

Grated Polycrrete® Channels

Site Installation Manual



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Getting Started

Polycrete® *Channels** are a full range of modular channels with lockable grates. Systems include in-line pits, end caps, and other accessories.

Polycrete® *Channels*, when installed correctly, are designed to withstand a variety of loads classified to EN 1433, a standard specific for trench drain systems and AS 3996, a general standard for access covers and grates.

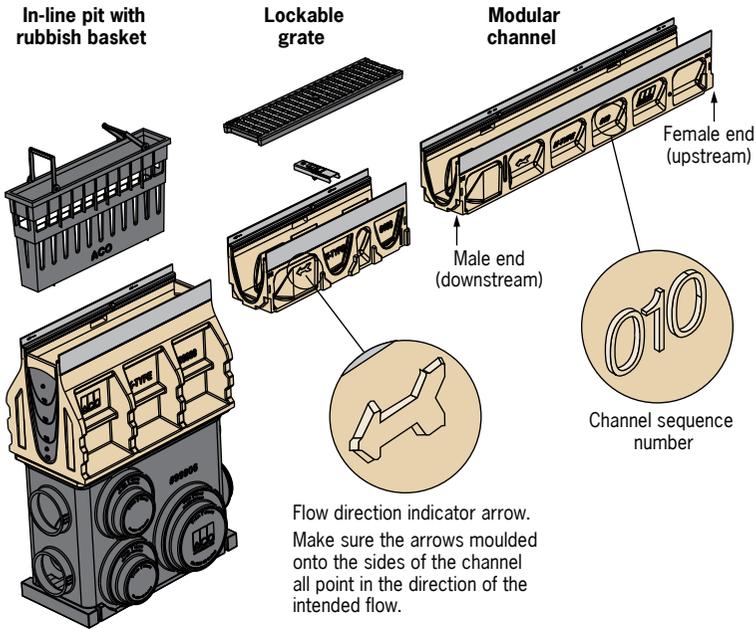
Polymer concrete products should be handled with care as they can be damaged by impact from other products or machinery.

Typical equipment and materials necessary for installation may include:

- Grate removal tool (Part No. 01318)
- Excavating equipment
- String-line and laser level
- Measuring tools
- Masonry drill, grinder, saw and/or hole saw, wet cutting recommended.
- Rubber mallet
- Hammer
- Concrete – 25MPa minimum compressive strength
- Gloves, eye protection and masks

ACO products are delivered wrapped in plastic. ACO recommends that the plastic is removed as soon as possible to prevent accelerated discolouration (oxidation) of the ductile iron components, tea staining of stainless steel components, or the formation of white rust on galvanised steel parts.

*Polycrete® *Channels* is ACO's trademark for products made from polymer concrete.



Health and Safety

Polymer Concrete Products

Polymer concrete products are manufactured using polyester resin, mineral aggregates and curing agents.

ACO strongly recommends wet cutting, wet drilling and/or wet grinding of polymer concrete products in a well ventilated area with the use of personal protective equipment including masks, gloves and eye protection.

Metal Grates

Grates made from metals are either cast or fabricated. The main hazards include:

- Abrasive damage/cuts to hands
- Inhalation of dust from grinding or cutting
- Grinding or cutting may generate sparks, therefore flammable items must be removed from the area

Gloves, eye protection and a mask should be worn to avoid these hazards. Operations must be conducted away from areas of fire or explosion hazard.

Installation Sections

Installed Polycrete® Channels should incorporate the following:

1. Correct grate type.
2. Correct channel type and size.
3. Minimum grade 25MPa compressive strength cement concrete encasement.

AS 3996 Load Class	Encasement Dimension
Class A–B	100mm
Class C–D	150mm
Class E–G	200mm

It is recommended that the concrete encasement conforms to the minimum dimensions shown in the table above and illustrations to the right.

These illustrations are a guide for average ground conditions only.

If more than one pour is cast for the concrete encasement, they must be adequately bonded to each other for structural continuity.

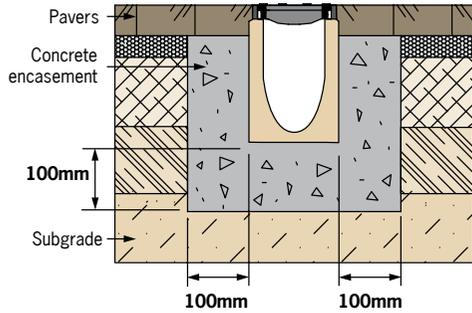
Refer to website for access to the complete set of installation drawings.

Specific site conditions may require an increase in these dimensions and/or reinforcement. If in doubt, seek professional engineering advice.

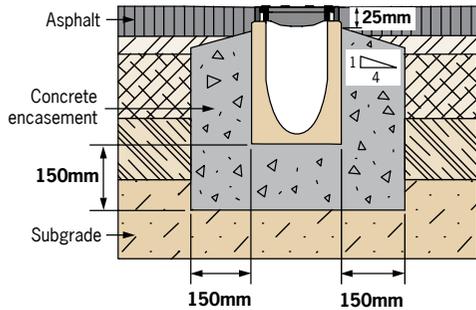
It is the customer's responsibility to ensure the concrete encasement is designed for the application.

Specifiers of Polycrete® Channels should download ACO's Specification Design Brief from the website.

