

Report on Seuferts Backhaus, Schweinfurt

Optimisation through comparative baking

Schweinfurt, Germany. The only real way of telling whether a new baking oven is really better is by directly comparing it to other ovens. „That’s something we can do,“ says master baker Joachim Seufert. Seuferts Backhaus has eight MIWE roll-in rack ovens. All of them have different years of manufacture and reflect advancements in oven technology over the years. Since July 2009, the bakery has been using the latest model: a MIWE roll-in e+.

Joachim Seufert has already noticed a range of positive effects on his baked goods and in our baking methods. Rack ovens play an indispensable role at large operations like Seuferts Backhaus. „Above all, they are easier to use than deck ovens,“ Joachim Seufert explains. For this reason, the bakery is no longer using deck ovens, not even for baking pastries. Crusts, sponge bases and cakes are all baked in a rack oven. A tunnel oven is used for baking bread.

Since rack ovens offer more flexibility, the bakery is even baking bread in a rack oven, though only in the new roll-in e+. This is possible thanks to MIWE aircontrol technology, which allows baking air conditions to be perfectly adjusted to the product. Already in use for several years, the system has been further enhanced and now allows for even more precise control of air circulation. „We have the advantage that we can do comparative baking,“ Joachim Seufert explains. This means that changes in baking results due to different air quantities can be compared.

The bakery is also achieving better baking results, which Seufert attributes to more than just the MIWE aircontrol. „With the new roll-in, our rolls have increased volume and come out juicier.“ This is the case even though less steam and lower temperatures are used during baking. Master baker Seufert has also noticed improved shine and an →



Joachim Seufert .



Products baked in the new MIWE roll-in.

even crispiness on all baking trays. „With the old trays, the bottom trays would often come out less baked.“

Joachim Seufert also considers his new roll-in e+ to be a justified purchase from an economic standpoint. „In total, the new rack oven uses 25 percent less energy than the old ovens.“ This figure was obtained by doing comparative baking at Seuferts Backhaus. Each oven has a gas meter that records energy consumption. During the two days of comparative baking, identical products were baked in an old rack oven and in the latest rack oven model.

Although significant energy savings were recorded when the oldest rack oven and the more recently purchased rack ovens were compared, energy consumption was even lower with the new roll-in e+. Joachim Seufert: „Therefore, from an economic point of view, purchasing a replacement rack oven pays off faster.“ With many other systems in the bakery, this is not as clearly apparent.



Faster heating-up times allow batch-after-batch baking with no loss in quality.

Seufert mentions another selling point. „During batch-after-batch baking, the oven returns much more quickly to the starting temperature than older ovens.“ For Seuferts Backhaus, this means that more products can be baked in the same amount of oven space. This saves investment costs and even more energy. Seufert attributes this increase in output in conjunction with lower connected loads to the improved heating technology and insulation of the roll-in e+.

At Seuferts Backhaus, heat emissions and heat escaping from ovens would hardly affect the room temperature because of the size and tall ceilings of the facility. However, Joachim Seufert and his baking team have discovered that very little heat or steam is escaping through the door. „It’s the first rack oven that’s truly air-tight,“ say bakers Kurt Pfeuffer and Markus Hömer, visibly impressed. An exhaust hood was installed with the new roll-in e+ purely for aesthetic purposes. „We actually don’t need a fan,“ Pfeuffer explains.



Views of ovens.



Even mixed flour bread can be baked in the new rack oven.

The baking team are also excited about the newly designed window in the door. Markus Hörmer: „Thanks to the large window you always have a view of the whole rack trolley.“ In the roll-in e+, these types of detailed enhancements bring much added convenience to the daily routine. The oven operators are also the ones who noticed that there are no protruding screws in the baking chamber. „This makes their job easier,“ Joachim Seufert adds.

Seuferts Backhaus is also using the MIWE TC control system to make work easier, more reliable and reproducible. „In the past, we used three very different control systems,“ Seufert explains. In future, the bakery plans to use the TC control system exclusively.

And this will be an option for the bakery because MIWE is offering its latest generation of control systems for ovens, refrigeration systems as well as in-store baking ovens.

Joachim Seufert: „That will make work easier our team, especially those who work in all areas of the bakery.“ This would also help simplify in-house training.

The TC control system is now being used in four rack ovens. TC stands for touch control because the entire system can be controlled via one touch-sensitive screen. In Easy mode, programmes can only be selected and started, whereas in Profi mode, programme parameters can be set or changed. „For both modes, brief instructions are all you need to get started using it. It’s designed in a very logical way,“ Seufert reports.

The baking programmes are installed in each oven via a USB connection on the front of the oven. However, baking results may vary due to design differences, such as differences in burner output. „Bread baked to perfection in one oven may be overdone in another oven,“ says Pfeuffer, →

who works with the oven. Using the reference oven as a guide, the output percentage of the other ovens can be adjusted in the service settings of the other ovens. „This means we don't have to enter a different temperature for each of the other ovens.“

At Seuferts Backhaus, only authorised employees are permitted to change baking parameters. „It's easy to do, but not everyone should do it,“ says Joachim Seufert. Access is password-protected. In future, the plan is to link all the oven controls at Seufert into one network. This will allow programmes to be changed even more easily from the office.

But Joachim Seufert also cites another reason: „I think it's important to be able to document and monitor oven capacity.“ Baking logs would be a good way of showing employees where there is room for improving capacity, he says. „This would be yet another way of saving energy and money.“



With the TC, baking parameters can be defined in several steps.

Short-Report of Seuferts Backhaus

Owner: Joachim Seufert
Friedrich-Gauß-Straße 4
97424 Schweinfurt , Germany

Branch outlets: 30

Employees

Production: 31, of which 9 are apprentices

Sales: 77, of which 7 are apprentices

Distribution/logistics: 10

Management: 3

Price examples:

Hard rolls 0,30 EUR

Rye-and-wheat bread 1.000 g 2,65 EUR

Special bread 500 g 2,35 EUR

Danish-style pastry 1,05 EUR

Special rolls, pretzel 0,55 EUR