



ECODRY International GmbH

HERITAGE AND PRESERVATION
SOLUTIONS



Our goal – the best for the preservation of all cultural monuments worldwide.

SUSTAINABLE MASONRY DEHUMIDIFICATION WITH THE PATENTED
ECODRY TECHNOLOGY.

HISTORY

- 1981 Foundet as an engineering office.
- 1990 Development of electro physical technologies for drying buildings.
- 2001 Development of the new ECODRY multi-frequency technology.
- 2003 Start of the international ECODRY business.
- 2014 Patenting of the special ECODRY method.
- 2016 Change of shareholders.
- 2020 Development of new business areas and change of company Cl.

PORTFOLIO

- Producer of high quality wall dehumidification systems.
- Producer of high-quality wet wall special plasters.
- Specialist for holistic moisture management in buildings.
- Planning and installation of sensor-controlled ventilation.
- Complete mold remediation and air sterilization.
- Radon measurements and remediation.
- Metrological analysis and assessment of the moisture situation in monument buildings.

ECODRY PRO

- CPU controlled multi-frequency device for dehumidification of masonry walls.
- Master unit for connecting satellite devices
- Latest device generation, suitable for all building materials.
- Designed to meet all the requirements of monument protection, since no intervention in the historical building structure is necessary.
- Optional measurement of wall moisture and storage of values with brush sensors is possible.



TECHNICAL SPECIFICATION

Capillary rising dampness is the most common cause of damage to historic buildings. The ECODRY PRO device prevents or stops this process with its effective technology.

Data Sheet ECODRY® PRO



CPU Controlled Multi-Frequency Master Device for Dehumidification of Masonry

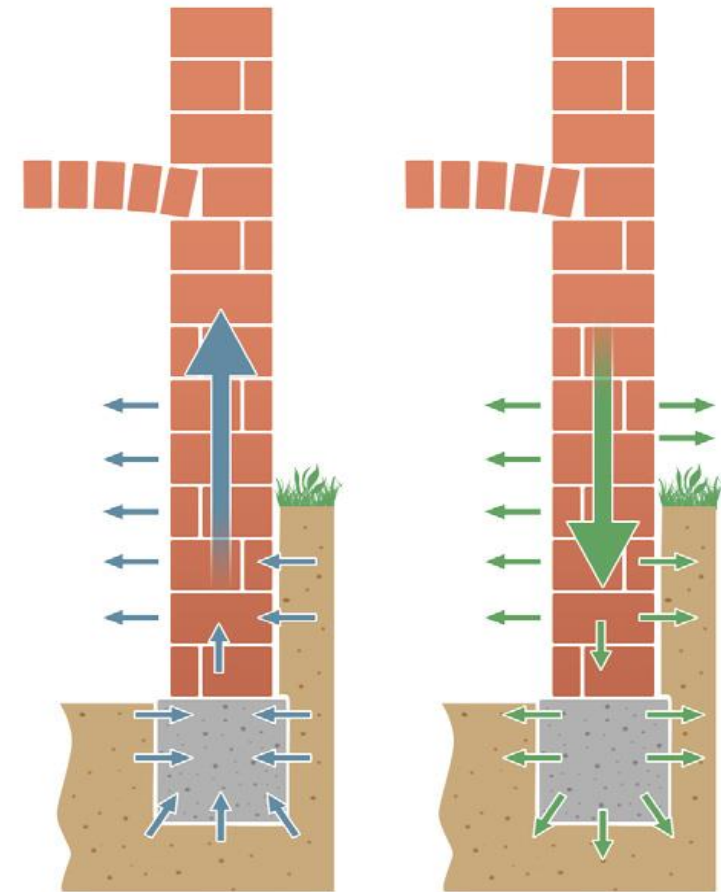
Application	Unit is optimized for dehumidification of masonry walls comprising differing masonry types which have been damaged by capillary moisture. The unit is designed as a Master Unit. Up to 5 Slave Units (WORKSTATION and/or INPOINT) may be connected.	
Enclosure	Rated IP 40; Impact resistant ABS; Fire rating per UL 94 HB; electrically fully isolated; Color gray-white (RAL 9002).	
Fastenings	Attachment using screws behind the cover plates on right and left sides.	
Dimensions	L = 330 mm, W = 210 mm, H = 48 mm	
Weights	2600 g	
Electrical Port	Integrated mains adapter 230 V, 50 - 60 Hz AC, 7.5 VA; Connection cable 1.5 m per VDE /DIN 49441; During power outages the unit will not function - automatic restart when electrical supply is restored.	
Pulse Controller	Maintenance-free CPU controlled module, manufactured to industrial standards; supporting 32 work routines (pre-programmed by manufacturer); bipolar mode with active and passive phases alternating; software controlled performance parameters are optimized for varying masonry type combinations.	
Display	Power: LED shows Green - unit is ready. Pulse: LED shows Green or Yellow - unit is in passive phase. LED flashes Green/Yellow - unit is in active phase; inductive feedback loop ensures visual confirmation that the unit is working correctly. Window: Display if current routine and for other retrieval information.	
Measurement Input	Measurement input for ECODRY humidity sensor technology with integrated database - recording one measured value per day.	
EMC Regulations	Interference emissions and noise immunity comply with VDE-EMC regulations; values fall well below the norms of the European EMC Standard EN 61000-3-3; they also fall below the much stricter recommendations of building biologists. EMC evaluations and assessments by independent building biologists confirm the unit to be entirely harmless for humans, animals, and plants.	
Power Consumption	Energy consumption max. 6 Watt, corresponding to 0.144 kWh/day or around 53 kWh annually.	
Efficiency	The unit is configured for an effective radius of 15 m.	
Name Plate	CE-Tag, manufacturer's data and serial number. CE-Standards per 93/465/EWG and per VDE.	
Slave-Units	WORKSTATION: Wall unit similar to Master Device. Effective radius 10 m.	
	INPOINT: Particularly for very thick walls. Effective radius 6 m.	
	SENSOR: Masonry moisture measurement.	

