

Linear deck drainage systems

Overview

ACO FreeDeck is the adaptable solution to managing rainwater on all types of raised deck construction.

- Provides drainage at point of access
- Level threshold compliant
- Versatile drainage of terraces, balconies, landscaped and flat roofs
- Safer access for all age groups and those with mobility restrictions
- Discreet and attractive drainage solution
- Eliminates ponding

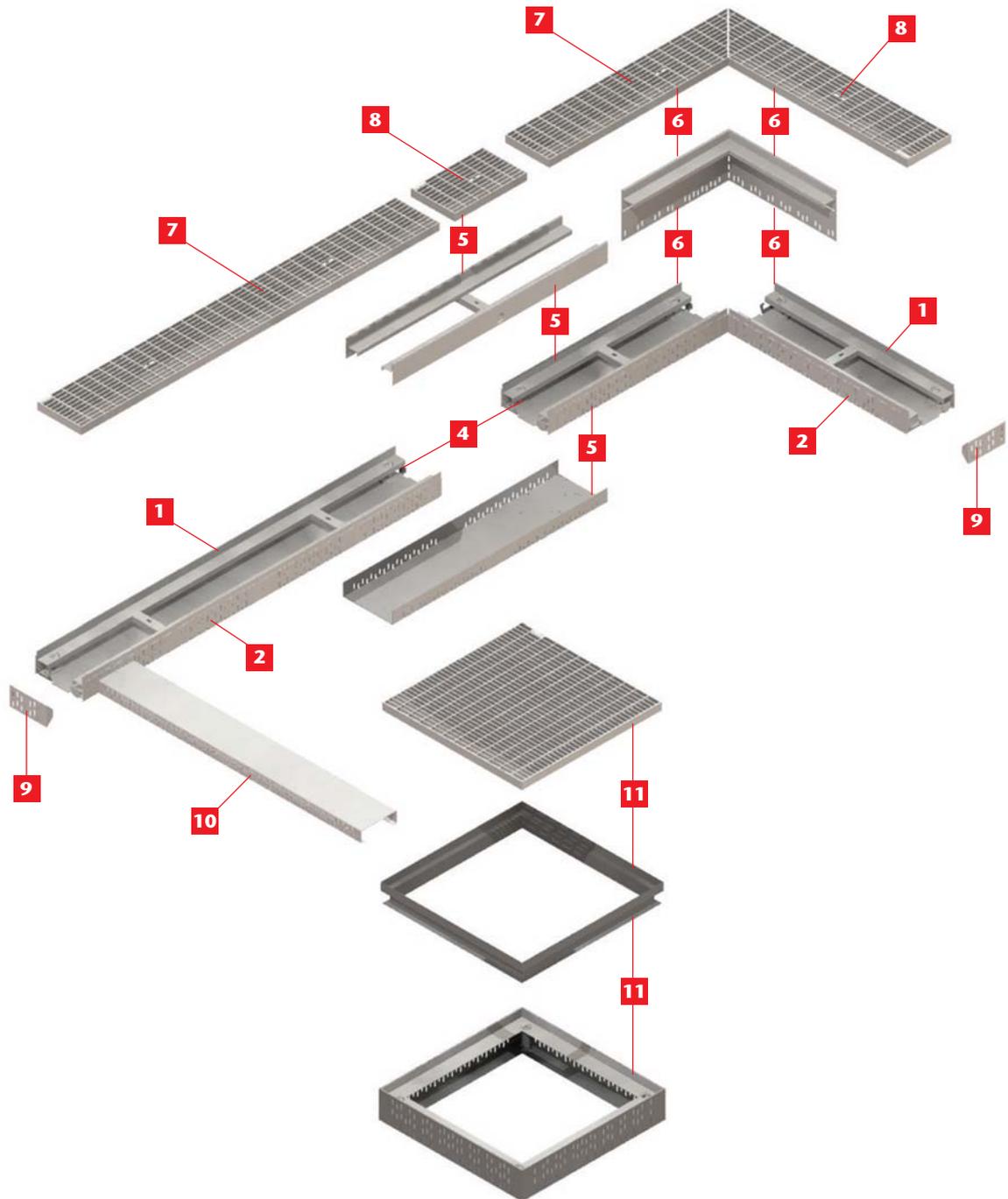


Key features

- ACO FreeDeck is used for rainwater drainage and safe access in a variety of applications.
 - Flat roof drainage
 - Rainwater intercept at thresholds
 - Document M compliance for drained level access
 - Façade drainage
 - Glazed structures
- Drainage for all types of suspended deck construction.
 - Warm and Inverted flat roofs
 - Green roofs
 - Podia and terraces
- A system that details into all types of flat roof finishes.
 - Paviers on supports
 - Paving flags on sand or cement bedding
 - Brick paviers on sand bedding
- Practical within all applications throughout building life.
 - Rapid installation
 - Tamper resistant gratings
 - Vermin proof
- A drainage system that protects and maintains the building fabric.
 - Prevents saturation at critical point between wall and deck
 - Reduces effects of efflorescence
 - Stops frost attack on masonry

ACO FreeDeck system

Features and benefits



ACO FreeDeck system

Features and benefits



- 1** Five channel systems in galvanised steel or stainless grade 304 for warm and inverted roofs are available as a Fixed Height system with a choice of inverts to suit hydraulic demand, or Adjustable Height system allowing precise match to finished floor level in level threshold situations.
