

One step closer to the energy transition

Bosch presents hydrogen boiler for residential buildings

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- ▶ Conversion from natural gas to hydrogen possible at any time
- ▶ H₂-ready boiler a climate-neutral alternative in existing buildings

Bosch Thermotechnology's H₂-ready boiler today shows how green hydrogen can secure tomorrow's heat supply of buildings. The demonstration boiler was presented at the Bosch Thermotechnology site in Worcester.

H₂-ready boiler accelerates the energy transition

Although hydrogen is increasingly being seen as an environmentally friendly energy carrier, also in Europe's building sector, its implementation has so far been rather slow. By developing a hydrogen-compatible boiler, the developers at Bosch Thermotechnology are proving that boilers can be converted quickly and easily from the currently used natural gas to 100 percent hydrogen. A first demonstration boiler of the H₂-ready boiler with a rated heat output of 30 kW has been in operation on a test stand since 2017. The H₂-ready boiler can initially run on conventional natural gas or a hydrogen admixture of up to 20 percent. As soon as the local network has been switched over to hydrogen, the boiler can be converted to full use of the green gas within an hour by making just a few adjustments.

Most of the existing natural gas pipelines are almost ready to transport hydrogen, which means that existing infrastructures can be used when switching to the green gas. The operation of the H₂-ready boiler is similar to that of an ordinary gas condensing boiler. The important difference lies in the energy source. Hydrogen can be stored indefinitely, thus ensuring constant availability for users. Green hydrogen is climate-neutral and therefore has the potential to lead the heating sector into a green future.

Hydrogen boilers as a solution for existing buildings

Renewable energy is becoming more and more popular in both new buildings and modernisation projects. Without additional adjustments such as insulation measures, however, the installation of climate-friendly heating solutions (e.g. heat pumps) in existing buildings is often complex and expensive. The new H2-ready boiler from Bosch makes the difference, as it requires no additional modernisation measures and enables carbon savings in every existing building. But climate protection does not mean compromising on heating comfort. The hydrogen boiler from Bosch can react quickly to fluctuating heating requirements due to weather and user conditions and offers the same high performance as a conventional gas condensing boiler. The H2-ready boiler fits into the same footprint as a current gas-condensing boiler, which is a great advantage especially in houses with limited space for the building services.

Press photo: #3288458

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Bosch Thermotechnology is a leading European manufacturer of energy-efficient heating products and hot water solutions. In fiscal 2019, the company generated sales of about 3.6 billion euros (66 percent outside Germany) and employed approx. 14,500 people. Bosch Thermotechnology has strong international and regional brands and manufactures a diversified product range in Europe, America and Asia.

Additional information is available online at www.bosch-thermotechnik.de

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