

*The Safer, Simple Way
to Provide Mains Pressure Hot Water
to all your Taps and Showers*



Torrent

***open vented
mains pressure
thermal stores***



Gledhill
BUILDING PRODUCTS

Torrent

A mains pressure hot water

A total hot water package

Torrent provides mains pressure hot water and is suitable for gas, oil, electricity or installations using renewable energies such as solar or heat pump. It is safe, open vented, highly insulated and efficient. Torrent is a hot water thermal store that does not require expensive safety valves and is designed to upgrade existing traditional hot water systems.

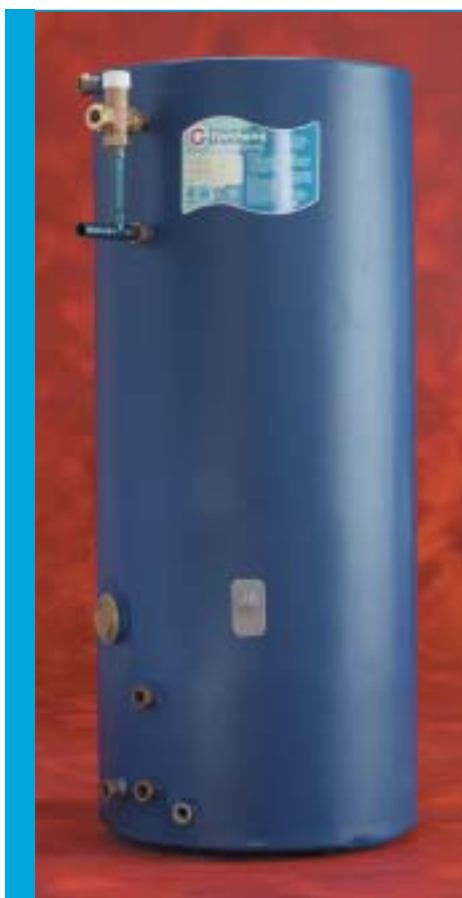
Mains pressure hot water

Torrent thermal stores provide:

- Mains pressure hot water giving 'power shower' performance.
- Deliver up to 25 litres per minute filling a standard bath in 3-4 minutes.
- Provide a dry roof space eliminating the risk of freezing pipes/tanks in winter.
- Increased system efficiency, reducing running costs.

Low cost installation/maintenance

Easy to install Torrent can be fitted to existing systems, including the existing boiler and controls, where appropriate. Unlike unvented cylinders, Torrent does not require expensive safety controls or the need to plumb temperature and pressure relief pipework to outside. External expansion vessels are not required and wiring is the same as any traditional Y, S or W plan system. Torrent thermal stores do not require any annual maintenance.



Long life

The thermal store is manufactured from copper sheet to BSEN 1653:1998. The computer designed heat exchangers are produced from finned tube and incorporate a patented expansion chamber which is sealed for life. The units are tested hydraulically and pneumatically, both during and after manufacture.

The safety of a traditional system

BS6700: 1997 states that in unvented cylinders, the "maintenance and periodic easing of temperature relief valves is particularly important". This is a landlord's responsibility in tenanted properties and annual checks must be carried out by CITB trained persons or installers, having G3 approval. As Torrent is vented and therefore inherently safe, it is not subject to Building Control Regulations – thus simplifying system maintenance enormously for the landlords or homeowners.

Thermally advanced

It is not widely appreciated that uncased foam insulated cylinders can lose up to 40% of their insulation value within weeks of manufacture and can emit dangerous smoke if involved in a fire. Torrent uses safe, non-toxic, non-combustible Rockwool for continuous high performance during the life of the unit. As with all Gledhill Building Products there is no release of ozone depleting substances or harmful emissions.

How it works

Torrent Indirect

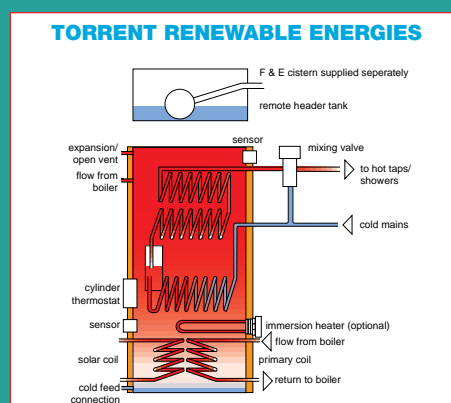
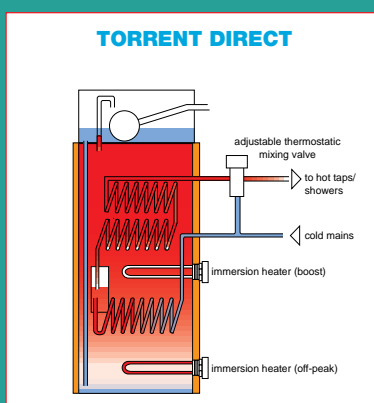
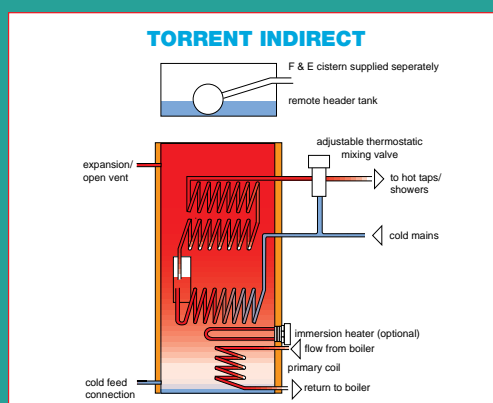
The Torrent thermal storage system is supplied with primary water from the boiler which heats the store via a primary coil. Secondary water flows directly from the cold mains into a secondary coil where it is heated by the store before being delivered to the taps.

