

Emissions-free capability of HYTING's hydrogen heating system confirmed through mobile measurement technology from Wöhler Technik GmbH

- Start-up hydrogen heating technology company HYTING has received independent confirmation that its unique system emits no detectable CO₂-, CO- or NOx emissions
- Assessment and validation by emissions measurement experts Wöhler Technik GmbH confirm that the hydrogen supplied to the prototype is fully oxidized, resulting in an exhaust-free airflow without harmful emissions
- HYTING's flameless, catalytic process enables safe, efficient and clean forced-air heating using hydrogen, with water as the only by-product
- Decarbonising heating is a globally recognised challenge, and one which must be quickly overcome if the ambitious target of net-zero is to be achieved by 2050
- For further information please visit hyting.com

30. October 2024 Wiesbaden, Germany – Start-up hydrogen heating technology company HYTING has announced independent test results confirming that its technology produces no harmful emissions.

The assessments were carried out by the globally-operating emissions measurements specialist Wöhler Technik GmbH on a prototype of a hydrogen heating system developed by HYTING. The results show that, unlike conventional combustion-based heaters, HYTING's unique catalytic hydrogen heating system produces only water as a by-product and emits no detectable CO₂-, CO- or NOx emissions. The measurements were performed using a mobile exhaust gas analyzer, the Wöhler A 550, which was specially equipped with H₂ analytics for these tests.

Receiving third-party validation of its hydrogen heating system is significant achievement for HYTING, and one which demonstrates the effectiveness of its proprietary technology, and its potential for playing a major role in decarbonising heating of commercial and residential buildings – a challenge that the European Environment Agency recognises as critical¹.

Tim Hannig, Founder and Managing Director of HYTING, said: "We greatly appreciate the support and expertise of Wöhler Technik in measuring the quality of our catalytic reaction. Receiving confirmation from Wöhler that our technology operates emissions-free reinforces our development work."

"As a technology-oriented company focused on environmental measurement technology, we're pleased to support the development of innovative solutions in heating technology from the outset and to confirm the safety and reliability of operations through our measurements. The flameless and emissions-free application of hydrogen offers tremendous potential and the opportunity to meaningfully expand the range of sustainable heating solutions." **said Dr. Michael Poeplau, CEO of Wöhler GmbH.**

The test results highlight the efficacy of HYTING's simple, safe, efficient, and clean method of generating heat directly from hydrogen. The system uses the principle of flameless oxidation to generate heat. In a specially developed catalyst, hydrogen reacts with oxygen from the air, releasing heat. No harmful emissions are produced; water is the only by-product. As no flammable hydrogen concentrations are used at any operating point, it is inherently safe and easy to integrate both as a retrofit solution and into new-builds.

The technology is as robust and cost-effective as it is innovative because it uses many proven, existing components from the heating and automotive industries. It's also modular and highly scalable in design, with outputs of 10-300 kW, enabling it to be configured for a wide range of different applications, including industrial, commercial, and residential buildings, process heat, and commercial vehicle heating systems.

HYTING already has a first customer – Flusys GmbH – with installation and commissioning taking place in early 2025 at Flusys' newly-established production facility for precision pumps in Offenbach, Germany. The 1,000 cubic-meter production space will be heated using hydrogen from a nearby supplier.

HYTING and Wöhler Technik have decided to continue working together in the future. Wöhler Technik will further support HYTING in the series development of the hydrogen heating system with its measurement technology.

¹ <https://www.eea.europa.eu/publications/decarbonisation-heating-and-cooling>

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About HYTING:

HYTING is a heating technology company founded in 2021 with the aim to deliver carbon-free heating fuelled by hydrogen: no CO₂, NO_x, or particulates. It has developed a forced-air heating system (patents-pending) that utilises a molecular, exothermic catalytic reaction to turn a mixture of hydrogen and oxygen from the air into heat – the only by-product is water. This flameless oxidation process is at the heart of HYTING's simple, safe, efficient and clean heating systems.

Decarbonising heating is a globally recognised challenge, and HYTING's technology can help to accelerate the transition from carbon-fuelled heating technologies to cleaner, more sustainable heating systems, and enabling net zero emissions by 2050.



HYTING's system will initially be used in commercial and industrial applications with heat outputs from 10-300 kW per unit. The company is scaling quickly from prototype to series production, with the first customer trials beginning early 2025. HYTING is based in Wiesbaden, Germany, and is run by a leadership team with decades of experience in the engineering sector.

Media contact:

media@hyting.com

About Wöhler

Founded in 1932, Wöhler develops and distributes measurement devices, inspection, and cleaning technology for applications in heating, ventilation, and building solutions. Under the guiding principle 'The Measure of Technology', HVAC craftsmen, construction professionals, chimney sweeps, and industrial clients worldwide can rely on receiving customized technology that also offers optimal benefits for future requirements. As a family-owned company, Wöhler Technik GmbH maintains a close, cooperative relationship with its customers and suppliers globally.

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