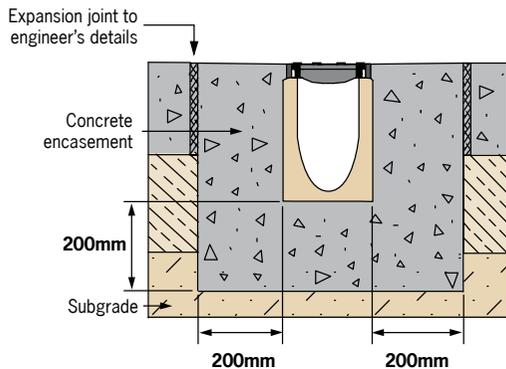
Pavers – AS 3996 Class A – B



Asphalt – AS 3996 Class C – D



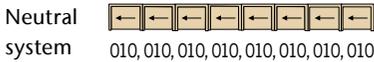
Concrete – AS 3996 Class E – G



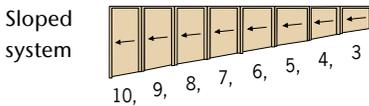
1 Trench Excavation

Mark on the ground the location of the Polycrete® Channels. Excavate trench to accommodate the drainage system. Trench must be sized to include the following:

A. Channel/in-line pit width and depth dimensions.

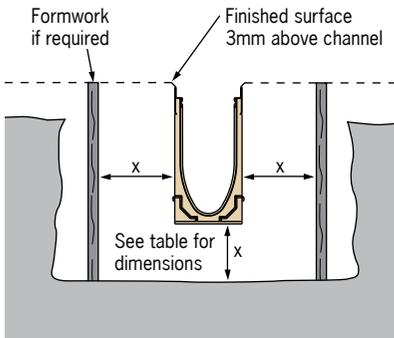


B. For sloped systems, excavate base of trench to roughly follow fall of trench run.



NOTE: ACO's sloped channels have a 0.5% built-in fall along the channel invert (5mm fall per metre).

C. Concrete encasement dimensions.



Dimension for:	X
AS 3996 Class A–B	100mm
AS 3996 Class C–D	150mm
AS 3996 Class E–G	200mm

NOTE: Check Specification Information (Spec Info) Sheets for overall product widths and depths. Standard installation drawings can be downloaded from the website.

Ensure loose material is removed from the trench and the base is compacted.

Set up a string-line at the finished surface level along the full length of the trench run to align with either the left or the right channel edge rail. This will ensure the drain is installed to the correct grade and longitudinal alignment.

A laser level can be used to check the set height of each channel as they are laid to the string-line. Use a spirit level to check across both edge rails as each channel is laid.

In concrete pavements, ensure an allowance is made for expansion joints for movement due to thermal expansion and contraction, see Section 7.

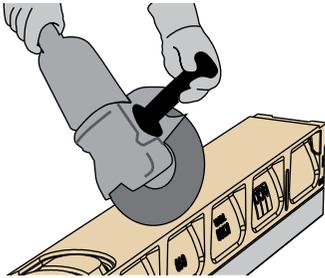
2 On-Site Fabrications

ACO strongly recommends wet cutting, wet drilling and/or wet grinding of polymer concrete products in a well ventilated area with the use of personal protective equipment including masks, gloves and eye protection.

Cutting channels are required to form non-standard lengths, curves, bends, corners and T-junctions. These fabrications are completed on site by the installer.

A 2-part rigid resin glue can be used to bond cut surfaces together. In applications where corrosive liquids are collected in the channel, joints should be sealed with a suitable chemically resistant sealant.

Non-Standard Lengths

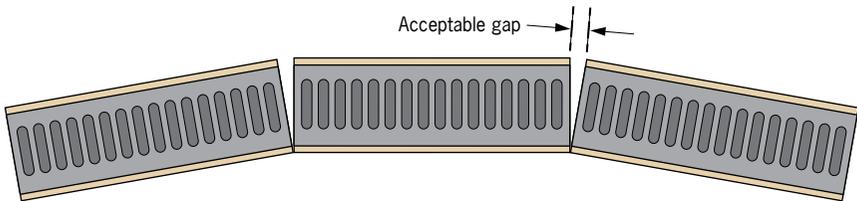


Channels should be cut with a masonry saw with a diamond or masonry blade.

Grates should be cut with a suitable abrasive blade.

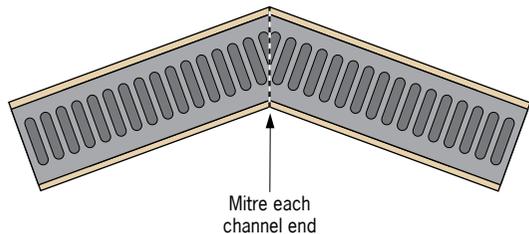
Curves

Channels can be installed to slight curves by leaving an acceptable gap at the channel joints (acceptable gap to be approved by client/asset owner).

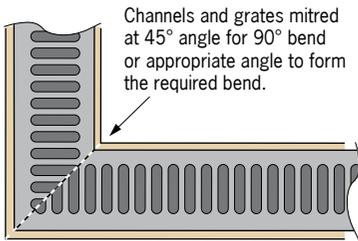


Bends

For tight curves or bends, mitre cut the end off each channel and grate to the required angle. This provides a neat finish at the joint.



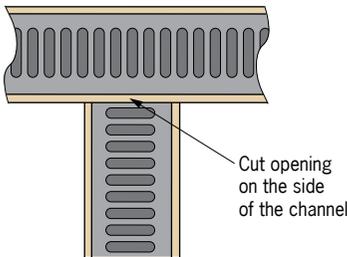
Corners



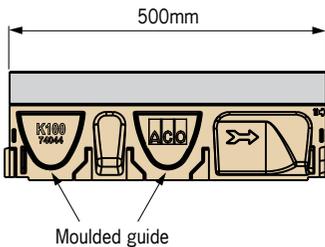
Corners are formed using a mitred joint by cutting channels and grates to the required angle and joining together.

