

FOR BEST CONDITIONS.
SINCE 1900.



HICON
QUCON
Heatmap

Digitalized concrete curing

Stone height measurement system
Quality control system
Heatmap

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ROTHO HICON® Height control

Seamless monitoring of production without interrupting the manufacturing process. Thanks to our system, imbalances caused by filling differences can now be easily detected. All quality measured values are stored and archived locally. Retrievable at any time.

Pros

- High measuring accuracy
- Very flexible, adaptable to individual requirements
- Connection to machine control possible
- 1000 to 2000 measurements per second for high feed rates
- Non-contact laser scanning
- Continuous quality management
- Human Machine Interface (HMI)
- No interruption of the production process

Key figures

Shortest cycle-time:	8 sec.
Measuring range:	target value \pm 40mm
Measurement accuracy:	\pm 0,1mm
Max. product height:	flexible standard: up to 800mm
Sensors:	3 x stone height laser track 1 x board height laser 1 x measuring bar position 1 x board detection 1 x collision

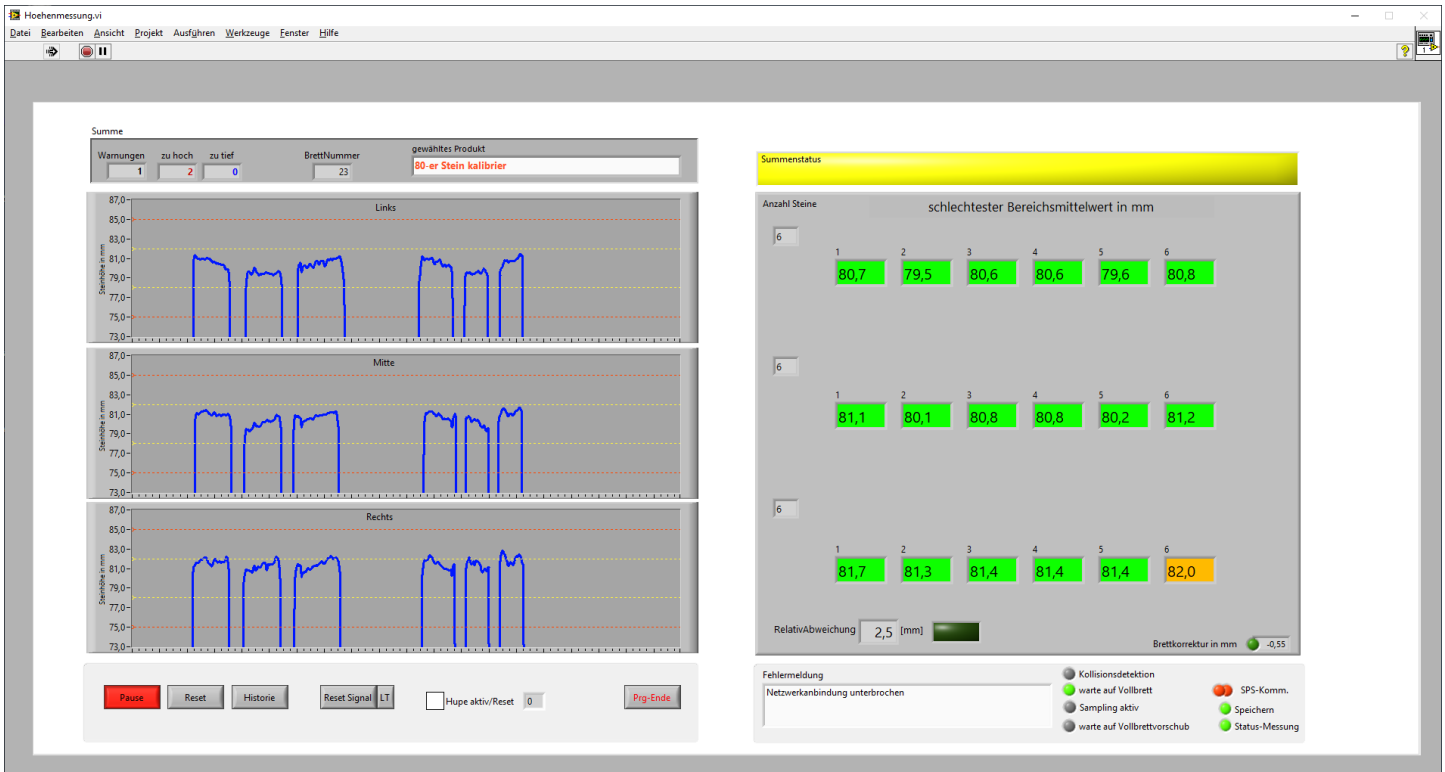
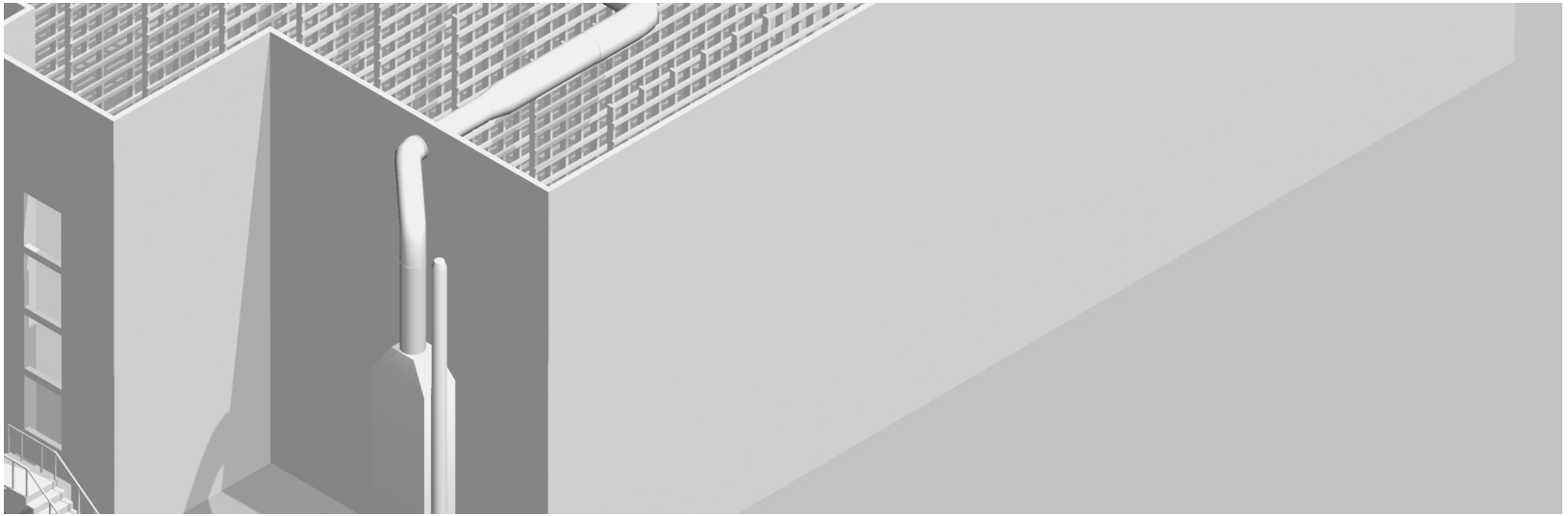
Equipment (basic version)

- Motorized height adjustable sensor beam with sensor system
- Data acquisition and evaluation unit incl. control cabinet

