Mooij Agro
Part of Hotraco Group

Crop storage solutions

Everything you need to store with ease

Custom storage design, equipment and automation

Discover the advantages of tailor-made storage design

With complete automation you gain full control over every aspect of the storage process. From ventilation and temperature to humidity and energy use, everything is monitored and adjusted in real time. This ensures the best possible conditions for every crop, reduces manual work and maintains the highest product quality.

Key benefits of complete storage automation

- Always the right storage conditions for consistent product quality
- Full control over energy use, temperature, and airflow in all cells
- Easy installation, operation, monitoring, and auto-adjustments

4 key processes

Each crop has its own requirements at every phase of the storage season. Smart automation ensures these conditions are precisely managed and timed. From the moment the crop enters storage until it leaves, the system works for you.

1. Drying

Removes surface moisture to prevent rot and fungal growth.

2. Curing

Heals wounds and strengthens the outer layer for longer shelf life.

3. Cooling

Lowers the temperature gradually and controlled to protect quality.

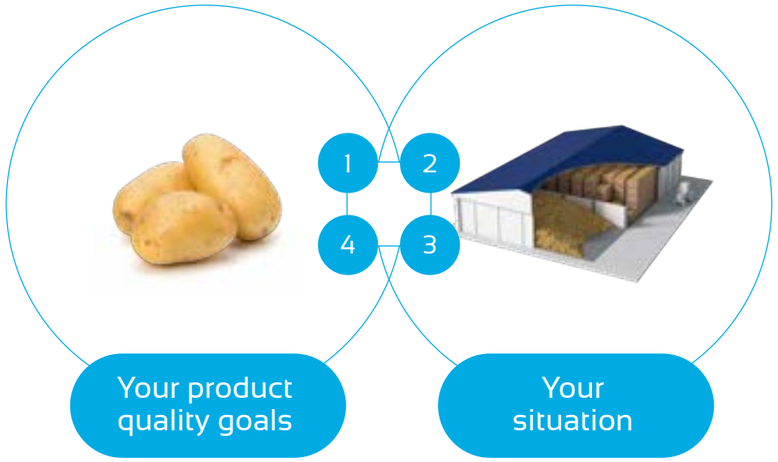
4. Warming

Raises the temperature to prepare the crop for delivery and prevent condensation.

Mooij Agro

The system creators

Every grower faces storage challenges. Whether it is preventing sprouting, avoiding condensation, or keeping your crop fresh for a longer period. The right approach makes all the difference. That is why every project starts with a clear understanding of your situation. We look at your crop, your storage conditions, and your quality goals. The ideal storage design starts with truly understanding your needs. By taking the time to listen and ask the right questions, we uncover the core challenges that must be addressed.



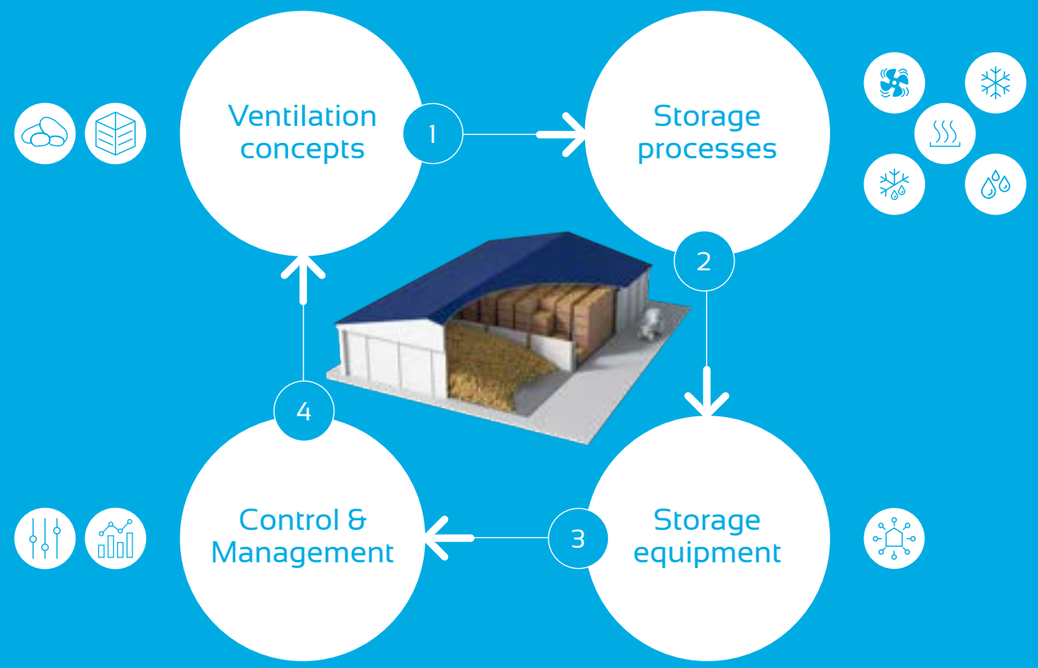
Together we discuss your product goals, for example:

Potatoes	Onions	Other crops
Prevent sprouting	No skin rot	Preserve color
Retain dry matter	Firm neck, good skin	Keep firmness/freshness
Uniform size/appearance	Avoid condensation	Prevent bruising/fungus

Storage solutions

Tailored to your needs

Once we have a complete picture, we design a storage concept that addresses your challenges from start to finish. From first idea to final set-up, our aim is to give you full control over your crop quality all year round.



1. **Ventilation options for box or bulk storage**
   The most effective ventilation system for your storage type.
2. **Heating, cooling, drying and humidification**
   Required processes to protect quality at every stage of the season.
3. **Parts for your complete storage room set-up**
   Required equipment to reach the quality goals.
4. **Control equipment for optimal storage conditions**
   Tools to manage and monitor conditions the way you want.

Your design from A to Z

Customized Storage Design

1

Ventilation concepts

Bulk storage

- Duct ventilation
- Floor ventilation

Box storage

- Pressure ventilation
- Aspiration ventilation
- Room ventilation

2

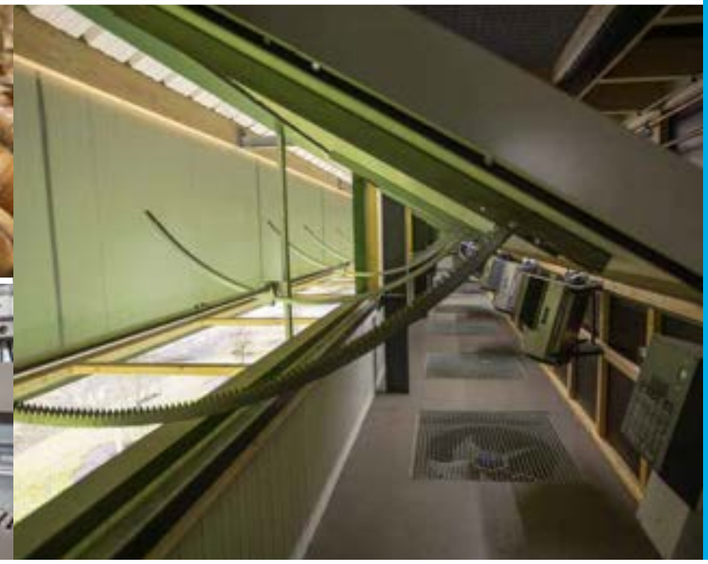
Storage processes

- Ventilation
- Drying
- Heating
- Humidification
- Cooling

4

Control & Management

- Control
- Sensors
- Management



3

Storage equipment

- Fans
- Hatches
- Ducts
- Airbags
- Aspiration cover
- Pad system
- Heaters
- Hatch operation
- Mechanical cooling

Ventilation concepts

Box or Bulk: the Right Storage for Every Crop

Every harvest is unique and so is the best way to store it. The choice between box or bulk storage depends on factors such as harvest conditions, crop firmness, lot size, and crop value.

