

ENERGYMASTER2™

thermal store cylinder

Reduce heating bills, improve energy efficiency and experience a faster performing, more responsive underfloor heating system with a Nu-Heat EnergyMaster2™ thermal store cylinder.



The EnergyMaster2™ benefits:

Hot Water

- Supplies safe domestic hot water at mains pressure for power showers without the need for pumps
- Typically yields at least 210 litres of water at an average temperature of 50°C and a flow rate of 27 litres/minute
- Fast recovery rate
- Instant hot water is also available from every outlet with the optional Aquastar™ hot water loop.

Heating

- Faster performing underfloor heating system
- Improved boiler efficiency with reduced boiler cycling
- Improved energy efficiency
- Up to 15% lower heating bills.

25 YEAR GUARANTEE



The EnergyMaster2™ features:

- Quality finish in white plastisol
- Manufactured from stainless steel for strength and durability
- 3kW immersion heater
- Optimum connection positions at the front of the unit for ease of installation, easy access and minimal space requirements
- Anti scald hot water blending valve that can be adjusted to your preferred water supply temperature
- No G3 building regulations approval required, the unit can be fitted by any competent installer
- Fully labelled and colour coded connections to help quick installation
- All controls included and are simple to fit
- Detailed installation, user and service manuals
- Highly insulated shell with foam injection, CFC/HCFC free
- Connections for optional Aquastar™ secondary hot water pump for instant hot water
- Solar coil option
- Full WRAS (Water Regulations Advisory Scheme) approval.

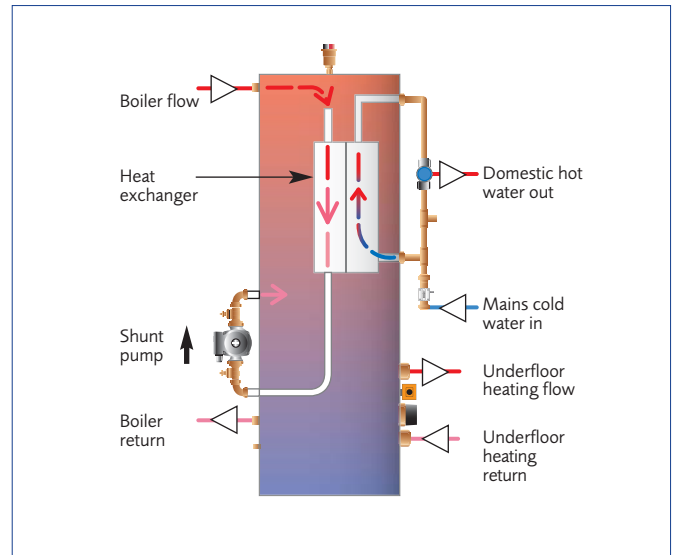
Performance and Operation

The operation of a thermal store is different to a conventional cylinder so why limit yourself to just hot water generation when the EnergyMaster2™ gives you so much more.

Powerful Hot Water Supply

It is generally accepted that the modern method of supplying domestic hot water is via a mains pressure system. This essentially means that the hot water pressure is the same as the cold and that there is no domestic water storage in the roof space. Not only does the Nu-Heat EnergyMaster2™ cylinder provide copious amounts of mains pressure hot water, it also improves the technical performance of the underfloor heating system.

This is because your boiler is sized to cover the worst case scenario, i.e. to heat the building and provide domestic hot water at the coldest time of year. In reality, this situation rarely occurs and so, if only 1kW of energy is required to bring a room up to temperature, then the boiler could be using its full output trying to heat it. This results in the boiler tending to fire frequently as it cannot dissipate its heat into the floor quickly enough before switching off; often referred to as boiler cycling.



