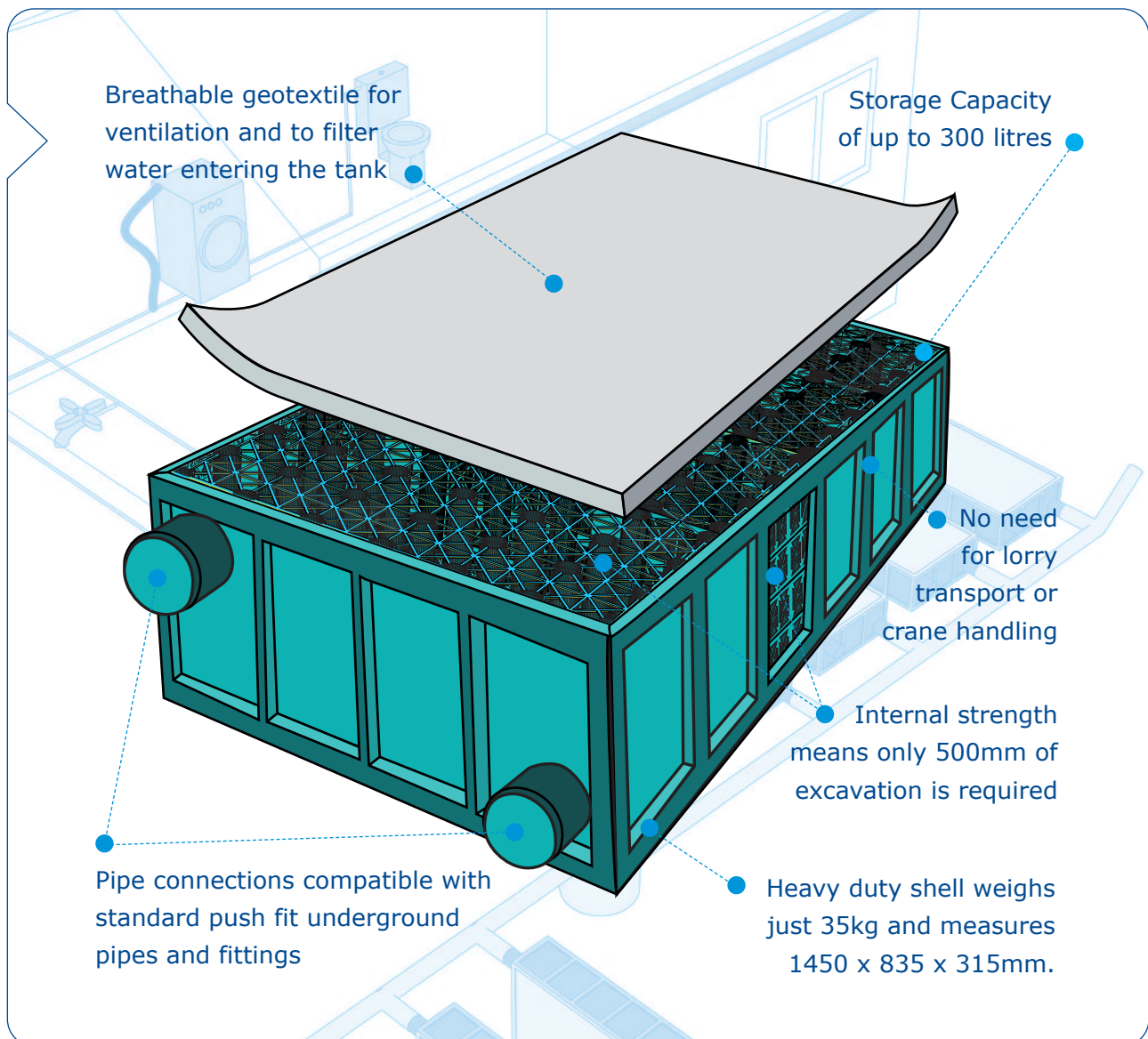


Althon Skeletank[®]

Rainwater Harvesting Attenuation & Soakaway



Lightweight • Compact • Modular

Designed & Manufactured in the UK from Recycled Material

01603 488700 www.althon.co.uk

What is Althon Skeletank® ?

The Althon Skeletank® is an **innovative new sustainable drainage product** for the Harvesting, Attenuation and Soakaway of rainwater. It has been specifically designed for **small or large scale residential** applications without the need for a specialist installation team.