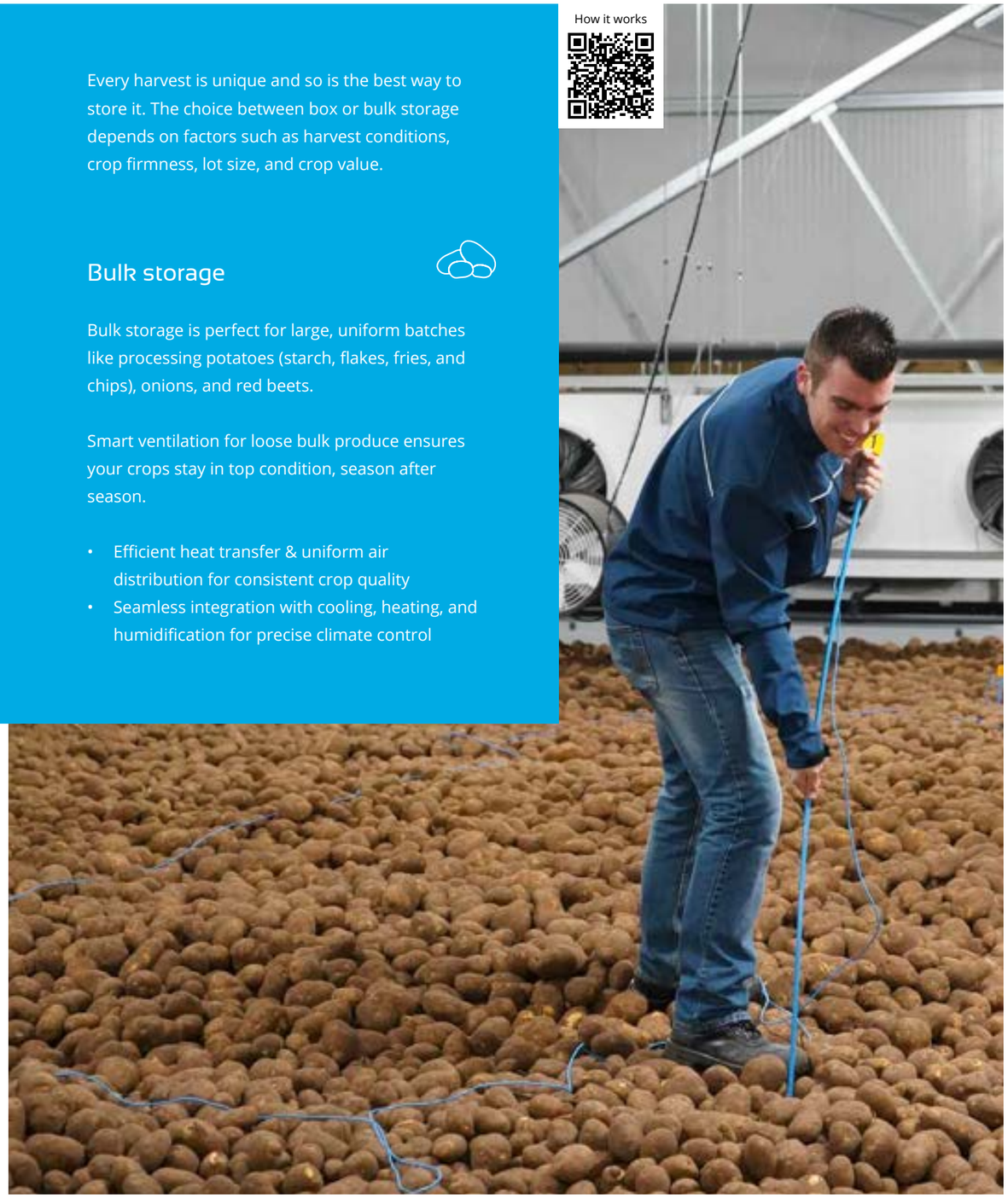
Bulk storage

Bulk storage is perfect for large, uniform batches like processing potatoes (starch, flakes, fries, and chips), onions, and red beets.

Smart ventilation for loose bulk produce ensures your crops stay in top condition, season after season.

- Efficient heat transfer & uniform air distribution for consistent crop quality
- Seamless integration with cooling, heating, and humidification for precise climate control

How it works



Box storage

Box storage offers the flexibility and protection needed for seed potatoes, table potatoes, long-term chip potatoes, onions, carrots, sweet potatoes, and pumpkins.

For farms with diverse crops and smaller lot sizes, box storage delivers the best flexibility and quality assurance. Whatever your crop, there's a storage solution designed to fit your needs.

Bulk storage

Duct ventilation

- Most cost-efficient solution
- Flexible use of available floor space

Bulk storage, half round ducts

This is how it works

Bulk storage

Floor ventilation

- Delivers the most even air distribution
- Built-in air channels below floor level maximize storage capacity
- Easy loading and unloading

Bulk storage, floor ventilation

This is how it works

Box storage

Pressure ventilation

- Optimal air distribution, even with increased row length
- Fast, uniform drying and cooling
- Excellent for use with heating, humidification, or sprout-control systems
- Safe and reliable in cold climates

Box storage, pressure system

Box storage, pressure system with Every-Air

How it works

Air is pushed from the inside out through the boxes, ensuring reliable performance even in long rows.

Box storage

Aspiration ventilation

- Forced airflow and effective heat transfer to the crop
- Cost-efficient installation
- Ideal for medium row lengths
- Simple design with inlet and outlet on the same wall

How it works

Air is drawn from outside to inside through the boxes for efficient climate management.

Box storage, aspiration system

This is how it works

Box storage

Room ventilation

- Perfect for smaller boxes with healthy, clean crops
- Easy handling and flexible positioning of boxes
- Low-cost installation and simple operation

How it works

Circulates air throughout the entire storage cell.

