roll products. He says engineers had worked hard to improve the air conduction on the oven, which had made it possible to bake at lower temperatures and cut energy costs.

Meanwhile, Tom Chandley has latched on to the eco-trend with its new 'Eco' Rack Oven that claims to use less energy and results in what it says is a dramatic reduction in heat loss. A 'turbo controller' with 24-hour clock has a built-in sensor, which puts the oven into a sleep mode where appropriate. The user can set the sleep mode temperature to, for example, 50 degrees below the bake temperature, avoiding energy wastage.

This built-in feature also ensures the oven is always on standby, so it can be brought quickly back up to bake temperature as and when required.

The Eco has a built-in steam system, which requires no drain, because it is balanced to ensure no excess water is injected into it and therefore no waste water produced. A self-condensing hood can be added if external extraction cannot be fitted.

Scobie rack ovens have a computer panel, allowing for different temperatures during the baking cycles and enabling bakers to increase or decrease, say, 5°C or 12°C automatically as part of the programme. It will also automatically open the damper near the end of



the bake to extract excess moisture. Macfarlane says: "We have a patented system for the steam and for the rack-lift mechanism. With the computer system and the way the airflow panels have been designed, you get consistent product."

Bread Roll Bakery's Fleck is one baker who places huge importance on energy efficiency, which is one of the reasons he opted for a woodchip-fired bio-oven from Bakewell Ovens and plans another. It costs him half as much to run as gas and electric models, he says. Fleck explains that energy-efficient models are essential, given that energy costs have skyrocketed and could continue to do so. Interest-free loans to buy them are available from the Carbon Trust, he adds.

There is an added bonus to baking with woodchips, of course – it produces ash, although not an unwieldy amount. Why is this beneficial? It is compostable and Fleck uses it to fertilise the garden. Surely baking does not get better than that.

Buying tips

- Ascertain the manufacturer's history
- Try the oven out with your own products at a test facility
- Check out the back-up service
- Meet the engineers and the controllers
- Speak to other bakers, but remember that what is good for them is not necessarily good for you
- Consider buying second-hand, on eBay and in auctions
- Take a look at biomass if fuel-saving is important to you