Invented for life

BOSCH

Retrofit from Bosch | Boiler modernisation

A fresh approach to your existing boiler system: greater reliability, lower consumption

As an operator of an industrial boiler plant, you face a wide range of challenges today. Rising energy costs, stricter environmental regulations, and the need for maximum operational reliability require modern, scalable solutions. We get your existing system ready for the future – without the need to invest in a completely new system.

1. **Unlock efficiency potential – save up to 25 % on fuel and CO_2 emissions**
2. **Significantly increasing plant availability: Reliability for your production**
3. **Ensuring compliance with legal requirements**
4. **Boiler output precisely matched to demand**
5. **Greater independence from fossil fuels**



Your guide inside:
Quick check for operators

bosch-industrial.com

1 Unlock your plant's potential: Identify opportunities for efficiency and achieve targeted cost reductions

Quick check for operators:

- ☐ Are you making full use of all available efficiency opportunities?
- ☐ Are you minimising costs and fuel dependency using modern multi-fuel firing systems?

Our solution: Retrofitting modular efficiency components, optimising boiler and pipe insulation, and implementing modern burner technology.

Your benefit: You reduce your fuel costs by up to 25 %, immediately improve your carbon footprint, and secure a quick return on investment – in many cases in under two years.

Economizer



up to 7 %
fuel savings

Condensing heat exchanger



up to 7 %
fuel savings

High-pressure condensate system



up to 12 %
fuel savings

Air preheater system



up to 2.5 %
fuel savings

Feed water cooling module



up to 1.8 %
fuel savings

Heat recovery: blow-down/condensate



up to 2 %
fuel savings

TDS control and low-salt operation



up to 3.4 %
fuel savings

Vapour cooler (deaeration)



up to 0.5 %
fuel savings

O_2 and/or CO controls



up to 0.5 %
fuel savings

Speed control (combustion air fan)



up to 75 %
electricity savings

The actual savings potential depends on the specific plant and its operating conditions. Many of these measures can be combined.

2 Significantly increase plant availability: Reliable operation and protection against unplanned downtime

Quick check for operators:

- ☐ Are all key spare parts still readily available?
- ☐ Is the plant operated in a transparent and highly automated manner?



Our solution: Upgrading to the latest control technology, renewing sensor systems, integrating remote solutions, connecting to automation systems, and optimising water treatment components.

Your benefit: You minimise the risk of downtime, specifically reduce the workload on operational staff, and benefit from intelligent automation and data transparency.

3 Ensuring compliance: Reliably meet all legal requirements

Quick check for operators:

- ☐ Does your plant comply with the latest statutory emissions requirements?
- ☐ Are all safety requirements and replacement intervals met on time?



Our solution: Burner retrofitting for NO_x reduction, performing safety-related upgrades, and replacing components in accordance with EN 12953.

» Your benefit: You safeguard the plant's operating licence, minimise liability risks in the event of an accident, and reliably prevent regulatory fines.

4 Boiler output tailored to your needs: Precisely adapted to your processes

Quick check for operators:

- ☐ Is sufficient steam or heat output available during peak demand periods?
- ☐ Does the plant cycle, causing energy inefficiency and high wear and tear?



Our solution: Adapting the burner and boiler output, using a modulating burner control, integrating a modern heat maintenance system, and retrofitting an intelligent sequence control for multi-boiler systems.

» Your benefit: You optimise fuel consumption, prevent unnecessary material wear, and extend the service life of your boiler plant.

5 Positioned for the future: Becoming less dependent on fossil fuels

Quick check for operators:

- ☐ Can you reduce your dependency on fossil fuels?
- ☐ Do you have a clear roadmap for reducing the carbon costs associated with your production?

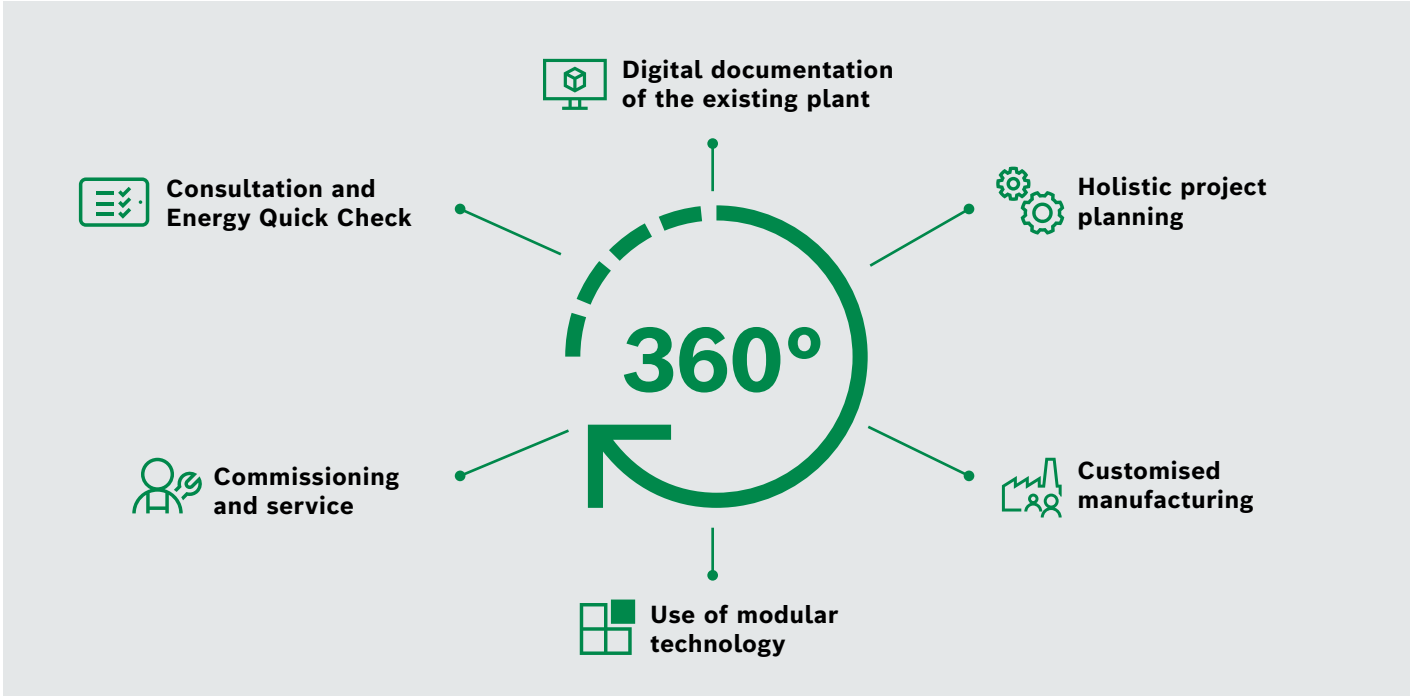


Our solution: Switching to CO_2-neutral fuels such as biogas, bio-oil or green hydrogen (H_2 ready). Power-to-heat solutions through the integration of electric heating elements.

» Your benefit: You reduce your CO_2 footprint, protect your business from volatile energy prices, and strengthen your position in sustainable supply chains.

Your partner for successful modernisation

At Bosch Industrial Heat, we provide you with more than just technology. We partner with you through every phase of your modernisation project: from the initial consultation to commissioning – all coordinated with your ongoing operations. Trust in over 160 years of experience in industrial boiler construction and our worldwide service network.



Ready for the future?



Energy Quick Check

Request yours **for free, with no obligation.**
Speak to your Bosch service technician directly on-site!

Or scan here for easy digital contact.

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system-check

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