Torrent ECO
Open vented thermal store providing heating and mains pressure hot water

SUPPLIERS TO THE MERCHANT TRADE FOR OVER 40 YEARS

The final piece in your heating and hot water system
A thermal store provides the perfect solution to a homes heating and hot water requirements. Torrent ECO offers more options than any other store or cylinder, and is designed to reduce heating costs by offering complete flexibility for householders to use multiple energy sources.

What is a thermal store?

- Provides mains pressure hot water
- Benefit for both heating and hot water
- No annual maintenance or safety check requirement
- No discharge pipework
- No risk of legionella
- Inherently safe being an open vented cylinder
- No G3 qualification requirement for installation

The Torrent ECO enables the hot water within the store to circulate around the heating system to provide heat to the property, with the domestic hot water being mains cold water instantaneously heated through a plate heat exchanger.
The Torrent ECO is manufactured from copper, by our trained coppersmiths, within Gledhill’s nine nationwide manufacturing depots.

This provides the flexibility to specifically design the thermal store to suit their own requirements, allowing the homeowner to maximise the available heat sources, whether they are traditional boilers or electric immersions, or the growing popularity of alternative energy fuel sources.

The cylinder is open vented, enabling uncontrolled heat sources such as woodburning stoves to be used.

Energy source compatibility:

- Open vented or sealed primary boilers
- Electricity from either mains or solar PV
- Wood burning or solid fuel boilers
- Air source or ground source heat pumps
- Solar thermal
With the new Energy-related Products (ErP) Directive for hot water cylinders in mind, the new Torrent ECO range has not only improved the benefits of the Torrent, but also added some fantastic new features to provide the home owner a immensely energy efficient thermal store.

### What’s new in Torrent ECO?

- Energy saving with a high efficiency ErP ready pump
- Flow sensor providing a 75% reduction of hot water response times
- Improved PCB and software
- Higher store temperatures can be utilised, providing greater benefit from solid fuel inputs
- Secondary return functionality (optional kit available if required)

For further information SCAN HERE

www.gledhill.net
Product Selection

The selection chart below is a guide to identify the correct Torrent ECO model required for your installation.

To use this selection guide, identify the required heat sources for your cylinder in each section, follow the lines with the red line indicating no and the green line indicating yes.

The option to add solid fuel tappings to utilise wood burning stoves or biomass boilers is available on the full range of Torrent ECO products.

- Underfloor tappings optional through the full range.
- All models come complete with back up immersion.
- Where a Torrent ECO SP is used, heating should be provided directly by the boiler as store will only provide auxiliary heating.
Torrent ECO OV

Features and benefits:

- Utilises open vented boiler to heat the store directly
- 3kW immersion heater for emergency back-up
- Electric only versions available
- Optional solid fuel connections
- Provides mains pressure hot water

Designed for use with

- Gas/Oil Boiler
- Immersion Heater
- Solid Fuel Boiler

Tappings shown above can be removed or optional extras added at the time of order

Need more technical information?

SCAN HERE
Torrent ECO OV showing how the cylinder can utilise numerous heat sources (including optional extras) at the same time.

Torrent ECO OV Technical Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>TEC140-OV</th>
<th>TEC170-OV</th>
<th>TEC210-OV</th>
<th>TEC250-OV</th>
<th>TEC350-OV</th>
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<tr>
<td>Energy efficiency class</td>
<td>C</td>
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<td>C</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>Heat loss</td>
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<td>Domestic hot water volume</td>
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<td>140</td>
<td>170</td>
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<td>Unit height</td>
<td>mm</td>
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<td>1449</td>
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<td>Unit diameter</td>
<td>mm</td>
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<tr>
<td>Max. hot water flow rate</td>
<td>litres/minute</td>
<td>35</td>
<td>35</td>
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<td>Maximum dwelling type</td>
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<tr>
<td>Bath</td>
<td>1</td>
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<tr>
<td>Shower room</td>
<td>-</td>
<td>1</td>
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<tr>
<td>Bed</td>
<td>1 - 2</td>
<td>2 - 4</td>
<td>3 - 4</td>
<td>3 - 5</td>
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</tr>
</tbody>
</table>

Notes:
- Please note the diagrams shown include optional extra components.
- Additional height for feed and expansion tank will need to be allowed if it is to be sited in the same cupboard.
- Vent pipes shown through the side of the feed and expansion tank may not be suitable for all systems. Installers must check suitability.
- The standard open vented store relies on a feed and expansion tank suitably sited above the highest radiator point to provide sufficient head for the system.
- The feed and expansion tank must be sized to take the water expansion of the whole system (ie. solid fuel boiler, cylinder, open flue boiler and auxiliary heating).
- The feed and expansion tank is not supplied as standard with the unit, but is available as an optional extra at the time of order.
- For solid fuel applications, copper feed and expansion tanks are available as an optional extra at the time of order.
Torrent ECO SP

