



(x: BridgeDeck upstand to suit application - See Note 6.0)

Highways Specification - Appendix 5/5:

The Appendix 5/5 will need to be completed for each project. A model Appendix 5/5 for ACO KerbDrain[®] BridgeDeck is available from the ACO Water Management Design Services Team.

Best Practice and Workmanship:

ACO can give guidance with respect to the most suitable methods of installation for each of the products in the ACO KerbDrain[®] BridgeDeck range. ACO KerbDrain[®] BridgeDeck should be installed using acceptable levels of workmanship according to the National Code of Practice (UK: BS8000-0:2014) in keeping with EN 1433:2002 (Drainage channels for vehicular and pedestrian areas).

Detailed installation statements and methodologies will vary for all sites as each will have different aspects deserving particular consideration, consequently the relevant approvals should be sought from the consulting engineer and/or the installer.

1.0 Load Class

Installation recommendations shown are ACO minimum recommendations for BS EN 1433:2002 D 400 Type I load class requirements.

2.0 Ground Conditions

The long term performance of a channel installation to sustain vertical and lateral loads depends upon A) bridge deck conditions B) stability of the adjacent pavement and C) a durable mortar bed

3.0 Cutting and Jointing

Mitre joints are formed by cutting the channels to the required angle and butting them together with appropriate sealant (e.g. Sikaflex 11FC Purform or similar). For further details please contact ACO Design Services Team. Avoid cutting through the inlet aperture, we recommend any cuts should be a minimum of 25mm away.

4.0 Block Pavements

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.

5.0 Watertight Installation to BS EN 1433:2002

Where ACO channel joints/fittings and channel/pavement interfaces are to be sealed, an appropriate sealant should be used (e.g. Sikaflex 11FC Purform or similar). Guidance on the necessary surface preparation and/or priming should be sought from the sealant manufacturer.

For Guidance a typical method of application follows:

- 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 or mortar 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 cure for 24 hours, during which time the sealant should be kept as dry as possible.

6.0 Installation Upstand Heights

The dimension (X), as shown within the detail, shows different upstand heights for each profile. This would be governed by the kerb upstand required for the highway. The channels should always be installed with a kerb face height of between 100mm and 125mm for Half Battered and between 75mm and 100mm for Splay KerbDrain BridgeDeck

