

OPTIMA+

Camera vision system for quality control of the unfired slab: zero waste, no errors, greater process flexibility and efficiency.

对未烧成大板进行质量控制的摄像视觉系统：零浪费、零错误、更高的工艺灵活性与生产效率

Opt ima +



OPTIMA+
PROCESS CONTROL



SACMI

ENDLESS INNOVATION SINCE 1919

OPTIMA+

PROCESS CONTROL



Optima+ was created to ensure impeccable quality. Using a non-invasive analysis, it examines each piece, instantly discarding slabs with surface or edge imperfections (small cracks or laminations). Inspection takes place before the slabs undergo further processing, thus optimising the process.

Optima+ 的诞生旨在获得卓越的品质。通过非侵入式分析，它能够检测每一块坯体，即时剔除表面或边缘存在缺陷（如细小裂纹或分层）的板坯。该检测是在板坯进入下一道工序前进行，能够优化整个工艺流程。



QUALITY ASSURANCE

Optima+ stands for quality guaranteed over time. The solution prevents energy/resource waste while integrating further flexibility and efficiency into the production process.

质量保证

Optima+ 代表着持久的质量保障。该解决方案可防止能源/资源浪费，同时为生产流程带来更高的灵活性与效率。



COMPLETE CONTROL

The system allows the entire production batch to be checked fully automatically.

全面控制

该系统可对整个生产批次进行全自动检查。



ACCURATE

3D inspection of the surface and edges of the unfired slab using a high-resolution 3-camera system.

精确性

采用高分辨率三摄像头系统，对未坯体的表面和边缘进行3D检测。

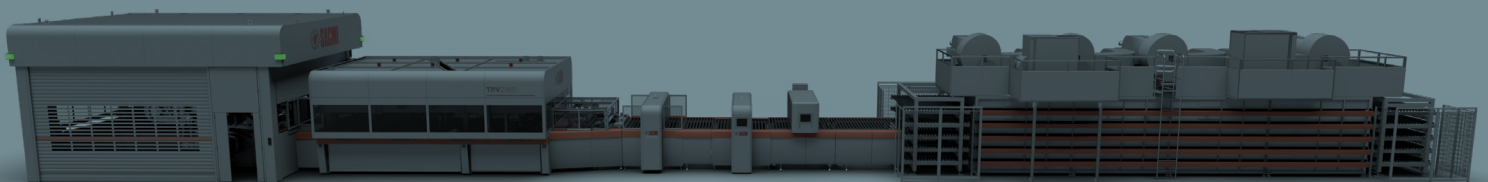


AUTOMATIC MODE

Appropriate recognition algorithms allow the system to automatically adapt to the type of mix, surface texture, format and thickness, without the need for operator intervention during product changeovers.

自动化模式

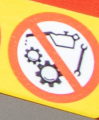
先进的识别算法使该系统能够自动适应配料类型、表面纹理、规格和厚度，无需在产品切换时进行人工干预。





SACMI

CONTINUUA+



Quality guaranteed over time

持久的质量保障



Optima+ is SACMI's unique solution for automatically monitoring the physical characteristics of semi-finished products after forming.

On tile compaction lines, quality control is performed manually, with the risk of errors and loss of efficiency.

Control automation avoids manual operations, a potential cause of mistakes and production downtime.

Installed downstream from Continua+, the system ensures that the best quality is maintained *over time*, integrating further flexibility and efficiency into the process and increasing the OEE of the line.

The gantry design allows easy insertion on both new and existing lines.



Optima+ 是 SACMI 独有的解决方案，用于自动监测成型后半成品的物理特性。

在瓷砖压制线上，质量控制通常依赖人工，容易出错且效率低下。

自动化控制可避免人工操作带来的错误和生产停机风险

将Optima+安装在 Continua+ 下游，其系统可确保长期维持最佳质量，赋予工艺流程更多灵活性与更高效率，最终提高整线的综合设备效率（OEE）。

桥式设计便于在新线或现有产线上安装。



OPTIMA+
PROCESS CONTROL

3D checks (surface, geometry, edges)



This system performs non-invasive analysis (i.e. without the use of contrasting liquids) of all the output from the line, automatically discarding slabs with imperfections on their surfaces or edges (small cracks, laminations, etc.) before sending them on for further processing.