For load class D to G applications, mitred grates are not recommended. A butt joint is recommended as used in T-junctions.

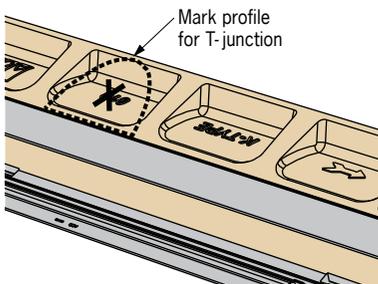
T-Junctions



T-junctions or right angle joints are formed when an opening is cut into the side of one channel and another channel is butted up square to this opening.



For T-junctions, all half metre channels provide a moulded guide to aid connection.



To form a T-junction at a location along a channel that does not have a moulded guide, place another channel perpendicular at the proposed joint location.

Mark on the channel wall the area to be cut by using the internal profile of the channel as a guide.

CAUTION: Do not cut the edge rail, as it should be left intact to provide additional strength and seating for the grate.

3 Pipe Connections

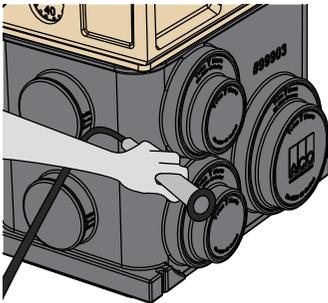
ACO strongly recommends wet cutting, wet drilling and/or wet grinding of polymer concrete products in a well ventilated area with the use of personal protective equipment including masks, gloves and eye protection.

There are a number of ways to prepare products for pipe connection. Bracing may be necessary.

In applications where corrosive liquids are collected in a channel, joints should be sealed with a suitable chemically resistant sealant.

In-line Pit – Cut-out

1. To cut opening for required pipe size and location, use a handsaw, reciprocating saw or circular saw with an appropriate cutting blade, as pits and/or pit bases can be manufactured from either polymer concrete or plastic.



2. Insert pipe into hole and seal using appropriate sealant or adhesive.

For in-line pit bases, a flexible coupling may be required for a watertight connection.

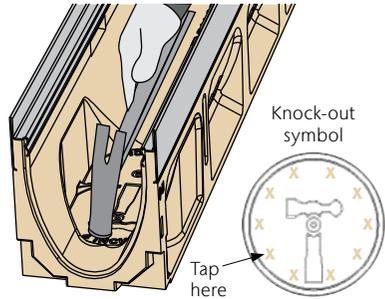
Channel – Knock-out

For channels with knock-out symbol

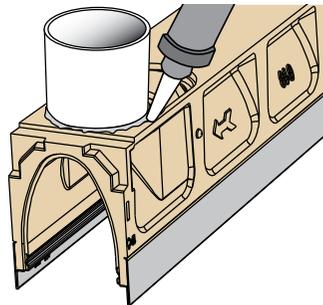
1. Place channel on loose sandy ground to absorb impact and prevent cracking.

CAUTION: Do not place channel on concrete, rock or any other hard surfaces.

Use a hammer on the inside of the channel to gently tap in a circular motion around the knock-out symbol as shown below.



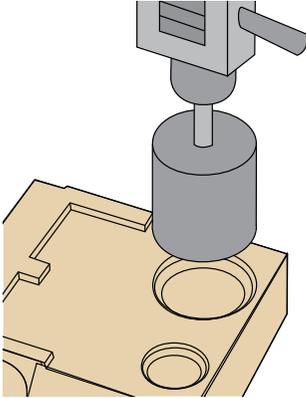
2. Use a grinder to dress or enlarge the hole for the pipe insertion.
3. A pipe may be fitted into the hole using an appropriate sealant or adhesive.



CAUTION: Use a hammer on the knock-out symbol ONLY, as damage may occur requiring replacement. Alternative acceptable methods are core drilling or stitch drilling.

Core Drill / Hole Saw

1. Use a core drill or hole saw with an appropriate cutting edge to cut pipe connection points.



2. A grinder may be used to dress or enlarge hole for pipe insertion.
3. A pipe may be fitted into hole using appropriate sealant or adhesive.

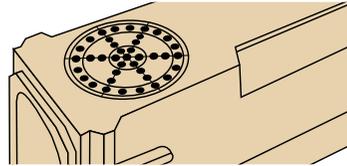
Masonry Hole Saws

Masonry hole saws are available from ACO. See part numbers below.

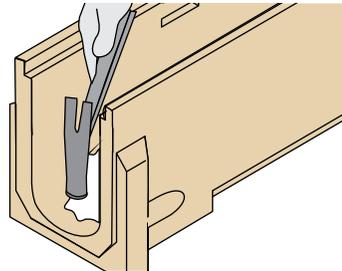
To suit pipe sizes:	Hex Arbour Part No.	SDS Arbour Part No.
95 mm	142011	142016
117 mm	142012	142017
127 mm	142013	142018
152 mm	142014	142019
180 mm	142015	142020

Stitch Drilling

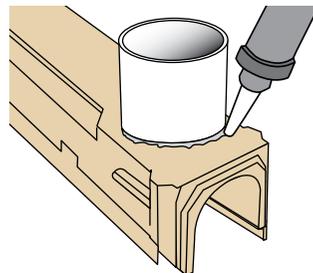
1. Use a 6mm masonry drill bit to drill multiple holes around the pipe location with a maximum 6mm spacing between holes. Mark at least three cross-cuts with a masonry disc saw or drill additional holes across the area to be removed.



2. Carefully tap out inside of perforated area on the inside of the channel. A grinder may be used to dress or enlarge hole for pipe insertion.