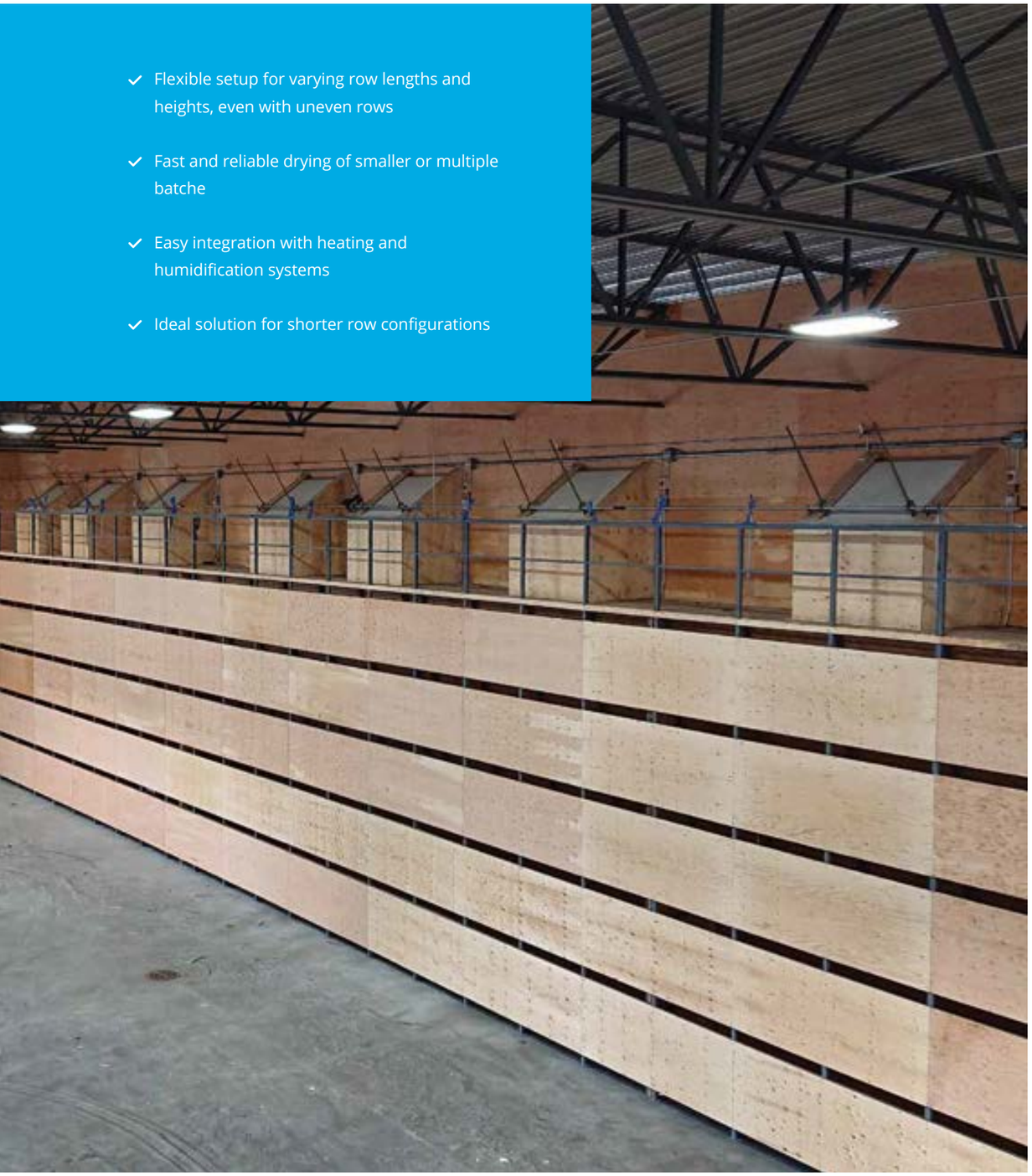
Box storage, room ventilation system

This is how it works

Box storage

Ventilation Letterbox

- Flexible setup for varying row lengths and heights, even with uneven rows
- Fast and reliable drying of smaller or multiple batche
- Easy integration with heating and humidification systems
- Ideal solution for shorter row configurations



How it works

Air is guided directly through pallet openings for controlled and even ventilation.

Box storage, letterbox system

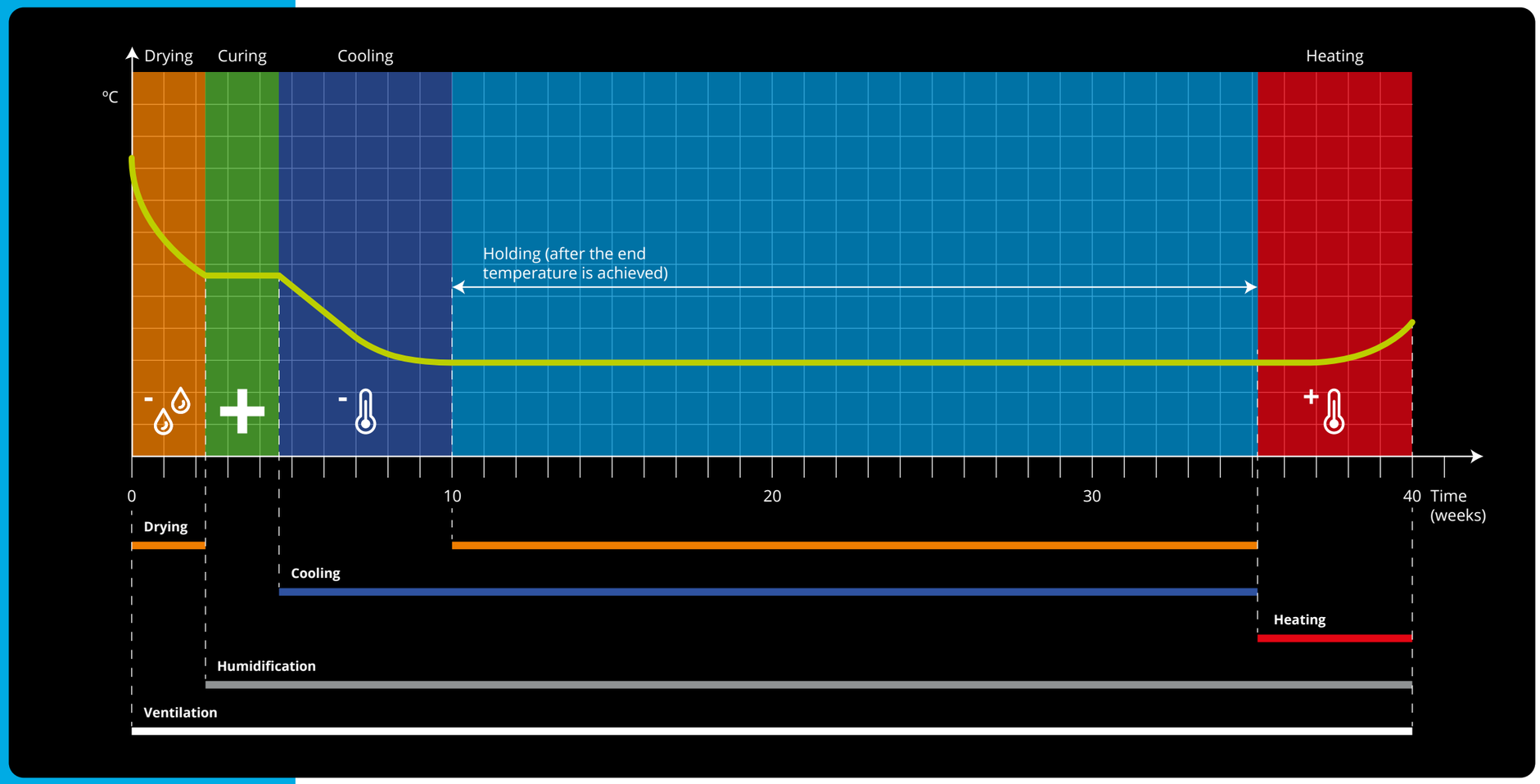
This is how it works

Storage processes

Key steps for optimal crop storage

After choosing the ventilation concept, we map out exactly what your product needs during storage: the sequence of steps, the right temperatures, and how long each phase should last. From drying to curing, cooling, storage, and warming, we create a clear timeline to keep your crops at peak quality until they leave your store. We then select the equipment to carry out each step with precision.