- 2** The FreeDeck system is designed to efficiently remove surface rainwater and low level percolation through perforated sidewalls.
- 3** Height Adjustable channels correct slope and level according to channel type (shallow section 55mm-77mm, intermediate section 75mm-105 and deep section 105mm-165mm) using a flat blade screwdriver.
- 4** Fast track "drop and lock" system for connecting channel lengths is quick and simple, requiring no tools.
- 5** Length correction to Height Adjustable channel runs* is achieved without need for cutting by using the Adjustable Length assembly. Fixed Height runs are cut to length.
- 6** Corners of 90° and greater for both systems benefit from the Adjustable Corner fitting which eliminates templates and reduces site work required to form fully supported angles.
- 7** Gratings are available as mesh or slot patterns conforming to FACTA Load Class A.
- 8** Gratings are securely fastened to Height Adjustable and Fixed Height channels using lock screws and simply cut down for length correction and forming of corners.
- 9** Clip in End Plates prevent foreign matter from entering the drainage system.
- 10** Concealed low profile Drainage Duct economically connects channels with offset rainwater outlet positions whilst collecting percolation and low level water.
- 11** Rainwater Outlets are easily top accessed through Access Grating and Frames suitable for both Fixed Height and Height Adjustable channel systems.

***IMPORTANT**

Do not cut Height Adjustable channels as this will cause loss of adjustment.

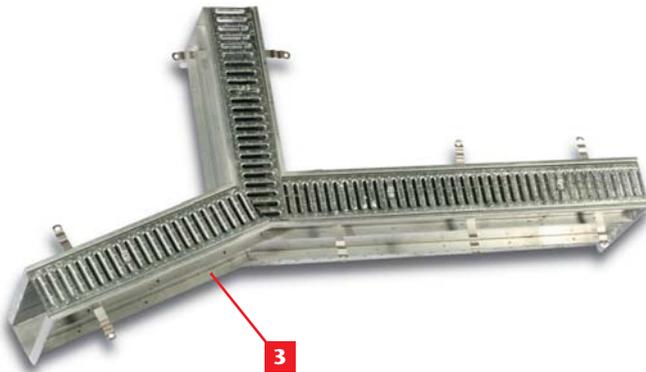
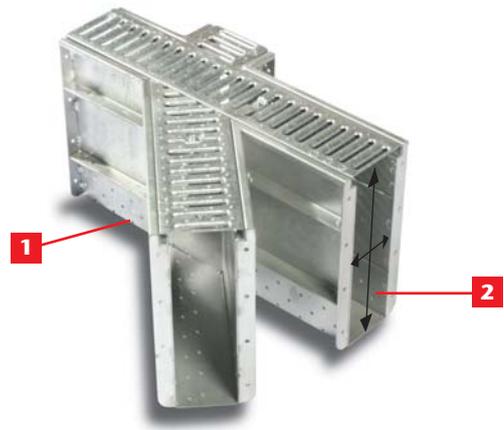
A comprehensive range of ACO Rainwater Outlets is available for use with FreeDeck channel systems. Refer to page 18.

