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ACO Building Drainage

Drainage Systems



Product catalogue

ACO DeckLine 125 Galvanised Steel Channel System



ACO Building Drainage

Our built environment is becoming ever more complex. Applications are becoming more sophisticated, this increases the pressure of regulations and standards making achieving design, performance and financial goals ever tougher.

Our mission: to eliminate design risk, to reduce installation cost, and deliver long acting solutions and to deliver exceptional finish and performance in every product application.

Our global resources and manufacturing capacity make it possible for us to deliver the best value, both with our standard products and with our bespoke designs. Confidence is further assured with quality systems that are in accordance with ISO 9001-2008.

ACO Building Drainage is a division of ACO Technologies plc and part of the worldwide ACO Group. The Group has sales in excess of £700 million worldwide with production facilities in the UK, Germany, France, Switzerland, Denmark, Spain, Poland, Czech Republic, Australia and the USA. In total more than 4200 people are employed in over



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- Hydraulic calculations and AutoCAD drawings.
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collect:

- Stainless Steel and Galvanised Steel Channels
- Stainless Steel Gullies
- Pipe Systems
- Roof / Balcony Drainage
- Wetroom & Shower Drainage



clean:

- Grease Management Systems



hold:

- Anti-flood Backflow Protection Systems



release:

- Lifting Stations

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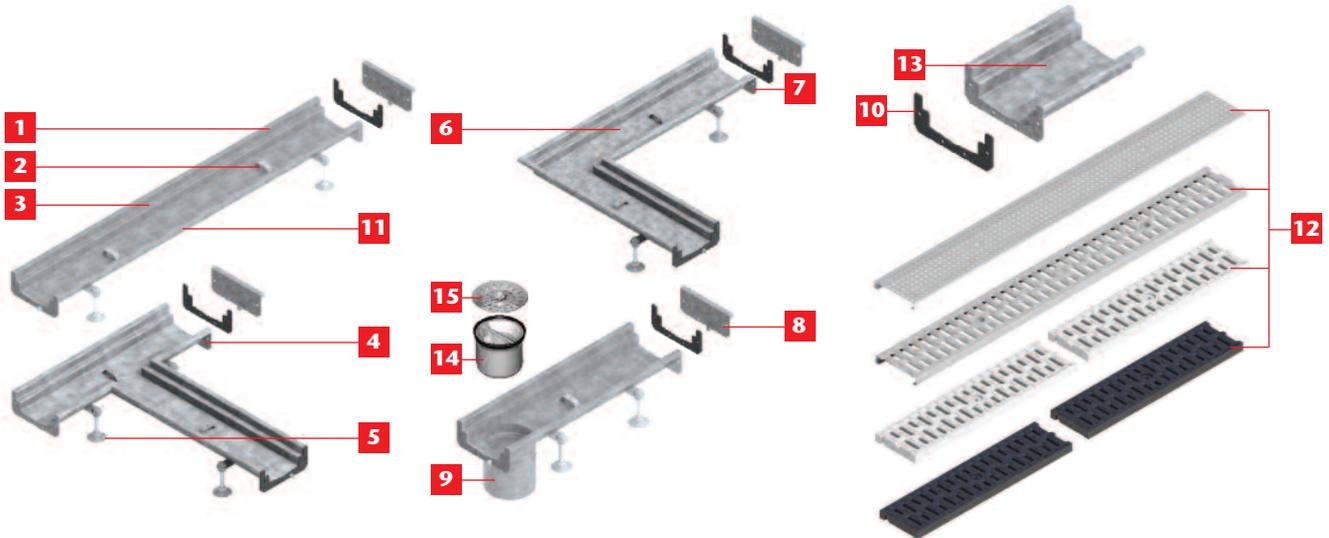
For quick access to our website, scan:



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ACO DeckLine 125 System Overview

