



HOT AIR HEATING BUT ALSO RADIANT

FLEXIHEAT UK LTD
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FH50ECP and FH100ECP

NEW
Overheating safety

Wood heating but also a solution for eliminating bulky untreated wood and plants

CATALYTIC PRINCIPLE

Vegetable combustion by pyrolysis and carbonization represents 33% of solid and 67% of gas.

It is composed in 3 phases:

- Moisture evaporation up to 250 ° C
- Self-combustion from 280 ° C
- Catalysation at 800 ° C

Thanks to its technology with a refractory hearth and catalytic concentration grid, these heaters benefit from the 3 phases of combustion through a high temperature briquette hearth and the 3 smoke retarders.

In addition, the dust in suspension falls back in self-combustion on the active embers by vibratory shock on the exchanger tubes. The efficiency of these heaters is thus 85%, well above European standards.

It meets 98/37 / CE standards,
72/23 / EC and 89/336 / EC.



Save energy, recycle offcuts
from wood processing

Eliminate your bulky wood and
untreated plants

APPLICATIONS

- Industry, Mechanical workshop
- Carpentry and Woodworking
- Store and Warehouse
- Horticulture, Market gardening, Breeding
- Agricultural mechanics, auto, PL
- Dryer (wood, plants, nuts ...)



THE DRAW KEY

- ▶ Integrated, it makes it possible to manage the heating power by acting on the external lever in open / close modulation.

CABINET AND THERMOSTAT

OPTION

- ▶ Fuse motor protection
- ▶ Summer / Winter ventilation selector
- ▶ Voltage presence indicator
- ▶ Supply air temperature thermostat 10/40 ° C

All of these protection, control, regulation and visualization elements (available as an option) are installed in the factory when ordering, on the FH50ECP and FH100ECP

THE CENTRIFUGAL FAN

- ▶ High pressure, it allows the connection of a duct network or accessories on the opposite exchanger shell (option), Ø 400mm for FH50ECP and Ø 500mm for FH100ECP.
- ▶ The fan can be positioned to the right or to the left of the wood warm air heater, on request
- ▶ An adjustable thermostatic probe, placed in a box (option), controls the starting and stopping of the fan up to 40°C.

THE HEAT EXCHANGER

- ▶ High efficiency tubular heat exchanger, positioned over the entire length of the heater, guarantees a delta T of 40 to 45°C
- ▶ As standard, the wood warm air heater is equipped with a regulatory supply and protection grill, as an option, a starter piece allows the connection of a network of ducts or distribution accessories.

THE HOME

- ▶ It is made of refractory brickwork mechanically assembled without a joint on a slide and whose elements are interchangeable. This design allows the fireplace to keep a very high temperature, thus creating a post-combustion effect and a restitution of heat even when the power is reduced according to the principle of the Lorrain stove.

THE GROUND GRID

- ▶ Produced in 2 parts, the floor grille is in refractory AISI 430 stainless steel. It occupies the entire surface above the drawer, thus guaranteeing perfect combustion of the essences.
- ▶ The retention of embers over the entire surface allows the combustion chamber to heat up for post combustion.
- ▶ The grates open onto the drawer for collecting the ashes

THE CATALYTIC SHIELD

- ▶ Perforated shield in refractory stainless steel, it protects the exchanger tubes from thermal overloads It catalyses the fumes before passing through the exchanger

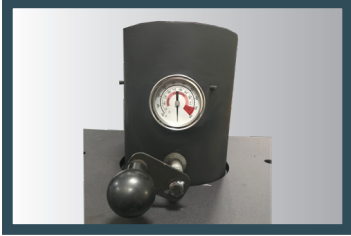
THE LOADING HATCH

- ▶ Tilting, large dimensions (640 x 280mm for FH50ECP and 892 x 280mm for FH100ECP), it allows loading logs of 70 cm (FH50ECP) and 1m (FH100ECP) as well as pallets cut in 4 for the FH50ECP or in 2 for the FH100ECP.
- ▶ The handle of a very high thermal insulation guarantees an easy opening of the loading hatch.
- ▶ The brick door guarantees thermal insulation and helps catalyze.



AIR DRAWER AND ADJUSTMENT

- ▶ Integrated along the entire length of the device, it offers significant autonomy for the recovery of ashes.
- ▶ Perforations have been provided on the front for the intake of primary combustion air.
- ▶ The primary air is regulated by a rule which allows to block more or less the perforations in order to regulate the air flow.



SAFETY OVERHEATING

OPTION

- ▶ The overheating safety thermometer is used to view and control the flue gas temperature at nominal power 270 ° C
- ▶ Maximum load management of the wood warm air heater
- ▶ Protects against thermal overheating



- a **ventilated heat exchanger casing** guaranteeing compliance with regulatory radiation temperatures . No protective cage is required for regulation

- A **large loading hatch** 640x280 (FH50ECP) and 892x280mm (FH100ECP)

- A **floor grid** over the entire surface in refractory stainless steel

- a **centrifugal fan** high pressure

- A **supply grill**, protection and regulatory flow balance for the occupational safety standard

- a **frame covered with high temperature epoxy paint** baked

- a **combustion adjustment by slide** on the drawer for balance and power regulation in simultaneous action with the pull key integrated on the flue gas nozzle

- A **electrical cabinet (optional)** with electric safety control and adjustable hot air temperature thermostat

- a **catalytic flame shield** smoke and heat exchanger protection in refractory stainless steel

- a **overheating safety thermometer (option)** for viewing and controlling the flue gas temperature at a maximum power of 270 ° C.



Technical characteristics

MODEL	May.	Air flow	Fan	Voltage	Motor rating	Dimensions	Hatch / tank.	Dim. Fireplace	Chimney	WEIGHT
	kW	m ³ / h		Volt	kW	LxWxH in mm	mm	mm	mm	kg
FH50ECP	50	2000	centrifugal	240-1Phase	0.15	1780x770x1185	640x280	830x500x600	150	240
FH100ECP	100	4000	centrifugal	240-1Phase	0.55	2105x1005x1635	892x280	1150x700x650	200	440

Application Duct network - Boiler room - Dryer

Installation with duct network

For transporting hot air to another room (office, store, etc.), it is possible to install a duct network, fitted with connection elements (90 ° elbow, 45 ° elbow, tee, reduction , supply grille, etc.)
We don't supply ductwork or do the sizing- please consult a ductwork specialist



Installation in independent boiler room

The installation of these wood warm air heaters in the boiler room is possible.

The addition of a second fan allows the energy recovery of the air heated by radiant heat.

In this configuration, the wood-fired heaters double their standard air flow.

A specific regulation kit allows the management of the recycling flow temperature.

A visual and audible high temperature alarm detects and protects against any problem with these temperatures.



Installation for dryer

Wood warm air heater is installed outside the dryer or container in a closed room with the addition of an auxiliary fan on the wall of the dryer for fresh air intake + recycling.

Accessories



Caison filtration fan



Control cabinet and regulation



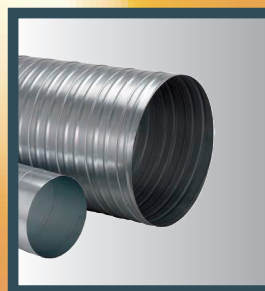
Chimney starter kit with moderator



Duct outlet flange FH50ECP and FH100ECP



Safety thermometer overheated



Duct network and elements



Centrifugal fan boiler room