ORIPAN®
innovation for the food industry

ORIQ

OriQ is a proactive, real-time quality control system designed to identify and eliminate defects in the production process. Beyond detailed collection of **quality parameters**, OriQ performs an **analysis** of the collected **process data** to provide the operator with valuable insights to the specific stages of the process where **deviations** which impacted on quality occurred.

A proactive and preventive quality control system aimed at identifying and eliminating defects in the production process rather than identifying and discarding defective products

In the context of modern industry, product quality is a crucial element for customer satisfaction and company competitiveness.

OriQ is the new quality control system designed to be implemented directly in production to **automate** and **digitalize** quality controls. To ensure high quality standards, this real-time quality control system allows anomalies to be detected early and corrective action to be taken.

OriQ aims to:

- Provide an **objective** and **reliable** valuation of the **quality** of your product based on your specifications.
- Empower the operators by having the system make an analysis of the collected **process data** to provide the operator with valuable **insights** to the specific stages of the **process** where **deviations** occurred.

Advantages:

Real-time quality control allows anomalies to be detected early and corrective action to be taken to reduce and eliminate products to be discarded

Clearly understand which part of the **process** was out of tolerance by comparing quality parameters with process data

Deliver **quality reports** to clients to demonstrate compliance with contractually established quality requirements

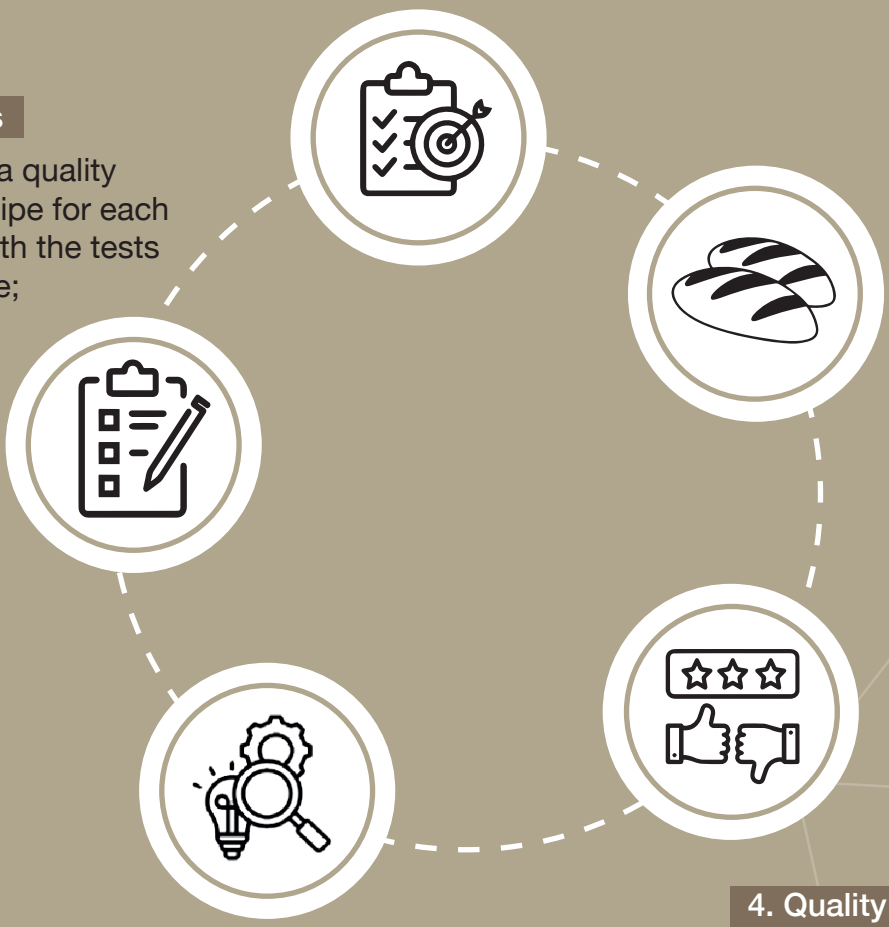
Automated quality control with no personnel required

Wide range of **tests** and applications

HOW OriQ WORKS

2. Target setting

Select a sample of the product that represents the desired quality standard. Have the system analyze it and set it as quality target for the product category;



1. Recipes

Configure a quality control recipe for each product with the tests to be made;

3. Sample analysis

For each batch passing though production, OriQ picks one or more samples from the line and performs the quality controls linking the results to the batch in transit;

4. Quality score

If the quality score assigned to the tested products is not within target tolerance, the operator and the quality control department are alerted;

5. Process analysis

OriQ will analyse the collected process data and inform the operator on the specific stages of the process where deviations which impacted on quality occurred. This allows timely corrective action to eliminate further waste.