ECODRY PRINCIPLE

The only process on the market which is based on dynamic magnetic fields.

Ecodry devices generate sequences of dynamic magnetic fields, which generate eddy currents within moist brickwork. These currents interfere with the electrical charges and electrical potentials naturally located in the brickwork.

Within the moist brickwork complex processes are activated which slowly diminish the effects of the capillary force. The absorption of moisture caused by capillary force is reduced gradually.



Without ECODRY

Rising capillary dampness is slowly and inexorably seeping into the material.

With ECODRY

The trend is curtailed, water loses its capacity to rise vertically through the capillaries.

ENERGY-ASPECT

Water is a much better conductor of heat than dry building materials (bricks, plaster, etc.).

If the wall is wet, the heat from the interior is very quickly conducted to the outside. The temperature of the wall surface on the inside drops down and energy losses are the result.

The heat transfer coefficient (U-value) of the masonry is only reduced again when it is drained and the energy balance improves.

THE ECODRY PROCESS BRINGS BACK THE NATURAL INSULATING ABILITY OF THE BUILDING MATERIALS THROUGH MOISTURE REDUCTION.

Limestone: Moisture increase 1 % by mass $\Rightarrow$ Thermal conductivity increases by 8 %
Brick: Moisture increase 1 % by mass $\Rightarrow$ Thermal conductivity increases by 15 %
Higher wall moisture $\Rightarrow$ lower insulation value $\Rightarrow$ higher energy consumption

Influence of moisture on mineral wall formers and insulating materials in comparison

