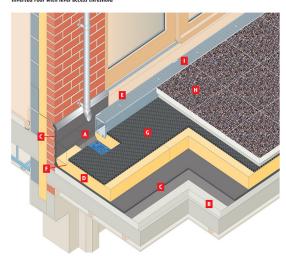
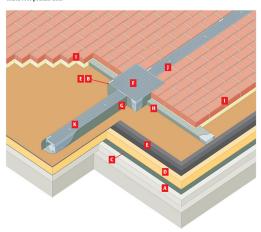
## Installation

### Inverted roof with level access threshold



- A Form hole in deck and locate ACO Balcony Outlet to screed level.
- B Lay screed to falls over structural slab.
- C Lay isolating layer and two coats of mastic asphalt keyed into brickwork and beneath cill.
- D Lay insulation board cut around outlet and flush to asphalt upstand. Ensure that insulation board is one course below cill regardless of overall board thickness specified.
- Position Adjustable Channel and adjust to cill height.
- F Chamfer edge of insulation away from channel to improve percolation.
- Lay drainage mat.
- H Lay paving slabs on lean mix base.
- Fit channel gratings and secure with lock screws provided.

#### Warm roof podium deck



- A Lay screed to falls over structural slab.
- B Form hole in deck and locate ACO HP rainwater outlet level with surface of insulation (hidden detail).
- C Lay vapour barrier.
- Lay and bond roofing grade insulation to vapour barrier.
- E Lay and bond built up felt waterproofing to insulation and dress into outlet (hidden detail).

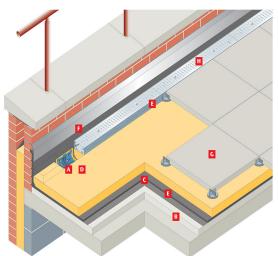
- Position height adjustable Access Grate and Frame over ACO rainwater outlet.
- Butt joint channels to Access Frame and wrap with geotextile filter membrane.
  - Cut away filter membrane at butt joint to ensure free flow.

    H Butt joint concealed Drainage Ducts to
  - Butt joint concealed Drainage Ducts to Access Frame and wrap with geotextile filter membrane. Out away filter membrane at butt joint to ensure free flow.
- Prepare sharp sand bed and lay brick paviors.
- Adjust channel height to finished paved level.
- K Fit channel gratings and secure with lock screws provided.



## Installation

## Inverted roof parapet terrace



- A Form hole in wall, position ACO Two
  Way outlet and connect pipework.
- B Lay screed to falls over structural slab.
- Lay isolating layer and two coats of mastic asphalt keyed into brickwork and fitted with flashing.
- Lay insulation board cut around rainwater outlet and flush to asphalt upstand.
- Position appropriate channel to be laid level with combined depth of paving slabs on paving supports.
- F Install channel flush to wall.
- Ballast insulation with paving slabs laid on supports.
- Fit channel gratings and secure with lock screws provided.

### **Model specification clause**

ACO Building Drainage - FreeDeck Drainage System

Refer NBS R10 Gravity Rainwater Drainage Systems. Subsection 365.

Suitable for drainage of warm and inverted roof construction in reinforced decks, uninsulated structural slabs, restricted excavations within podia, balconies, paved areas and terraces.

Manufacturer: ACO Building Drainage

ACO Business Centre, Caxton Road, Bedford, Bedfordshire MK41 OLF

Tel: 01462 810421 Email: abdestimating@aco.co.uk

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Description: Linear, percolating rainwater drainage channels consisting of shallow form perforated channel sections, slotted or mesh gratings c/w end stops, corners

and outlets.

Material: Mild steel hot dip galvanised to BS EN ISO 1461:1999 or Stainless Steel grade 304.

or starriess steer grade 504

Product: Channels - adjustable or fixed height. Gratings - lockable with slot or mesh openings.

received with order or mean openings.

Literature: Consult ACO Building drainage technical literature for details.

Link to web: www.aco.co.uk

Design: ACO Building Drainage Technical Services provide design and specification.

#### Maintenance

ACO FreeDeck systems are generally low maintenance but the following should be

- Drains should be inspected bi-annually and kept clear of blockages.
- Wear protective gloves when handling metal work.
- Do not sweep rubbish into the drain.
- Gratings are top accessible using a flat blade screwdriver to undo the recessed locks.
- Grates should be cleaned with a natural or plastic bristle brush.
- Flush through with clean water.
- Never use caustic or bleach drain cleaners nor acid paving cleaners as these will strip the protective galvanizing.
- Reassemble all parts noting any losses.

# Flow performance

ACO Hydro design software is used to calculate Freedeck channel drainage requirements in conjunction with ACO flat roof rainwater outlets. For assistance with all drainage design contact ACO Building Drainage Technical services 01462 810431.

Flow performance is expressed in litres per second per metre run of channel. Mesh gratings have greater free area than slotted gratings.

