

Selecting and Sizing a Below Ground Sewage Station where gravity drainage is not available

For houses, extensions, basements and garden rooms, where bathrooms, kitchens and utility rooms are required and gravity drainage is not available, a reliable sewage pumping station will be required.

Every site is different so, from both a technical and economic standpoint, it is good practice to seek advice from a pump expert.

The basic selection criteria to consider are - tank capacity (so 24 hr storage can be assured), and how high and how far the system needs to pump.

For single or multiple dwellings that are not going to be adopted by a water company, a private sewage pumping station can be selected. Type 1 and 2 pumping stations are suitable for water company adoption requirements.

The Pump Technology Ltd, PumpMatic pumping station range is custom made to each client's needs, private or adoptable. The tank can be made in a variety of diameters and depths. The relative positions and heights of the tank inlet or inlets and outlet pipe can be cut to suit the site levels and layout. Additionally, the control panel, alarm options and kiosks are all carefully specified to match the client's needs.

Example: - Developer Tony Howe and Redhill Plumbing.

Site: - Bungalow Reigate, Kent.

Pump Station: - Pump Matic 125, dual 601NE KSB submersible free flow vortex pumps.

Tony comments "I have now decided that going for a quality product from a quality company that lends a helping hand from selection right through to purchase is the right way to go".

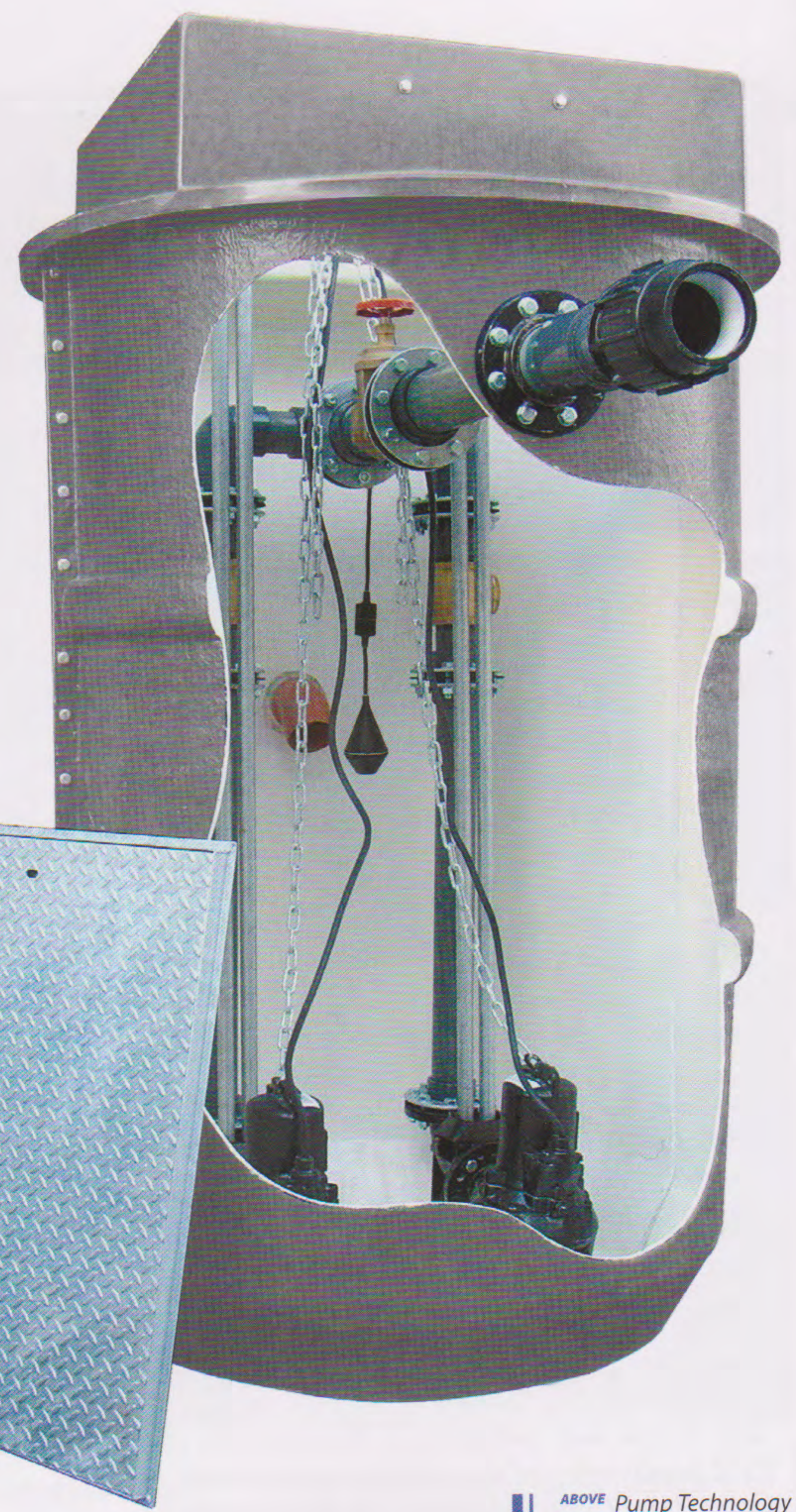
"It will provide me with peace of mind through the entire process and into the future after the pump commissioning".



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When the whole house is relying on a pumped system a twin pumping station arrangement would be selected. In this situation, for reliability, the pump preference would be free flow vortex pumps with 60mm plus dia., soft solids handling capability. These pumps are guide rail mounted to make inspection and maintenance easy.

In an installation like this the preferred pumping practice would be to discharge via an 80/100mm dia. pipe. Minimum velocity through the pipe would be 2.5 l/s. If a high head is required, or only a small-bore pipe,



ABOVE Pump Technology PumpMatic 300

typically 50mm can be installed, then a cutter pump option would be selected.

Example: - West Build Homes.

Site: - 4 off Prestige homes, Newbury, Berkshire.

Pump Station: - Pump Matic 600, dual a.b.s. submersible free flow vortex pumps.

Matthew of West Build Homes says "The pump station arrived on time and to specification. The clear installation instruction, plus the tank being customised to our site drainage level meant our ground worker completed the tank work easily and efficiently".

For house extensions, or basement application, where there is gravity drainage to the original building, then a mini pumping station can be selected. Mini, or micro pumping stations typically are approx. 160L volume, suitable for a bathroom, utility room, kitchen. A single free-standing pump would be used, often of only a 50mm free flow vortex size. The mini pumping station should also be fitted with a high-level alarm.

Gary Coles, Contracts Manager of South Quay says, "It's easier for us to call a pumping specialist and let them size the pumping chamber, select the pump or pumps and the required control panel or remote alarm system".

"For this, we asked Pump Technology Ltd to visit site and see first-hand the proposed location of the below-ground pumping chamber, the house requirements and possible site restriction".

Pump Technology Ltd, has its own in-house consultant, helping customers to get the right station and best commercial solution every time.

For more information contact:

Pump Technology Ltd

0118 9821 555

www.pumptechnology.co.uk

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ABOVE LEFT PumpMatic Tank Connections

ABOVE RIGHT Pump Technology PumpMatic basement installation

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