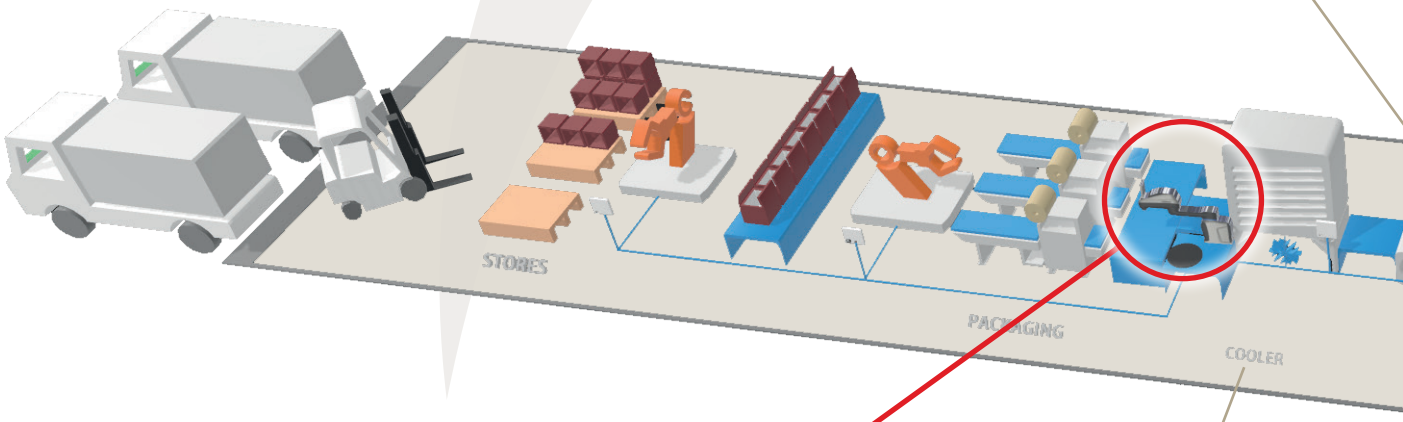
OFS Oripan F

OVEN

Temperature 1: 168 °C

Temperature 2: 215 °C

Time: 26 m



ORIQ

- Physical measurements
- Environmental measurements
- Photographic measurements
- TPA - *Texture Profile Analysis*

COOLER

Temperature: 4 °C

Time: 1,5 h

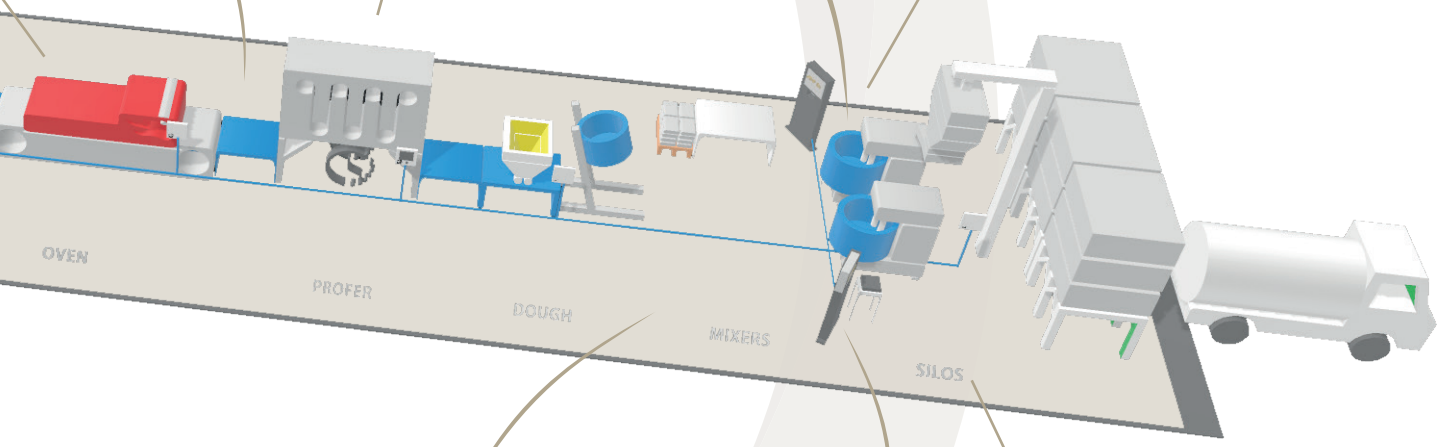
Factory System

PROOFER
Temperature: 27 °C
Time: 2,5 h

MIXERS
Dough Temperature: 23 °C
Mixing Time: 7 min
Mixing Speed: 93 rpm
Mixing Energy: 10 wh/Kg
Absorption curve

Operators' check-lists

Dough TPA



Batch Tracking

Ambient Temperature: 22 °C
Ambient Humidity: 42%

SILOS
SALT: 2 Kg, LOT2458
YEAST: 5 Kg, LOT4156
...

