

Best Practice

Compact, flexible and reliable: metal detector allows chocolate treats to be enjoyed safely



The chocolate manufacturer Weinrich wanted to integrate a metal detector into its existing production line. Alongside the limited space, the inspection solution also had to be able to cope with the product effect of chocolate and reliably detect foreign objects in the different varieties.

Key facts

The new metal detection device was to be integrated into an existing production line where the main difficulty lay in ejecting contaminated chocolate bars. Due to the construction of the production line, this could only be resolved through a telescopic belt.

Application

Before the chocolate bars pass through the detection coil, they are briefly stopped by a stacking edge to sort the bars into a line. Upon detection of metal, cylinders tighten the telescopic belt after the detection area, resulting in the contaminated products falling below onto another conveyor. This is where they are then inspected by quality management.

Products

- Metal detector Vistus

Customer benefits

- The compact design of the metal detector means it can be easily integrated
- Intuitive operation
- Reliably ejects products contaminated with foreign objects
- The OEM solution can be fully adapted to the customer's requirements

The customer

Since 1895, the Ludwig Weinrich chocolate factory has based its corporate concept on the three cornerstones of tradition, innovation and responsibility. Their goal has always been to combine tested, first-class recipes with the latest requirements, and to always keep in mind their responsibility towards people and the environment. Weinrich's world of chocolate offers an exciting mix of tradition and modern trends, every day, every year and surely for several centuries to come.



Project goal and implementation

Weinrich produces hollow chocolate shapes and chocolate bars at its production facility in Herford. It has relied on products from the global manufacturer Minebea Intec for many years, as can be seen by the many Vistus metal detectors and the X-ray inspection system installed at various points in the production chain.

The challenge for a chocolate bar production line was to ensure reliable metal detection even with multiple bars of chocolate next to each other. With chocolate in particular, there is often a strong product effect as the shape of the bars is not always totally identical, which presents a huge challenge for a metal detector. The metal detector Vistus impresses with a wide frequency range for the ultimate detection performance and reliability and its compact design makes it perfect for integrating into existing systems. The chocolate bars are checked at

Weinrich using the inspection solution before they are then packed in the next step.

The chocolate bars are sorted into a line on the conveyor belt by a stacking edge, before they go through the detection coil. If a foreign object is then detected while the products are passing through the coil, a cylinder tightens the conveyor belt, removing the contaminated batch from the production cycle through the resulting gap, it is then checked further. After the contaminated bars have been ejected, the telescopic conveyor returns to normal and production continues.

“The metal detector Vistus is the ideal solution for us to reliably ensure a consistently high level of product safety. Minebea Intec have demonstrated to us for many years that they are a strong partner whose solutions can be adapted precisely to our applications.”

Hans-Joachim Kamphowe, Manager

Minebea Intec’s OEM detection solution not only ensures reliable metal detection, but it is also ideal for integration into the customer’s existing production system. This meant Minebea was able to ensure a reliable process together with the customer.



The metal detector Vistus reliably detects foreign objects, even with different shapes.



Important information can be quickly viewed on the operator terminal and through the traffic light function.



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