

Thermal Store Boilers

These are an interesting new type of heating/hot water appliance. ('[PulsaCoil](#)' is the model name of the thermal store I most frequently encounter, closely followed by [BoilerMate](#), and both are made by [Gledhill Ltd](#). Other Gledhill variants are called ElectraMate, GulfStream and Accolade) They are mainly fitted in large numbers of luxury flats being built in every town centre across the UK, and their advantage is that they deliver high performance mains pressure hot water to showers and baths and can run a conventional wet central heating radiator system, all powered by low-cost Economy Seven electricity. Flat occupants no longer have to put up with the appallingly poor performance of old-fashioned combination cylinders and storage heaters previously fitted in flats with no gas. (Performance also substantially exceeds that of combi boilers even when the flat does have gas.)

Fundamentally, thermal stores are a container filled with water that is heated and stored. This water never changes. The hot water is pumped around radiators to provide space heating, and through a plate heat exchanger to heat the tap water whenever a hot tap is turned on.

Most good things have a drawback though. Thermal stores go wrong just like any other type of mechanical device, but finding a heating engineer to repair one is not so easy as with a gas-fired heating system. Many heating engineers are unwilling to deal with them because they are powered by electricity, not gas (or oil), and they are not electricians. Electricians also avoid them because they are full of water and obviously for a plumber or heating engineer to fix! I'll happily repair ANY thermal store, you'll be pleased to hear :-)

Gledhill are definitely the market leaders, and I am one of their nominated "Out of Warranty Engineers". Gledhill "Out of Warranty Engineers" are independent repair technicians who Gledhill recommend to Gledhill thermal store owners for repairs when their units no longer covered by the Gledhill guarantee.

I most commonly repair [PulsaCoil](#) 2000s and [PulsaCoil](#) IIIs, but I am familiar with other Gledhill thermal stores too, including the [BoilerMate](#), the ElectraMate, the systeMate, the GulfStream and the (long obsolete) Cormorant.

Gledhill Ltd seem to dominate the thermal store business, with very few competitors. DPS are the only other significant thermal store manufacturer I know of. They have a rather chaotic (in my view!) website [here](#), stuffed with useful information.

A thermal store can also be heated by either electricity (Economy Seven or similar cheap night-rate tariff) or by a conventional gas or oil boiler. Boilers are likely to fall from favour in new installations though, because there is a conflict between the optimum performance parameters of a modern condensing boiler and the needs of a thermal store. Thermal stores rely on very high stored water temperatures being achieved to work effectively, while condensing boilers only achieve their highest efficiency at relatively low water temperatures. This means condensing boilers are not a good partner for a thermal store and now the Building Regulations have made condensing boilers compulsory, gas-powered thermal stores are likely to die out.

Gledhill Water Storage Ltd no longer make the complex "2000" and "A-Class" ranges of electronically controlled thermal stores and the company has entered administration. Spare parts are still freely available to the trade from another Gledhill company, Gledhill Spare Parts Ltd. A narrower, much simplified and broadly compatible range of thermal stores for the replacement market is available from Gledhill Building Products Ltd.

Gledhill owners whose Gledhill thermal stores have suffered terminal failures (especially early failures which would have been covered by the Gledhill guarantee had the administration not occurred) tend to be reluctant to buy another thermal store from Gledhill, so I am often asked about alternative suppliers for thermal stores.