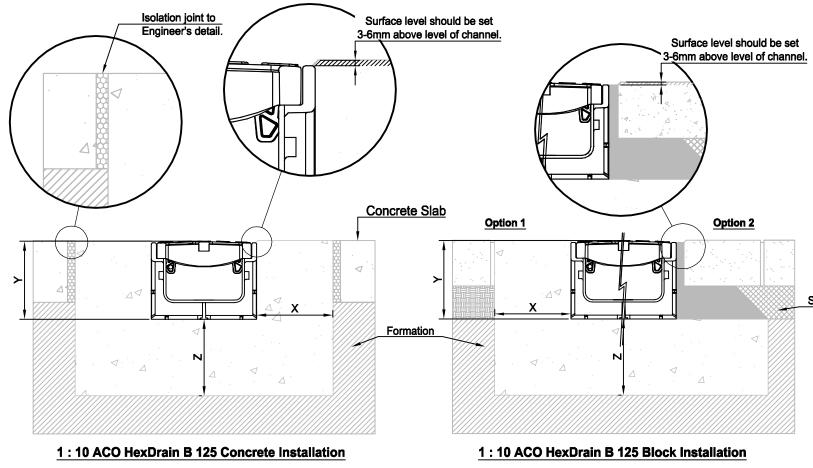


# 1:10 ACO HexDrain B 125 Asphalt Installation



### 1.0 Load Class

Installation recommendations shown are the minimum requirements to comply with BS EN 1433:2002 load class requirements.

#### 2.0 Ground Conditions

The long term performance of a channel installation to sustain vertical and lateral loads depends upon A) ground conditions B) stability of the adjacent pavement and C) a durable concrete bed and surround. The design may require upward revision of minimum dimensions (referred to in 1.0 above) to achieve site specific load class requirements.

#### 3.0 Cutting and Jointing

Mitre joints are formed by sawing the channels to the required angle and butting them together with appropriate sealant (e.g. Sikaflex PRO 3 or similar). Where possible 90° joints and T's should be formed so that gratings do not have to be cut. Angles can be formed by connecting them using proprietary PVCu pipework attached to ACO inlet/outlet endcaps. For further details please contact ACO Design Services Team.

Note: For Load Classes higher than C250, mitred joints are not recommended in vehicular areas. Where requested ACO can custom manufacture angled junctions to order.

## 4.0 Channel Protection

Avoid contact between compaction equipment and ACO channel grating. The installer must ensure that the finished surface level lies above the grating level (by at least 3mm). Covering or protecting the grating, before concreting the haunch or laying blocks, removes the time and cost associated with cleaning the channel and grating of cement material and embedded stones.

#### 5.0 Isolation Joints

The channel must be isolated from the surrounding environment. An isolation joint must be positioned up to 1500mm from the channel wall. Any dowel bars must be located no nearer than 150mm from the channel wall. Other movement joints in surrounding slab must be continued through the channel. Additional crack control will be required to comply with specifier requirements.

### 6.0 Installation into in-situ Slab

Where a channel is to be installed into an existing concrete slab it is necessary to cut a suitably sized pocket in the slab. The channel will then need to be bedded in polymer modified mortar of 25mm minimum thickness (this may vary depending on the type of mortar used). Engineering advice may be necessary.

### 7.0 Temporary Installation

A channel installation is not complete until the final surfacing is laid. In any temporary condition, i.e. with the channel walls projecting above adjacent ground, site traffic should not cross channels. Loose boards, stone fill or cover plates will not protect the channel walls or grating. A temporary channel crossing should be formed by raising the ground level locally, to 3 - 6mm above grating level, either side of a channel for a distance of 750 to 1000mm say, to form ramps. Note that the channel load class should be adequate to carry the site traffic.

#### 8.0 Watertight Installation to BS EN 1433

Where ACO channel joints/fittings and channel/pavement interfaces are to be sealed, an appropriate sealant should be used (e.g. Sikaflex PRO 3 or similar). It should be noted that the preparation of ACO polymer concrete channels to receive a sealant does not vary from that required of cement concrete. Guidance on the necessary surface preparation and/or priming should be sought from the sealant manufacturer.

- The end faces of the channels are to be sound and free from dust, oil, and grease, with any loose material or dirt removed, e.g. by mechanical wire brush. No water drops should be evident.
- Using a standard cartridge gun, apply the sealant evenly and with no flaws. The detail on the ends of a channel varies from one product to another:
  - Products with a basically flat face apply the sealant in a layer approximately 5mm thick to one face of the joint.
  - Products with a sealing groove within the end face apply the sealant in a bead of approximately 10mm diameter into the sealing groove.
  - Products with a sealing groove following the inside shape of the channel apply the sealant to the end face of the channel and to the sealant groove, such that when the joint is completed, the sealant will both cover the end face and fill the groove.
- The channel unit should be placed on the prepared concrete bedding and pressed against the previously placed channel unit. A sealed joint of approximately 1-2mm width should be formed between adjacent channel units.
- Excess sealant should be wiped from the inside face of the channel to leave a smooth finish.
- The sealant is to be left to harden for 24 hours, during which time the sealant should be kept as dry as possible.

### 9.0 Block Pavements

The channel must be supported laterally. Blocks laid directly against a channel must be laid as a soldier course and restrained from movement by bedding securely on the concrete haunch e.g. by using a polymer modified mortar for bed and perpendicular joints (e.g. RONAFIX mortar mix C or similar). Blocks or slabs bedded on sand remote from the channel should be set at a higher level to compensate for possible settlement of the paving in service.

Note: Galvanized iron and steel products have good corrosion resistance to concrete and mortar products but may experience corrosion if high chloride and/or sulphate content is present. Use only good quality concrete and consider using corrosion inhibitors where necessary. The use of protective coatings, such as paint, can minimise the risk.

## Sand bedding

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Version	Date	Description		Name
ACO Technologies plc	Shefford Bedfordshire SG17 5TE, UK Tel: 01462 816666	Drawing Number: E1-E01-097-1	Part Number: 11019	Revision: A
		ACO HexDrain B 125		
		Installation Detail Drawing		
Created by: TS	Released by: TW	Projection: ISO-A	Units: mm	Format: A3
Created at: 16.10.15	Released at: 16.10.15	- <del>-</del> <del>-</del> <del>-</del>	Protection note: DIN ISO 16016	Scale: 1:10
Replacement for:	Replaced by:	Information contained in this drawing is copyright property of ACO Technologies plc. Any reproduction in part or whole without written permission of ACO Technologies plc is prohibited		Sheet: 1 of 1