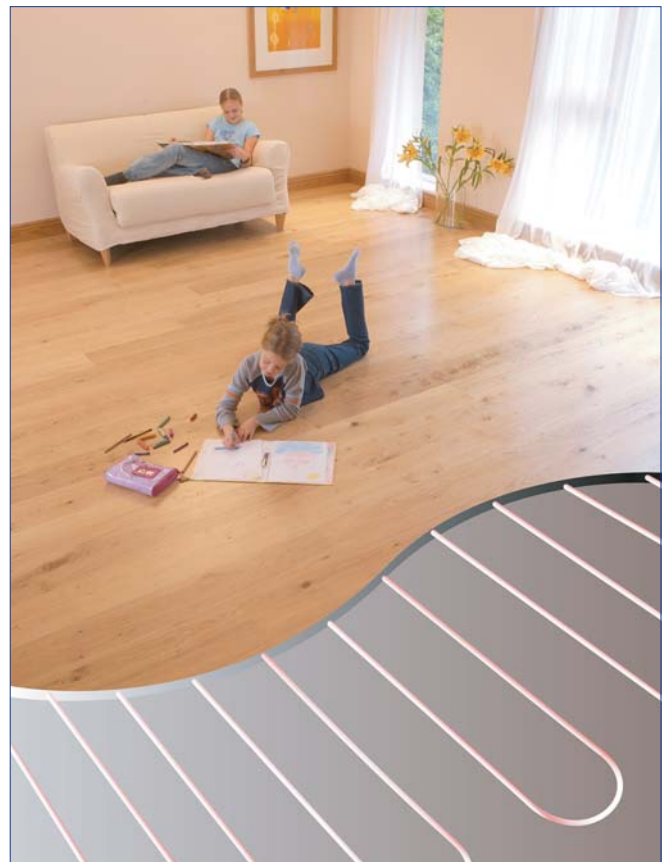
Improved Heating

By utilising the EnergyMaster2™ cylinder into the design this cycling is prevented as the boiler heats the cylinder and the cylinder in turn separately heats the underfloor heating system and the domestic hot water supply. Therefore, if the underfloor heating requires 1kW of energy then the heat comes directly from the cylinder rather than automatically switching on the boiler.

Maximised Efficiency

The EnergyMaster2™ cylinder efficiently stores enough energy to meet the short term needs of the floor heating system. However, when the cylinder temperature eventually drops below a preset level, the boiler is brought on to reheat the cylinder. As the boiler has the full volume of water contained within the cylinder to heat, it fires for a longer period, thereby working more effectively, just as a car engine driven at constant speed works more efficiently than it does when 'stop-starting' in town.

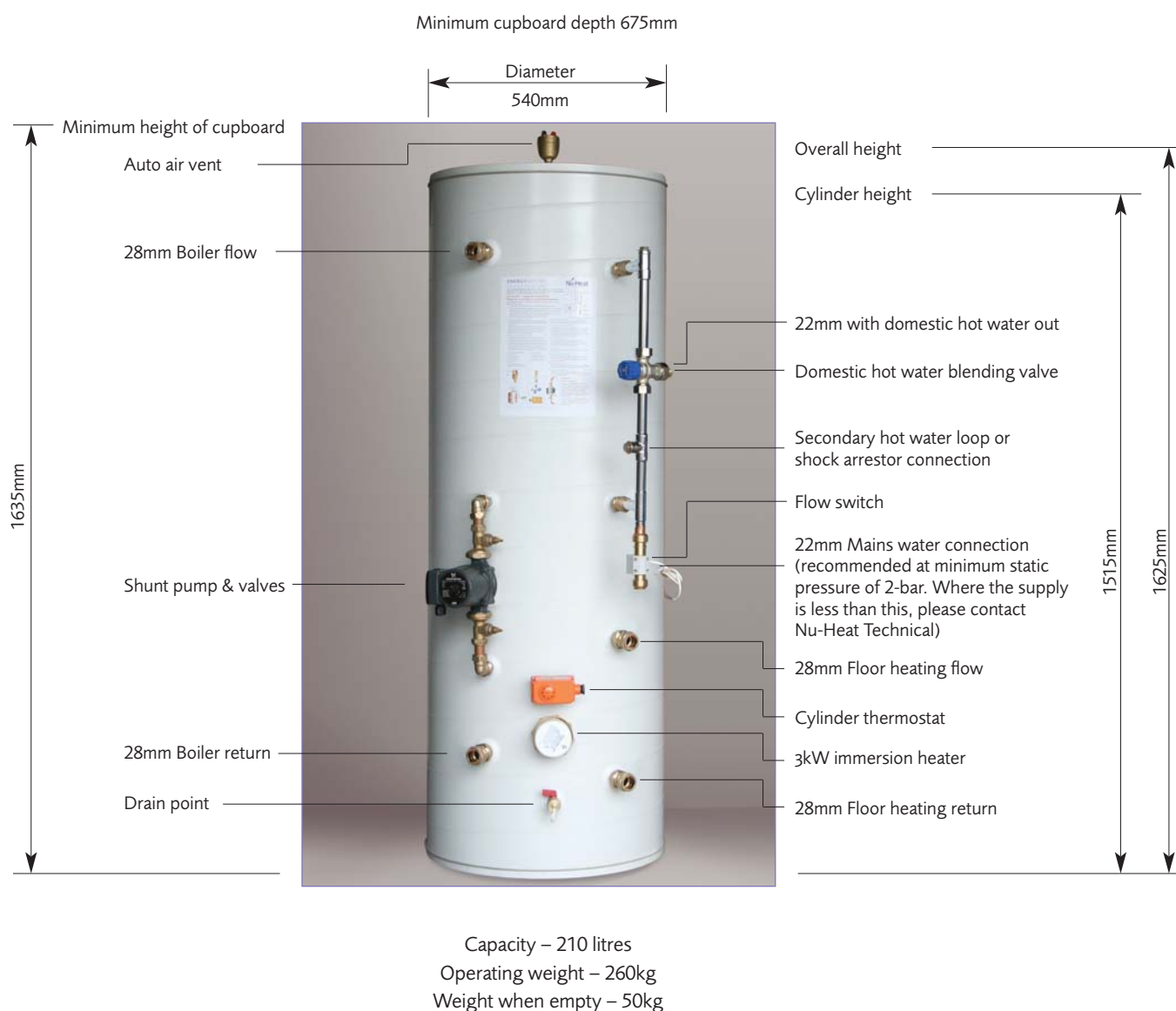
The EnergyMaster2™ thermal store is designed to buffer the system so the boiler is only called to burn efficiently and not cycle, thereby reducing fuel usage and aiding longevity. Boiler efficiency is further improved by the positioning of the underfloor heating connections at the bottom of the cylinder. This ensures that low temperature water is returned to the boiler, maximising the potential for condensing operation.



