



Maurer Speck has to manufacture respectable amounts of cured meat. Constantly looking for new ways to improve processes and product, the family produces their speciality in a traditional manner achieving the best quality. The Sterilair units for the hygiene concept are in continuous use 24/7 and are serviced every 16 months.

Positive results with UVC disinfection

Every maturation room is different and a new challenge

Maurer Speck – a part of Migros Industrie – is the Swiss family business of Ernst H. Maurer and could be described as an inconspicuous site. You have to be let in to see the company's pride: Big maturing rooms filled with the sought after cured meat. Every room is a new challenge concerning temperature, circulating air, humidity or maturation cycles. Regarding UVC technology for those different rooms adjustable solutions had to be found.

By Flurin Alexander-Urech and Philipp Bächli

Constantly looking for new ways to improve production process and product, the family manufactures their speciality in a traditional manner to achieve the highest quality. The company owns more than 160 awards. The hygiene experts from Sterilair got a part in this success.

Other solutions were time consuming

Maurer has been looking into UVC technology for years. But in the early years of the new company it was too costly. Back in the day the air for the maturing rooms was just filtered using standalone filtration devices, one cubic meter in size fitted with cartridges. But the filtration units were poorly accessible and difficult to clean. The positive effect for the air was only short-lived and the situation worsened over time.

Having decommissioned the filtration, Ernst H. Maurer started to work without filtration. Just working the settings of the climate control,

the company tried to optimize the climate and conditions of each room. Although being successful, doing so was challenging and demanded a great deal of time. There are cured meat products where mold is specifically wanted during maturation. Later, the mold is either brushed or washed away. Maurer Speck however is made with a totally different philosophy: No mold at all is wanted on the raw cured products. Just to name one challenge: During summer the air humidity is up to 70% higher than during winter, as the air during the winter months is much drier by nature.

Hygiene concept as the basis

It was at the international exhibition IFFA in Frankfurt (Germany) the Swiss specialist for „Speck“ came across UVC technology again. After a thorough review of the premises, Sterilair provided a bespoke hygiene concept for the maturing rooms and started testing. The first trial using the recirculation devices with fans failed. The second attempt using ceiling units brought the results looked for. A total of eight DBM units, ceiling units with panel, were placed in the first maturing room. Mounted underneath the ceiling in positions defined by the hygiene concept and only working with the given natural air flow, the units decontaminate the air constantly and destroy even the problematic mould spores.

Without recirculating the air, the ceiling units do not interfere with the delicate and well-adjusted airflow and climate in the maturing rooms. Since installing the ceiling units according to the calculations, the air quality is at an

optimum all year. This allows Maurer to dedicate his attention to other areas. Simple to handle, efficient as well as long service cycles: The UVC low-maintenance installation ticks all the boxes.

Every maturation room is different and a new challenge, but the solutions by Sterilair are adjustable. Maurer is convinced by the reliable advice and the results. The companies did work together to find a concept, which functions for the maturation rooms. An assessment provided insights into temperature, circulating air, air supply, exhaust air, humidity and maturation cycles. After that, test equipment was used to determine which solution would be the best.

Solution generates spare capacity

Thanks to the fact that the microbiological situation in the ripening rooms is constantly at an optimum level since the implementation of UVC devices, Maurer can take care of other tasks. Of course, in addition to the qualitative improvement, the installations have also had a positive impact on costs, as there has been a reduction in the effort involved in managing the air conditioning.

Most important however: The product stays completely free of mould, proving the installation and decision of Maurer Speck right, as the company's philosophy is to offer raw cured specialties with no mould. Since 2017 the UVC devices are in use 24/7 and are monitored electronically. The Sterilair devices are robust, easy to care for and do not require much maintenance. Maintenance is mainly limited to a UVC emitter change, which has to be carried

out after 12,000 operating hours, which corresponds to 16 months when in use 24/7.

Further projects in planning

The partners are in constant exchange and keep each other informed. In addition, another UVC installation is being planned. A UVC retrofit for three air coolers in areas where wet cleaning can be problematic. Air coolers with integrated UVC help maintaining good air quality by preventing bio fouling inside the air coolers and thereby making them more efficient. Over time cooling coils get covered with biofilm reducing the capability to chill the passing air. With UVC the build-up of biofilm is prevented or at least significantly slowed down. This in return prevents germs and spores – which are parts of the biofilm – being spread back into the production area by the passing air. Simultaneously down time for cleaning the air coolers is reduced. The greater efficiency in turn helps saving energy and thus money.

A hygiene concept is the basis of every approach. Every project begins with an analysis of the current situation. All rooms climatic conditions must be analyzed and interpreted. All existing parameters can have an influence on the products and the microbiological situation. Based on the acquired knowledge and

analyses, an appropriate hygiene concept is created. Maurer concludes that the traditional production and the implementation of modern technology complement each other perfectly.



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