Features and benefits

- Utilises a sealed primary boiler to heat the store indirectly via an internal coil
- Auxillary or underfloor heating available directly from the store (subject to heat input)
- 3kW immersion heater for emergency back-up
- Optional solid fuel connections
- Provides mains pressure hot water

Tappings shown above can be removed or optional extras added at the time of order

Designed for use with

- Gas/Oil Boiler
- Immersion Heater
- Solid Fuel Boiler

Need more technical information?
SCAN HERE
Torrent ECO SP showing how the cylinder can utilise numerous heat sources (including optional extras) at the same time

![Diagram of Torrent ECO SP system](image)

### Torrent ECO SP Technical Specifications

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<td>Shower room</td>
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<td>2 - 4</td>
<td>3 - 4</td>
<td>3 - 5</td>
<td>3 - 5</td>
</tr>
</tbody>
</table>

**Notes:**
- Please note the diagrams shown include optional extra components.
- Additional height for a feed and expansion tank will need to be allowed if it is to be sited in the same cupboard.
- Vent pipes shown through the side of the feed and expansion tank may not be suitable for all systems. Installers must check suitability.
- The feed and expansion tank must be sized to take the water expansion of the whole system (i.e. solid fuel boiler, cylinder, open flue boiler and auxiliary heating).
- The feed and expansion tank is not supplied as standard with the unit, but is available as an optional extra at the time of order.
- For solid fuel applications, copper feed and expansion tanks are available as an optional extra at the time of order.
Torrent ECO SOL

Features and benefits

- Specifically designed for use with solar thermal panels
- Utilises open vented boiler to heat the store directly
- Optional sealed primary boiler connections
- 3kW immersion heater for emergency back-up
- Optional solid fuel connections
- Provides mains pressure hot water

Designed for use with

- Gas/Oil Boiler
- Immersion Heater
- Solid Fuel Boiler

Tappings shown above can be removed or optional extras added at the time of order

Need more technical information?
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www.gledhill.net
### Torrent ECO SOL Technical Specifications

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<th>Description</th>
<th>TEC210-SOL</th>
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<td>Heat loss watts</td>
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<td>93</td>
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<td>134</td>
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<tr>
<td>Domestic hot water volume</td>
<td>litres</td>
<td>210</td>
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<td>350</td>
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<td>Unit height mm</td>
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<td>Unit diameter mm</td>
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<tr>
<td>Dedicated solar volume</td>
<td>litres</td>
<td>62</td>
<td>73</td>
<td>101</td>
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<tr>
<td>Max. solar collector area</td>
<td>m²</td>
<td>2.47</td>
<td>2.91</td>
<td>4.03</td>
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<tr>
<td>Solar heat exch. surface area</td>
<td>m²</td>
<td>0.27</td>
<td>0.34</td>
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<td>Max. hot water flow rate</td>
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</table>

**Notes:**

1. To comply with the Building Regulations ADL1 Domestic Heating Compliance Guide.
2. This can be adjusted at the time of specification.

- Please note the diagrams shown include optional extra components.
- Additional height for feed and expansion tank will need to be allowed if it is to be sited in the same cupboard.
- Vent pipes shown through the side of the feed and expansion tank may not be suitable for all systems. Installers must check suitability.
- The standard open vented store relies on an feed and expansion (feed & expansion) tank suitably sited above the highest radiator point to provide sufficient head for the system. As the domestic hot water is at mains pressure, the Torrent ECO Solar itself can be sited anywhere in the property.
- Provision is also made within the design for a sealed heating/boiler circuit with the heat exchanger provided which would then operate as a conventional cylinder. Although this would reduce the potential for utilising the solar energy in the HEATING CIRCUIT, it would mean that both the Torrent and the feed and expansion tank can then be sited anywhere in the property, as the feed and expansion is only being used to fill the store with water.
- The feed and expansion tank must be sized to take the water expansion of the whole system (ie. solid fuel boiler, cylinder, open flue boiler and auxiliary heating).
- The feed and expansion tank is not supplied as standard with the unit, but is available as an optional extra at the time of order.
- For solid fuel applications, copper feed and expansion tanks are available as an optional extra at the time of order.
Torrent ECO HP

Features and benefits

- Specifically designed for use with either air source or ground source heat pumps
- Heating provided directly from the store
- Optional solid fuel connections
- 3kW immersion heaters for boost and emergency back-up for both heating and hot water
- Provides mains pressure hot water

Designed for use with

- Immersion Heater
- Solid Fuel Boiler
- Heat Pump

Tappings shown above can be removed or optional extras added at the time of order.