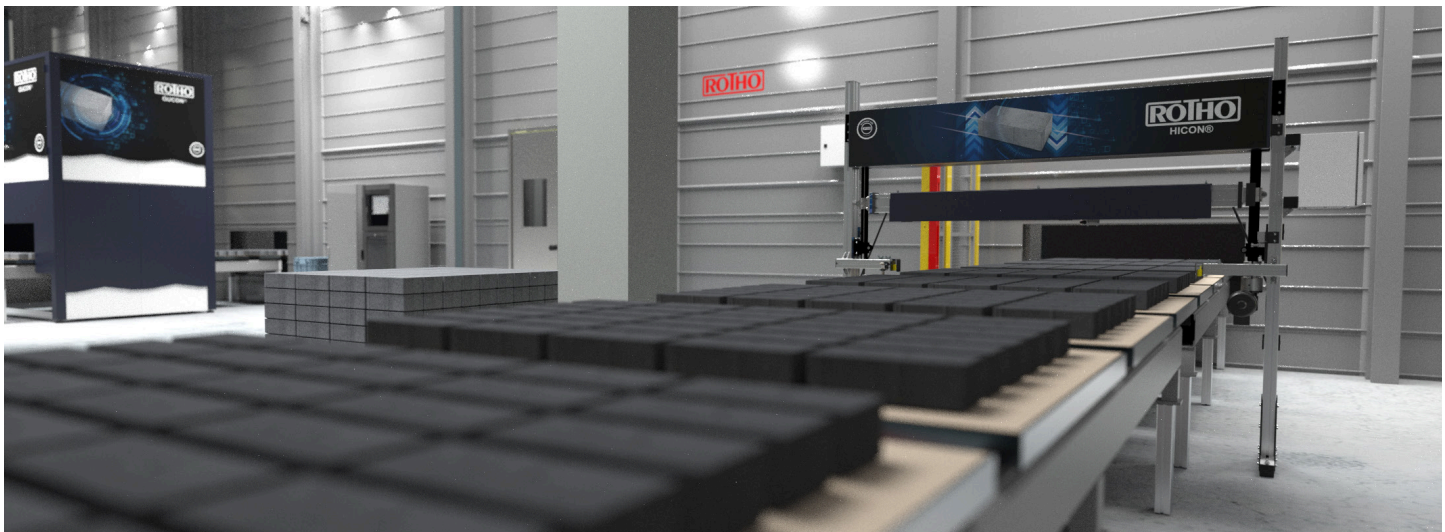
Equipment (optional)

- Database connection (MySQL; Maria DB)
- Machine control integration (Profinet; Modbus/TCP)
- Automatic machine shutdown
- Subsequent evaluation via office tool
- Automatic height adjustment of the sensor beam according to machine control specification





Screenshot HICON - Height measurement: Graphical display of measurement results



HICON - Developed with IAB



ROTHO QUCON® Quality control

Collect, display and evaluate data to ensure the highest product quality. The classification of production defects, such as efflorescences, edge fractures, stone inclusions, colour deviations and stains is seamlessly possible with QUCON!

Level 1: Employee support through defect detection and labelling
Level 2: Employee relief through automatic robot sorting

Pros

- Seamless documentation of production qualities
- No motion blur (rolling shutter effect)
- Detection of efflorescence, edge breakage, stone inclusion, colour deviation, stains

Key figures

Shortest cycle time:	10 sec.
Recording area:	whole board
Measurement accuracy:	adjustable depending on product
Product types:	pavers, slabs, etc.

Options

- Sorting robot (or on-site)
- Laser marking of rejects
- Colour marking of scrap

Equipment

- Latest AI and algorithm based quality monitoring
- High resolution image data analysis

