





# **Driveline Drain Installation Guide**

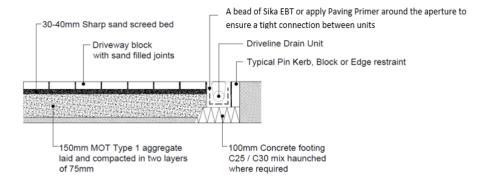
## **General Information**

On delivery, the product should be inspected. If there are any issues, please report them immediately and do not commence installation.

Before installation commences a certain amount of sorting of the product may be required to ensure consistency of colour, texture and dimensional tolerance.

## Health and Safety Information

Safe working practices should be employed at all times during the construction process and all necessary Personal Protective Equipment (PPE) should be worn.



## Drainage

All paved surfaces require drainage. Where kerbs or edging are laid, this will restrict natural water flow off the paved area, so provision needs to be made to dispose of this water. This can be in the form of using cross fall and longitudinal fall to run water into areas of soft landscaping (i.e. a flowerbed or grassed area). However, where this is not possible, some form of drainage channel will need to be utilised. If laying drainage channels next to a building, then care should be taken that the laid products are at least 150mm below the damp proof course level.

## **Excavation**

To allow new drainage channels to be installed correctly a certain amount of excavation will normally be required. The depth of this excavation will depend on several factors; the height of the kerb or edging selected, which way up it will be laid, and what upstand is intended. (i.e. the difference in height between the top of the kerb or edging and the paved surface in front of it).

All organic materials such as grass should be removed from the excavation as this will rot and could cause possible settlement of the kerbs or edging and paving at a later stage. When the desired level has been reached the bottom of the excavation should be compacted to give an even surface.

The top of the drainage channel should be 5mm below the final pavement surface on completion of the installation.

#### Sub-Base

The inclusion of a sub-base beneath the channels is not necessary as the drainage channels are normally laid on a separate concrete bed. This bed, and the kerb unit, will restrain the sub base for any adjacent paving.

#### Bedding

Drainage channels, kerbs and edging units are laid onto a concrete foundation. The foundation should typically be around 100mm thick, of well compacted semi-dry concrete, typically a C25/C30 mix will be sufficient, depending upon the expected loadings and ground conditions

#### Channels

Channel units shall be laid commencing at the outfall to previously established line and level. Setting out pins should be accurately located, with a string line level with the top of the drainage channels. Channel ends should abut as tightly as possible and sealed using Paving Primer or Sika EBT to the channel ends to adhere the units together.

Where cutting the channels is required, they shall be cut with a concrete saw or disc cutter.

Haunching/surround concrete to the outfall unit shall be of the same grade as the adjacent channel unit haunching.

#### **Outfalls**

Outfall units shall be bedded on and surrounded by 150mm of concrete of the appropriate grade.

The horizontal joints between the sections of the outfall units shall be sealed with Paving Primer or Sika EBT.

#### Tolerances

All concrete products are manufactured with small variations in size. Bedding onto mortar allows variations in height to be accommodated during installation.



### **Inclement Weather**

Installation should be discontinued (and any open work face covered) if weather conditions are such that the performance of the paving may be jeopardised. Laying operations should not be undertaken when the temperature is below 3°C on a falling thermometer and 1°C on a rising thermometer. All unfinished areas and stockpiles of materials should be covered in the advent of inclement weather to prevent saturation.





#### For more information Please contact Marshalls Group Technical Services on 0370 411 2233 or email

on 0370 411 2233 or email grouptechnicalservices@marshalls.co.uk