Torrent Direct

Torrent Direct works in the same manner as the indirect version with the exception that the primary water in the store is heated by off-peak electricity via an immersion heater.

Torrent For Renewable Energies

Utilises the 'Gledhill Sunspeed' coil to make the most efficient use of heat provided from a source such as solar or heat pump. Ask for a copy of our Torrent RE leaflet.






Water supply, incorporating a thermal store

Torrent Indirect for use with gas or oil boilers and renewable energies

Torrent Indirect is a mains pressure vented hot water thermal store suitable for open vented and sealed heating systems.

The Indirect unit can be fitted with a conventional 'S' plan, 'Y' plan or a control system of your choice and can be made suitable for either left or right fitting. It is also suitable for twin pump systems.

Torrent is a 'Clear Skies' listed product and the four Torrent Renewable Energy models bring the advantage of harnessing the chosen energy source to supplement both hot water **and** heating requirements.

-  Header tank can be sited remotely
-  All copper construction
-  Insulated in high performance Rockwool

Model	Store capacity (nominal) Litres	Hot water flow rate Litres/min	Dimensions (mm) of thermal store over insulation Height x Diameter	Minimum cupboard size Width x Depth x Height
T130	130	18	1250 x 525	700 x 600 x 1800
Suggested dwelling type: 2/3 bedroom house with one bathroom and separate en-suite shower room.				
T170	170	18	1450 x 525	700 x 600 x 2000
Suggested dwelling type: 2/4 bedroom house with one bathroom and one or two separate en-suite shower rooms.				
T200	190	25	1600 x 525	700 x 600 x 2150
Suggested dwelling type: 3/4 bedroom house with one bathroom and up to 3 separate en-suite shower rooms or 2 bathrooms and 2 separate en-suite shower rooms.				
All Models: Maximum working pressure, Primary thermal store = 6m, Primary heating coil = 3.0 bar Standard Components: Control Thermostat, DHW mixing valve. Add 300mm for the height of F & E tank if fitted in same cupboard.				

Torrent for Renewable Energies - A 'Clear Skies' listed product

Model	Store capacity (nominal) Litres	Hot water flow rate Litres/min	Dimensions (mm) (Includes F & E tank) Height x Diameter	Minimum cupboard size Width x Depth x Height
T130 RE	130	18	1250 x 525	700 x 600 x 1800
T170 RE	170	18	1450 x 525	700 x 600 x 2000
T200 RE*	200	25	1600 x 525	700 x 600 x 2150
T277 RE*	277	25	1800 x 575	700 x 600 x 2350
*Models can be manufactured to be used in conjunction with range cookers and multifuel stoves.				

Torrent Direct - for providing hot water heated by electricity

Torrent Direct is an electrically heated, mains pressure hot water thermal store, which makes the most of off-peak tariffs. It is a combination unit which incorporates a feed and expansion tank, and eliminates the problems associated with a cold water cistern in the roof space. It is supplied complete with two low watts density immersion heaters for extra quiet operation. 'Draw-off' for baths and 'flow' for power showering operate from this one compact unit which means there are more siting options, maximising building design flexibility.

Model	Store capacity (nominal) Litres	Hot water flow rate Litres/min	Dimensions (mm) (Includes F & E tank) Height x Diameter	Minimum cupboard size Width x Depth x Height
T144 DE	160	15	1650 x 520	700 x 600 x 1900
Suggested Dwelling Type: 1 - 2 bedrooms, 1 bathroom.				
T210 DE	230	15	1870 x 570	750 x 600 x 2120
Suggested Dwelling Type: 2 - 3 bedrooms, 1 bathroom/1 shower.				
All Models: Off peak immersion heater: 3kW; 230V; 50Hz (Type 2) On peak immersion heater: 3kW; 230V; 50Hz (Type 2) Mains pressure: Working: 1.5 - 3.5 bar				
(A pressure reducing valve will be required if the incoming mains water pressure exceeds 3.5 bar within any 24 hour cycle)				



Cold and hot water distribution design - all models

Torrent models are designed to be fed directly from the mains. They fulfil the requirements of Water Regulations and therefore do not require a check valve to be fitted to the supply pipe. The performance of the Torrent is directly related to the adequacy of the cold supply to the dwelling. This must be capable of providing for those services which could be required simultaneously and the maximum demand should be calculated. Torrent will operate at dynamic pressures as low as 1.5 bar (at the appliance) which must be available when local demand is at its maximum, but the preferred range is between 2 and 3.5 bar.

As a general guideline, although a 15mm external service may be sufficient for the smaller dwelling with one bathroom, a 22mm service is preferred (25mm MDPE) and should be the minimum for larger dwellings.

An in-line scale inhibitor should be fitted in hard water areas (above 200mg/L Ca Co₂), full details are given in the Design & Installation manual supplied with all Torrent Direct and Indirect units.

Plastic pipework - all models

This appliance is suitable for use with plastic pipework as long as the material is recommended for the purpose by the manufacturer and is installed fully in accordance with their recommendations.

Torrent

Open vented mains pressure thermal stores

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factories to
serve the
merchant
faster**

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Information on the full range of Gledhill products can be found on the internet at www.gledhill.net

Due to a programme of continuous improvement Gledhill Building Products reserve the right to modify products without prior notice.



FM 2057
Torrent is produced
under an ISO 9001:2000
Quality System accepted
by BSI



To protect our
environment, we
use copper a totally
recyclable metal,
which never
becomes waste.



The code of practice for the installation,
commissioning and servicing of central
heating systems



"Only the best
is acceptable"