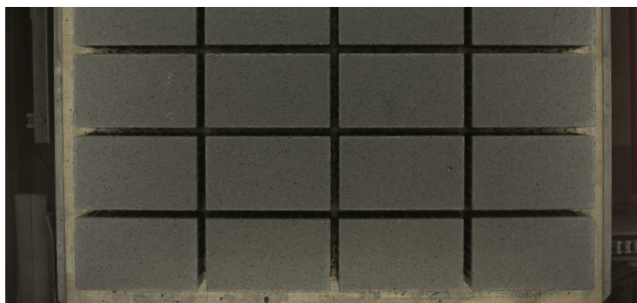


Image detail: Recording before evaluation

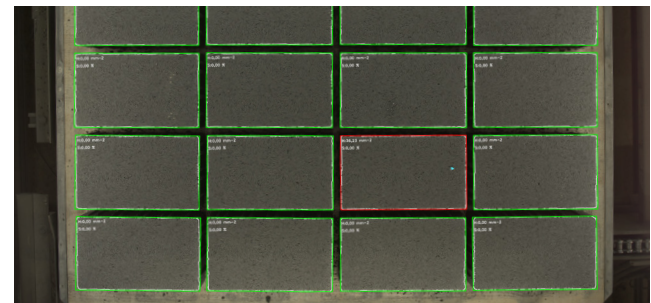
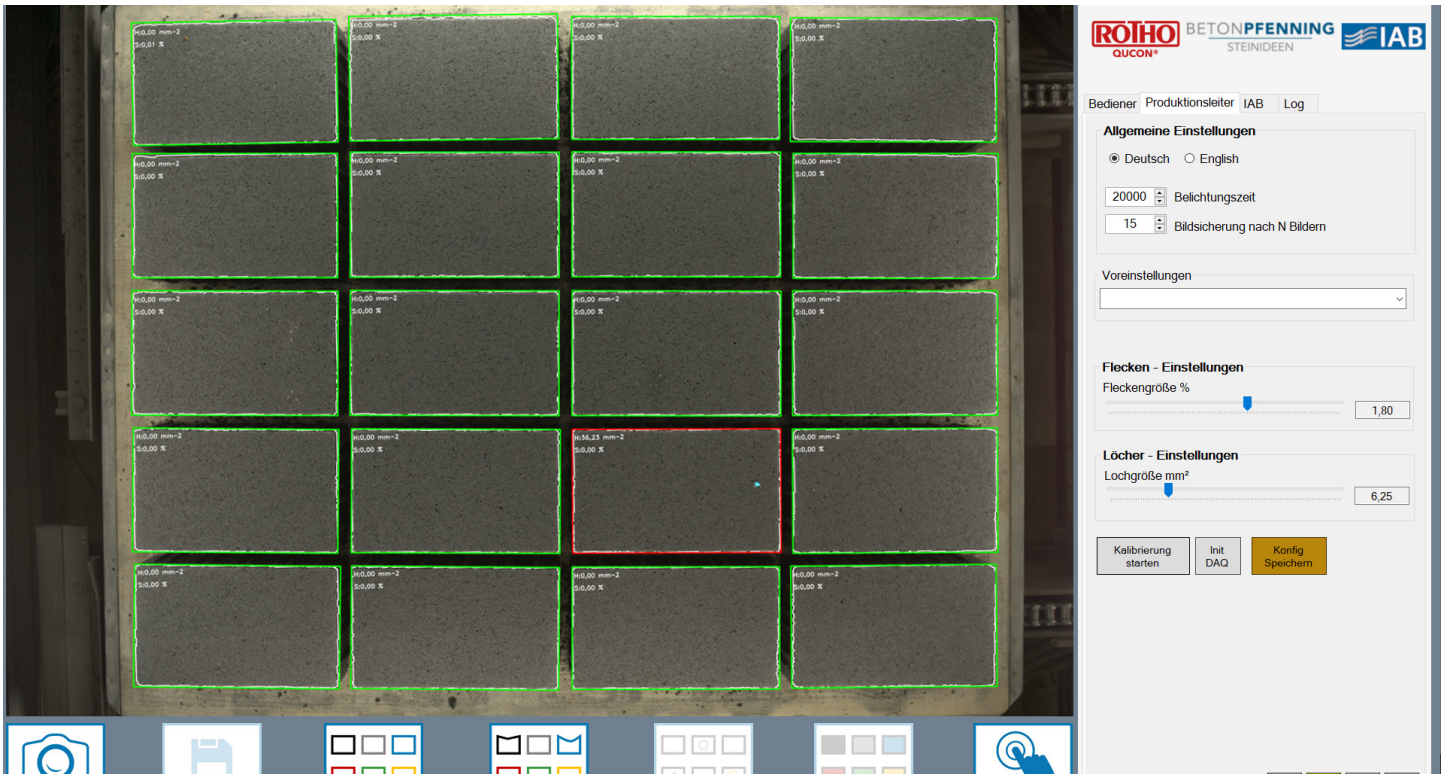