Source: IBP Software WUFI, Fraunhofer Institut

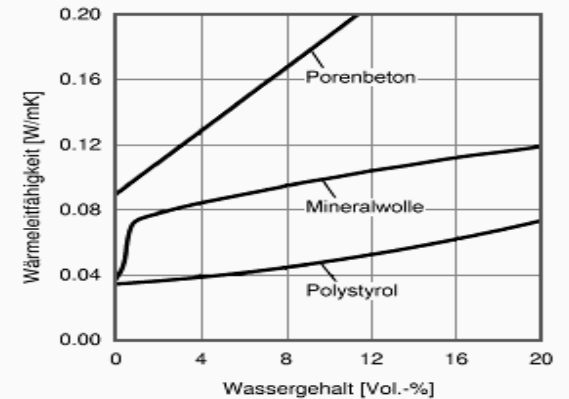
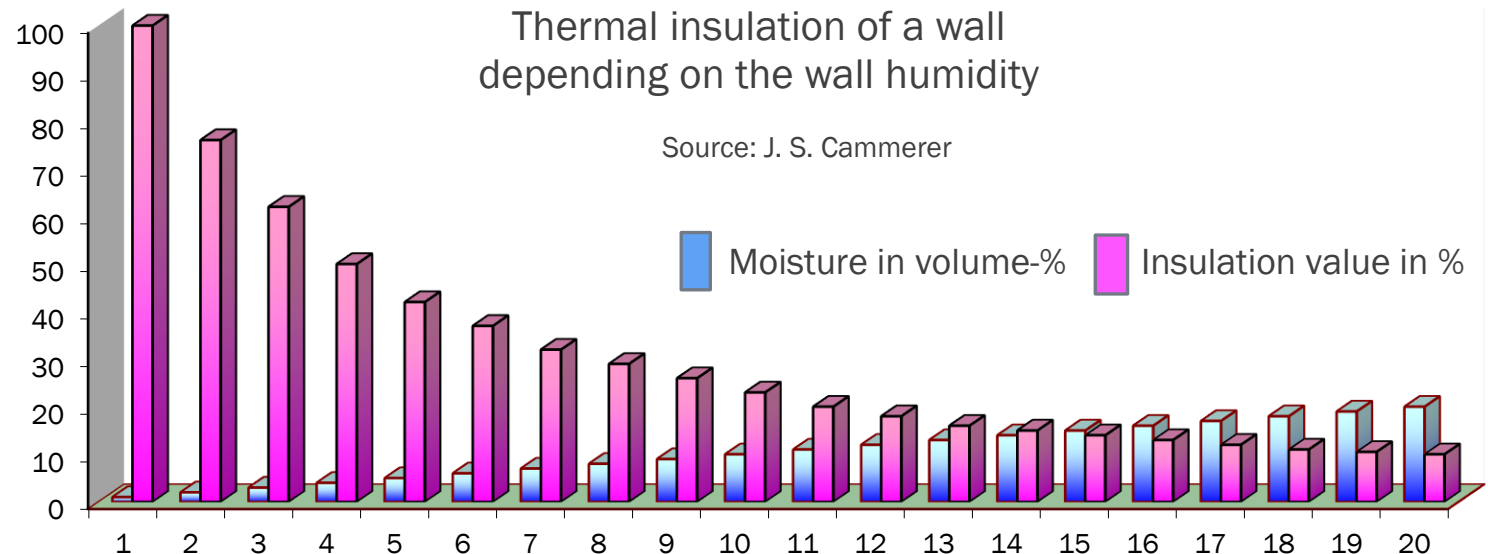


Bild 1: Feuchteinfluß auf die gemessene Wärmeleitfähigkeit von Baustoffen

Thermal insulation of a wall depending on the wall humidity

Source: J. S. Cammerer



TOP REFERENCE

PALAZZO CHIGI, ROME

ITALY

- Headquarters of the Italian government.
- Installed in March 2021.
- 16 systems installed in the basement.
- Monitoring with data logger.



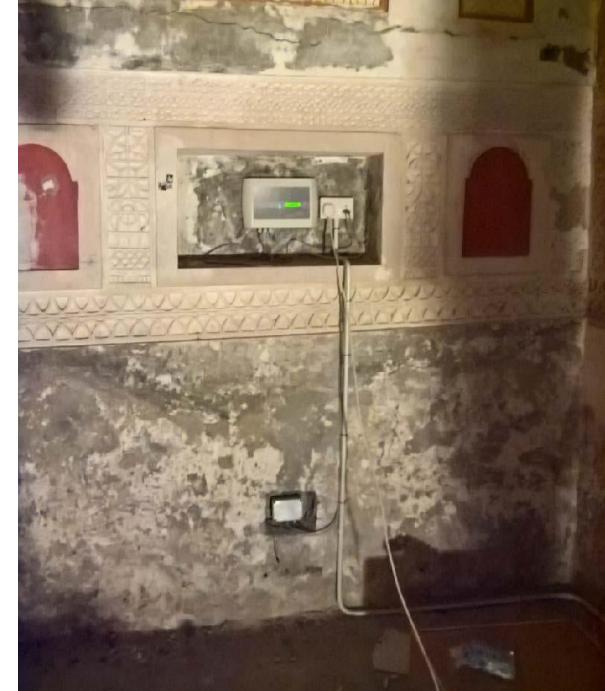
TOP REFERENCE

PEARLING PROJECT

MANAMA

BAHREIN

- UNESCO World Heritage
- Installed in January 2018
- Monitoring with data logger.



TOP REFERENCE

BASILICA DI S.M. DELLE GRAZIE

MILAN

ITALY

- Installed in July 2008.
- Excellent drying values.