Need more technical information?

SCAN HERE
Torrent ECO HP showing how the cylinder can utilise numerous heat sources (including optional extras) at the same time

### Torrent ECO HP Technical Specifications

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<th>Description</th>
<th>TEC170-HP</th>
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<td>Heat loss (watts)</td>
<td>74</td>
<td>84</td>
<td>93</td>
<td>114</td>
<td>134</td>
</tr>
<tr>
<td>Domestic hot water volume (litres)</td>
<td>170</td>
<td>210</td>
<td>250</td>
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<td>Unit height (mm)</td>
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<tr>
<td>Unit diameter (mm)</td>
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<td>585</td>
<td>585</td>
<td>636</td>
<td>738</td>
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<tr>
<td>Max. hot water flow rate (litres/minute)</td>
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<td>Maximum dwelling type</td>
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<td>Bath</td>
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<tr>
<td>Shower room</td>
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<td>4 - 5</td>
</tr>
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**Notes:**
- Please note the diagrams shown include optional extra components.
- The suggested model sizes in the selection chart are based on a store temperature of 75°C. If the intention is that the heat pump will be used to provide the majority of the hot water with minimum boost from another heat source then consideration should be given to choosing a larger model of Torrent ECO HP appliance. See the Design Installation and Servicing Instructions for equivalent volumes at different charge temperatures.
- If the immersion heater is to be used as the hot water boost a suitable control system should be installed to ensure that the heat pump has fully charged the appliance before the boost immersion heater is allowed to operate. This will ensure the most efficient and cost effective use of the system.
- Additional height for feed and expansion tank will need to be allowed if it is to be sited in the same cupboard.
- The feed and expansion tank must be sized to take the water expansion of the whole system (i.e. solid fuel boiler, cylinder, open flue boiler and auxiliary heating).
- The feed and expansion tank is not supplied as standard with the unit, but is available as an optional extra at the time of order.
- For solid fuel applications, copper feed and expansion tanks are available as an optional extra at the time of order.
Torrent ECO HP SOL

- Specifically designed to combine solar thermal and heat pump technology
- Heating provided directly from the store
- Optional solid fuel connections to provide the ultimate alternative energy cylinder
- 3kW immersion heaters for boost and emergency back-up for both heating and hot water
- Provides mains pressure hot water

Tappings shown above can be removed or optional extras added at the time of order

Designed for use with

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Torrent ECO HP SOL showing how the cylinder can utilise numerous heat sources (including optional extras) at the same time.

**Torrent ECO HP SOL Technical Specifications**

<table>
<thead>
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<th>Description</th>
<th>TEC210-HPSOL</th>
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<td>Heat loss watts</td>
<td>84</td>
<td>93</td>
<td>114</td>
<td>134</td>
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<tr>
<td>Domestic hot water volume litres</td>
<td>210</td>
<td>250</td>
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<td>450</td>
</tr>
<tr>
<td>Unit height mm</td>
<td>1414</td>
<td>1654</td>
<td>1874</td>
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</tr>
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<td>Unit diameter mm</td>
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</tr>
<tr>
<td>Dedicated solar volume litres</td>
<td>62</td>
<td>73</td>
<td>101</td>
<td>130</td>
</tr>
<tr>
<td>Max. solar collector area m²</td>
<td>2.47</td>
<td>2.91</td>
<td>4.03</td>
<td>5.19</td>
</tr>
<tr>
<td>Solar heat exch. surface area m²</td>
<td>0.27</td>
<td>0.34</td>
<td>0.40</td>
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<td>Max. hot water flow rate litres/minute</td>
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<td>Maximum dwelling type</td>
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- The suggested model sizes in the selection chart are based on a store temperature of 75°C. If the intention is that the heat pump will be used to provide the majority of the hot water with minimum boost from another heat source then consideration should be given to choosing a larger model of Torrent ECO HP SOL appliance. See table 1b in the Design Installation and Servicing Instructions for equivalent volumes at different charge temperatures.
- If the immersion heater is to be used as the hot water boost a suitable control system should be installed to ensure that the heat pump has fully charged the appliance before the boost immersion heater is allowed to operate. This will ensure the most efficient and cost effective use of the system.
- Additional height for feed and expansion tank will need to be allowed if it is to be sited in the same cupboard.
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Gledhill Building Products Limited
Sycamore Estate, Squires Gate, Blackpool FY4 3RL Tel: 01253 474550 Fax: 01253 474551 sales@gledhill.net

Gledhill Building Products produce cylinders for use with a wide range of heat sources including:

- Gas and oil boilers
- Ground source heat pumps
- Electricity
- Solar energy
- Air source heat pumps
- Wood burning stoves

Further information on Gledhill products can be found on the internet at www.gledhill.net