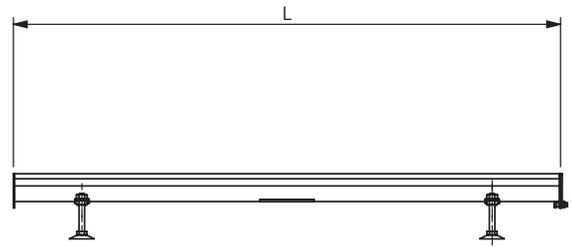
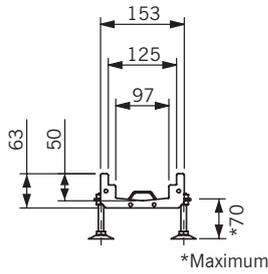


Features and benefits

- 1** Channels manufactured from hot-dipped galvanised steel to BS EN ISO 1461: 2009 – available in 0.5m, 1m, 2m and 3m lengths
- 2** Two locking points per metre
- 3** 50mm level invert depth ideal for car park decks or other areas where similar construction restrictions exist
- 4** Branch unit for intersecting drain runs
- 5** All channel components supplied complete with levelling feet and concrete anchors to aid installation
- 6** Corner unit
- 7** Fully welded flange plates provide watertight channel joints, 4-point channel connection security and alignment
- 8** Universal closing end plate
- 9** Convenient Ø110mm OD spigot outlet
- 10** Neoprene gasket for 100% watertight channel joint connection
- 11** Rigid PVC infill provided as standard to support channel edge in trafficked applications
- 12** Grating choice includes galvanised steel perforated, slotted and composite black or white to Load Class C250 to BS EN 1433. All gratings supplied complete with lockings
- 13** Vee-bottomed channel to enhance flow velocity at low flow rates
- 14** Optional in-line foul air trap with 50mm water seal. Flow rate 1.2 l/s
- 15** Optional outlet sieve

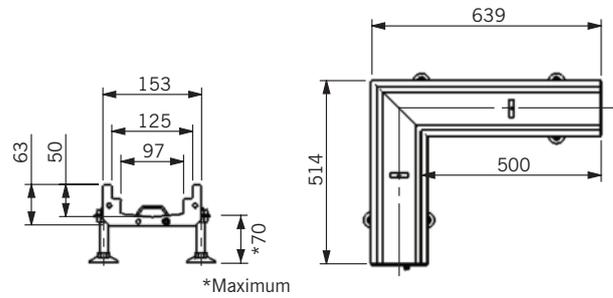
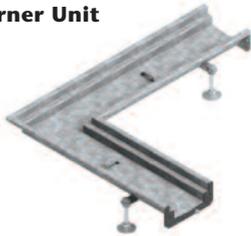
Technical detail

Level Invert Channels



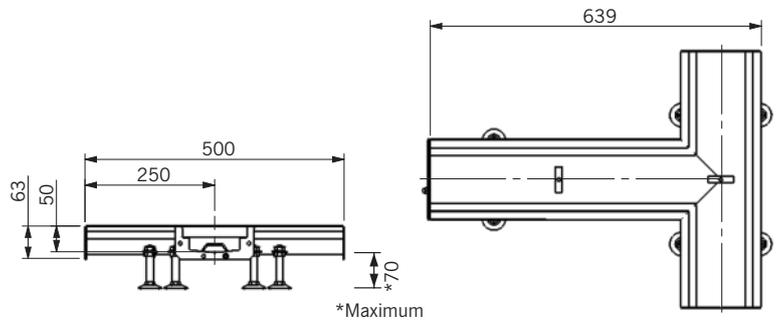
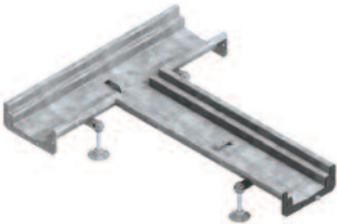
Description	Part No	L mm	Weight kg
Level Invert Channel	105254	500	2.3
	105255	1000	3.9
	105256	2000	7.0
	105257	3000	10.2

