

Condensing boilers

Heat my home and water with the condensing technology

If your heating system is older than 15 years, it might be inefficient and highly energy consuming. Replacing your heating system with a more efficient will help you reduce your energy bill and additionally keep your home more comfortable, improve air quality, increase your home's market value and contribute to reducing global CO₂ emissions.

60% of the heating appliances installed in the EU are old and inefficient (energy class C or lower)

60%

A condensing boiler can cover the entire demand for space heating and hot water

100%

Condensing boilers in the market are mostly rated with an A class, on a D to A+++ scale.

A

✓ CHECKLIST

Condensing boiler fits my home because

- ✓ I need a water and/or space heating system
- ✓ I want to use/keep using gas
- ✓ I want to reduce my energy bill
- ✓ I prefer a minimum visual impact

WHAT IS CONDENSING TECHNOLOGY?

Modern condensing appliances are designed to use virtually the entire energy content of the fuel to transform it into heat. In contrast to previous generations of these appliances, condensing boilers reuse the heat energy of water vapour produced in the combustion process which 'condenses' back into liquid form and is ultimately reused to pre-heat the cold water entering the boiler. This makes the condensing technology highly convenient, resource- and cost-efficient for heat generation.

Condensing boilers are often the first choice both for new installations and for refurbishment of existing central heating systems across Europe. For more than twenty years, the condensing technology has been constantly advancing: increased comfort and energy efficiency, reduced emissions and noise levels, improved design, and reduced size to fit any building setting. Moreover, this highly efficient technology can also be easily teamed with renewable energy sources such as a solar thermal system. Finally, condensing technology can be applied to use green fuels such as biomethane.



DID YOU KNOW?

Condensing boilers can reach an energy efficiency class B to A, while boilers equipped with the most advanced controls can even reach class A+.



Photos: ©EHI



DID YOU KNOW?



A hot water storage tank may lose energy while storing hot water, while instantaneous combi boilers may need more gas when heating small amounts of water. Instantaneous water heaters are more likely to be suitable for smaller households, but usually people make a choice by considering other factors, such as space, water pressure, number of simultaneous bathrooms and the possibility to combine with solar thermal.

BENEFITS

- ✓ Easily combined with renewable energies such as a solar thermal system
- ✓ Compared to conventional boilers, the condensing technology offers increased energy efficiency and reduced emissions
- ✓ Easily installed and maintained
- ✓ Suitable for modernisation existing installations as well as for new buildings
- ✓ Extremely reliable

DISADVANTAGES

- ✗ Reliance on a fuel, thus might need space for storage or infrastructure besides electricity
- ✗ Possible CO2 pricing could increase or fluctuate gas prices and heating cost
- ✗ Yearly maintenance is needed

COMBI BOILER WITH HOT WATER STORAGE TANK OR INSTANTANEAOUS WATER HEATER, WHAT SHOULD I OPT FOR?

COMBI BOILER + HOT WATER STORAGE TANK

- ✓ Guarantee high flow rates of hot water
- ✓ Compatible with solar thermal devices
- ✓ Can supply multiple draw-off points that consume a lot of water at the same time (i.e. bathrooms, kitchen)
- ✓ Good solution for staged renovation (i.e. retrofitting of entire heating system)

INSTANTANEAOUS WATER HEATER

- ✓ Easy, quick and affordable installation
- ✓ Compatible with solar thermal devices
- ✓ Requires less space for installation as it does not need a hot water storage tank
- ✓ Good solution if a quick fix is needed (i.e. no existing hot water storage tank on site)

...and if condensing boiler is not the best option for me?

Check up on numerous efficient heating technologies options (such as solar thermal, heat pumps, hybrid heating, among others)!



Do not hesitate to consult a professional to find the most suitable heating option for your home.

Where can I find more information about the functioning, installation, national situation, financial help, and other heating systems?

Visit:

www.heating-retrofit.eu

HARP (Heating Appliances Retrofit Planning) project gathers 18 partners from six European countries. The goal is to motivate consumer to plan the replacement of their old and inefficient heating system, with more efficient and renewable heating solutions. The HARP online tool will help you check the energy efficiency of your current heating system and find a suitable replacement solution based on the most efficient alternatives available on the market. Furthermore, the HARP will straiten your contact with professionals that can support you on the replacement process, as well as provide more information on available incentives. Learn more about energy efficient heating in: www.heating-retrofit.eu



Agência para a Energia



European Heating Industry



Solar Heat Europe



creara



Uniclima



Universidade de Minho



trenkner consulting



ECOS



eurac research



Assotermica



ENEA



RPM



Water tap



DECO



dena



Energies de l'avenir



ocu



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