Metal separators inspect flavourings and spices

Sesotec metal separators play an important part in product quality

Almi, an Austrian company headquartered near Linz, and one of the leading manufacturers of quality flavourings and additives for sausage, meat, ham and fish products, uses Sesotec “Hygienic Design” metal separators throughout their entire production process. The company continues to expand both home and abroad and in 2006 built a completely new production facility. This advanced factory extends over 18,000 square metres and incorporates all the latest equipment to enhance product quality and increase customer satisfaction. The company meets all IFS, ISO 9001 and HACCP standards and holds many certificates and awards for consistently high product quality.
The new plant utilizes the latest in bulk material handling technology designed, supplied and installed by engineering company Johann Daxner GmbH who specializes in providing integrated plant and machinery projects particularly for bulk material processes. Sesotec, in partnership with Daxner, supplied IFS and HACCP compliant metal detectors and separators for product inspection on milling, mixing, filling, bagging and small component lines. Metal separators from the Sesotec RAPID 5000 range were installed at the large bag filling station.

IFS Conformity

For Almi it was particularly important to choose metal detection systems that fulfilled all the requirements of HACCP and IFS. RAPID 5000 metal separators detect and remove magnetic and non-magnetic metal contaminants from free-falling bulk materials. The contaminants are removed by means of a fast-reacting reject flap (“Quick Flap System”) with minimal loss of good material. The modular design concept means that the machines can be easily adapted for different drop
heights by removing or adding intermediary pieces. One of the main reasons for installing Sesotec machines was their “Hygienic Design”; specifically designed and constructed to meet the exacting hygiene standards of the food industry. The circular design of the reject mechanism eliminates sharp edges and crevices, preventing product build-up and blockages, even with non free-flowing flavourings, avoiding product build up over time and the resulting mould formation. The „Easy Clean“ construction of the reject device means it is straightforward to access for cleaning and maintenance. The RAPID 5000 metal detection systems are also certified for ATEX Zone 20 because flammable dust is created during the filling/bagging process.

At „Almi“ IFS compliant metal detection is performed directly before filling of the spice products in bigbags.

**ERP and Metal Separation at Almi**

A particular challenge of this application was varying product effect of individual flavouring product which can cause false triggering and material loss. To obtain optimum performance machine parameters for each product must be easily set up for each of the different
product mixes. Through the integral Ethernet interface attached to each metal detector the higher-level ESAweight production control system uploads system parameters for each product batch. Another feature that distinguishes the Sesotec machines is their high level of detection accuracy. The GENIUS controller and operating unit utilizes digital signal processing technology and ensures that the detector head is finely tuned to operate at optimum efficiency. Even particularly difficult, highly conductive spices and flavourings can be tuned out and optimum scanning sensitivities achieved. The time and data of every event is recorded via the integrated logbook function. The GENIUS controller communicates all relevant data for recording and traceability to the ESAweight control system, for subsequent processing batch by batch in the central database. Analysis of the rejected material provides important information on the source of contamination and Almi have set up an additional station specifically to examine rejected material.

Robert Leeb, Production Manager at Almi is delighted with the results, “Sesotec RAPID 5000 metal separators meet all our exacting standards and play a vital part in our complex quality management system.”

Sesotec - an overview
The Sesotec group is one of the leading manufacturers of machines and systems for contaminant detection and material sorting. Product sales primarily focus on the food, plastics, and recycling industries. Sesotec’s global presence includes subsidiaries in Great Britain, Singapore, China, USA, France, Italy (2), India, Canada, Thailand, a representative office in Turkey, and more than 60 partners all over the world.

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