Bespoke solutions

Design department at your service...

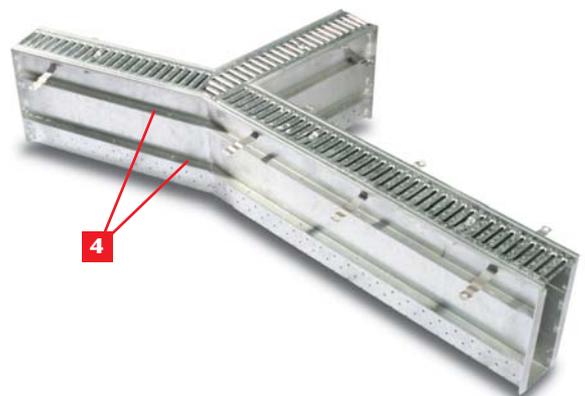
The challenge - a green roof drainage system accommodating both surface and subsurface water with the added requirement to incorporate flow from additional rainwater down pipes, all of which have to drain to only one outlet. To minimise construction time the contractor requested a number of modular design features.

Overall depth of the system caters for both low level water percolation (1) as well as providing the necessary capacity (2) to achieve a single outlet discharge point.



Integration of the rainwater down pipes was achieved without need for additional site-work through fabrication of special corners which included the required branch unit (3).

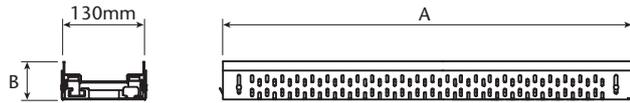
Practical and economic considerations led to the use of pre-galvanised sheet material with specially designed ribs (4) to reinforce the drainage structure, a feature necessary because of the overall depth of the system.



Components

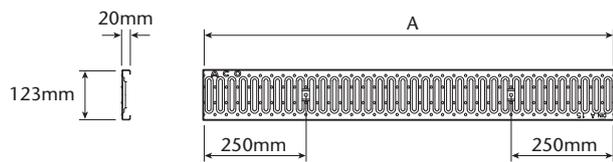
Note: The mixing of stainless steel and galvanised components will result in bimetallic corrosion and is to be avoided.

Channels

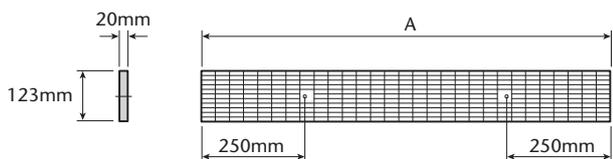


Description	Part No. Galvanised	Part No. Stainless	A mm	B mm	Weight kg
Adjustable Channel - shallow section	36940	36942	500	55 - 77	3.1
	36941	36943	1000	55 - 77	4.9
Adjustable Channel - intermediate section	36789	36837	500	75 - 105	3.3
	36788	36836	1000	75 - 105	5.4
Adjustable Channel - deep section	36807	36855	500	105 - 165	3.8
	36806	36854	1000	105 - 165	6.4
Fixed Height Channel - shallow section	38147	38222	500	50	1.1
	38146	38221	1000	50	2.0
	38145	38220	2000	50	4.0
Fixed Height Channel - intermediate section	36982	36987	500	75	1.5
	36981	36986	1000	75	2.65
	36980	36985	2000	75	4.8

Gratings



Description	Part No. Galvanised	Part No. Stainless	A mm	FACTA Load Class	Weight kg
Slotted Grating - 10mm x 80mm slot	00277	00273	500	A	1.0
	00276	00272	1000	A	2.2

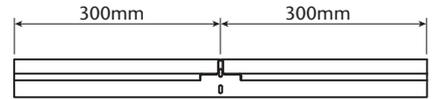


Description	Part No. Galvanised	Part No. Stainless	A mm	FACTA Load Class	Weight kg
Mesh Grating - 14mm x 30mm mesh	36952	36954	500	A	1.6
	36953	36955	1000	A	3.0

Note: Other design gratings, such as Heelsafe stainless steel and Perforated stainless steel and galvanised steel are also available to special order.