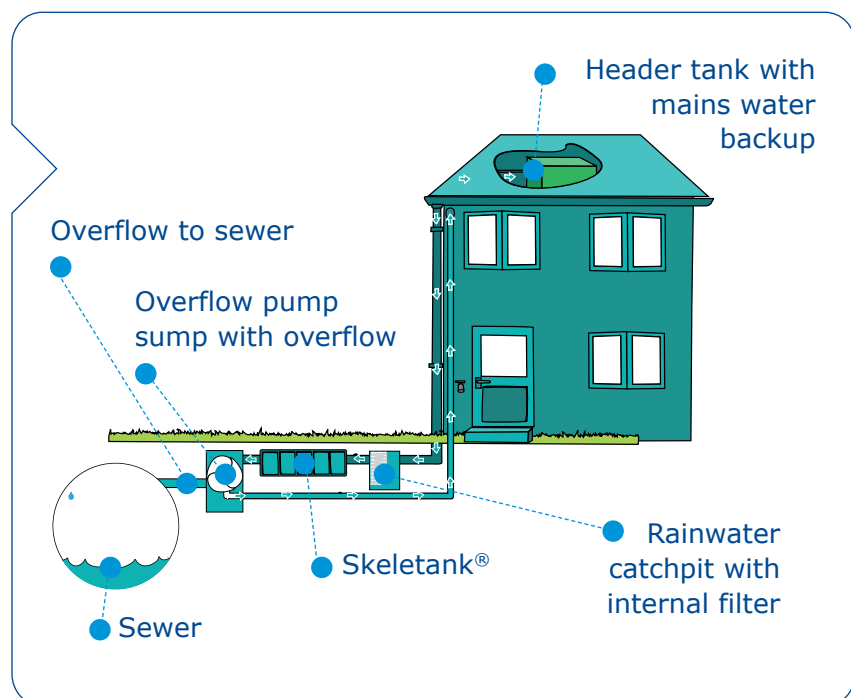
The Althon Skeletank® can be **installed at only 500mm below the surface**. This means that expensive and dangerous deep excavations required with other systems can be avoided. The Althon Skeletank® can be **installed directly below your driveway, patio decking or lawn**. You can even lay tarmac directly onto the Althon Skeletank®.

Althon Skeletank® has been designed and manufactured in the UK from recycled material. It is re-usable and recyclable.

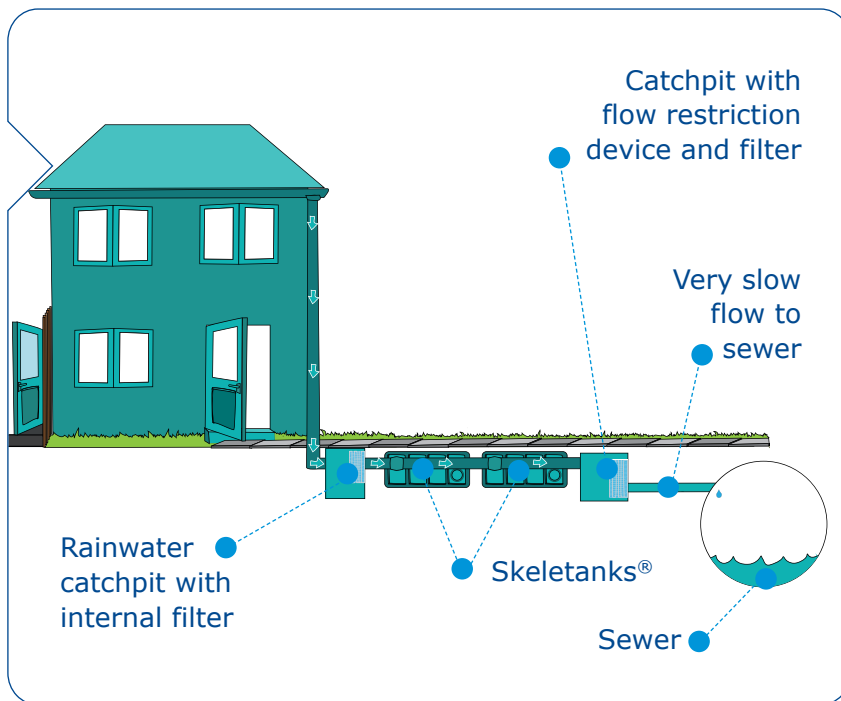
Rainwater Harvesting

Rainwater harvesting is the collection and distribution of rainwater from the roof, for use inside and outside of the home or business. It can be used for irrigation, toilet flushing, washing machines, washing your car and even watering livestock.

