

Achieve optimum food safety

The technology focusing on foreign body management in dried raw materials is rapidly evolving. Stefan Birzele, managing director and production manager, explains how **Kündig Group** blends established methods with advanced innovations.

How did you develop the Kündig Food Safety Tower?

Stefan Birzele: Our mission is very clear – we want to redefine what quality and safety mean in terms of food and feedstuffs, and to set new standards by doing so. We understand that our clients are continuously asking for even safer raw materials. Foreign body management and germ reduction are two of the most important factors when we talk about food safety. Next to Biosteril – our germ-reducing service – we wanted to revolutionise foreign body management. We aimed for ‘zero tolerance’ and ended up with very impressive results.

“The Kündig Food Safety Tower is three storeys high and mixes traditional ways of cleaning dried food products – such as sieves and scales – with the finest in modern technology, including X-ray sorters, metal detectors and a three-laser system.”

The Kündig Food Safety Tower (KFST) is three storeys high and mixes traditional ways of cleaning dried food products – such as sieves and scales – with the finest in modern technology, including a three-laser system that can identify 16 million colours and 256 grey levels, X-ray sorters, and metal detectors, as well as subtle variations in form and texture. The closed-off, stainless-steel containment system removes the risk of contamination while the product is sieved, sorted, cleaned and packaged. We also offer processing services, including granulating, grinding, mixing and roasting. The result is a safe, high-quality product, whether it's a fruit, vegetable, herb or spice.

Everybody in the team, from the quality department to the technicians and the machine operator, has worked very hard towards a very ambitious goal. I am very proud of what Kündig Group has achieved in this field.

How did you go about combining traditional cleaning methods with new technology?

We started by researching how to have a substantial impact in foreign body management. In the development phase, we started testing optical sorters and other modern cleaning methods, such as X-rays and metal detectors. We combined all data accumulated and compared it to the traditional

cleaning technologies. The more data we had, the more we learned that the ‘new’ and ‘traditional’ technologies needed to work together in order to get the best results. We then focused on the correct sequence of the technologies in order to achieve the best results possible.

What are the biggest challenges in food safety?

Foreign bodies in general – such as wood, glass, metal, hair, stones and insects – but also impurities from the product itself, such as onion roots, chilli seeds or charred parts. Plastic, however, is becoming a bigger problem every day. We live in a world of plastic, and it comes in all shapes, colours and weights, and can be very difficult to sort out. This is why our sorting process looks at form, colour, weight and texture to separate out plastic, whatever form it's in.

Can you give us an example of the success of the KFST?

One of our very first assignments was when a then-new client called us up, because he had high-quality white peppercorns mixed in with black ones. There was also other foreign bodies in the mix that were much harder to detect and potentially hazardous to health, such as glass parts. Back then, the market was short of this specific quality and he simply couldn't get a replacement delivery. Since our client sold all of his product to his very best customer, he had to do something. We had never tried to clean peppercorns on the KFST before, but promised our client we would try our best. After the KFST treatment, he was very happy with the quality. We now work together on a regular basis.

Do you have plans to expand in 2018?

The KFST was introduced in 2016. Thanks to the tremendous success of our development, we are doubling capacities in 2018. The key element will be a brand new laser sorter with all the latest features. This will help us to bring down lead times, while increasing the quality of our services. Parallel to the KFST, we're investing substantially in our germ reduction facility, Biosteril. Like I said before, our mission is to redefine what quality and safety mean in terms of food and feedstuffs – and we really mean it. ■

Further information
Kündig Group
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SETTING THE STANDARD for raw material purity and safety

Based on our know-how from over 90 years of experience in the food industry, Kündig Group has developed the **FOOD SAFETY TOWER®**, revolutionising the purification of raw goods. Our cutting edge installation offers industry leading advantages so you and your clients feel safe at all times:

- ✓ **PERFECT INTERPLAY** Multiple laser and X-ray technologies guaranteeing unrivalled product purity and safety.
- ✓ **STATE-OF-THE-ART SCREENING TECHNOLOGY** Resulting in utmost precision fractionation.
- ✓ **SELF-CONTAINED SYSTEM PROCESSING** Granting ideal product safety – from receiving of goods to packaging.
- ✓ **STAINLESS STEEL CONTAINMENTS** Enabling exemplary hygiene, preventing contamination risks.



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