

## MAJ Enterprises Presents from Cognex

### Fully automatic separation of strings of sausages using Cognex Vision



The process of dividing sausage strings represents a significant time factor in the industrial production of sausages. A high level of automation speeds up processes and helps keep down costs in a highly competitive market. To cut both time and costs, Singer & Sohn GmbH in Germany developed a fully automatic solution which is fitted with a Cognex In-Sight vision system that is able to divide more than 200 pairs of sausages per minute. The machine was developed and produced in collaboration with vision system integrator aku.automation GmbH.

#### **Solving a bottleneck**

The task of dividing sausage strings becomes a bottleneck in the production process when carried out manually, but that bottleneck has been removed with the help of the In-Sight vision system. In addition to completing this dividing task, the automation facilitated by the vision system completely eliminates the chance that sausages will be damaged in the cutting process.

#### **An eye for a cutting edge**

The process of separating sausages requires a bare minimum of components. This not only makes it less susceptible to failures, it also makes cleaning more straightforward. After the worker has taken the smoking racks with the strings of sausages from the smoking or cooking trolley, he can transfer the rack onto the machine's conveyor belt with only a few simple steps. Once the sausages are inside the machine, they are fixed in place and spread out to make it easier for the knife to divide them. Thanks to the stainless steel machine vision system, the knife can see exactly where the twisted section between the two sausages is, the point that needs to be cut. The cutting area is lit by a slender LED to ensure optimal lighting conditions. Lit from above, the In-Sight vision system captures the light-shadow contrast of the twisted section in a fraction of a second. Using the data in the vision system, the linear drive rapidly positions the knife correctly for the perfect cut. The machine can cut racks with up to 26 pairs of sausages per rack in one minute.

#### **Seeing what is possible**

The In-Sight's intuitive operating software, In-Sight Explorer, reduces the time required for the calibration phase to a minimum. On top of that, the high-quality stainless steel casing provided by Cognex means there is no need for further protective measures. It is even impervious to extreme vibrations, has closed M12 connections and protects the lenses from dust and moisture thanks to type IP68 protection. From the production perspective, this means it is extremely reliable and very easy to clean. The In-Sight vision system offers top performance and is exceptionally robust and Singer & Sohn GmbH are in fact already making plans with aku.automation for further innovative "visionary" systems for high-speed processes.

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