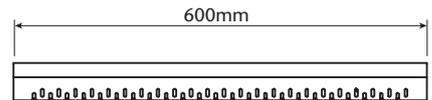
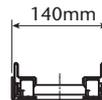
Components

Adjustable Corner



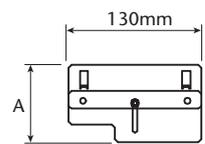
Description	Part No. Galvanised	Part No. Stainless	Weight kg
Adjustable Corner (Adjustable Channels only)	38634	38643	1.5
Adjustable Corner (Fixed Height Channels only)	38634F	38643F	1.5

Adjustable Length

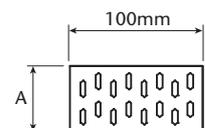


Description	Part No. Galvanised	Part No. Stainless	Weight kg
Adjustable Length - shallow section (Adjustable Channels only)	36948	36949	2.1
Adjustable Length - intermediate section (Adjustable Channels only)	36790	36838	2.2
Adjustable Length - deep section (Adjustable Channels only)	36808	36856	2.9

End Plates



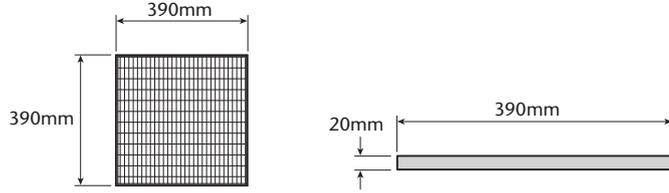
Description	Part No. Galvanised	Part No. Stainless	A mm	Weight kg
End Plate - shallow section (Adjustable Channels only)	36950	36951	55 - 77	0.1
End Plate - intermediate section (Adjustable Channels only)	36793	36841	75 - 105	0.1
End Plate - deep section (Adjustable Channels only)	36811	36859	105 - 165	0.2



Description	Part No. Galvanised	Part No. Stainless	A mm	Weight kg
End Plate - shallow section (Fixed Height Channels only)	38148	38223	25	0.1
End Plate - intermediate section (Fixed Height Channels only)	36983	36988	50	0.07

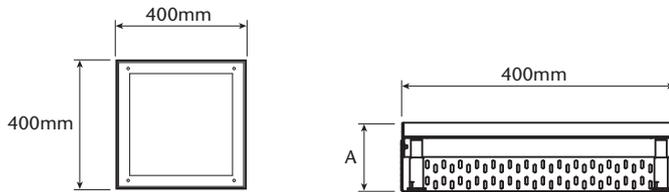
Components

Access Grating



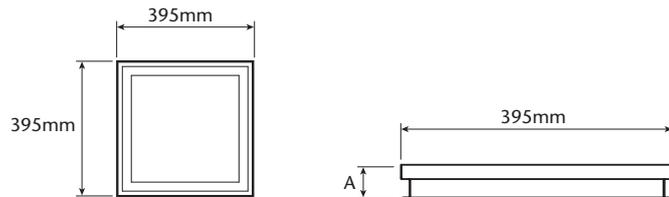
Description	Part No. Galvanised	Part No. Stainless	Weight kg
Access Grating - 14mm x 30mm mesh FACTA Load Class A	36754	36760	3.5

Access Frame



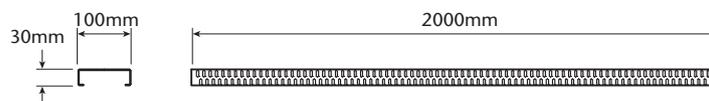
Description	Part No. Galvanised	Part No. Stainless	A mm	Weight kg
Access Frame - adjustable	38801	38803	75 - 105	3.1
Access Frame - fixed height	38150	38156	50	5.7

Access Frame Extension



Description	Part No. Galvanised	Part No. Stainless	A mm	Weight kg
Access Frame Extension	38685	38686	50	1.3
	38687	38688	75	1.9

Drainage Duct



Description	Part No. Galvanised	Part No. Stainless	Weight kg
Drainage Duct	00328	00307	2.4