

Eco-X



The efficient, cost-effective and safe community heating unit

Alpha – the heating innovators

Alpha has successfully been supplying the UK heating industry for 40 years.

During this time we've developed a reputation for manufacturing boilers using the very best components and to the highest possible build quality. As a result, Alpha boilers are widely regarded as amongst the most reliable and high performance heating products available today.

Our reputation follows through into the quality and level of service we provide. We're known for how closely we work with our customers and we're always willing to put the extra effort in to help them.

In an age when more and more manufacturers are cutting corners by compromising aspects of their business and products to stay competitive, traditional values such as these remain more important to us than ever before.

Introducing Eco-X

the new standard in community heating

With Eco-X, Alpha gives building management authorities an innovative, high performance hot water and central heating supply unit that utilises heat generated by communal boilers.

Eco-X offers outstanding energy efficiency, individual control, flexible siting and high levels of safety – at a fraction of the cost of individual boilers. Moreover, it provides a limitless, instantaneous supply of hot water, all thanks to refined heat exchanger technology.

Eco-X offers dramatic energy savings over conventional copper cylinders whilst keeping scale and bacteria out. In addition, its life cycle compares with that of a storage cylinder, yet it's much easier and cheaper to replace.

How Alpha Eco-X works

In the UK, a community heating system typically comprises a large, centralised boiler with stored hot water in individual dwellings, and central heating either via radiators in individual dwellings (at 8 bar high pressure) or warm air systems.

Alpha has developed three Eco-X units in response to local authority demand for hot water and heating in individual dwellings in conjunction with a community heating system.

Alpha Eco-X DHW provides instantaneous hot water indirectly from a community heating circuit via a plate heat exchanger. The main components are pre-assembled, mounted on a back panel and supplied with isolation valves, strainer, wall fixings and a thermostat sensor.

Alpha Eco-X LPCH is used in conjunction with the DHW unit and provides central heating to the dwelling indirectly from the community heating circuit via a plate heat exchanger. It incorporates all the necessary components such as a pump, expansion vessel, safety valve, pressure gauge and filling loop to provide a sealed central heating system with a maximum working pressure of 2.5 bar.

Alpha Eco-X HPCH is used in conjunction with the DHW unit and provides central heating to the dwelling directly from the community heating circuit.





Case Study

Tested and Proven

As part of a scheme to update the provision of heating and hot water at Cottingham Road Sheltered Housing and Coney Way Sheltered Housing, the London Borough of Lambeth installed Alpha Eco-X units in all 103 homes.

Having decided to replace outdated warm air units, Lambeth Council considered all options available, including fitting individual boilers inside each flat.

However, as the buildings were previously part of a Community Heating System, the continued use of this system was preferable. Also, due to the require-

Eco-X Benefits

Energy efficient for the Future

As of April 2005, building regulations on energy efficiency will make SEDBUK Band A and B rated boilers the norm. Eco-X represents an excellent opportunity for local authorities and housing associations to utilise a system which not only meets the new regulations, but surpasses them in terms of efficiency and safety.

Cost-effective

Eco-X is very price competitive when compared to individual boilers and requires no building adaptation. Choose between units for hot water and central heating.

Environmental

Eco-X units provide a significant reduction in environmental problems associated with heating. Since there is a centralised boiler instead of a boiler in each dwelling, there is greater efficiency and fewer emissions of 'greenhouse' gases such as carbon dioxide.

With no gas required in individual dwellings, there is no need for flueing ducts that sometimes create environmental problems in high rise buildings. ment for individual control to suit occupants' lifestyles, traditional copper hot water cylinders and cold water cisterns were not suitable.

Alpha Eco-X allows community heating systems to compete on a level playing field with individual

boilers, whilst offering a more cost effective and energy efficient alternative. "As well as the level of control offered, the compact nature of the Alpha Eco-X unit is especially important in these I and 2 bedroom properties", commented Bryan Cooper, Area Engineer at Lambeth Council.



"In addition, the loss of the hot water cylinder offers the not so obvious benefit of eliminating the risk of Legionella Bacteria, as there are no large quantities of standing hot water, their ideal breeding ground. Storing hot water in such cylinders is also a considerable drain on energy."

Flexible building design

Eco-X requires no gas or flueing. It can also operate with existing pipework, allowing complete flexibility during building design or refurbishment.

Total confidence

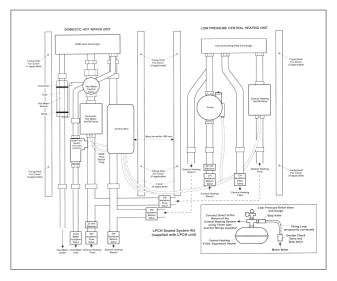
Eco-X is simple and sage to install and use, with no gas engineer or Landlords Safety Inspection needed.

Individual control

Eco-X gives occupants individual control comparable to having a boiler insalled in each dwelling – for much more comfort.

Low pressure radiators

The Eco-X LPCH unit allows the use of low pressure radiators (2.5 bar) which are cheaper and safer than high pressure radiators normally used in community heating systems.



Safe and efficient

Not only is there no gas in the individual dwelling, but water is supplied directly from the mains and heated on demand. Besides providing energy efficient hot water, it eliminates the risk of Legionella as there is no need to heat large quantities of water long periods.

Installation

Dimensions of each assembled Unit	Height	500mm
(including cover)	Width	300mm
	Depth	220mm
Min clearances required	Тор	5mm
	Bottom	200mm
	Sides	5mm
	Front	450mm

District Heating Circuit

Max working pressure	8 bar
Min working pressure	l bar
Max flow temperature	95°C
Max differential pressure	4 bar
Flow connection	22mm
Return connection	22mm

Secondary Circuit (Domestic Hot Water)

Max working pressure	8 bar
Min working pressure	0.2 bar
Heat output to water (approx.)	20 to 28kW
DH circuit flow rate reqd for max output	15 to 20 l/min
Max flow rate at 35°C rise (approx.)	l 2 l/min
Min required flow rate	2.5 l/min
Adjustable outlet temperature up to	60°C
Max outlet temperature (approx.)	62°C
Mains inlet connection	l5mm
DHW outlet connection	l 5mm

Low Pressure Central Heating (Sealed Systems)

Max working system pressure	2.5 bar
Min system pressure	0.5 bar
Max system temperature	85°C
Safety valve setting	3 bar
Expansion vessel size (pre-charge press)	8L @ 0.8 bar
Flow connection	22mm
Return connection	22mm
Relief valve discharge connection	l 5mm
Recommended system pressure (cold)	1.0bar

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