TOP REFERENCE

SUOMENLINNA FORTRESS

HELSINKI

FINLAND

- UNESCO World Heritage
- Installed in November 2010
- Monitoring with data logger.



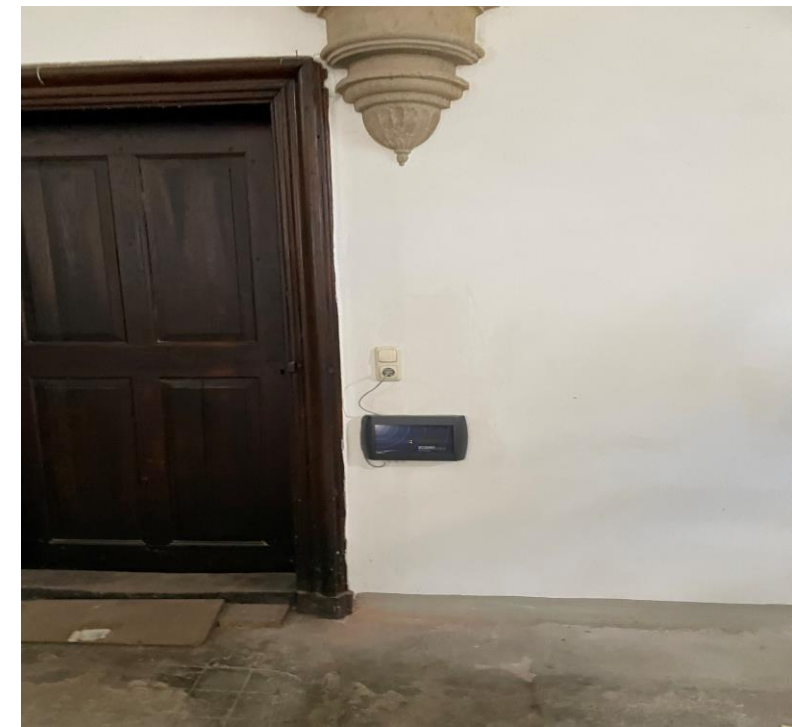
TOP REFERENCE

FUGGER CASTLE

KIRCHHEIM IN SCHWABEN

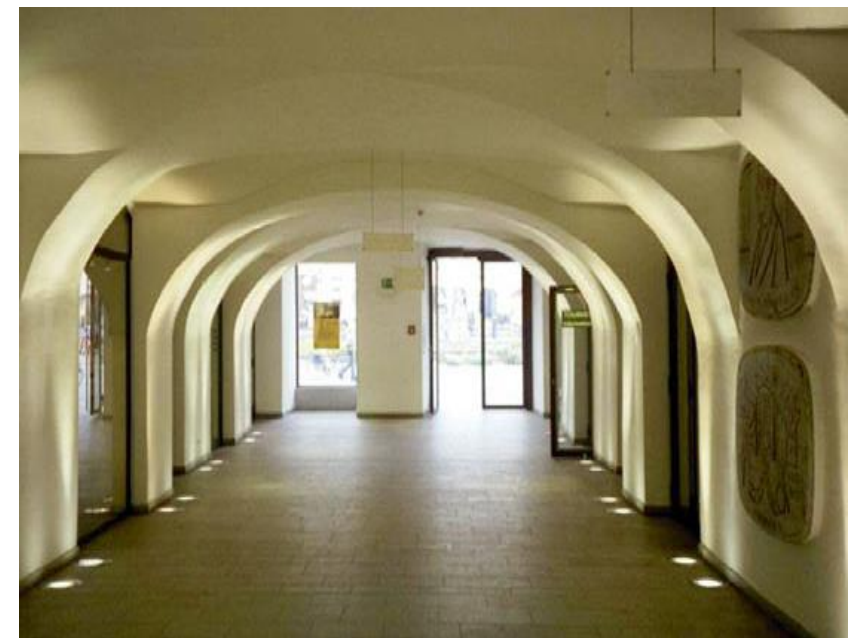
GERMANY

- Important monument in Bavaria
- Installed in April 2021



THE FIRST STEPS FOR OUR COOPERATION

- Send us first informations, plans and descriptions of your project.
- Initial assessment and scheduling of an on-site inspection.
- Local appointment for extensive measurement verification of the moisture conditions.
- Proposal for restoration.
- Realization.
- Monitoring and regular service check if desired.





ecodry®

EINFACH. ANDERS. SANIEREN.

THANK YOU
FOR YOUR INTEREST