

## DRYING UNIT FOR VACUUM PACKAGING

### Drying solution for vacuum-packed sausages

#### The challenge

A large international meat manufacturer was looking for a drying system that was able to remove residual water from sausage packaging. After pasteurisation, the products were still too wet to be packaged. The customer did not want to use compressed air. The sausages arrived via two production lines, so the system had to have two separate tracks.

#### Our solution

The Ronair installation is equipped with 3 units: the dryer unit, the blower unit and the electrical unit. The blower unit is located directly on the dryer unit and forms a single unit. The electric unit is split into a main electrical cabinet and a control box. Both are equipped with a hygienic design. The main cabinet is placed on a separate chassis next to the line. The control box is mounted on the dryer unit.

The **dryer unit** consists of 2 conveyor tracks which are driven by the same drive shaft. Each track has a product width of 280mm. The upper conveyor, with a total maximum width of 800mm, is manually adjustable in height by means of a chain system. This function is further supported by a manual safety mechanism in the upper position that ensures safe cleaning.

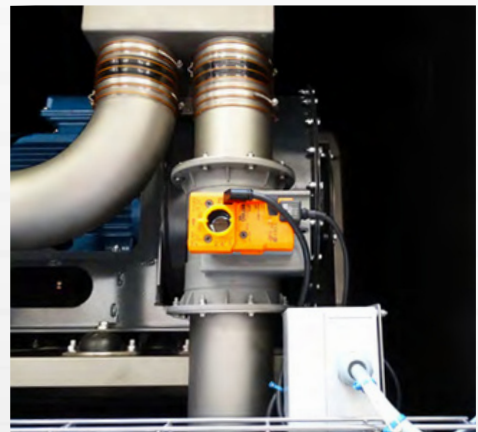
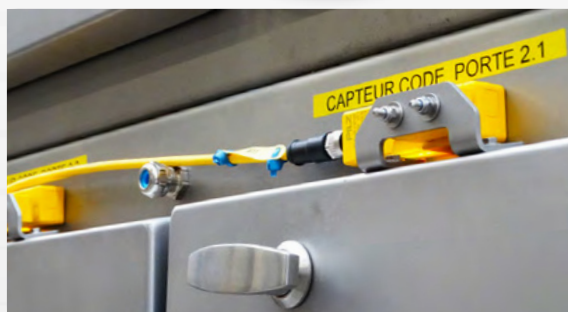
Each conveyor track has 10 strings that move the product through the installation. By means of a porte-à-faux system, the strings can easily be replaced.

In addition to an inlet and outlet sound tunnel, the drying module is also equipped with a complete enclosure with acoustic sound panels to prevent noise disturbance during operation.



#### Special features:

- Two conveyor tracks
- Siemens Safety PLC
- Motorised valves
- Door contacts
- Touch panel



The **blower unit** consists of a maintenance-free blower with a power of 22kW. The blower has two replaceable filters on the outside. In order to meet the noise requirement of the 80 dB(A), acoustic sound panels are provided in the blower compartment. The motorised valves for the supply of air to both conveyor tracks are also installed in this compartment.

The **electrical main cabinet** consists of 1 frequency control for the blower and 2 for the conveyor. The control and inspection of the dryer is carried out by a SIEMENS safety PLC. Communication with the customer's control unit takes place via a PROFINET connection. The process visualization is displayed on the control box via an operator panel with touch screen. With the help of this panel, the dryer can be switched into manual mode for maintenance work.

A sensor on each track detects whether a product flow is present. Depending on the sensor signal, the valves may or may not be closed to reduce the energy level.

To increase safety, each door of the dryer box is equipped with a door contact to generate an automatic stop when one of these doors is opened without authorisation.

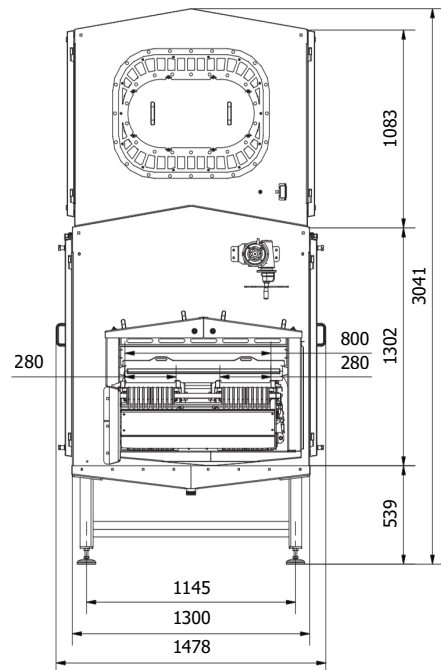
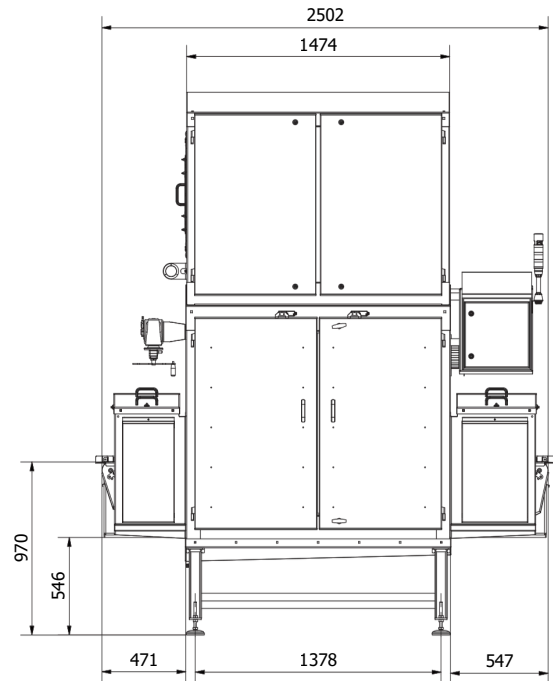
### Test results

Various test results demonstrate that at least 99,74% of the water on the vacuum-packed sausages is removed by the Ronair drying installation.

Product	Weight	Percentage removed water
Vacuum-packed sausages	350g	99,74%



## Technical specifications



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