Complies with the building regulations Part H and eliminates the requirements of H3(3).



Attenuation



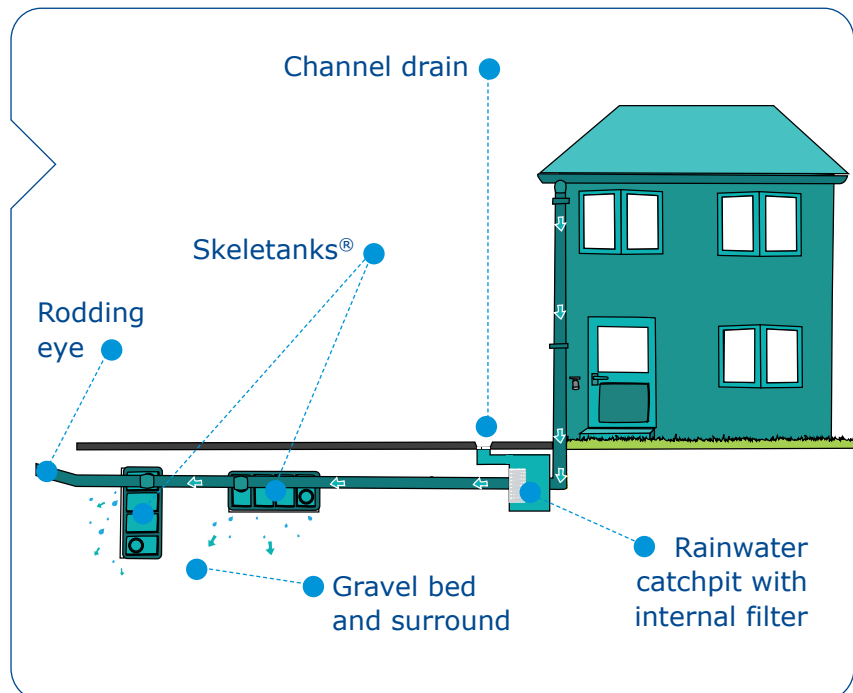
When it rains the Althon Skeletank® allows the rainwater to be stored temporarily and to be released in a very slow controlled manner. This system reduces downstream flooding. This philosophy is known as attenuation.

It can be used as an attenuation unit as part of a sustainable drainage system (SUDS) to comply with building regulations Part H.

Soakaway

Soakaways are one of the fundamental elements of sustainable drainage systems (SUDS) and are used to drain rainwater directly into the ground without connection to any mains drainage or sewer pipes.

The Althon Skeletank® is a highly efficient soakaway that provides 3 x the volume of a traditional gravel alternative, without the risk of siltation.



Code for Sustainable Homes

The Code for Sustainable Homes has been introduced by the Government to drive a step change in sustainable home building practice. The average mains water consumption throughout the UK is currently around 150 litres/day. The code calls for a reduction to 80 litres/day by 2016.

The way to achieve these stringent limits in new developments is to incorporate rainwater harvesting. The Skeletank® system is simple, cost effective and does not require specialist installation equipment or expertise. Builders and groundworkers can easily install the system on a plot by plot basis as a development progresses.

Full technical details and support is offered for all Althon Skeletank® installations. Pipe connections are via 2no. 110mmØ stubs. These are compatible with standard push fit underground pipes and fittings.

Simple for Home Owners...

There is an ever increasing requirement for householders and house builders to consider incorporating sustainable drainage systems (SUDS) in their existing and new build homes. The requirement may be a personal environmental choice, financial, planning condition or a building regulation requirement. Current guidance and forthcoming legislation will encourage a greater uptake for SUDS as attempts are made to minimise the occurrences of flooding and reduce water wastage.

▶ **Safe** The Althon Skeletank® only requires a very shallow excavation which in most cases is no more than 500mm deep. There are certain circumstances where no digging is required at

all. For instance you could install the Althon Skeletank® below decking.

▶ **Simple** No need for a specialist installer. Any competent DIY enthusiast should be able to install the Althon Skeletank®.

