

# The “Silver Arrows” - Perfection in Product Inspection

**Weighing and inspection systems from OCS Checkweighers ensure quality in popular, ready-to-serve meals**

Liodry Foods is an Italian food processing company, specialised in the filling and packaging of prepared meals. For several years, the company has successfully relied on the advanced weighing and inspection systems from OCS Checkweighers for the production of their own and other, well-known, third party labels.

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CHECKWEIGHERS

A Wipotec Brand

Liodry Foods is located in Gattatico in northern Italy, approximately one hour driving distance from Bologna. The company makes individual components as well as complete, ready-to-eat meals that enjoy great domestic and international popularity. Executive managers Carlo Cotti and Marzio Tellini

the weight of all fault-free products directly after the X-ray scanning. "This high performance dynamic weighing and foreign object inspection combined with very high detection accuracy was just right for our taste," said Carlo Cotti. "It has now become a standard component in Liodry Foods' produc-

determination is performed by the EC-E by means of electro-magnetic force compensation (EMFC). The basic principle can be compared to a simple beam balance. As the weight force is applied to one side of the balance, the coil installed on the other side of the balance is forced out of the magnetic field. An optical positioning system senses the smallest displacement and reports this to a high precision control system that readjusts the compensation current and restores equilibrium to the balance. This compensation current is measured through a precision resistor and further processed by a micro-processor system for immediate output as a digital weight value.

still remember the initial contact to Wipotec in 2011. "In our efforts to ensure maximum protection for our customers, we wanted to supply a product that is free from foreign object contamination and we wanted to improve the detection accuracy of the x-ray scanner we were using," said Carlo Cotti. "Because our previous systems partner was unable to satisfy the standards of Liodry Foods, we finally decided to contact the weighing specialists at OCS Checkweighers. Customer satisfaction and upholding our one hundred percent contaminant-free product standards meant that we needed to take deliberate action to find and work with OCS Checkweighers," explained Marzio Tellini. "This was absolutely the correct decision," both businessmen agreed.

#### **A compact system for optimal product inspection**

Nicola Zecchi, product manager of the Italian subsidiary of Wipotec, the parent company of OCS Checkweighers, developed the solution: He proposed the use of the compact x-ray scanner, SC E 3000-D-C. This is one of the models in the comprehensive OCS portfolio of inspection equipment that guarantee no contaminated goods enter the product flow. It reliably detects smallest foreign objects made of glass, stone or metal. Once detected, faulty units are immediately ejected. The OCS solution includes the dynamic checkweigher of Type EC-E, which subsequently controls

tion processes and provides accurate and reliable support every day to our quest for maximum product quality."

The implementation case described below shows how the cheese sauce for a well-known German supplier of prepared pasta meals is filled, sealed, and packaged in 20 cm long, aluminum bags each weighing 65 grams. After being sealed, these "silver arrows" are transported directly to a very advanced x-ray inspection station. At this station, the SC E 3000-D-C scanner, which is hygienically designed and easy to clean, ensures that no (with foreign parts) contaminated packets remain in the flow of good units. The machine precisely illuminates easily up to 120 products per minute using a diode array detector having a resolution of 0.4 mm. When a sauce bag passes under the radiation protection curtain into the product scanning area (which is completely separated from the rest of the machine), an x-ray image of the object is immediately shown on the machine's convenient display panel. If one or more foreign objects are detected, the contaminated unit of packaging is immediately ejected into an enclosed container upon exiting the scanning area. Next, the fault-free sauce bags remain on the conveyor to be subjected to a very precise weight determination. The bags proceed to the weighing belt of the EC-E checkweigher, which is capable of weighing at a maximum rate of 150 products per minute. The high precision weight

If the sauce bags pass through the foreign object inspection without a complaint and the weight is also determined to be correct, there is nothing to hinder the further packaging and shipping of the boxes to the respective customers. However, if a unit is identified as having an incorrect weight, it is consistently and reliably ejected at this point.

#### **Quantum leap in quality thanks to OCS Checkweighers**

Marzio Tellini speaks of a qualitative quantum leap when asked about the differences between the current inspection system from OCS Checkweighers and the previous system in use. "The scales, x-ray scanners, and even the OCS metal detectors we use now in our operation deliver top performance," said the CEO. The "very low rate of faulty ejections" at the x-ray scanner is another important indicator for him that the investment at the time was a wise one. The bottom line, said the person in charge of Liodry Foods, speaks clearly in favor of the German weighing experts, referring to the flexibility and the direct and immediate availability of service from OCS Checkweighers. "We expect the same high degree of flexibility from our systems partners that our customers expect from us. OCS Checkweighers delivers an exemplary performance in this respect as well," added Carlo Cotti in closing.