QUALITY REPORT

OriQ produces a quality report for each batch and a quality trends dashboard viewable in real-time on a monitor in production.

A **score** of quality is calculated by considering the importance given to each of the quality measures by the quality control department and the measured output from Ori**Q**.

If there's access to **process data**, either via integration with OFS or other data collection systems, the report will highlight any **deviations** in process parameters from the desired values. This empowers the user to promptly identify the causes of quality deviations and take swift action to **restore optimal process conditions.**

ORIPAN

Batch Quality Report

ID: 41278

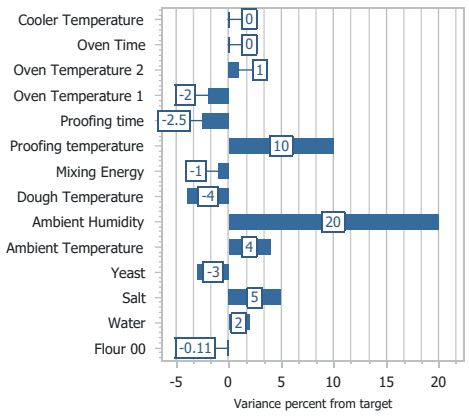
001 - Test Dough 1

Start Time:	18/10/2023 10:54	**Dough Temperature:**	23 °C
End Time:	18/10/2023 12:28	**Dough Energy:**	10 Wh/Kg
Run ID:	1234	**Room Temperature:**	22 °C
Run Number:	8 / 25	**Batch Quantity:**	351,22 kg

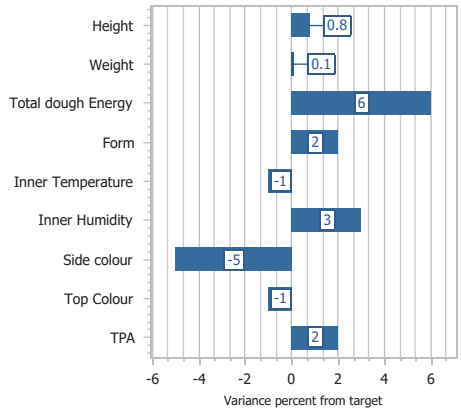
Process Settings 85%

Quality Controls 96%

Process Settings



Quality Controls



Photographic measurements

Color AI Rating 8 / 10

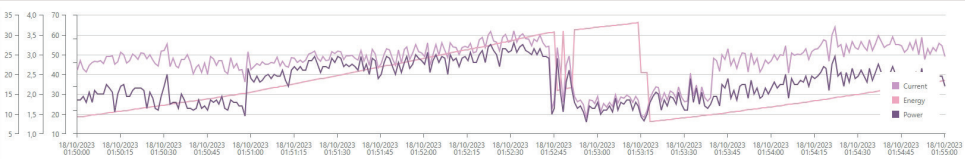
TPA - Texture Profile Analysis

Adhesiveness:	15,85 N/s
Chewiness:	40 N
Cohesiveness:	2 N
Fracturability:	21 N
Gumminess:	26,2 N
Hardness:	32,6N
Resilience:	9 N
Springiness:	89%
Crust perforation:	32 N

Physical Measurements

Weight:	45,02 g
Volume:	80,26 cm3
Height:	6,18cm
Width:	9,14cm
Depth:	12,03cm
Internal Temperature:	19 °C
Internal Humidity:	46%
External Temperature:	23 °C

Absorption curve



COLLECTED QUALITY MEASURES

Physical measurements

- Weight
- Volume
- Density
- Height
- Width
- Depth
- Internal Humidity
- Internal Temperature
- External Temperature

Photographic measurements

- Photos collection
- Color analysis

Environmental measurements

- Ambient temperature
- Ambient humidity

TPA – Texture Profile Analysis measurements

- Adhesiveness
- Chewiness
- Cohesiveness
- Fracturability
- Gumminess
- Hardness
- Resilience
- Springiness
- Crust perforation

Download
the online catalogue

SANCASSIANO Group

ORIPAN®

innovation for the food industry

Via Fabbrica 84/A - 38079 **Tione di Trento (TN)** - Italy - Tel. +39 0465 76 50 00
Via Cavallotto, 8 - 12060 **Roddi (CN)** - Italy

info@oripan.it - **www.oripan.it**