▶ **Versatile** Measuring just over 1m² in plan area, the Althon Skeletank® can fit into many drive and garden spaces.

▶ **Lightweight** The Althon Skeletank® only weighs 35kg and can be easily carried by two people.

Perfect for House Builders...

The Althon Skeletank® provides an excellent plot by plot solution for new housing allowing incremental capital outlay easing your cash flow demands. As the system is modular, multiple Skeletank® units can be linked together to achieve the requirement for each individual plot.

This flexibility provides House Builders with a genuine alternative option to avoid the cash flow headache caused by providing costly infrastructure on a new development before a single house is built. Whether it be a large centralised stormwater storage tank or soakaway.

► **Sustainable** The Althon Skeletank® is designed to replace sub-base aggregate and

reduces the impact of quarrying. The sub-base replacement property can generate a significant saving in sub-base aggregate volumes over the progression of a complete development. The Althon Skeletank® system can reduce the environmental impact of your development as it is produced in the UK and manufactured from recycled material. It is re-usable and recyclable.

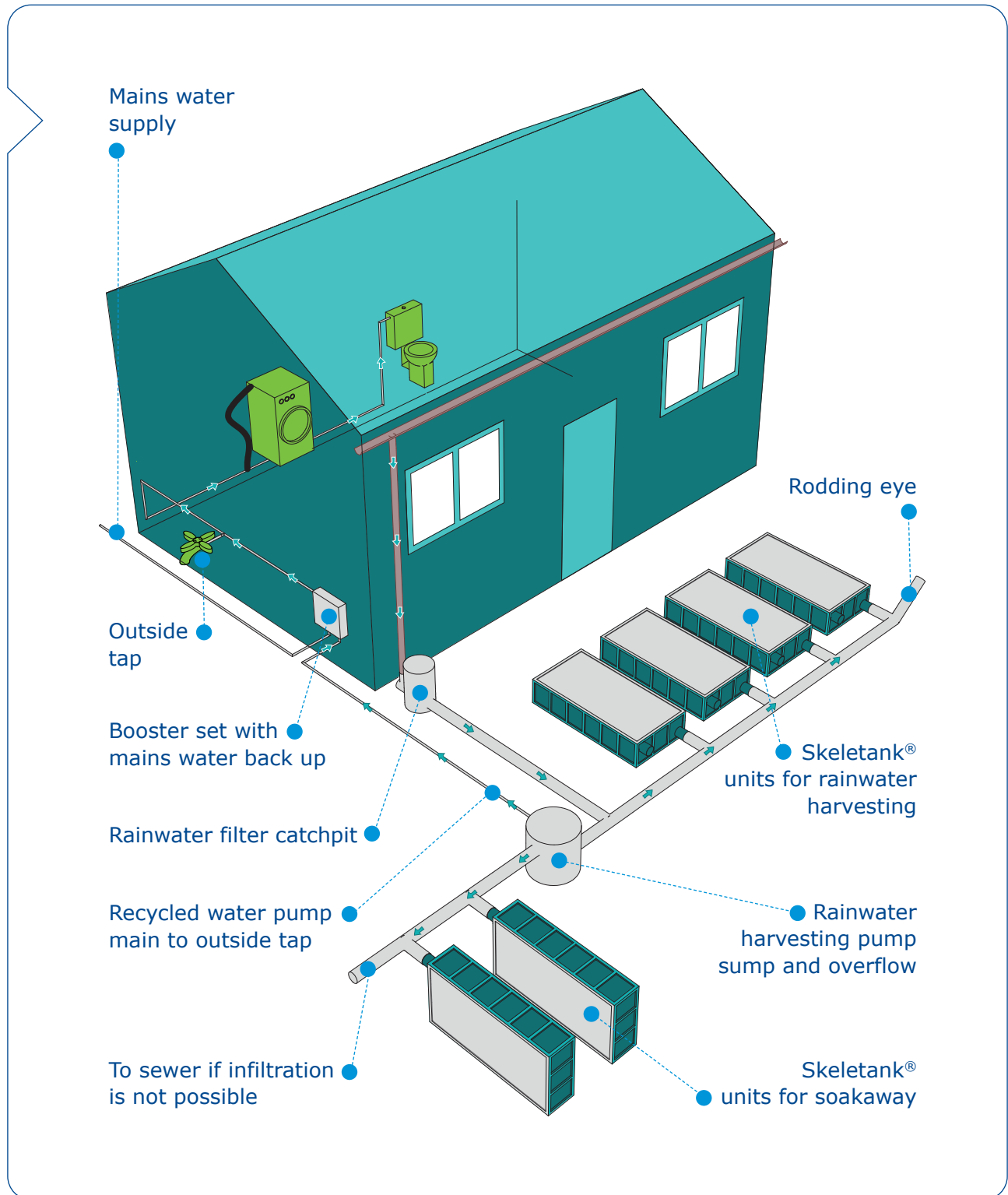
► **Safe** No deep excavations putting operatives at risk of fall or collapse.

