



How can I optimise the kitchen environment?

The challenge

Safety and quality are the cornerstones of all activities that involve the handling of food. Serving good-quality food using fresh ingredients is something about which everyone who works in a kitchen environment is passionate. On the other hand, a lack of regard for safety and quality can have serious consequences. The worst-case scenario would be a customer or guest falling ill because of the food. However, even if people do not fall ill, the reputation of the business may be at stake.

Obviously, everyone in working in a kitchen environment strives for quality and safety, but sometimes it can be more difficult to introduce than you imagine. That is why we have written this guide, which is aimed at those working in a leading position in a kitchen – for example, the kitchen manager.

Illustration of the operation

For you as kitchen manager to improve safety and quality, you must first analyse every aspect of your operation. This is part of the HACCP work, and you will presumably already have some form of analysis. Whether your HACCP system needs to be updated or simply reviewed, you can also get help from a variety of companies that specialise in food safety, for example Nomor, Ecolab, Anticimex or food hygiene consultants. Try to automate where possible – for example, temperature control – and use scalable digital systems for internal control.

Once you have done the above, it is important to follow the HACCP internal control plan in order to detect all potential risks. Ideally, this should be done without detracting from valuable time spent on the core activity, which of course is preparing and serving food.

Automation required

One good way to make it easy to follow the internal control plan is to use digitised control points. As the person in charge of internal controls, you can always ensure that your operation has up-to-date control points and check where – if at all – documentation work is being neglected. In the event of changes, such as those brought about by legislation, you can easily distribute new and appropriate control points to your operation. If any new members of staff arrive, it should be easy to introduce them to the internal control work.





Automatic temperature monitoring

Automatic temperature monitoring – which is part of the concept of digitised internal control – frees up staff resources for use in other parts of the operation.

With manual temperature management, the temperature has to be written down once a day. This is often done at the start of the working day, when the temperatures of refrigerators and freezers are at their best. During the day, refrigerators/freezers are opened, resulting in fluctuations in temperature that your manual temperature monitoring will not detect. These variations may have an effect on the products in the refrigerator/freezer, which in the long run may affect the quality of the food.

Why automatic temperature monitoring?

The advantages of automatic temperature monitoring are numerous.

- **Continuous measurements throughout the day and year**
A logging frequency of 30 minutes will provide 48 measurements a day, making it easy to monitor at what time there is a risk of interruption to the refrigeration chain. It also provides an average temperature for the day, which in many cases is the most important indicator of whether the products can be used or whether they need to be discarded. You can set a maximum/minimum daily average temperature and document any deviations.
- **Alarm function**
In the event of a sudden rise in temperature – for example, in the event of breakdown, a power cut or quite simply when someone has forgotten to close the door – the person in charge will receive an SMS or e-mail and can thus take any necessary action. In the case of, for example, a freezer containing a high value of stored products, a lot of money can thus be saved if things go wrong.
- **Measurement of incoming goods**
Checks on receipt are simple when using a handheld unit connected to the system. Everything will be documented automatically, and you will also be able to follow up on any suppliers who are neglecting the refrigeration chain. Deviations are generated whenever the temperature falls outside the set min./max. values.
- **Cooling processes**
Automatic logging of your cooling processes involves a cooling node automatically logging the entire process at five-minute intervals. Once the target temperature or time limit is reached, the entire process is sent to the web service, where it is presented in an easy-to-understand format in a graph. If the process fails to achieve the target temperature within the time limit, a deviation is generated.





Others have automated and this has led to...

Businesses that use digitised internal control generally have better control and a better grasp of their HACCP.

Staff no longer need to think about those elements that are easily forgotten during a stressful day, such as writing down the temperatures from the refrigerators and freezers.

A handheld unit connected to the temperature system makes temperature measurement and documentation of incoming goods simple. All temperatures are logged and all deviations captured. It is easy to see in the system if any suppliers are neglecting the refrigeration chain, and to rectify the problem.

Simplicity during audits: Everything is collated in event logs and reports.

Life is made a lot easier for the person in overall charge of HACCP. They will always be able to keep track of what has been done and what needs to be done.

Easy to introduce new staff to HACCP work.

How do I set up requirements for solutions?

It is not that difficult to introduce digital internal controls, but sometimes you need a bit of advice. For this reason, we have created a document that describes how you can set up requirements for digital internal controls – based on the reality of your situation. Find out more about setting up requirements for digital internal controls [here](#).

About the author

Carl Strömberg has an IT background and long experience of web-based services. He has worked on digital internal control since 2005, as a project manager, product owner and developer.

ICU Scandinavia AB is a leader in automatic systems for monitoring, log and quality assurance in laboratories and for food safety. Our systems, Boomerang and Coolguard, meet the regulatory requirements for logging and documentation for laboratories, cold storage facilities and food safety. In 1998 we were pioneers in automatic temperature monitoring and log. Today our experience within the field is unbeatable and we work together with world leading customers and partners, in order to assure quality and security in laboratories and restaurants all over the world. ICU Scandinavia holds offices in three countries: Poland, Switzerland and in Sweden where our headquarters is located.
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