

Trade fair information

Industrial Heat



Bosch Industrial Heat at Achema: Hall 8, stand A78

May 2024

Sustainable steam and heat solutions for industry worldwide

At the Achema trade fair in Frankfurt, Bosch Industrial Heat will be showcasing technologies and solutions for sustainably generating steam and producing heat for industrial processes. "We offer a wide range of solutions to industries all around the world, from electrification right through to using hydrogen and upgrading existing systems," explains Daniel Gosse, Head of Marketing and Academy at Bosch Industrial Heat.

Hybrid solutions with green electricity

An example is the future of steam provision for manufacturing packaging at Violeta. The manufacturer of hygiene products and liquid detergent, based in Bosnia and Herzegovina, is investing in a new corrugated cardboard system for its own packaging needs. The focus of this project is energy saving, sustainability and more independence. Bosch's solution is a hybrid steam boiler equipped with an electric heater and burner system, so that two different energy sources can be used at the same time. In addition to high security of supply, Violeta benefits from a better ecological balance. The boiler is designed for a capacity of 6 t/h of steam. Of this, around 3 t/h of steam can be generated carbon-neutral with green electricity from the company's own photovoltaic system. Visitors will be able to find more information about this system combination and 100% electrical steam boilers at the trade fair booth.

Potential for hydrogen use

In addition to electrification, green hydrogen offers considerable potential for industrial process heat. Bosch's boiler systems enable this CO₂-neutral energy source to be utilised 100%. This technology has already been in use for many years, particularly among companies in the chemical and pharmaceutical sectors. "When it comes to hydrogen combustion, we've got many years of experience. Hydrogen is often produced as a by-product, particularly in chemical processes. Rather than using additional natural gas, for example, it makes sense to use the existing hydrogen. This reduces both energy costs and emissions for companies," explains Daniel Gosse. In future, hydrogen surpluses from electrolyzers powered by renewable energies will be an attractive option in order to make process heat generation completely carbon-neutral.

Digital and automated: Boiler house 4.0

Digitalisation and automation can also make a significant contribution to sustainability. Bosch uses its control systems which are configured and produced in-house for industrial boiler systems. The integrated software in these systems not only automates complex steam and heat processes, but also ensures transparency in operation. Moreover, intelligent analysis and recommendation for actions offer more options for rapidly detecting energy losses, reducing fuel consumption and maximising system availability.

Boiler modernisations for future-proof process heat

When it comes to ensuring compliance with new emission regulations, upgrading to alternative fuels or reducing energy costs, the Bosch experts can give you advice about custom solutions for modernising existing plants. They can also quickly and simply generate exciting evaluations with an efficiency configurator at the trade fair booth. The app configures potential energy savings based on customer-specific load profiles. Cost and profitability comparisons with the use of hydrogen, electricity and hybrid systems can also be mapped and evaluated. "Our experts will provide interested parties with advice about which solutions would be best suited to their infrastructure, processes and individual requirements. Our aim is to make the use of steam and heat in industrial applications sustainable, energy-efficient and future-proof," emphasises Daniel Gosse.



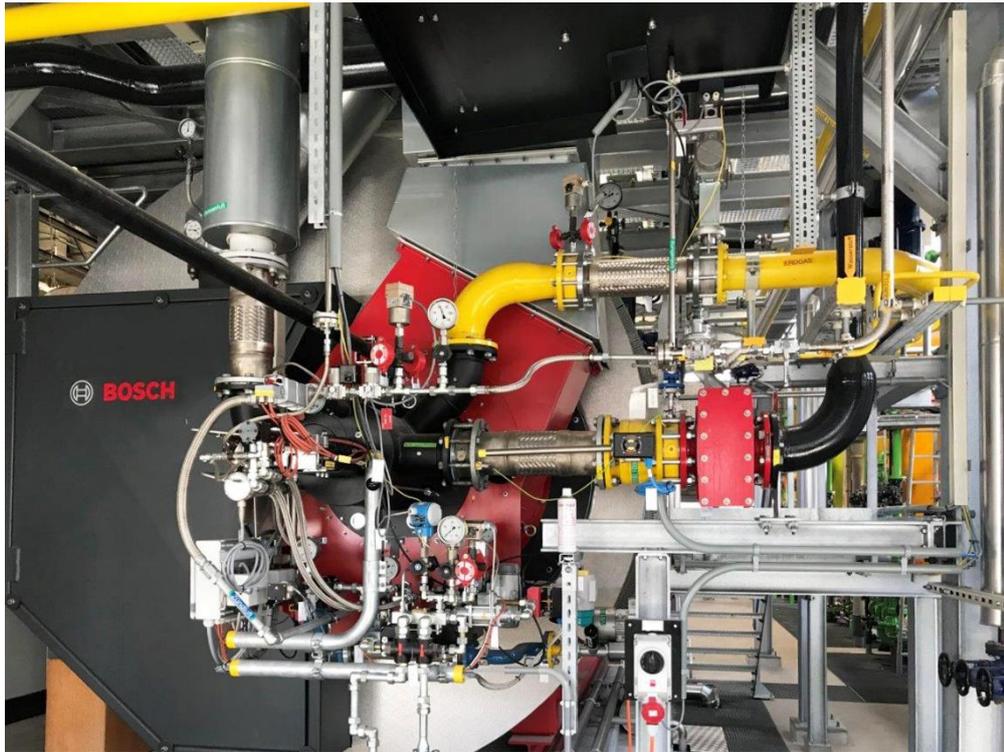
At Achema, experts from Bosch Industrial Heat will be giving advice about electrification, hydrogen and energy-efficient solutions.



A Bosch hybrid boiler with an electric heater and burner system.



A Bosch electric steam boiler with system equipment.



A Bosch steam boiler equipped with a multi-fuel firing unit for using hydrogen, natural gas and light fuel oil.

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