► **Modular** One Althon Skeletank® can hold 300 litres and due to its modular nature can be easily added to increasing the storage volume to satisfy requirements.



► Above are before and after snapshots showing the installation of an Althon Skeletank® system. Excavation is less than 500mm and a bedding layer of stone provides a stable level base for the rainwater storage units. The units are connected using standard 110mm diameter underground drainage units, and covered with geotextile which comes supplied with the units. A final layer of stone is laid over the rainwater storage units on to which the paving slabs of the patio were laid.

Rainwater Harvesting Tap, Toilet & Washer Schematic



Althon Skeletank® Installation Guidelines

▶ **Step 1 - Layout** Calculate the number of Althon Skeletank® units you require and consider the location of the Pump Sump.

▶ **Step 2 - Levels & Excavation** Dig down to the required level, the pump sump is 662mm deep and a *Althon Skeletank*® unit is 315mm deep. Once complete, check the level of the excavation again.

▶ **Step 3 - Bedding** Screed the base of your excavation with a bedding material. Avoid walking on the levelled bedding.

▶ **Step 4 - Install the Pump Sump** The pump sump needs to be bedded and set perfectly level. Cut pipe to length and apply jointing lubricant and using a double socket collar, fit to the inlet on the pump sump.

▶ **Step 5 - Install the Skeletank® Units**
The Althon Skeletank® units need to be bedded on gravel/shingle and set perfectly level. Cut off the end of the lower inlet stubs ONLY on all the units. Apply jointing lubricant and fit the tee pieces to the tanks and start assembly with the Skeletank® unit nearest to the pump sump. Set the tank down on the prepared bed, connect the pipe from the pump sump to the tee and ensure that the connection is home; THEN CHECK THAT IT IS LEVEL WITH THE INNER WEIR of the pump sump, check that the tank is level in both directions, that is the first tank fitted.

Ensure a minimum of 100mm gap between adjacent tanks, repeat the process ensuring that all pipe connections are “home” until all the tanks are fitted and CHECK THAT EACH TANK IS LEVEL WITH ALL THE OTHER TANKS. At the last tank, terminate pipework with either a connection from a rainwater downpipe or fitting a rodding eye. Rainwater downpipes must be connected through a filter chamber and can be connected at any point on the pipework.

▶ **Step 6 - Backfilling & Venting** Take care during backfilling that you do not disturb the tanks. Each Althon Skeletank® comes with a geotextile covering; place this over the tank to avoid gravel from entering during backfilling.

▶ **Step 7 - Pumping Main** Dig a 600mm deep trench from the pump sump to the location of the tap/building entry to take the pumping main. This should be bedded and surrounded with grit sand before backfilling. Connect the pipe as required to either an outside tap or internally to feed a header tank, consult a Plumber for this work.

▶ **Step 8 - Power Supply** The electrical power supply to the pump can be a standard 13 Amp 3 Pin Plug. The pump is supplied with a 15m long cable, the cable should be installed within a duct back to the house.

▶ **Step 9 - Get Recycling** Sit back and wait for it to rain.

A more detailed installation guide is available at www.althon.co.uk



Contact Information

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Supply

- ▶ **Ordering** Please contact our Sales Office at Norwich.
- ▶ **Prices and Conditions of sale** Information on request
- ▶ **Delivery** Information on request

Technical Services

To support architects, engineers and contractors in designing and installing the Althon Skeletank®, our design services department offers computer aided scheme design and advice on installation. Supply and install packages are available for elements of the system – information available on request.

Althon Ltd reserves the right to change or modify the design of products and specifications as their policy is one of continued research and improvement. The information contained in this publication is believed to be correct at the date of publication, but it should be understood that between publications there may be changes in pertinent standards or regulations affecting the accuracy of the information contained therein.

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