In addition, extras such as the Aquastar™ instant hot water loop, can be 'bolted' onto the cylinder. As the name suggests, the Aquastar™ provides instant hot water at the taps or showers on demand. Heated towel rails can also be incorporated into the hot water loop. Everything is designed and supplied by Nu-Heat Underfloor.

The EnergyMaster2™ is supplied with all necessary accessories, including:-

- Cylinder thermostat
- Flow switch
- Cylinder zone valve
- Isolation valve and filter
- Automatic air vent
- Shunt pump and valves
- Hot water blending valve
- 24 litre expansion vessel and filling loop



Notes:

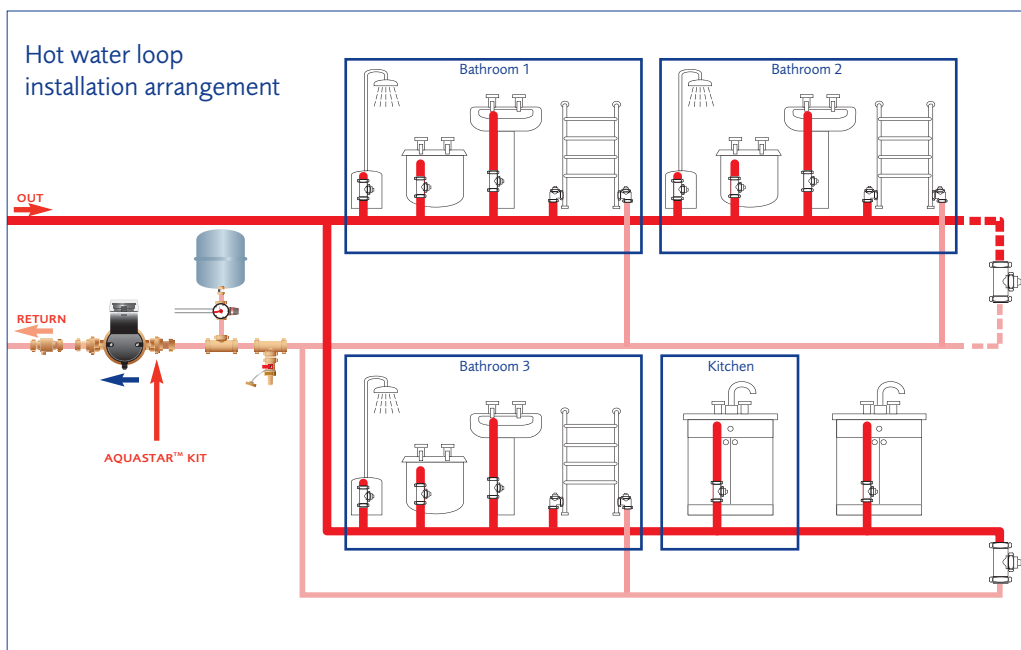
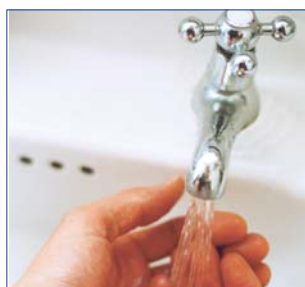
- Solar cylinders will have additional connections for a solar coil.
- Mains pressure water should be limited to a maximum of 3.5 bar.
- Domestic hot water refers to water that is heated for general use to be discharged from taps, showers, etc.

AQUASTAR™ hot water loop

The EnergyMaster2™ design allows easy connection of the Aquastar™ hot water loop. This simple addition will give the luxury of instant hot water from every outlet, irrespective of its distance from the cylinder.

Additional benefits:

- No water is wasted waiting for it to run hot when a tap is opened
- Offers improved economy on metered water supplies,
- Environmentally friendly.



Towel rails

Heated towel rails can give the luxury of warm, dry towels all year round and add extra warmth and comfort to bathrooms.

The traditional method is to run a separate timed circuit from the boiler primary connections with flow and return pipes to each bathroom. However, when an Aquastar™ is fitted, hot water is already circulating around the bathroom so no additional pipework is required.

As domestic hot water is warming the towel rail, only non-steel types can be used. A wide range of towel rails are available from Nu-Heat.



Solar cylinder

The benefits of solar energy can now be easily combined with the operation of the EnergyMaster2™. A large surface area coil is used to transfer the solar energy into the cylinder to reduce boiler input. An additional thermostat pocket is provided to give accurate control of the solar control system.