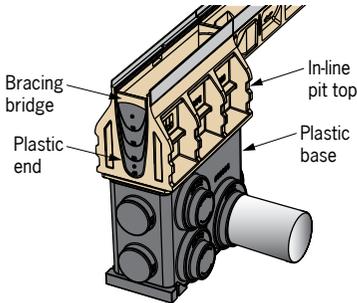
3. A pipe may be fitted into the hole using an appropriate sealant or adhesive.



4 Connection to Drainage System

Channels may be connected to a drainage system using an in-line pit, or directly through a vertical outlet or horizontal outlet.

In-line Pit

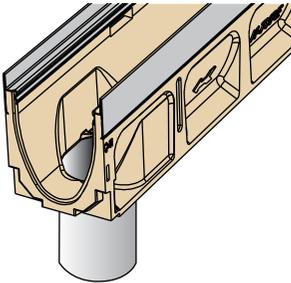


In-line pits have the same width as the channel but deeper. Allows use of rubbish basket to collect debris.

Multiple outlet options in plastic base for connection to piping.

To connect channel, cut plastic ends off the in-line pit top to the required depth. Remove polymer concrete bracing bridge from the in-line pit top and connect the channel to the in-line pit.

Vertical Outlet

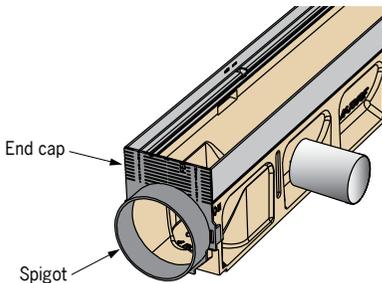


Pipe connected vertically to the bottom of the channel.

Penetrations can be made with a hammer for channels with the knock-out symbol located on the invert (refer to page 8).

Alternatively, channels can be core drilled or stitch drilled anywhere along the channel through the base (refer to page 9).

End Cap and Horizontal Pipe Connections



Inlet and outlet pipes can be connected horizontally at the end of the channel through the end cap or the side wall of the channel.

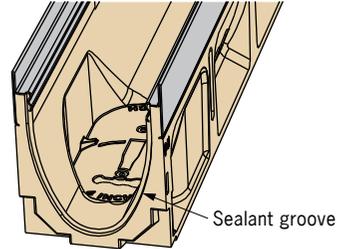
Spigot on end cap aids fitment to pipe. Cut end cap to required size to fit channel depth.

CAUTION: Pipe connections in the channel wall must be made under the channel edge rail. Do not cut the edge rail as it may damage and weaken the channel.

5 Channel Setup

Ensure string-line is set at the top edge of required channel height. Start installing channel from outlet or pit end. Ensure arrows on the channel walls are pointing in the direction of the intended flow (refer to page 3).

If channel joints are to be sealed, apply a bead of appropriate flexible sealant in the sealant groove.



Four methods to position channels

A. Patty Method

Channels are laid to a string-line and placed on concrete patties with a low slump. Two concrete patties required for each channel.



B. Continuous Wet Base Method

Channels are laid to a string-line on a continuous wet concrete base with a medium to low slump.



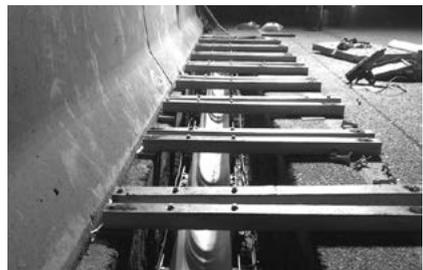
C. Installation Device Method

Channels are set up on installation devices that clamps the channels together, braces the channels to prevent movement and stops them floating during the single concrete pour.



D. Hanging Method

For retrofit constructions, channels are hung and anchored to the existing slab. For new constructions, channels can be hung on formwork. This allows for a single concrete pour.

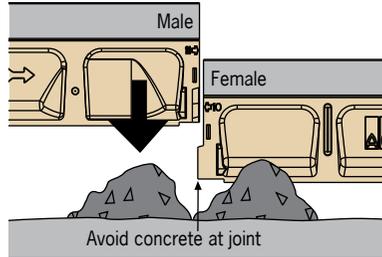


A. Patty Method

Channels are set up on concrete patties. Patties must have stiff, low slump concrete to support the weight of the channel to ensure the channel does not settle below the required height.

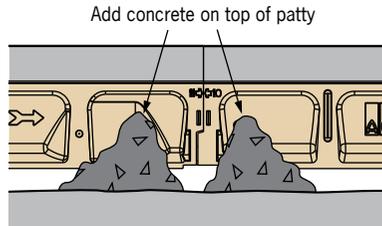
1. Set up a string-line to represent the top edge of either the left or right channel edge rail at the proposed finished height. Install in-line pit (or outlet channel) on bed of concrete to required height (see page 4, for concrete dimensions). Connect and seal outlet pipe.

2. Using low slump concrete, create two patties at intervals to support the channel. Patties are to be located away from the channel joints so that no concrete material is trapped between the channel which could create gaps.

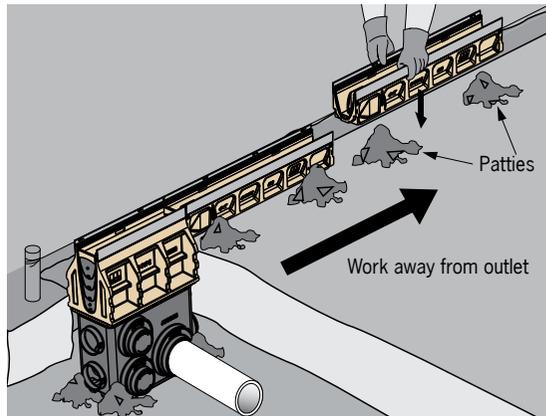


3. Lower channel vertically onto patties and position to correct height and alignment of string-line ensuring a tight connection to previous channel. Check the level across the channel with a spirit level before the next channel is set in place.

4. Add concrete on top of patties to partially cover and fill pockets on side of channel – this minimises the risk of movement or floating during the concrete pour.



5. Continue to lay channels by repeating steps 2, 3 and 4 until end of run or the next in-line pit is reached.



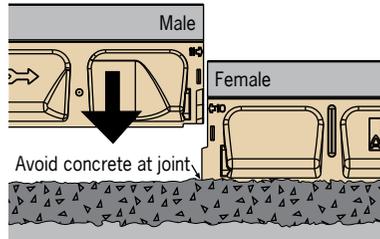
B. Continuous Wet Base Method

For new and retrofit construction with a wet concrete base which is able to support the weight of the channel to ensure the channel does not settle below the required height.

1. Set up a string-line to represent the top edge of either the left or right channel edge rail at the proposed finished height. Install in-line pit (or outlet channel) on bed of concrete to required height (see page 4, for concrete dimensions). Connect and seal outlet pipe.
2. Using low to medium slump concrete, only mix or pour enough concrete to a length that you can confidently lay channels on before the concrete hardens and becomes unworkable.

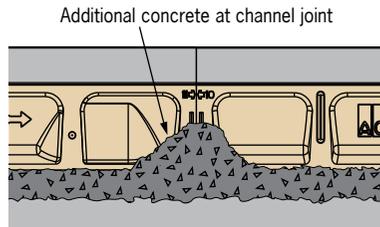
NOTE: Concrete base should be sized to provide required concrete encasement.

3. Lower channel vertically onto wet concrete base and position to correct height and alignment ensuring tight connection to previous channel. Ensure no concrete material is trapped in the joint.



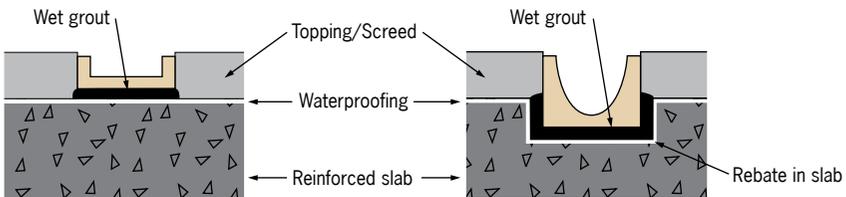
Check level across both edge rails of each channel with a spirit level before the next channel is set in place.

4. Add concrete at the channel joints to partially cover and fill pockets on side of channel – this minimises the risk of movement or floating during concrete pour.
5. Continue by repeating steps 2, 3 and 4 for the full length of the drainage run.



Suspended Slabs

Channels to be set up on a continuous wet base of high strength, non-shrink grout.



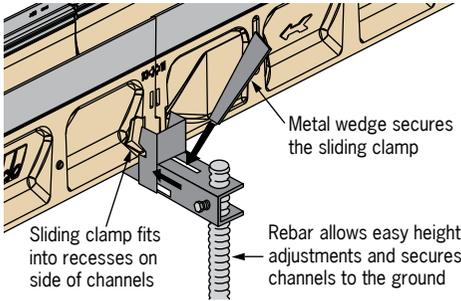
For shallow SlabDrain and MiniKlassik channels, set up the channels on top of the reinforced slab.

For deeper KlassikDrain, PowerDrain and TraffikDrain channels, form a rebate in the reinforced slab.

C. Installation Device Method

For new construction, installation devices allow channels to be set up for a single concrete pour with a clamping system that fits around the channel joint and braces the channel from movement.

Two reinforcement bars (rebars, supplied by others) is used to adjust the channel to the correct height. Ideal for straight runs or runs with slight curves. Not recommended for installations in confined spaces or soft subgrade / soil.



NOTE: Designed for KlassikDrain, PowerDrain and TraffikDrain channels only.

One device per channel joint is required.
100, 200 and 300mm wide versions are available.

For channel sizes:	Part No.
100mm wide	97477
200mm wide	97478
300mm wide	97479

Tools required:

- Two (2) string-lines and pegs
- Hammer
- Spirit level
- 12mm ring spanner or cordless drill with 12mm socket
- 1.1m length of timber to assist with levelling
- Installation device (refer to table above)
One (1) per channel and an additional one (1) for end channel
- 16mm diameter rebars – two (2) per channel and an additional two (2) for end channel
To calculate rebar length – allow at least 200mm to be embedded into the ground + depth of concrete encasement + half the height of the deepest channel.

NOTE: Read all the following steps before starting the installation.

Installation Steps

1. Create a template using timber sheet or another suitable rigid material. Diagrams of the templates can be downloaded from the website.
2. Set up a string-line to represent the top edge of either the left or right channel edge rail and lay the required channels beside it. Place two (2) rebars and one (1) installation device at each channel joint.
3. Working from the outlet, set up the first channel without using the template. Ensure the rebars are pushed into the ground and installation device supports the channel at required level.
4. Remove the channel and leave the first installation device in place. Remove the second device leaving the rebars in place.
5. Position the template over the second row of rebars.
6. Set up the second string-line along the template edge above ground level to keep the template straight for subsequent rebars.
7. Hammer in the next/third row of rebars through the template holes.
8. Remove the template and reposition again on the last two rebars that were just installed.
9. Re-attach the second installation device to the second row of rebars.
10. Set up the first channel and ensure the channel is level with the string-line.
11. Do not lock the adjustable sliding clamp with the metal wedge yet. Allow two sets of rebars to be installed before placing channels. This allows the template to be removed and placed into the next position for setting the rebars.
12. Continue to install devices and repeat the process of setting the channels.
13. After the next/fourth channel is set, the first channel can be secured into position using the metal wedges to lock the sliding clamp on the installation device.
14. Continue to follow steps 7 to 13 until the channel run is complete and ensure all the metal wedges are in place. The installation device clamps the channels together to brace the channels in place to prevent movement and floating during the single concrete pour.

NOTE: Comprehensive Installation Device Instructions with photographs and templates are available to download from the website.



D. Hanging Method

Retrofit installations – use existing slab to anchor supports.

New construction – formwork can be used to hang the channels.

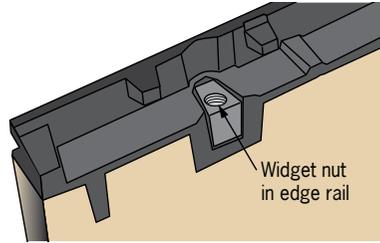
NOTE: Hanging method should only be used with PowerDrain, SlabDrain HSK Series and TraffikDrain channels.

PowerLok – Bolting Method

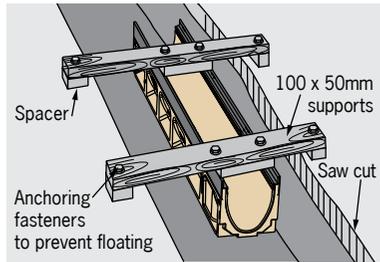
S100K, S200K, S300K, H100SK, H200SK, H300SK, TD200, TD300 channels will require M10 x 120mm bolts to screw into widgets in edge rail of channel. This allows the bolt to pass through the spacers, support and into widget nut. Timber spacers/supports and bolts are to be supplied by others.

1. Cut support to required length to span excavated trench or formwork; minimum two (2) per 100mm width channel. 200mm and 300mm width channels will require two (2) to three (3) supports per channel.
Cut spacers to lift supports above finished level.

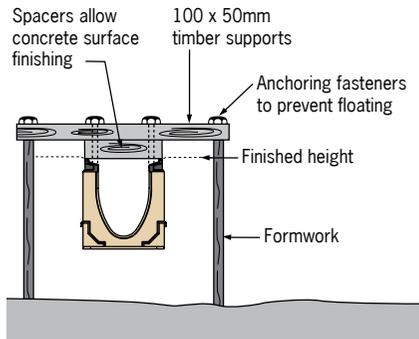
2. Drill two 16mm diameter holes in the supports and spacers – width to align with widgets in channel rail.
3. Using M10 x 120mm bolts with washers, bolt support and spacer to channel – do not over tighten. If using torque wrench, do not set higher than 20Nm.
4. Lower channels into excavated trench, adjust to required position and height. Packing material may be required beneath supports to achieve required height and to ensure channels are level.
5. Nail or bolt supports securely to slab formwork. This ensures channels are held securely during concrete pour.



Retrofit installation



New construction



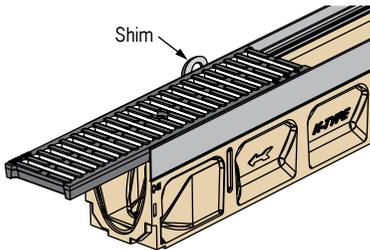
NOTE: Threaded rods cut to length with M10 nuts can be used as an alternative to M10 x 120mm bolts.

6 Concrete Encasement

Channel Bracing

To prevent channel walls from moving inwards from the pressure of the wet concrete encasement, grates **MUST** be in place and remain in the rebate of the channel during the concrete pour and until the concrete has hardened.

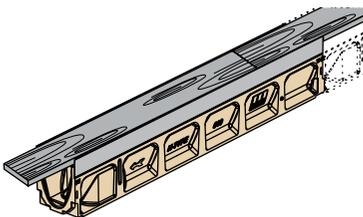
Grates should be suitably protected from concrete contamination during the pour, for example, wrapped in plastic or masked with adhesive tape. Grates are positioned over the channel joints to aid alignment.



Shims such as washers are to be placed along one side of the grate to maintain the clearance gap that exists before the pour.

NOTE: Do not insert shims into gaps with great force as this may damage the channel.

Alternatively, plywood sections (supplied by others) cut to create a snug fit can be used to brace the channel.



Concrete Pour

To prevent concrete from filling channel body, cover top of grate with timber boards or similar.

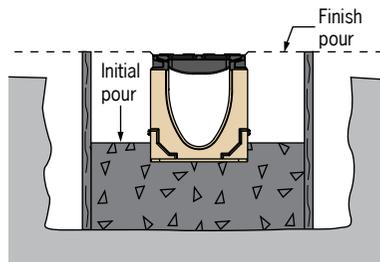
Concrete should have compressive strength of minimum 25MPa.

Concrete **MUST** be poured evenly (both sides of channel) and carefully to avoid dislodging channels. A wand type concrete vibrator should be used to ensure concrete distributes evenly underneath and around channels to fill all voids/pockets.

If 'cold joints' are a concern, engineering advice should be sought to determine details.

For the patty method and the wet concrete base method, ensure the patties and wet concrete base has sufficiently hardened before the remaining concrete encasement is poured. The hardened concrete prevents the channels from floating.

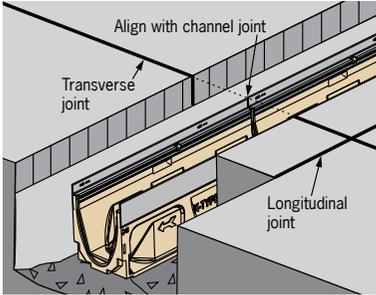
When using the installation device method or the hanging method, ensure channels are secured into position. The initial concrete pour should come approximately 50mm up the sides of the channels and be vibrated before finishing the pour to the required height.



7 Pavement Finishing

To prevent channel damage, channel and grates **MUST NOT** be trafficked until the adjacent pavement or concrete encasement is at the finished level and has hardened sufficiently.

Concrete



Transverse expansion joints (perpendicular to the channel) may be required to allow movement and prevent surface cracking in the slab.

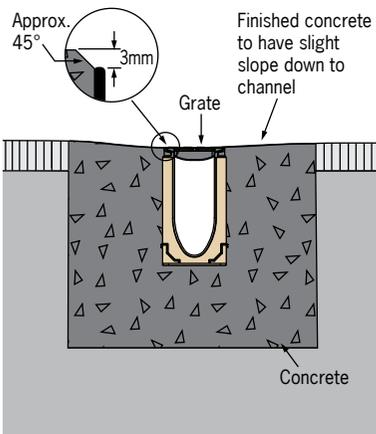
These expansion joints should be positioned preferably at the channel joints to prevent the channels from cracking.

If this position is not possible, a cut must be made at the appropriate location through the channel to accommodate the transverse expansion joint.

Longitudinal expansion joints (parallel to the channel) must be positioned between the concrete encasement and the adjacent slab and may be located up to a metre from the channel. The joint must be continuous and flexible. If the joint is dowelled, de-bonding should be provided.

CAUTION: Longitudinal expansion joints **MUST NOT** be placed directly against channel walls.

NOTE: ACO recommends seeking engineering advice and downloading ACO's Specification Design Brief from the website.



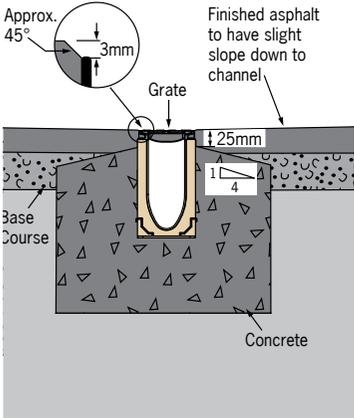
To finish installation, trowel concrete flat and taper down to channel edge. The top of adjacent pavement must be above the grate level (approx. 3mm), this ensures all liquids drain into the channel and protects the edge rail from damage by direct vehicular traffic.

Once concrete has hardened for 24 hours, remove bracing and/or grate protection.

For grate fitting instructions, see Section 8.

Commercial Trench Drains

Asphalt

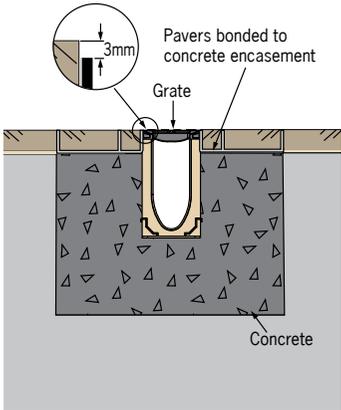


Asphalt can be finished directly up to the channel edge.

CAUTION: To prevent damage to channels and grates, care must be taken when rolling asphalt adjacent to the channel edge. Small asphalt laying machinery is recommended.

For Class D and G applications, a full concrete encasement to the top of the channel edge rail is recommended.

Brick Pavers



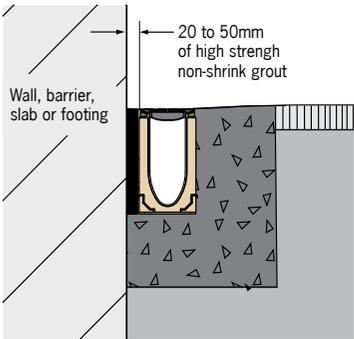
Brick pavers can be installed up to the channel edge.

The pavers adjacent to the channel **MUST** be fully bonded to the concrete encasement. This prevents movement of the bricks and possible damage to the channel.

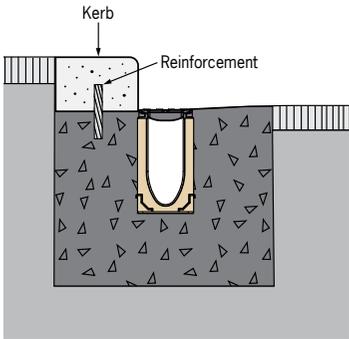
For Class D and G applications, a full concrete encasement to the top of the channel edge rail is recommended.

Polycrete® Channels

Adjacent to Wall



Beside Kerb



8 Fit and Remove Grates

DrainLok and QuickLok Grates

For KlassikDrain and SlabDrain HK Series channels

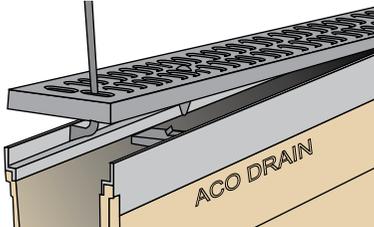
1. **Fit QuickLok bar in channel** wall recesses by rotating clockwise. Not required for DrainLok. For K100, H100K channel, use hammer to tap into place, so that serrated ends grip recess. For K200, K300, H200K, H300K channel, use plastic safety clip to hold bar in place.



2. **To install grate**, align the anti-shunt lugs on the underside edge of the DrainLok grate with the recesses in the channel rail, or align the QuickLok spigot directly over locking bar. Push down or stand on grate until it clicks into position.



3. **To remove first grate**, insert grate removal tool (Part No. 01318) through slot at the end of grate and pull up sharply. Subsequent grates can be removed by hand (use gloves) – grip end of grate and lift.



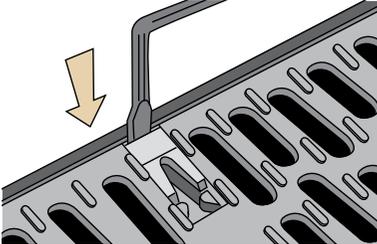
4. **To remove QuickLok bar**, not required for DrainLok. For K100, H100K channel, insert screwdriver into hole at end of bar and lever back serrated section to loosen. For K200, K300, H200K, H300K channel, retract plastic clip to remove bar.



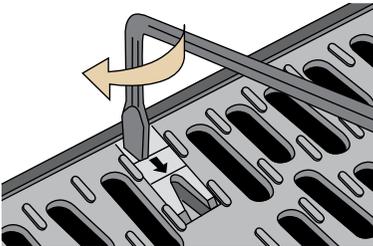
PowerLok Grates

For PowerDrain, SlabDrain HSK Series and TraffikDrain channels

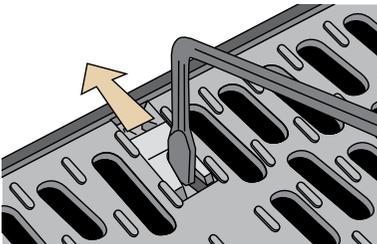
1. To open PowerLok device, insert flat end of grate removal tool (Part No. 01318) or large flat head screwdriver into the slot between PowerLok device and edge rail as shown.



2. To unlock PowerLok device, rotate tool 90° and push PowerLok device away from rail to click open. Repeat on second PowerLok device. Note, two (2) PowerLok devices per grate.



3. To remove grates, insert grate removal tool through grate slot and lift first grate out. Unlock other grates and remove by hand (use gloves).
4. To lock PowerLok device, fit the side of the grate opposite PowerLok device under lugs in rail and lower into position. Use hook on grate removal tool or large flat head screwdriver, to push clip back to closed position.



9 Final Inspection

1. Remove any debris in channel and grate rebate. Ensure outlet pipes are clear.
2. Install debris strainer in channel or rubbish baskets into in-line pits, if required.
3. Flush channel system to check for pipework blockages, unblock if necessary.
4. Empty rubbish baskets and clean out pipe connections, if necessary.
Re-install rubbish baskets.
5. Install grates ensuring they are securely locked down (refer to Section 8).

Drainage system is now ready for use.

ACO Guarantee and Warranty

For ACO product guarantee and warranty, contact your local ACO sales office for a copy of the Standard Terms and Conditions of Sale.

ACO Product Design Life

If properly maintained, ACO products installed in the correct application and according to ACO's installation instructions, will hold their integrity for as long as the adjacent pavement will.

For example, if the pavement is designed for 30 years and is not damaged during this time, the ACO product will last for 30 years.

Unforeseen and adverse conditions out of ACO's control may affect the life of the product.

The Discolouration of Steel Grates

Stainless steel will stain and discolour over time due to surface deposits. To achieve maximum corrosion resistance, the surface of the stainless steel grate must be kept clean. Stainless steel can be easily cleaned by washing with a mild detergent with warm water, or with stainless steel cleaning agents.

Galvanised steel may contain a white stain, known as 'white rust' or 'storage stain'. This occurs when galvanised surfaces are exposed to moisture such as rain, dew or condensation with limited air flow over the surface. The white stains can be removed with white vinegar.



10 Maintenance

Regular inspections of the trench drain system are recommended. Frequency will depend on local conditions and environment, but should be carried out at least annually.

Inspections should cover:

- Grates and locking devices
- In-line pits and rubbish baskets
- Concrete encasement and adjacent paving

All items should be inspected for damage, blockage or movement. Compare with site drawings if necessary.

1. Remove grates and clear slot openings of dirt and debris (refer to Section 8).
2. Remove debris from channel either by shovelling, water jetting or vacuum pump.
3. Flush channels with water or high pressure washer.
4. Repair damaged channel surfaces, if necessary, with ACO repair kit (Part No. 2163).
5. Renew joint seals as required.
6. Empty rubbish baskets and clean out pipe connections.
7. Re-install rubbish baskets.
8. Re-install grates, ensuring they are securely locked down (refer to Section 8).

Systems with grates that have wide slots may be cleaned with pressured water applied through the grate. Debris will be washed to the in-line pit, ready for removal. Empty and replace the rubbish baskets.

CAUTION: High pressure washer may strip away the black sealer from the iron grates. To avoid this, adjust the water pressure accordingly.



The Oxidation of Iron Grates Over Time

Most ductile iron grates have a black sealer applied to protect the grate for a short period after manufacture. It is not intended to be either a long term or architectural finish.

Oxidation on the surface of ductile iron products is a natural process that does not affect the structural integrity of the product and produces a rustic look.

If a black finish is required, it would be recommended to paint the grates with a black rust inhibitor from time to time.



Grated Polycrete® Channels

KlassikDrain

A general purpose trench drain complete with a wide range of grates, available in 100mm, 200mm and 300mm widths.

PowerDrain

A heavy duty trench drain complete with a choice of grates, available in 100mm, 200mm and 300mm widths.

TrafficDrain

A trench drain system specifically designed for road applications, available in 200mm and 300mm widths.

SlabDrain

A shallow trench drain system where vertical depth is limited. Available with a choice of edge rail materials and in 100mm, 200mm and 300mm widths.

Brickslot

A discreet continuous slot drainage solution for brick or stone pavers.

MiniKlassik

A discreet trench drain for high profile, aesthetic areas.

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