Key storage processes	Drying	Curing	Cooling	Storage	Warming up
Why it's important	Removes surface moisture to limit rot and fungal growth.	Repairs skin damage to reduce spoilage and weight loss.	Slows crop respiration and microbial activity.	Preserves quality for the long term without drying out or causing condensation.	Prepares crops for delivery and avoids condensation or thermal shock.
How it works	Strong air circulation with (warm), dry air.	Limited airflow, temperature (12–18°C), high humidity.	Gradual temperature drop with controlled airflow and humidity.	Constant low temperature with minimal airflow.	Gentle warming with controlled humidity and ventilation.



Storage equipment

Fans

Powerful, reliable fans are essential for consistent air movement and creating uniform storage conditions.

Axial fan

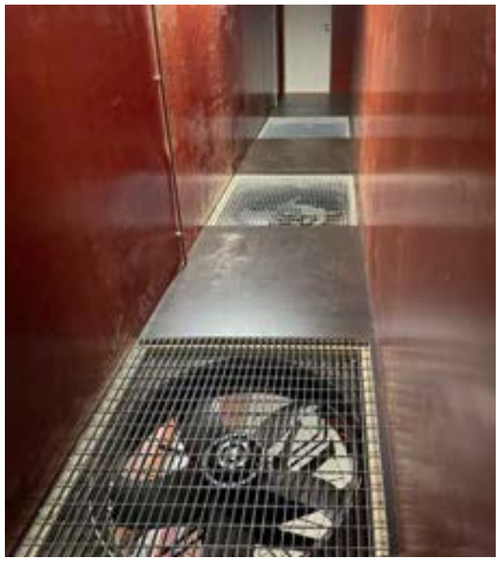
- Deliver high airflow at low pressure
- Energy efficient and quiet in operation
- Perfect for mixing chambers and pressure systems
- Available with both AC and EC motors

Centrifugal fan

- Robust design for high-pressure applications
- Suitable for bulk and box storage
- Available with frequency control

Circulation fan

- Maintain constant air movement above the product
- Prevent condensation and protect crop quality
- Optional built-in heating for more effectiveness
- Easy to install in existing cells



Storage equipment

Hatches: Air In- and Outlet

Hatches to ensure optimal air refreshment and ventilation.

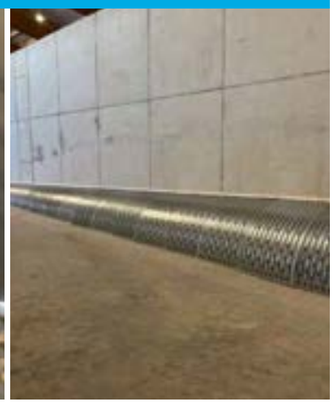
- Multiple hatches can be operated by a single motor
- Strong, durable construction with an integrated thermal bridge for reliable insulation
- Equipped with limit switches for precise control
- Central motor with rack-and-pinion system
- Suitable for both air intake and exhaust
- Custom solutions available for any storage facility

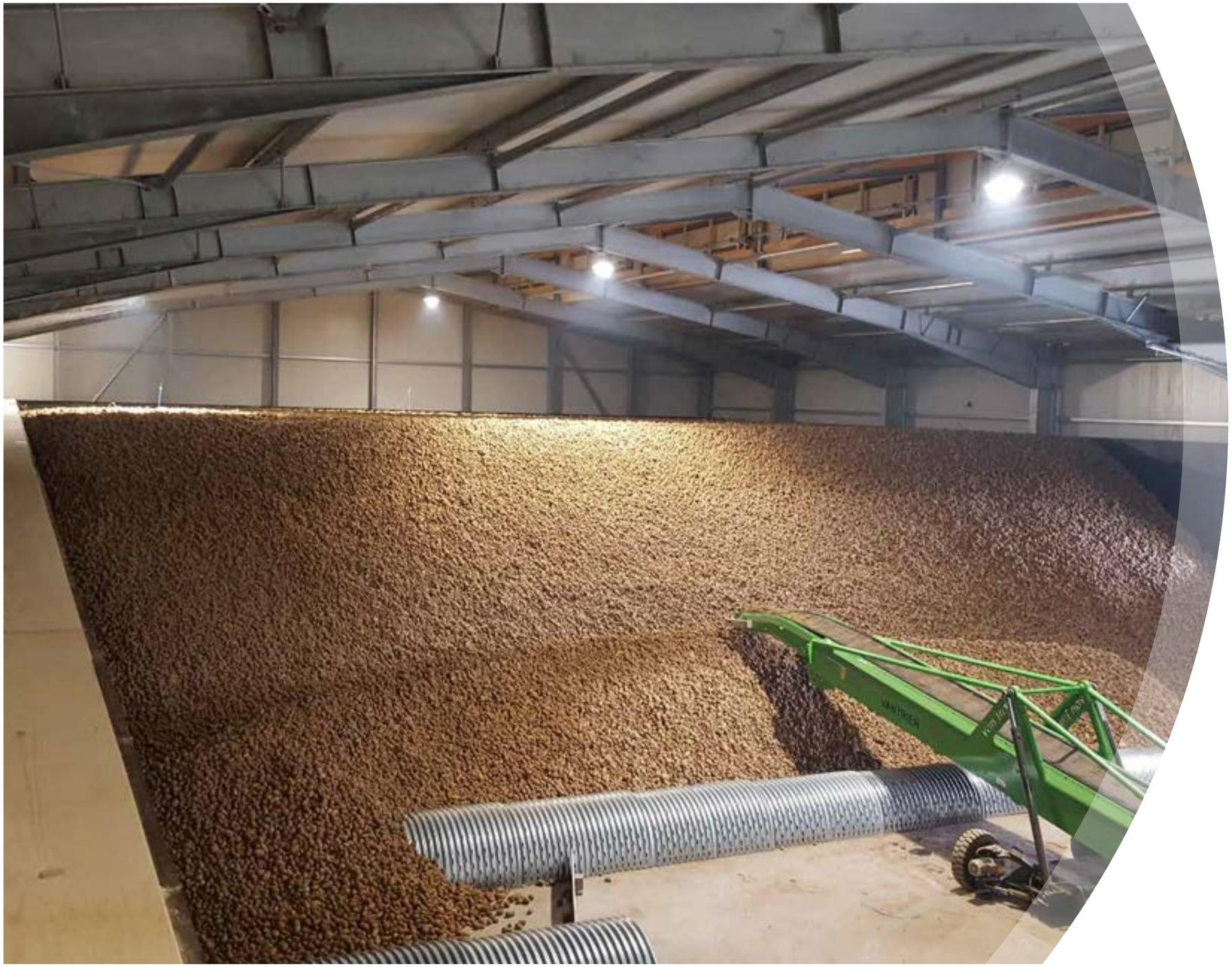
Storage equipment

Ducts

Targeted air distribution under and through the product.

