erstoair

INTELLIGENT **AIR CIRCULATION**

TECHNICAL DATA SHEET

Decentralised exhaust air & moisture management system for controlled indoor air regulation

PRODUCT DESCRIPTION

erstoair is a decentralised, intelligent exhaust air and moisture management system designed for the automated regulation of indoor air quality and humidity levels within buildings.

The system has been developed for:

- continuous extraction of humid and stale air
- reduction of condensation formation
- stabilisation of the indoor climate
- support of mould prevention
- improvement of hygienic indoor air conditions.

Unlike conventional ventilation systems, active air extraction takes place exclusively via designated moisture or wet rooms,

including:

- bathrooms
- toilets
- kitchens
- and internal moisture-prone rooms.

No active exhaust air units are installed in living rooms or bedrooms.

Fresh air is introduced in a controlled and draught-free manner via specialised window rebate ventilation systems or defined air inlets located in living and occupied areas.

This creates a continuous and controlled airflow:

- from living and sleeping areas
- towards the moisture-prone rooms
- and from there directly to the outside.

The system operates energy-efficiently, with low air velocity and virtually draught-free airflow.

Depending on the system configuration, erstoair may be automatically controlled via:

- humidity sensors
- motion sensors
- time programmes
- or smartphone app control.

PROPERTIES

- Decentralised exhaust air and moisture management system
- Controlled air exchange through defined airflow management
- Continuous moisture extraction
- Supports the reduction of condensation formation
- Supports mould prevention
- No active ventilation units in living or sleeping areas
- Draught-free fresh air supply via window rebate ventilation systems
- Energy-efficient operation
- Low-noise and suitable for residential environments
- Retrofit-compatible for existing buildings
- Suitable for new-build and renovation projects
- Supports hygienically stable indoor air conditions
- Compatible with ERST moisture and mould protection systems

FUNCTIONAL PRINCIPLE

erstoair is based on controlled airflow management throughout the entire residential or usage unit.

The active exhaust air modules are installed exclusively in moisture and wet rooms where elevated humidity and odour loads occur.

Humid and stale indoor air is extracted to the outside at defined intervals.

At the same time, fresh air enters living and sleeping areas in a controlled manner via window rebate ventilation systems or defined air inlets.

This creates a continuous airflow:

- throughout the entire residential unit
- directed towards the moisture-prone rooms
- with controlled extraction to the outside.

The low air velocity enables virtually draught-free operation.

Depending on the system design, multiple complete air exchanges per day can be achieved, significantly reducing the need for manual window ventilation.

Actual system performance depends on:

- building structure
- room layout
- airtightness
- user behaviour
- humidity load
- and system configuration.

SYSTEM COMPATIBILITY

erstoair forms part of the ERST system concept for:

- moisture management
- mould prevention
- hygienically stable indoor environments
- and building-physics stabilisation.

The system may be combined with:

- erstomould
- erstoplast
- erstotherm
- as well as additional ERST system solutions.

BUILDING & INSTALLATION REQUIREMENTS

Prior to installation, the following factors must be assessed on a project-specific basis:

- room layout
- airflow paths
- moisture load
- existing ventilation conditions
- window and façade construction
- technical connection options.

Suitable air inlet paths are required to ensure proper airflow management.
System planning is always project-specific.

INSTALLATION

Installation depends on:

- building type
- room structure
- ventilation concept
- and technical system configuration.

Possible system components include:

- window rebate ventilators
- wall modules
- exhaust air units
- sensor technology
- control units.

Installation generally requires only minor structural intervention and is therefore particularly suitable for:

- renovation projects
- existing buildings
- and modernised residential units.

CONTROL & AUTOMATION

Depending on system configuration, erstoair may be controlled via:

- humidity sensors
- motion sensors
- time-controlled programmes
- CO_2 sensors
- occupancy detection
- or app-based control systems.

The control system operates demand-based to optimise:

- indoor air quality
- moisture regulation
- energy consumption
- and user comfort.

AREAS OF APPLICATION

erstoair is suitable for:

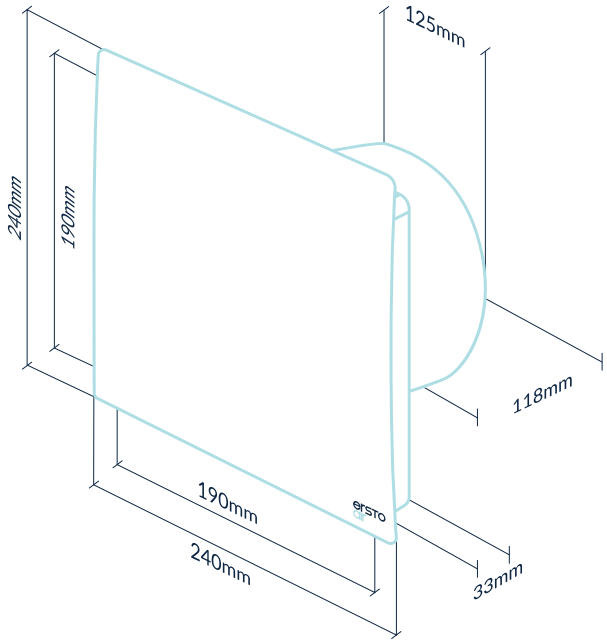
- residential buildings
- apartments
- renovation projects
- energy-efficient modernised buildings
- internal bathrooms and toilets
- kitchens
- moisture-prone residential units
- offices
- treatment and therapy rooms
- staff and communal areas.

Typical applications include:

- buildings with elevated humidity loads
- rooms with insufficient natural ventilation
- mould-prone areas
- modernised or highly airtight building envelopes

TECHNICAL DATA

Property	Value
System type	Decentralised exhaust air and moisture management system
Airflow concept	Controlled airflow via moisture-prone rooms
Exhaust air zones	Bathroom, WC, kitchen, internal moisture-prone rooms
Fresh air supply	Window rebate ventilation systems / defined air inlets
Control system	Sensor- or time-controlled (depending on model)
Sensor technology	Humidity, motion, CO_2 or occupancy sensors
Operation	Optional app-based control
Air velocity	Low / low-draught operation
Energy consumption	Low (depending on model)
Noise level	Suitable for residential environments
Installation	Retrofit-compatible
Application areas	Residential & commercial properties



PROTECTION & SAFETY

nstallation must only be carried out in accordance with the technical planning and applicable regulations.

Electrical connections may only be performed by qualified specialists.

Actual system performance depends on:

- building structure
- airflow management
- user behaviour
- maintenance
- and project-specific conditions.

Regular maintenance & cleaning of system components are recommended.

The information provided reflects the current state of technical knowledge.

Due to varying project conditions, no liability claims may be derived from this information.

MAINTENANCE

Depending on the system configuration, the following maintenance measures are recommended:

- regular visual inspections
- cleaning of ventilation components
- filter inspection or replacement
- inspection of sensor and control functionality.

Maintenance intervals depend on project conditions and system usage.

CONTACT

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