



CareyGlass

Solar



Wood Pellet Stoves and Boilers

Clean, Efficient, Eco-friendly - For Maximum Warmth

Wood Pellet Stoves

Everyone loves a wood fire, it really turns a house into a home. But open fires can be polluting, inefficient and inconvenient. Modern wood pellet stoves offer the warmth and comfort of wood heating but are highly efficient, clean burning and totally automatic, saving you time and money.

Advantages of Wood Pellet Stoves

Environment friendly: Wood pellets are a renewable source of energy and do not contribute to climate change. The carbon dioxide that is released when pellets are burned is equal to the amount the tree consumed when it was growing. Wood pellets are manufactured with wood from sustainable forests.

Higher efficiency compared to conventional heating system: Pellets are a high energy, smoke free fuel. Unlike other solid fuels, they are easy to handle and create almost no ash.

Inexpensive: Pellet stoves are cheaper (initial and running costs) compared to oil and gas, while producing a similar heat output.

Easy to use: Automatic fuel supply and a thermostat means you can relax and enjoy the comfort of pellet heating at the switch of a button. Automatic ignition means that lighting the fire is hassle free.

PELLETS ARE A HIGH ENERGY, SMOKE FREE FUEL. UNLIKE OTHER SOLID FUELS, THEY ARE EASY TO HANDLE AND CREATE ALMOST NO ASH.

What are Wood Pellets?

Wood pellets are small pellets of compressed sawdust. Simply put sawdust is a byproduct of other more lucrative wood processing. This sawdust is dried to specified moisture content and compressed by a very high pressure machine. Generally no glue or binding agent is required other than the sap from the timber itself.

The benefits of wood pellets are

- They are easy to transport
 - They are clean
 - Cost efficient: €4 - 5 per 10 hours burning*
- * subject to market fluctuation



Pellets floating and sinking - Test for pellet quality

We have two types of products

1. Pellet Stoves for room heating
2. Pellet Thermostove (Room Heater with back boiler): Direct heating and heating through radiators or underfloor coils

PELLET STOVES (MODEL: CGSRH 8) FOR ROOM HEATING

Features:

- Nominal capacity: 8 kW
- Automatic switch on/off
- Economy mode
- Automatic pellet loading
- 2 weekly programmable settings
- Safety features with temperature probes
- 86% efficiency
- Heatable area: 120 m³ (for example a room measuring 8m long x 5m wide x 3m high)
- Tank capacity: 13 kg
- Adjustable output: 3.88 kW to 8.54 kW
- Pellet consumption: 0.9 to 2 kg/hour
- Dimensions WxHxD 470x996x476
- Weight 100kg
- SEI registered for grant
- Remote controlled
- Available colours: Sand, Bordeaux and Black

SEI GRANT AVAILABLE €800



PELLET STOVES WITH BACK BOILER (MODEL: CGSBB 14)

Features:

- Thermal power: 14 kW
- Nominal power: 12 kW
- Available power for water heating: 9 kW
- Available power for air heating: 3 kW
- Can be used as direct air heater and as a back-boiler to heat water for domestic hot water system or to heat underfloor heating or radiator systems
- Efficiency: > 91%
- Heatable Area: 300 m³ (for example a room measuring 10m long x 10m wide x 3m high)
- Pellet consumption: 1 to 2.9 kg/hour
- Automatic pellet loading
- Tank capacity: 30 kg
- SEI registered
- Dimensions HxLxD 1120x582x520
- Weight 150kg
- Available colours: Sand, Bordeaux and Black

SEI GRANT AVAILABLE €1,400

AN OPEN FIRE HAS 30% EFFICIENCY COMPARED WITH OUR PELLET BURNER WHICH HAS BETWEEN 86 TO 91% EFFICIENCY

ROI Lo call - 1890 252 412
NI Lo call - 0845 35 10202
www.CareyGlassSolar.com

How the system operates

1. Loading

This is carried out by pouring the pellets into the tank positioned behind the hearth. The tank can contain over 15 Kg of pellets. Fins avoid sawdust blockages

A probe is positioned on the pellet tank wall to continuously check the pellet temperature. In the event that the temperature climbs too high, the probe signals an intervention, shutting down the stove and protecting against auto-combustion of the pellets.

The pellets collected by the worm screw fall freely into the combustion chamber.

2. Ignition

This is carried out with an electronic trigger, eliminating the need for matches or firelighters. After the worm screw collects and drops the pellets into the combustion chamber, ignition is carried out. This occurs with the help of an electronic resistance which is positioned behind the brazier and which is ventilated by room temperature air; the air quickly heats up on contact, flows to the pellets and ignites them.

The motors push the combustion flue gases to the exhaust, which is positioned at the back of the stove, to discharge the gases outside the building. The hot fumes from combustion inside the stove give up part of their heat to a stainless steel tubing heat exchanger. The fan pushes the air toward the exchanger and on through the upper fins of the stove where it is released into the room.

The whole operation system is controlled by a micro-processor on a circuit board, which is connected to various sensors and probes within the heater and which adjusts the air flow and the fuel feed in order to optimise combustion.

3. Regulation of the Stove Operation

This is carried out through an electronic circuit which allows the user to programme the level of heat output and the daily and weekly operation schedule. To facilitate possible maintenance operations, the electronic circuit is positioned on a stow-away panel.

From this stage onwards, until the eventual shut down for lack of pellets, the stove continues operating with complete autonomy, managing all the combustion parameters.



Maintenance

Maintenance involves the periodical removal of residues and soot traces from the walls of the exchanger, using special levers. When these levers are pulled outward, the scraping of internal tubing is carried out.

Every morning before starting the stove the perforated brazier must be extracted and cleaned to maintain the stove performance.

Extra Safety Devices

In the event of a stove breakdown, a change of pressure will inevitably take place. In this situation, a safety pressure switch intervenes and immediately shuts the stove down.

FLUE POSITIONED AT THE BACK OF STOVES

The use of a pellet stove requires a connection to a traditional flue.

The combustion products generated by all wood fuelled appliances, in accordance with legislation, must be evacuated into the atmosphere through flues (regulation UNI 10683).

