

designed to be different

# $H_2O$ gas-fired fires

Enhanced efficiency from your Gas fire!





Agua F100 | Agua B100

## H<sub>2</sub>O gas-fired fires

## The essence of the system

Would you like to gain enhanced efficiency from your gas fire? As well as the ambience that it provides, do you believe that additional functionality is also important? So what about a beautiful gas fire that directly heats the water in your home? DRU's H2O gas fire offers you all that under one innovative product. These innovative fires use the heat released from the fire to heat up the water in your CH system resulting in less heat being lost and greater efficiency and functionality from your fire. It will also save you money at the same time as its combined properties result in less gas being consumed when running sparate fire and CH systems.

### How it works

Within your central heating system, the fire is connected directly to a buffer tank. From the buffer tank, the water is pumped through a series of pipes, which are positioned around the fire, and then returned back to the buffer tank. The water is heated both by radiant heat and by the flue gases that are drawn downwards through the pipes by a fan system. In essence, the pipes work as a heat exchanger; and they ensure that the radiant heat and the heat from the flue gases is emitted directly into the water.

A thermal mixing valve, which is connected to the pump, ensures that the water is only taken to the buffer tank when its temperature exceeds 60 degrees. If the temperature is below this level, the water continues to circulate in the fires circuit.



## The benefits

- Heat from the fire is also used to heat up the water in the CH system.
- Enhanced efficiency of your gas fire, at least 95% (less heat is lost through the flue).
- Both atmospheric and functional.
- A larger fire can be placed in a smaller room (as less heat is emitted into the room in which the fire is standing).
- Reduced output in the room enables higher flames and the gas fire can burn at full output for longer.



#### Fire connected directly to your CH system

It is, of course, also possible to connect the fire directly to your CH system, without the intervention of a buffer tank, provided that the capacity of your central heating system is sufficient. The gas fire is connected to your existing or a new CH system. The water is pumped from the CH system through the pipes in the gas fire, where it is heated and then returned to the CH system. This supports your CH system, simultaneously heating one or more rooms.

## Safety

- The system is fitted with three sensors. Firstly, there is a built-in sensor which measures the flow in the flue and, by controlling a fan, guarantees the flow.
- A second sensor is positioned in the water which is connected to the control unit of the gas valve. If the water exceeds 80 degrees, the fire will automatically lower the flames and if it exceeds 90 degrees, the fire will turn itself off.
- A flow switch is also present which monitors the flow of the water. If the water is not flowing, the fire will turn itself off.
- Finally a third sensor, another temperature sensor, monitors the temperature of the flue gases. If the temperature exceeds 135 degrees, the fire will turn itself off.

## Maintenance

Once a year, the heat exchanger should be cleaned and the safety of the system should be checked by the installer.

## Technical specifications





	Agua F100	Agua B100
Power	10 kW	10 kW
Efficiency	95%	95%
Water-side output	6 kW	6 kW
Direct output	3.5 kW	3.5 kW
Type of combustion	Closed	Closed
Type of gas	natural gas or propane	natural gas or propane



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