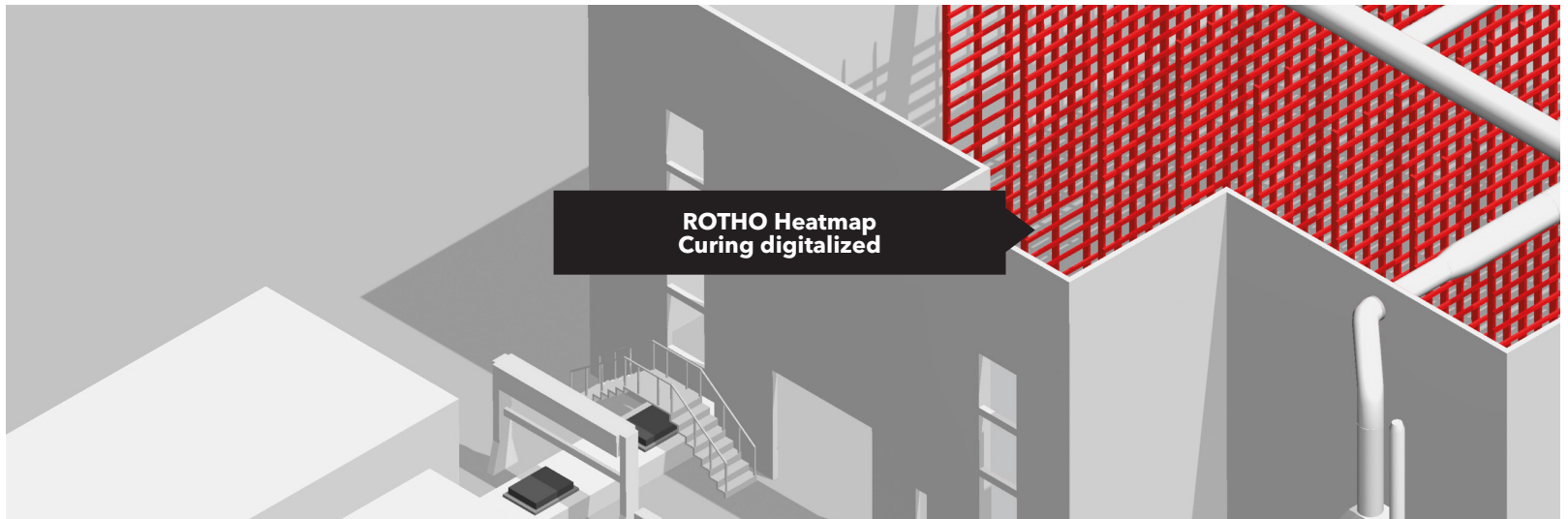
Image detail: Defect detected: Surface error



Screenshot QUCON - Quality measurement: Photographic evaluation



QUCON - Developed with IAB



ROTHO Heatmap

Detection of warm/cold pockets made easy. The graphical display of temperature and humidity distribution gives you a direct overview of everything.

