



Quote Reference: Townsend3 First Floor UFH System

Description	Cost
<p>1st Fix Underfloor Heating System</p> <p>Supply and installation of a 1st floor underfloor heating system for the property. The first floor will be 16mm pert-ali-pert laid into aluminium spreader plates from below. This will link into a separate 1st floor manifold. 1st floor pipework will be laid at 200mm centres and the aluminium spreader plates will be heavy duty nailed to the underside of the wooden floor above.</p> <p>All first floor underfloor heating will be linked into a single ground floor manifold. Manifold will have a low energy extra shunt pump, pump isolating valves, drain valve and an air release valve.</p> <p>Installation of the 1st fix 230v electrical supplies to each thermostat location in the property. Each thermostat cable will be run back to the manifold controller on that floor level. Floor will be split into four zones, one of which will be a wet room zone with probe.</p>	<p>Materials & Installation: £1,638.00</p>
<p>2nd Fix Underfloor Heating System</p> <p>Pipework connections into the underfloor heating manifold. This includes the installation of a Wilo 15-50 circulating pump with full bore butterfly valves at the manifold inlets.</p>	<p>Materials & Installation: £160.00</p>
<p>Final Fix Underfloor Heating System</p> <p>Final connection and commissioning/balancing of the underfloor heating manifold. Balancing of the underfloor heating loop flow rates at the manifold heads. Maintenance and drain valves provided at the manifold. Commissioning includes pump speed selection to ensure a balanced pressure against the primary heating system.</p> <p>Filling of the heating primary system will be completed at this point with the addition of a Fernox system inhibitor.</p> <p>Supply and installation of thermic actuators on the return loop heads to control each zone on the underfloor heating. Supply and installation of a manifold controller at the manifold.</p> <p>Connection of the underfloor heating shunt pump to the manifold controller. Connection of each thermostat sensor cable to the manifold controller. Supply and installation of four programmable room thermostats for each zone on the floor of the property. This includes hanging the thermostats, connection and commissioning of the set temperature ranges.</p> <p>Electrical installation includes all the wiring centres required for the system, and starts from the fused spur outlets already installed by other electrical contractor.</p>	<p>Materials & Installation: £542.00</p>



Commissioning records and manufacturers unit warranties handed over on job completion. All systems and units left in good working order.	
<p><i>First Fix UFH £1,638.00</i> <i>Second Fix UFH £160.00</i> <i>Final Fix UFH £542.00</i></p> <p>Sum: £2,340.00</p> <p>+ VAT 0% Zero Rated : £0.00</p> <p><u>Total : £2,340.00</u></p>	

Additional Notes:

Certain 1st fix electrical supplies must be provided by the main electrical contractor. These include an un-switched fused spur at the underfloor heating manifold.

Main plumbing contractor will install a 22mm flow and return pipe to the manifold, to be later connected onto by a Solo Heating Installations operative.

Underfloor heating pipework will be charged and tested with air to a pressure of 90 psi, and will be left on pressure for the duration of the build until 2nd fix manifold connections are made.

Any additions or modifications to this specification on site *may* incur an extra charge.