

DREXUS LITE

A Pre-Assembled Plastic Channel, Complete With Cast Iron Grate

INSTALLATION GUIDELINES



- Constant depth with 1m lengths of channel
- 2 x CI grates per 1m channel length
- Available in the most common widths and depths
- Complete piece unit - so simpler and quicker on each installation
- Low weight – easy to lift and manoeuvre by hand
- B and C loading classification to enable use in most areas

Installation Guidelines

www.marshall's.co.uk/watermanagement

1. Excavation

- a. Sufficient material should be excavated to accommodate channel units, concrete bedding and haunching
- b. Any 'soft spots' or poorly compacted formation should be made good.

2. Setting Out

- a. Setting out pins should be accurately located to the correct line and level with a string line level with the top rear corners of the channel units.
- b. It may be advantageous to locate setting out pins to the rear of the units to avoid having to lift the units over the string line.

3. Outfalls general

- a. Discharge from the Drexus Lite system can be achieved using a direct pipe connection to the side or underneath of the channel using the guides provided or using a trapped gully outfall. The following guidance describes how to create the outfall using a concrete trapped gully.
- b. Concrete outfalls should be installed first. Use Drexus 100 Inline Side Outfall for Drexus Lite 130 or Birco 150 Inline Side Outfall for Drexus Lite 200.
- c. Sufficient material should be excavated to accommodate the trapped gully.
- d. 150mm of ST4 mix (BS 8500-1&2) concrete is placed in the bottom of the excavation.
- e. The bottom section of the two part gully is lowered into position, with the appropriate pipe adaptor placed for connection to the underground pipework.
- f. A suitable section of the wall of the outfall unit shall be cut out to allow the adjacent drainage channel to abut without restricting the flow of water. Please note that the cutting guide may be narrower than the incoming channel. The invert width of Drexus Lite 130 is 105mm and Drexus Lite 200 is 160mm. Cutting shall be achieved using a concrete saw or disc cutter.
- g. Sufficient M-Flex sealant is gunned onto the top horizontal surface of the bottom section of the two part gully so as to provide a seal between the top and bottom sections.



- h. The top section of the two part gully is then safely lowered into position.
- i. The level of the bedding concrete should then be brought up to the appropriate height dependant on surface finish as shown in the Drexus Lite detail sheet.

4. Channel & Grating Installation

- a. Bedding concrete to the appropriate mix, thickness and depth should be laid as specified in the Drexus Lite standard detail sheets. For B125 and C250 applications a 30N/mm² concrete should be used with a S4 slump and a maximum aggregate size of 16mm should be used to ensure all voids on the external channel wall are filled.
- b. The top of the Drexus Lite should be installed so that the final grating surface is 5mm below the surrounding pavement.
- c. Channel units shall be laid onto freshly mixed bedding concrete, starting at the outfall, i.e working uphill.
- d. Alternatively the channels may be bedded on to a layer of 10 to 40mm cement mortar (M12 mortar to BS EN 998-2) on a previously prepared concrete foundation.
- e. Haunching shall be carried out as one operation to a complete line of channel units.
- f. Where channels are laid on or adjacent to existing or proposed concrete slabs, suitable longitudinal and horizontal joints should be formed to take into account the movement within the slab. A suitably qualified structural engineer should recommend the appropriate positioning of these joints.
- g. Where cutting is necessary, the unit(s) should be cut so that no single 1m unit is less than 700mm (150mm from each end) in length. This will ensure the stability of the single bolt holding the grating in position. Cutting should be carried out in a safe manner using a disc cutter or similar.

5. Channel Joint Sealant

- a. Jointing of channels should be carried prior to placing adjacent channels by gunning a bead of Marshall's M-Flex (or similar) mastic sealant to the end face.
- b. Surplus sealant shall be removed from the inner surface of the units as work proceeds.



6. End Caps / End Cap Outlets

- a. Where the Drexus Lite run doesn't terminate at an outfall, or where an end cap outlet is preferred to discharge the run-off, the channel should be closed using a Drexus Lite end cap / end cap outlet.
- b. Marshall's M-Flex sealant should be gunned onto the end face of the channel before placing the appropriate end cap / cap outlet into position to cover completely the void.
- c. Concrete haunching is then placed to finish off the run and provide additional stability to hold the end cap in position

7. Commissioning

- a. Adjacent carriageway and / or footway construction shall not be commenced within 3 days of any jointing or haunching surround concrete being placed.
- b. Drexus Lite gratings are supplied pre-assembled but when removing for maintenance, they should be tightened down securely to the appropriate torque
- c. On completion of the works, the drainage channel units shall be cleaned out and left free from obstruction. Access into the system is via an appropriately positioned grating.
- d. Outfall units, where applicable, shall be emptied.
- e. The cleaning process should be repeated where necessary on completion of any remedial works.



In accordance with the Health and Safety at Work etc Act 1974, the Manual Handling Operation Regulations 1992 (as amended 2004) and the Construction (Design and Management) Regulations 2007, risk assessments should be carried out to protect workers from risks associated with musculoskeletal disorders and work related upper limb disorders.

This may require the use of lifting aids to assist installation.