Corner Unit



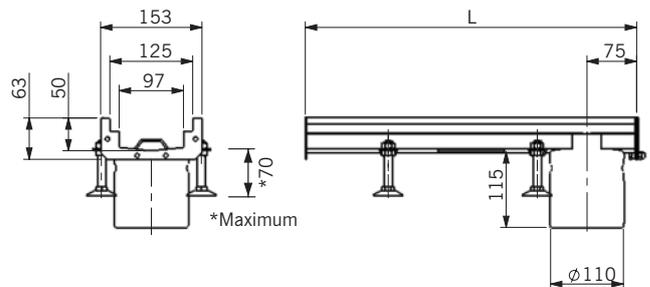
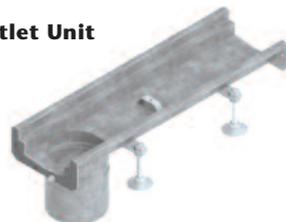
Description	Part No	Weight kg
Corner Unit	105259	4.0

Branch Unit



Description	Part No	Weight kg
Branch Unit	105261	3.9

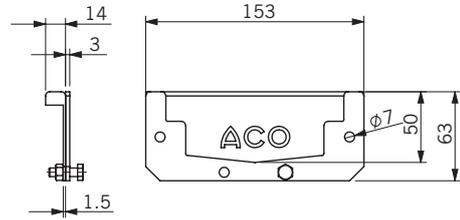
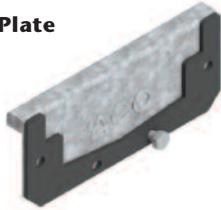
Outlet Unit



Description	Part No	L mm	Weight kg
Outlet Unit	105263	500	2.6
	105264	1000	4.2

Technical detail

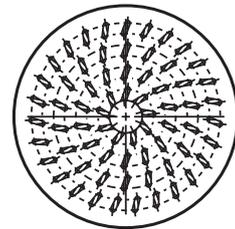
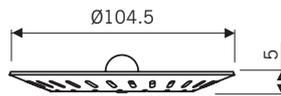
End Plate



Description	Part No	Weight kg
End Plate	105251	0.2

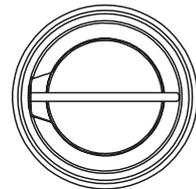
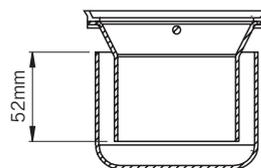
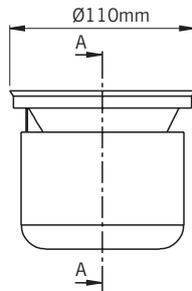
Outlet Spigot Accessories

Sieve



Description	Part No	Weight kg
Sieve	97235	0.1

Foul Air Trap



Description	Part No	Weight kg
110mm Outlet Trap	97217	0.3

Load Class Definitions

To BS EN 1433 - Drainage channels for vehicular and pedestrian areas.



Pedestrian and cycleways, domestic drives.



Pedestrian precincts, light vehicles, private car parks and drives.



Kerbside drainage, parking areas, service stations (cars), slow-moving light commercial vehicles.

Benefits of BS EN 1433 : 2002 – Linear Drainage Channels

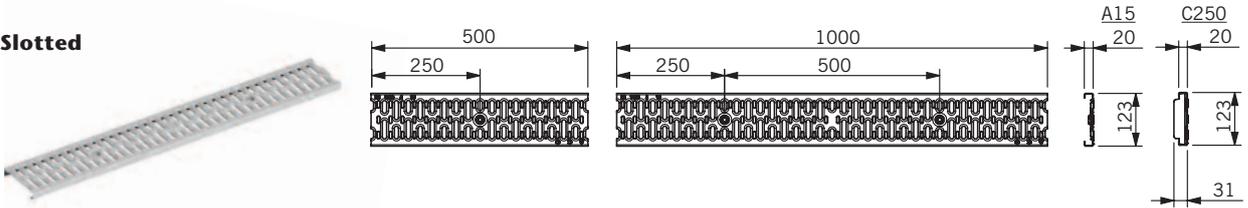
3rd party product assessment with CE marking to ensure products fulfil the Essential Requirements of BS EN 1433 for complete reliability, namely:

- **Load bearing capacity** – guarantees performance of channels and gratings for the chosen application
- **100% watertight** – no contamination of drained fluids to surrounding installation/ground
- **Durable** – for long, reliable life



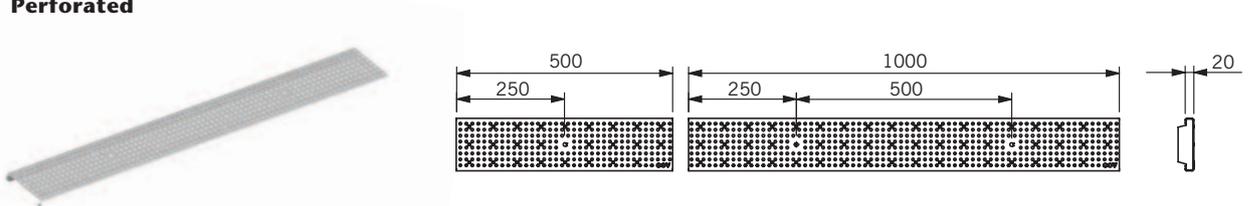
Technical detail - gratings

Slotted



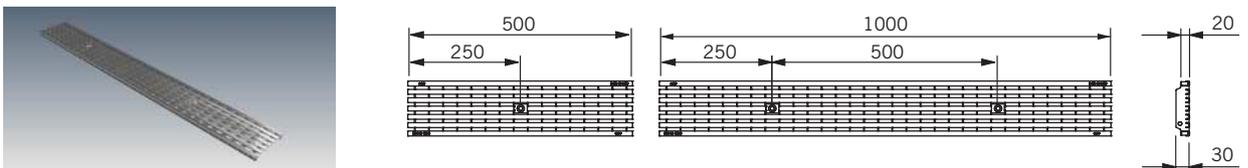
Description	Part No	Length mm	BS EN 1433 Load Class	Finish	Weight kg
Slotted Grating	105522	1000	A15	Galvanised	2.0
	105523	500	A15	Galvanised	1.0
	105524	1000	C250	Galvanised	4.7
	105525	500	C250	Galvanised	2.3

Perforated



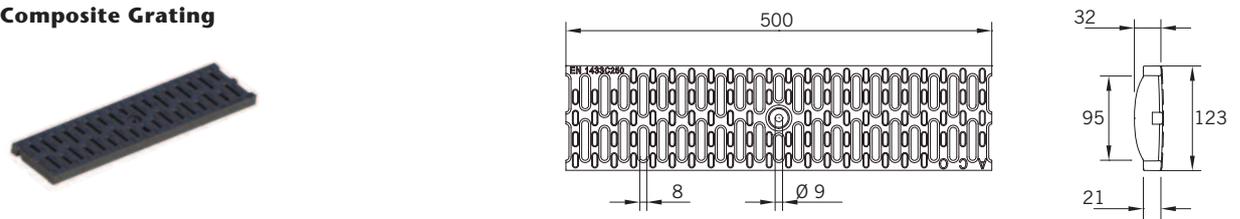
Description	Part No	Length mm	BS EN 1433 Load Class	Finish	Weight kg
Perforated Grating	105508	1000	C250	Galvanised	4.8
	105509	500	C250	Galvanised	2.3

U-Profile Grating



Description	Part No	Length mm	BS EN 1433 Load Class	Finish	Weight kg
U-Profile Grating	445488	1000	B125	Galvanised	3.7
	445489	500	B125	Galvanised	1.9

Composite Grating



Description	Part No	Length mm	BS EN 1433 Load Class	Finish	Weight kg
Composite Grating	15704	500	C250	Black	1.2

Note: All gratings supplied complete with locking bolts.