- Large air openings for even distribution
- Inward-forced holes without sharp edges
- Easy to stack and position
- Suitable for different lengths and configurations
- Can be used directly on concrete floors



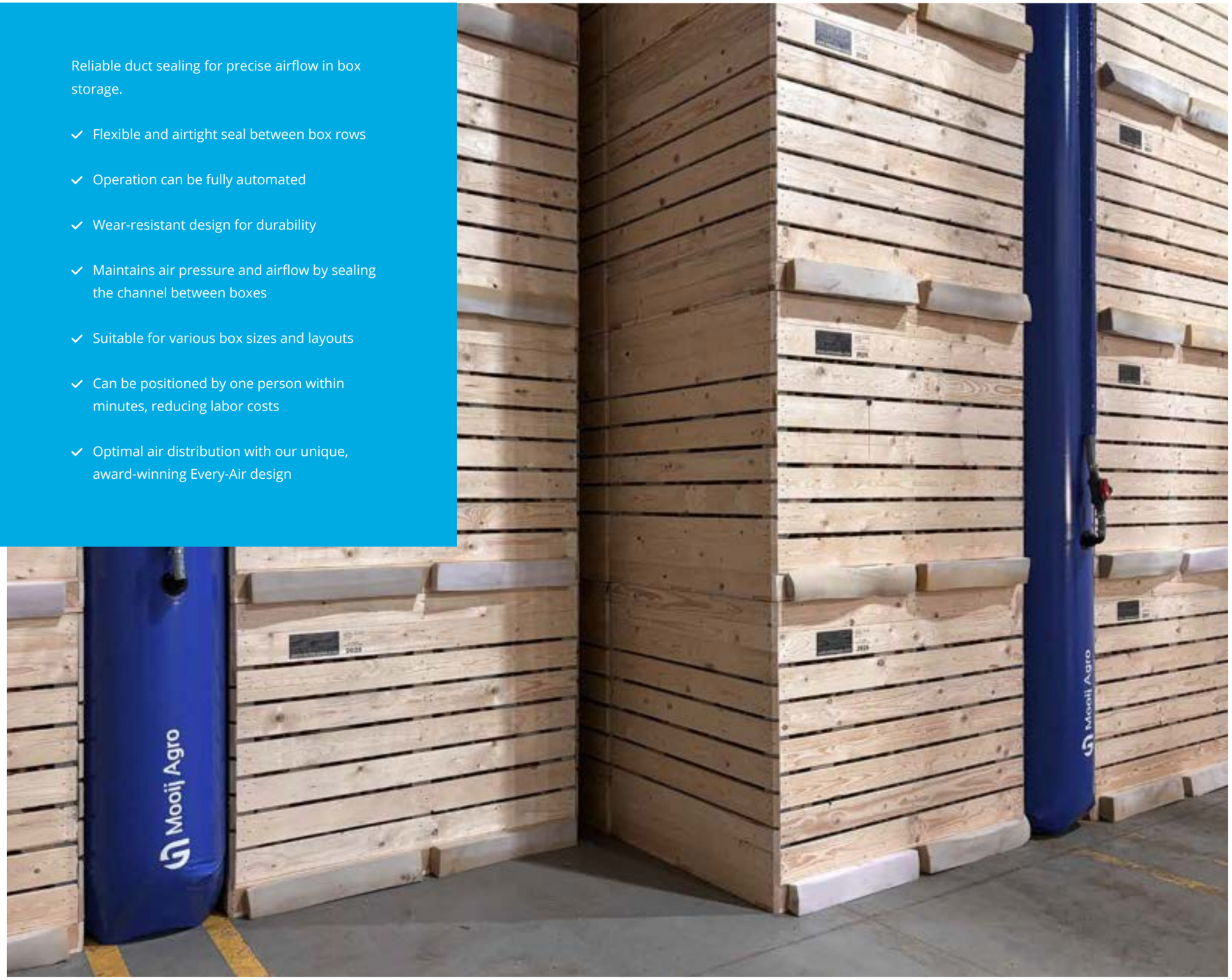


Storage equipment

Airbags

Reliable duct sealing for precise airflow in box storage.

- Flexible and airtight seal between box rows
- Operation can be fully automated
- Wear-resistant design for durability
- Maintains air pressure and airflow by sealing the channel between boxes
- Suitable for various box sizes and layouts
- Can be positioned by one person within minutes, reducing labor costs
- Optimal air distribution with our unique, award-winning Every-Air design

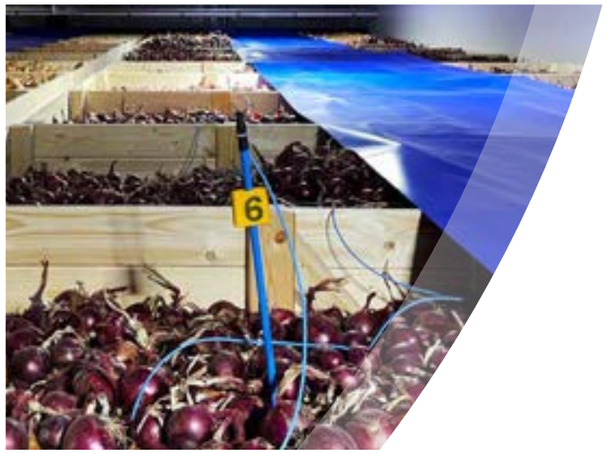


Storage equipment

Aspiration cover

Guided airflow for efficient ventilation on aspiration systems.

- Ensures controlled air return
- Easy to place behind the last box
- Strong and durable finish
- Flexible to use in different configurations

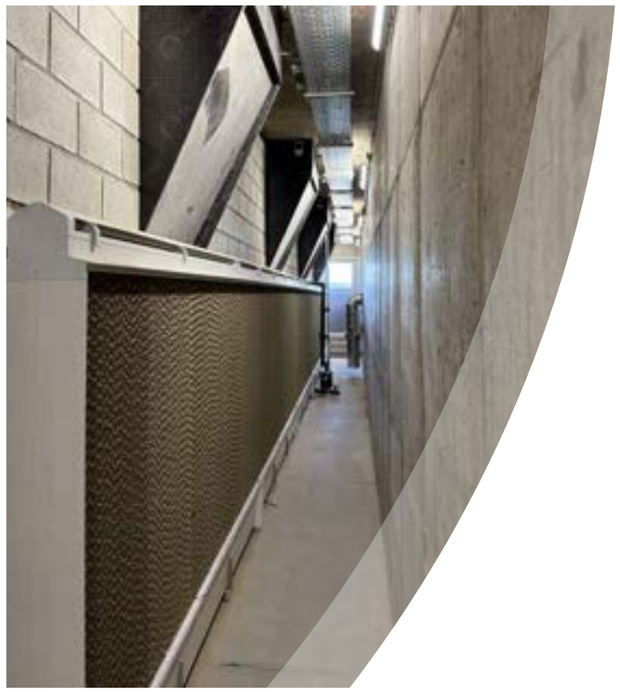


Storage equipment

Pad system

Humidification for optimal humidity level.