Pros

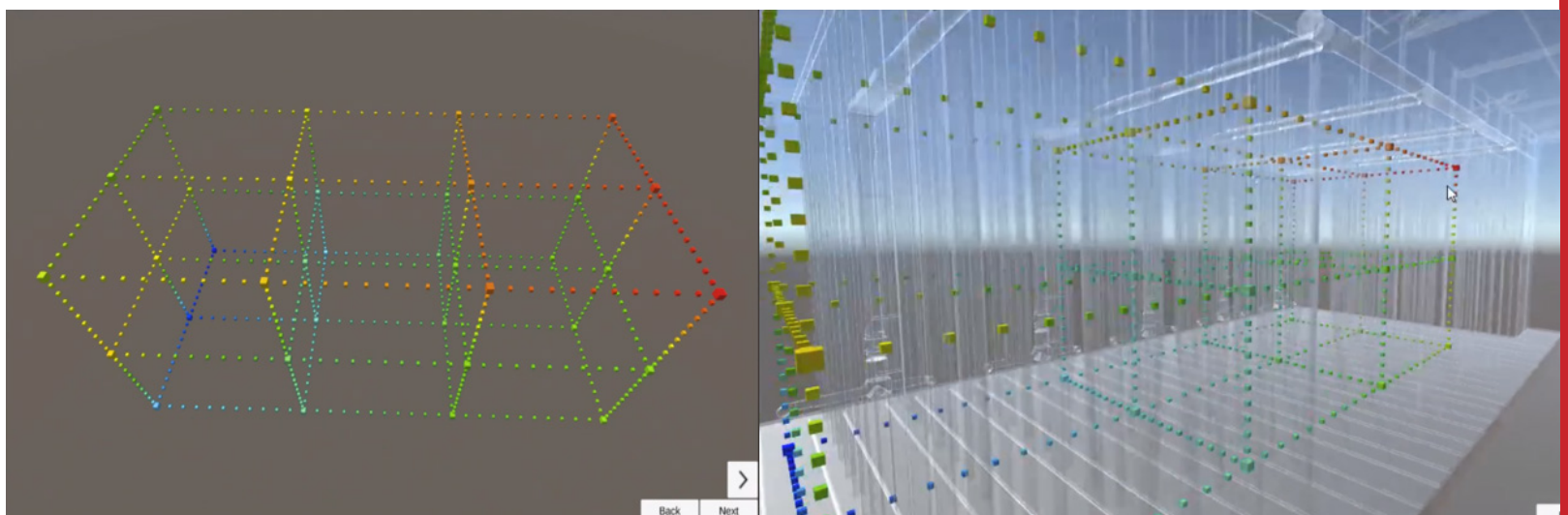
- Clear, graphic display of the humidity and temperature distribution in the curing chamber
- Irregularities in the climate distribution that lead to different curing results within the chamber can be detected and eliminated more quickly
- Real-time overview
- Historical course (timeline)

Key figures

Built-in sensors: 12 to 36
 Virtual measuring points: up to 750

Requirements

- Existing ROTHO ProCure or ProAir System
- ROTHO PC Control system
- ROTHO PC Control system available as retrofit for ROTHO Air Circulation System (ProAir)



ROTHO Service & Assembly

Our service and installation teams accompany you on your way to achieve the best conditions in your concrete block plant.

- Phone, email, video conference and on-site service
- Service contracts
- Spare parts
- Modernisations and retrofits
- Technical training
- Extensive measurement and analysis equipment & service
- Optimisation consulting

service@rotho.de (Email Service)
(+49) 02735/788-788 (Help-Line)



Available worldwide.

Our service and installation teams are on duty for our customers worldwide. We are also happy to be there for you!



Experience

The average tenure of our employees is 25 years. This experience is used by our customers in more than 50 countries worldwide to operate their concrete block plants faster, more efficiently and in a secure environment.



Tradition

Neunkirchen, Siegerland - the home of ROTHO. We know our roots and have been a reliable partner for our customers for more than 100 years. ROTHO customers can be sure that spare parts and service will always be available in the future.



Innovation

In today's fast-paced, uncertain future, one thing is certain: the amount of data generated, evaluated and used will not decline. On the contrary, the number of sensors and algorithms will continue to rise within concrete block and paver plants. Even today, ROTHO offers unique intelligent systems that optimize concrete stone production plants using digital tools.



Personable

Together we create the best conditions. Not just for concrete blocks. Reliable and trusting business relationships are even more important in an increasingly digitized world. The ROTHO business model is designed for long-term and sustainable success in close cooperation with our customers. We supply systems and projects that inspire our customers.



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