NBS Specification Clause Reference

For relevant NBS Specification, refer to NBS Section Q10 Kerbs/edgings/channels/ paving accessories.

General points

Ground Locations

Excessive slab movement resulting in lateral loading on the channel must be avoided by the inclusion of longitudinal expansion joints.

If transverse joints are present in the slab these should cross the channel aligned with a bolted joint in the channel run.

Product

All components should be stored in a clean, dry level area prior to installation.

For chemically aggressive applications, use ACO Modular 125 stainless steel channel drainage systems.

ACO DeckLine 125 is not suitable for swimming pools.

ACO DeckLine 125 is not suitable for carriageways of public roads or motorways.

Installation

Step 1 Excavation

For shallow deck installations allow for a minimum of 30mm bedding material below the channel and approximately 100mm either side of the channel to allow access to levelling feet and joint flange plates.

Step 2 Pipe Connections

Spigot Outlet

Make the connection to the underground pipe with the spigot from the channel, being sure to position the channel correctly.

Step 3 Positioning

Position the channel and set to line and level using supplied levelling feet. Adjust the feet so the finished installation height is approximately 3mm below the finished floor level.

If the depth of the channel extends beyond the maximum depth of the support legs (70mm), ensure the legs are placed on a suitable material. For further information please contact our Enquiries team on 01462 810 421.

Step 4 Backfilling

To provide adequate clearance for grating installation, it may be necessary to use timber spacing struts which should be placed within the channel grating seat before concreting in to maintain the correct grating clearance of 2mm.

It may be necessary to weigh the channels down when filling the trench with concrete to prevent channels from lifting or floating.

The bed and surround must have sufficient strength to support the channel in service. A suitable mortar of minimum Strength Class of C30/37 should be used.

Remove any concrete or mortar spillages immediately from the surfaces of the channel.

Step 5 Grating Installation

Wash and clean the channels taking care to remove any concrete or mortar splashes. Install the gratings and lock using the M8 hexagon bolts with a 13mm A/F wrench.

Operation and Maintenance

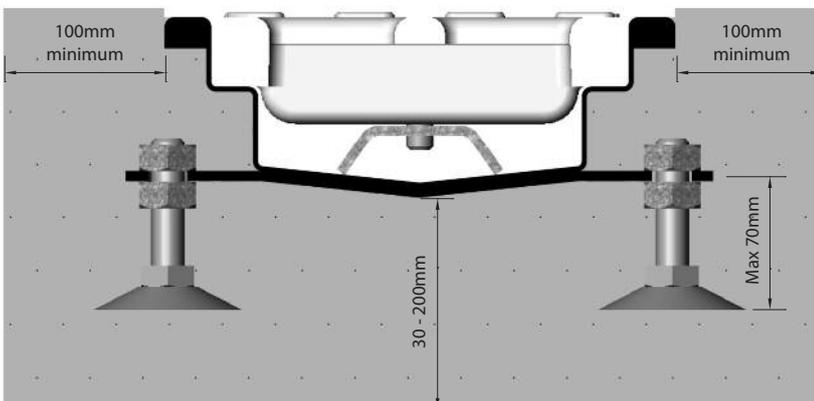
Because of the nature of the channel system, care should be taken to maintain a clear waterway within the channel. Inspections should be made periodically to assess the extent of the debris build-up and maintenance schedule established to remove such debris.

Cleaning Galvanised Steel

Galvanised steel surfaces can be cleaned and rinsed with copious amounts of clean water. Stubborn stains are to be removed with a stiff bristled brush. Do not use a wire brush.

Galvanised Steel Maintenance

Heavy damage to the galvanised surface exposes the underlying metal to the atmosphere and corrosion will result if not treated. Any corrosion should be removed by light abrasion and the area treated with one of the many commercially available zinc sprays using the manufacturer's instructions.



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