- Increases humidity without wetting the product
- No droplets on tubers or crop skin
- Low maintenance and easy to inspect
- Very suitable for long-term storage
- Operates without a water purification system
- Low pressure loss and quiet operation
- Efficient adiabatic cooling using outside air, without extra costs

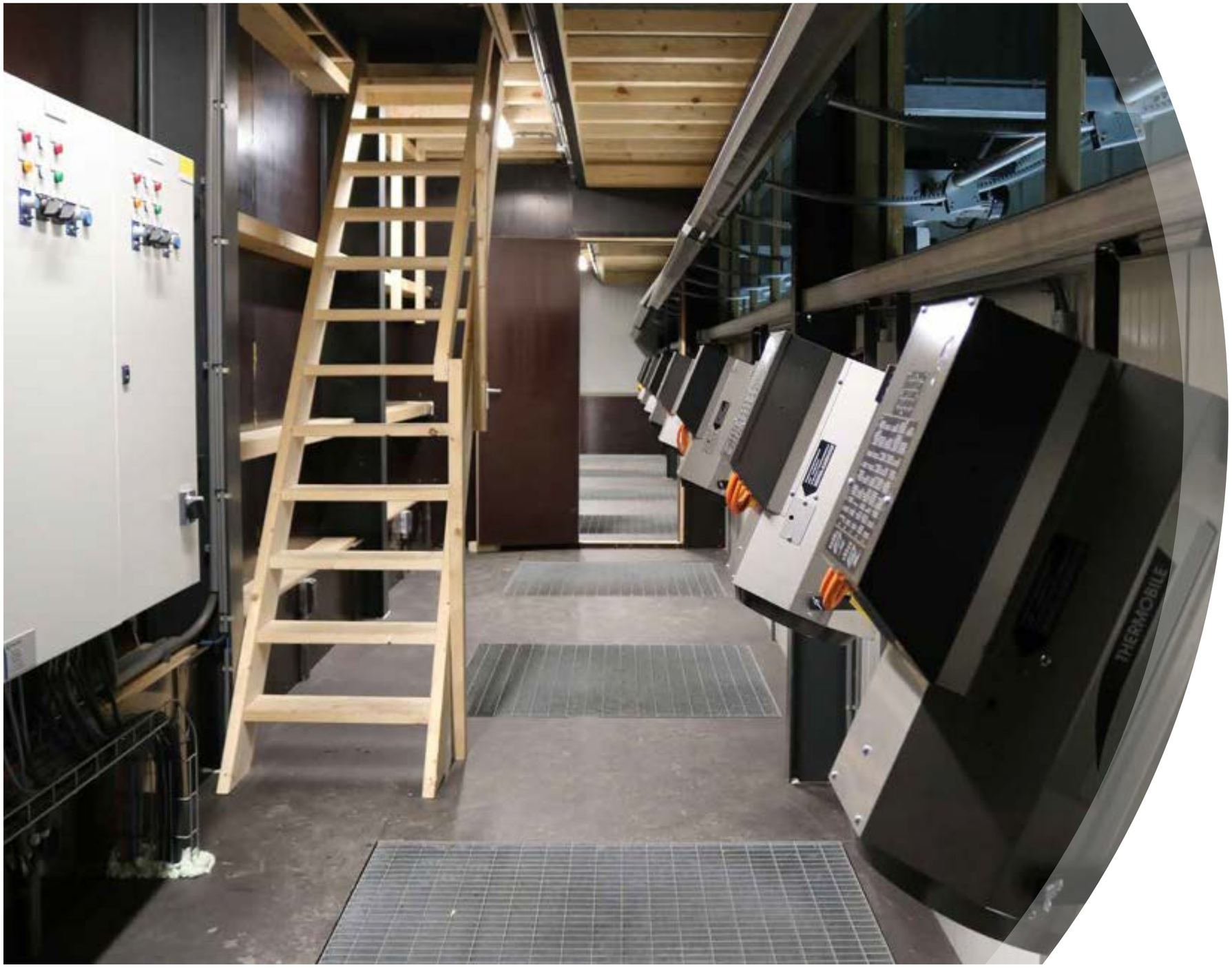


Storage equipment

Heaters

Heating for drying and temperature control.

- Modulating gas heaters for precise temperature control
- High heating capacity for rapid drying
- Portable and suitable for use in multiple cells
- Compatible with various crop types and storage phases
- Constant and safe airflow through integrated fan

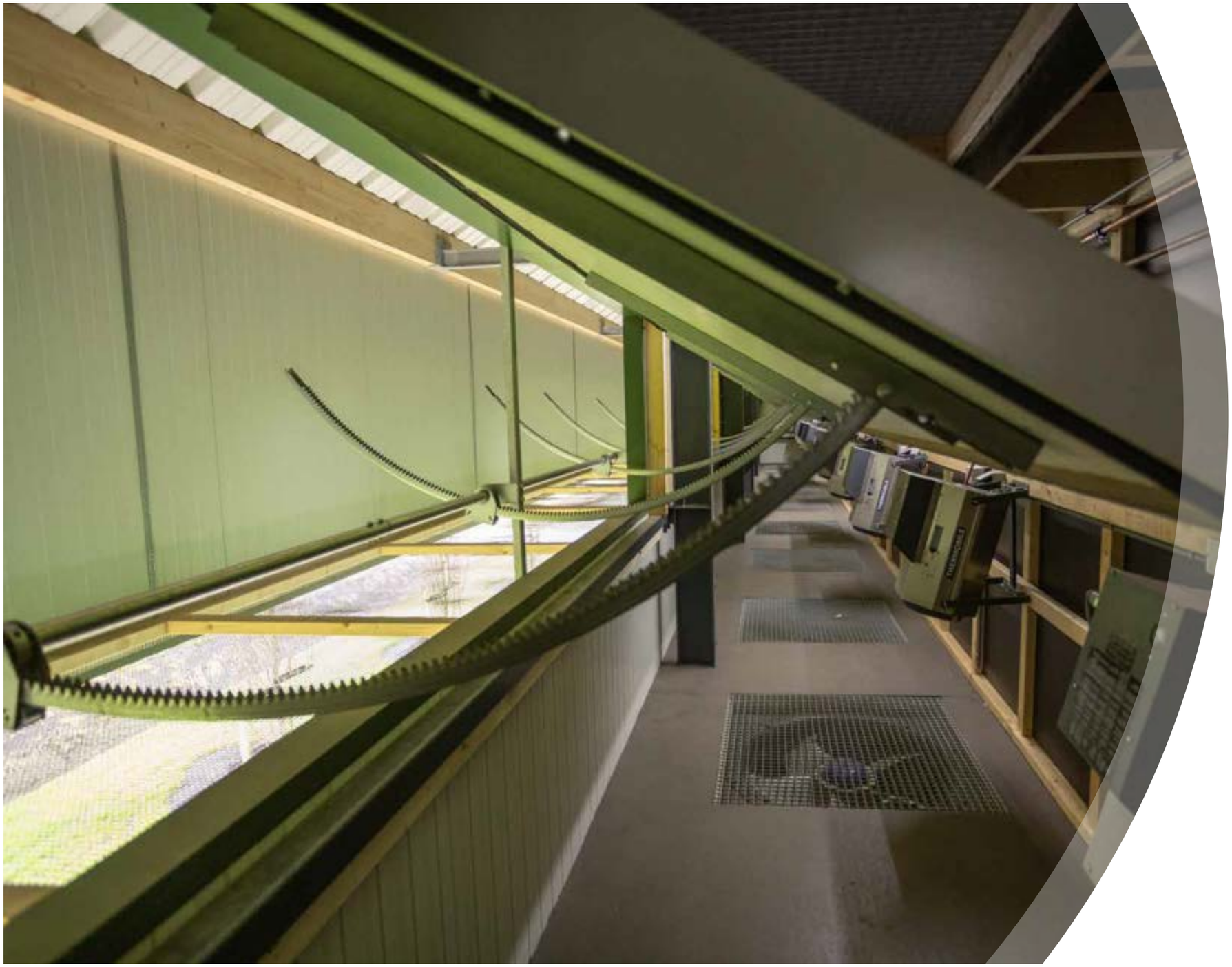


Storage equipment

Hatch operation

Drive for hatch control systems.