Control is performed via a motorised high-resolution camera system.

In addition to the surface and edges, the system identifies potential deviations from geometries (length, width, diagonals) that do not correspond to the theoretical values.

3D 检测 表面、几何、 边缘



该系统对整线所有产品进行非侵入式分析（例如，无需使用对比液），自动剔除表面或边缘存在缺陷（如细裂纹、分层等）的坯体，避免其进入下一道工序。

质量控制是通过一套电动高分辨率摄像系统完成。

除了表面和边缘，该系统还能识别几何尺寸（长度、宽度、对角线）与理论值不符的偏差。



TELECAMERA CR2

Info

CAMBIA
UTENTE

RESET
ALLARMI

Totale

1°A

2°

3°

0%

22,2%

0%

Totale

9

Mq

9,44

Pz/Min

—

PCR Formato X

PCR Formato Y

PCR Spessore

PCR Tipo Nastro

PCR Matricola Nastro

PCR Giri Nastro

PCR Giri Nastro Ultimo Salvataggio

PCR Matricola Nastro Ultimo Salvataggio

CARTELLA
PRODOTTO

Salva
Immagine



16
14:38:44

17
14:38:34

16
14:12:35

15
14:03:06

14
14:02:05

40 - Dist: 425 mm(2,0,0)

27/02/2024-1524:38

v2.3.023

Avvio Acquisizione immagini

EMERGENZA

Zero waste, automatic settings

EN

With Optima+, even the slightest deviations in the process can be detected in advance, increasing total quality and avoiding waste of resources due to reprocessing on defective slabs (drying, decorating and firing).

On Optima+ the operator sets thresholds and parameters, performing real-time monitoring, on the HMI, of the surface and edge images, the measurements and the discarded slab log.

Special recognition algorithms allow the system to automatically adapt to the type/colour of the substrate and surface texture, without the need for intervention during product changes.

零浪费， 自动设置

CN

借助 Optima+，即使是最微小的工艺偏差也能被提前检测，从而提升整体质量，避免因缺陷板坯返工而造成的资源浪费。（干燥、装饰、烧制）

在Optima+上，操作员可在其HMI上设定阈值和参数，实时监控表面与边缘图像、测量数据及剔除记录。

专用识别算法使系统能自动适应不同类型/颜色的基材和表面纹理，无需在产品更换时进行人工干预。

More flexibility and efficiency: towards the digital factory

更高灵活性与效率： 迈向数字化工厂

EN

Optima+ is the quality control hub of the unfired product. The system is modular and can be interconnected with HERE software.

Systematic control of defects (even the rarest and most difficult to measure) and interconnection with other process steps and with the supervisor allow for more flexible handling of all kinds of variations in production.

With Optima+ SACMI takes another step towards the digital factory.

CN

Optima+ 是未烧成产品的质量控制中心。该系统为模块化设计，可与 HERE 软件互联。

可系统性地检测缺陷（包括最罕见、最难测量的缺陷），并与其他工艺步骤及监测员配合，从而更灵活地应对各种生产变化。

Optima+ 是 SACMI 向数字化工厂迈出的又一重要步伐。



Optima models and configuration



Optima is available in three different configurations for the analysis of products with width up to 2100 mm.

All models guarantee an automatic and complete control of the whole lot regardless of the type of mix and the surface texture.

Optima型号和配置



Optima 提供三种不同配置，适用宽度高达 2100 毫米。

所有型号均可实现对整批产品的自动、全面控制，无论配料类型或表面纹理如何。

Technical characteristics 技术参数	OPTIMA+ 2120	OPTIMA+ 2000	OPTIMA+ 2180
Sizes: width up to 尺寸：宽度	1500 mm	2000 mm	2100 mm
Thickness 厚度	6 - 20 mm	6 - 20 mm	6 - 20 mm
Max. Conveyor speed 传输带最大速度	25 m/min	25 m/min	25 m/min
Max. Installed Power 最大装机功率	2,5 kW	2,5 kW	2,5 kW



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SACMI reserves the right to introduce changes without notice / 31.05.2024



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