



“USEFUL TIPS” FOR STARTING YOUR HEATING SYSTEM

SAVE ENERGY AND HEAT INTELLIGENTLY

How to save on heating costs

The beginning of autumn is the best time to check whether a heating boiler is still working to full efficiency. Discovering a fault only when the cold spell has arrived is the worst thing that can happen. In the first days of cold weather, maintenance technicians are literally bombarded with calls and the waiting time for service can lengthen to several days. Therefore, the first rational rule is to be prudent: have **annual maintenance** of the boiler performed at least a month before starting. For instance in October. Another reason for boiler maintenance and cleaning is to guarantee good working efficiency. A boiler that fails to be fully efficient increases gas consumption and your bill. Furthermore, to obtain proper flue gas management, it is necessary to perform a flue gas analysis every two years, in compliance with the legislation in force. Every 2 or 3 years, during summer months, also have the state of the pipes checked, where possible. Bad system insulation can lead to a pointless, considerable dispersion of the heat produced by the boiler.

Some practical tips for saving on heating costs:

- **Bleed the air from radiators** to always ensure their maximum efficiency. The air in the system pipes tends to deposit in the radiators preventing full heating and causing pointless work for the boiler. Old radiators may not have an air-venting valve; in such cases, it is fairly cheap and easy to have your plumber install it.
- **Do not ventilate rooms for too long.** It is preferable to circulate air by completely opening windows during the hottest hours. Airing a house or keeping a window open when the boiler is on will only cause pointless gas or gas oil consumption. Avoid keeping a window half-open as by doing so indoor heat tends to go out, making the boiler work twice as long.
- **Lower roll-up shutters during night hours** to keep the house warm. Glass causes a huge dispersion of indoor heat, cooling the room. With roll-up shutters lowered, even partially, heat exchange is reduced.
- **Install double glazed windows and door windows** to prevent thermal dispersion between outdoor cold and indoor heat.
- **Regulate the temperature to 19°.** To limit boiler consumption, set your indoor temperature to about 19°. By increasing your indoor temperature by a single degree, you will increase **consumption by 8%**. When you feel sultry in winter and

you are forced to open the windows, you are pointlessly making the boiler work and wasting money. It would be better to lower the temperature by 1-2 degrees and wear some clothes that are more suitable for the season.

- **Thermostatic valves.** To obtain efficient energy savings, it is advisable to fit a thermostatic valve at the water inlet of every radiator battery. By doing so, you can easily regulate the temperature of the room-room environment in relation to use and obtain energy savings greater than 12%.
- **Avoid covering radiators** with furniture or curtains. Radiators under a window help heat structurally cooler walls, but they tend to work more. To increase efficiency, you only need to place a sheet of insulating material between the wall and the radiator.
- When purchasing a boiler, consider that a **condensation boiler (Note 1)** offers **savings up to 20%** in methane consumption.
- Always consider that **the use of electrical heaters will cost your dearly** in electrical energy. If you use a lot of electrical heaters, you should evaluate improving your heating system or increasing the number of radiator elements. For central heating, check any change in the number of radiator elements beforehand with your manager.
- **During the night, turn the boiler off** or regulate the timer to make it restart two hours before you get up. In especially cold environmental conditions, it is however enough to regulate the nightly indoor temperature to just 16°.
- **Keep the doors of rooms** and areas not used such as storerooms or guest rooms **closed** to avoid circulating hot and cold air in these rooms so that the boiler works less.
- When heat in rooms is excessive or pointless, **lower the level of radiators to a minimum.**
- **Insulate walls** to prevent heat dispersing outwards and make the boiler work less. In mountain areas or particularly cold locations, evaluate the complete insulation of walls, an investment which can allow you savings of 70% on annual expenses to heat the house.
- A temperature **automatic regulation control unit** avoids unnecessary heating and allows you to save plenty of money. A control unit constantly observes the outdoor

temperature of the house, compares it to the indoor temperature and always maintains it at the maximum level of efficiency. Furthermore, control units are equipped with a weekly or daily timer that will allow you to define the operation periods with precision, avoiding leaving the boiler on when not needed. For instance, having the boiler automatically started one hour before your arrival will allow you to benefit from domestic warmth without an excessive waste of gas.

- In the event that you already implemented one or some of our suggested options, if you live in a building with central heating, ask your manager for a **heat meter** to divide running expenses on the basis of actual use.

NOTES (1)

CONDENSATION BOILER

Condensation boilers guarantee a higher thermal efficiency by recovering the heat contained in the discharged gas and therefore save on gas consumption.

***How does a condensation boiler work?** The outgoing hot smoke is "taken back in" by the boiler in the form of condensation reaching high boiler efficiency. We must distinguish two different types of efficiency:*

- *Higher thermal efficiency (incoming to the boiler)*
- *Lower thermal efficiency (outgoing from the boiler)*

*A traditional boiler disperses the efficiency difference in the form of external flue gas. In this case, the seasonal boiler efficiency approaches the lower thermal efficiency value. Instead, **condensation** recovers a portion of the higher thermal efficiency in the form of water vapour. This recovery represents an "added value" that makes the seasonal efficiency reach a higher boiler efficiency. Boilers are sold at very different prices. Spending a little more at the beginning can save you a lot on gas bills.*

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