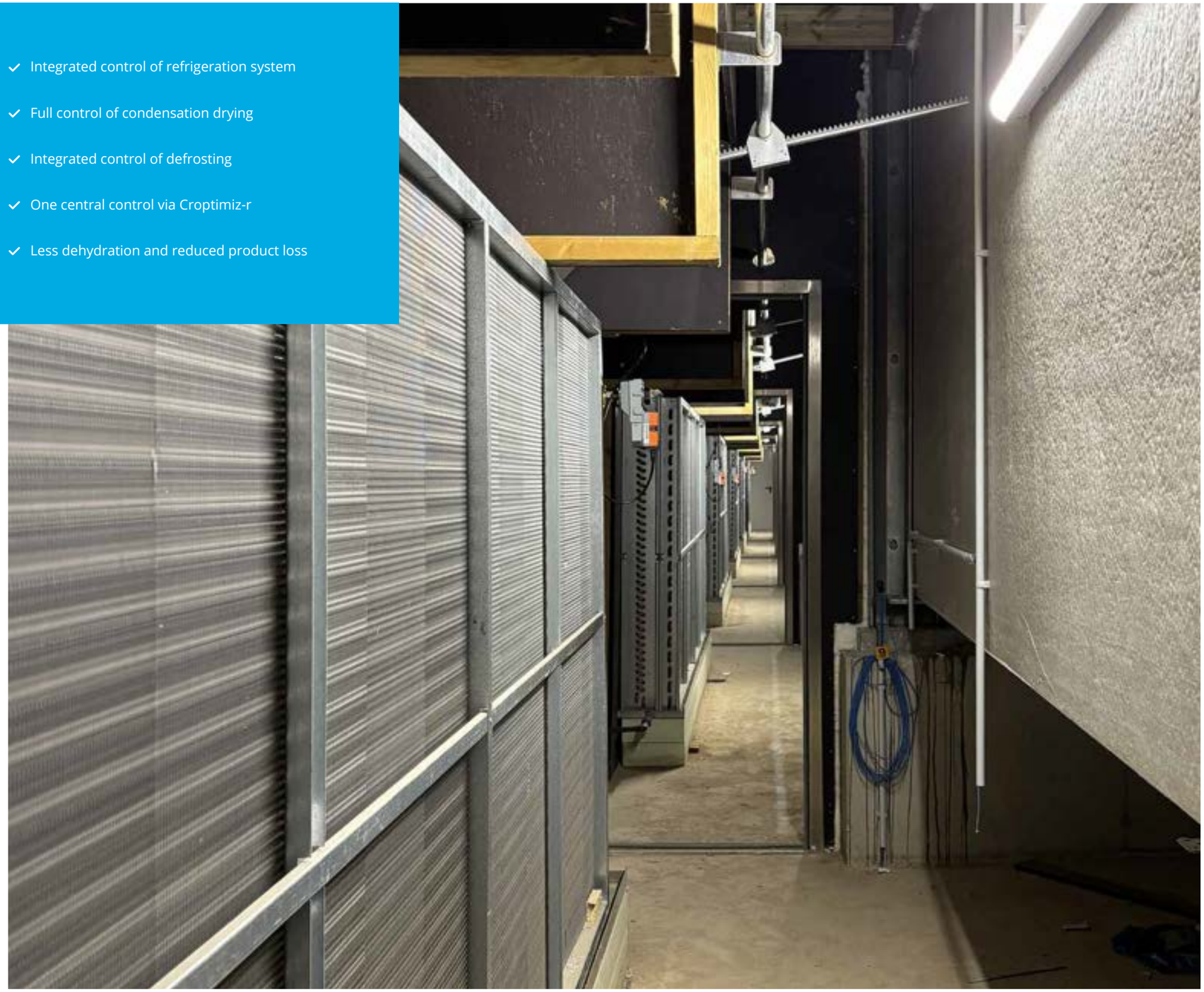
- Long service life and low maintenance requirements
- Stable operation, even under changing conditions
- Available in various power ratings and designs
- Easy to combine with control technology and sensors

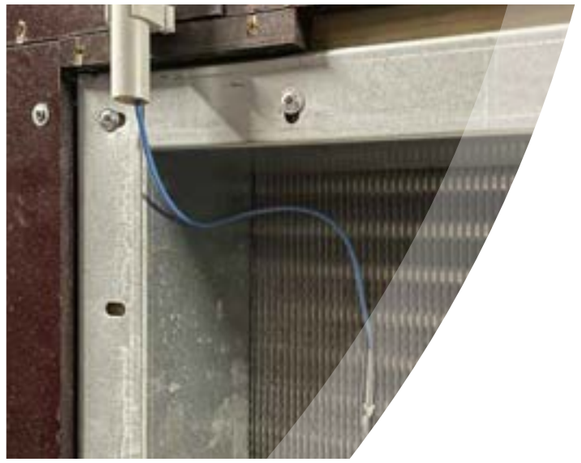


Storage equipment

Mechanical cooling

- Integrated control of refrigeration system
- Full control of condensation drying
- Integrated control of defrosting
- One central control via Croptimiz-r
- Less dehydration and reduced product loss





Control

Full control over your storage facility

Your storage controller is the brain of your operation. It keeps every process in balance, so your crops remain in top condition throughout the season. Whether you manage a large multi-cell facility or a smaller setup, Mooij Agro offers controllers that give you complete oversight and peace of mind anytime, anywhere.

Croptimiz-r MAX

All-in-one control for large-scale operations
The Croptimiz-r MAX is a premium controller designed to manage ventilation, heating, cooling, and humidification in multiple storage cells at once. Its 12-inch intuitive touchscreen gives you clear insight into real-time conditions. You can also monitor and adjust settings via your PC, smartphone, or tablet.

Croptimiz-r Compact

Smart control in a smaller package
The Croptimiz-r Compact offers the same proven technology as the MAX but is tailored for smaller installations or as an extension of your existing setup. Its user-friendly software and clear touchscreen make it easy for operators of all ages and experience levels to maintain the right conditions for different crops.
It's also easy to integrate with future expansions, giving you flexibility as your operation grows.

