# Problem solving drainage solutions: Discreet slot drainage



ACO MultiDrain<sup>®</sup> MD has a range of gratings to complement installations which require discreet slot drainage.

Designed as standard with a heelguard 10mm off set drainage inlet, ACO Brickslot is a subtle and unobtrusive grating which when combined with an ACO MultiDrain<sup>®</sup> MD channel, can be used as a solution to complement discreet drainage applications and is ideal for use against buildings facades.

Compatible with most paving materials, the vertical sides of the grating enable pavements to be laid directly to the unit's edge. Once installed the system is totally secure and not vulnerable to vandalism or loose grates making it a suitable for applications such as schools and playgrounds where grating removal can become a hazard. The channel and ACO Brickslot grating together provide an unobtrusive continuous slot drainage system, with high hydraulic efficiency for fast removal of surface water. ACO Brickslot gratings are available in galvanised or stainless steel and suitable for use with the 100mm, 150mm and 200mm wide channels in the ACO MultiDrain<sup>~</sup> MD range.

The system includes an ACO Brickslot access unit to ensure easy maintenance and access to the drainage system, and is also fully compatible with the range of ACO MultiDrain<sup>®</sup> MD accessories.

The system is suitable for applications up to and including Load Class D400 (This product is not suitable for carriageways of public roads or motorways).



31

### Applications

- Threshold drainage
- Public landscaping
- Car parking
- