

CLARK-DRAIN



THE DRAINAGE COMPANY

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GUIDELINES FOR INSTALLING A CLARK-DRAIN SOLID-TOP COVER

The Clark-Drain range of solid-top covers have been specifically designed to allow convenient and easy chamber access and the range can be installed with ease.

Tools Required

General purpose saw or small angle grinder
Brick Trowel and/or pointing trowel
1metre (or longer) spirit level
Lump hammer or rubber mallet
Tape measure
Small Phillips screwdriver (where applicable - ie for “locked” version)

Materials Required

Clark-Drain solid-top cover and frame (supplied together as one unit)
1 bag (25kg) building sand
1 bag (25kg) sharp sand
1 bag (25kg) cement
Clean water
Plasticizer or (1 table spoon) washing-up liquid

Installation

Remove any paving, surfacing or earth that surrounds the inspection chamber (IC) and remove any existing cover. You should now be able to see the drainage channels in the bottom of the chamber. There is often (but not always) a seating ring in place on top of the chamber which will need to be removed to reveal the top edge of the IC. Remove any other material around the IC so that there is approximately 300mm (12”) of clear and roughly level working room all around. Next separate the two parts of the Clark-Drain Cover, the cover and the frame in which it sits. It’s much easier to fit the frame on its own and then place the cover into the frame later. To prevent any dirt or mortar getting into the keyholes of the cover, cover them with adhesive tape until the work is complete.

Place the empty frame into position over the top of the IC. The base of the frame should be sitting on top of the IC walls. Now, use a long spirit level or straightedge to check the height of the frame. Adjust and bed in to the correct level as detailed below.

If the frame is too high

The walls of the IC will need to be cut down or completely replaced with shallower sections to accommodate the frame. Use a tape measure to determine how far the frame is above the required level when sat on the IC. Allow an additional 10mm (it’s easier to raise the frame if it’s slightly too low, rather than have to cut the chamber a second time) and then mark the inside of the IC using a marker pen.

For plastic chambers, cutting down is best done using a small angle grinder, although a small general-purpose saw may also be used. Take care when using an angle grinder as it will spit out hot plastic swarf; wear goggles, gloves and long sleeves, and ensure you cut all the way through the chamber wall.

Once the IC has been cut all the way around, excavate on the outside of the chamber to remove any earth or other material that is higher than the cut. This will prevent any dirt or debris falling into the chamber once the cut section is lifted out.

As before make sure there is plenty of working room and then offer the frame into place once more. Check the level again. Ideally, the frame will now be 50mm lower than the height required, as this will allow it to be properly bedded into place. See the “Seating the Frame” section below.

If the frame is too low

The frame needs to be slightly lower than the required finished level so that it can be properly bedded into place, but if it is more than around 30mm lower than the finished level, the level difference will need to be built-up or ‘regulated’ using masonry bricks (for 50-150mm build-up) or additional chamber sections (for when the difference is greater than 150mm) which can be bought from most Builders’ Merchants.

Seating the frame

Use a 4:1 mortar mix (4 parts sand: 1 part cement). Thoroughly mix together the sand and cement before adding any water. A plasticizer or a tablespoon of washing-up liquid added to the water helps produce a more workable mortar. Add the water a little at a time, mixing it in to create a mortar which is pliable, but stiff and not runny.

Use a trowel to spread a bed of mortar around the outside of the IC. The mortar should extend 50-100mm (2"-4") beyond what would be the outer edge of the frame when it is in position. Take care not to allow any mortar to fall into the chamber. Place the frame onto the mortar bed and position it so that the opening is central over the IC.

Use a rubber mallet (or lump hammer with a piece of timber as a cushion) to gently tap down the frame, bedding it onto the mortar. Check the level of the frame using a straight edge or spirit level. The frame should be 1-2mm lower than the planned level of the paving.

Once the frame level has been checked for accuracy in both directions (up-down and left-right), it can be haunched in position using more mortar. Ensure that the haunching surrounds the entire outer perimeter of the frame and fully overlaps the bedding flange around the entire perimeter.

Any mortar that has been squeezed out from beneath the frame into the IC should be cleaned away carefully. Mortar that has fallen into the chamber **MUST** be removed before fitting the cover. Larger deposits can be cleared using a trowel, but small amounts can be washed away with water.

Fitting the cover

It is not recommended that the cover be fitted immediately after seating the frame as this may disturb the mortar and frame position. The cover should slide easily into the frame without pinching at the edges and it should then remain in place to prevent debris entering the chamber and reduce the risk of personnel falling into an open chamber, even if the area is not ready to be paved or surfaced. Running a length of adhesive tape along the gap between frame and cover will help reduce the risk of sand and other debris getting in.