Control panels

Safe and well-organized control of your storage system

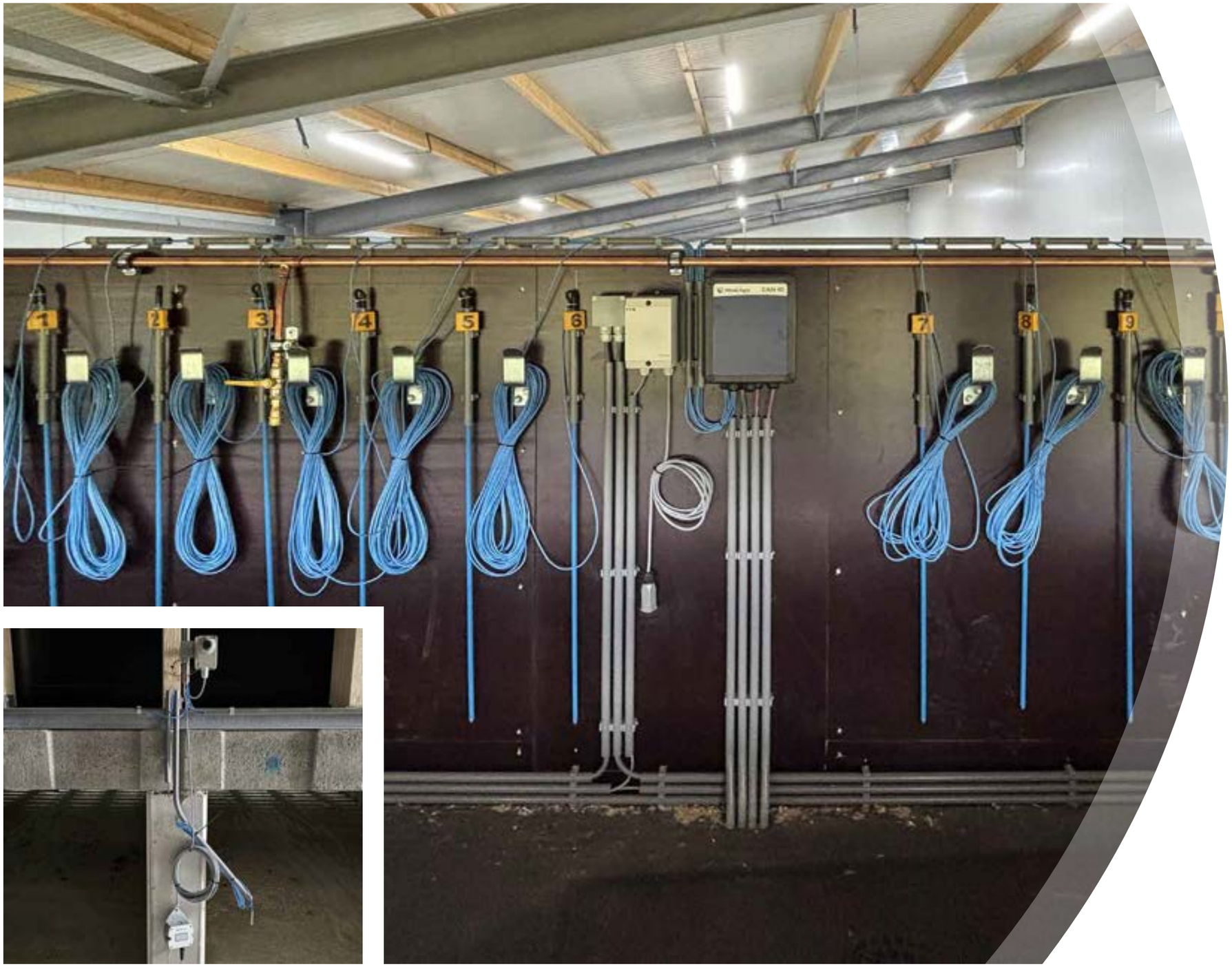
Hotraco and Mooij Agro are renowned for high-quality control panels that combine safety, clarity and reliability. Built in-house and tailored to each installation, they offer dependable performance and seamless integration with Croptimiz-r systems.

- Fully tailored to your installation and usage
- Clear layout with well-organized cabling
- Equipped with manual operation and clear markings
- Reliable components, assembled in our own production
- Supplied with detailed wiring diagrams
- Short delivery time for our modular, customizable panel, perfect for single-room applications

Control sensors

In order to create the best possible climate for your crop, it is crucial to be able to measure temperature, humidity and CO_2. Mooij Agro has developed sensors for every storage system that enable you to continuously measure the current climate factors.

- Accurate recording of temperature and humidity
- Suitable for both product and ambient measurements
- Stable readings, even in large cells
- Multiple sensor control possible per room. (CO_2, RV and Temperature)
- Supports automatic control of ventilation, drying and heating
- Durable and dependable, suitable for intensive use



Management

EVA

EVA is your built-in guide throughout the entire storage season. It helps operators set optimal parameters at the start and provides timely, relevant information whenever adjustments are needed. With interactive wizards and practical insights, EVA makes it easy to create and maintain ideal storage conditions. Ensuring consistent quality and full control.

Learn more

- Supports in setting the right storage strategy
- Sends notifications at critical moments
- Makes complex settings simple
- Offers support when making important decisions
- Available on Croptimiz-r controllers
- Interactive manual for explanation settings
- Provides guidance throughout the entire storage season

Smart Cooling Manager

Smart Cooling Manager is the intelligent solution for mechanical cooling of potatoes, onions, and other crops. The system automatically regulates the temperature in each storage cell by communicating between cooling units and rooms. Smart Cooling Manager ensures a stable climate that preserves your crop quality.

Learn more

- Always the right temperature in each storage cell
- Dynamic prioritization when cooling capacity is limited
- Works with all types of cooling systems
- One central control via Croptimiz-r
- Less dehydration and reduced product loss

Smart Energy Manager

The Smart Energy Manager ensures that your available energy is used in the best possible way. It intelligently manages fans, cooling, and heating capacity – using energy where and when it's most effective. The result: sustainable, cost-efficient storage with full control over your energy use.

Learn more

- Distribution of electricity based on priority
- Maximum use of own energy sources
- Prevents peak loads and high energy costs
- Works with or without an energy meter
- Can be linked to multiple Croptimiz-r systems
- Dynamic prioritization when power capacity is limited

Management

Always informed, always in control

Store Management

Mooij Agro offers a wide range of tools to properly manage your crop storage, at a glance. These range from separate elements to a complete system that is easy to operate remotely. Our goal is to put your mind at ease and ensure that your crop is stored under the right conditions.

- Access your storage process via PC, app or phone
- Instant alerts in case of deviations
- Easy remote operation, wherever you are
- Overview of multiple cells or sites at the same time
- Performance insights for better decision-making
- Visual notifications make the status instantly clear

Data and Cloud Management

Data and Cloud Management brings all your storage data together in one secure, central environment, giving you a complete and reliable data set. With all results clearly visualized in one dashboard, you gain instant insight and full control over your storage process. This smart, cloud-based solution helps you work more efficiently, saving valuable time and labor costs.

- Central storage of all your storage data
- Compare performance between seasons and locations
- Data accessible for analysis and optimization
- Suitable for future expansion or integration
- Always up to date with automatic data processing
- Timeless solution for smart and scalable storage technology

Mooij Agro
Specialist in automated crop storage

For over 40 years, Mooij Agro has been designing and building complete storage systems for growers and storage specialists worldwide. We create tailor-made solutions that bring together ventilation design, storage equipment and smart controls into one efficient setup. Every design is focused on your crop, your building, and your goals, so you get the optimal storage result.

We take care of the entire process. Our team has all expertise in-house, from R&D and engineering to production and assembly. This means we can quickly adapt to new requirements, changing regulations, and specific on-site situations.

Together with a strong international dealer network, we provide local support and service wherever you are. This way, you always get the most out of your storage season. Mooij Agro is a Dutch company, founded in 1981, and has been part of the Hotraco Group since 2001.

About Hotraco Group
Smart technology for the agricultural sector worldwide

Hotraco Group is an international technology company that specializes in automation solutions and equipment for livestock farming, horticulture and crop storage. We operate several specialized brands under one roof, including Mooij Agro. Together, we develop and produce smart systems that make processes more efficient, sustainable and profitable.

At Hotraco, we combine the strength of in-house engineering with a strong network of dealers and specialists. Our collaboration with parent company Munters allows us to keep investing in innovation and global growth. Whether it is ventilation, climate control or storage management, we provide reliable solutions that meet the needs of today and tomorrow.

Futureproof technology

Worldwide dealer network

Modular solutions

Hotraco Group
the system creators

Hotraco Agri
the system creators

LIVESTOCK

Mooij Agro
the system creators

CROP STORAGE

Hotraco Horti
the system creators

HORTICULTURE

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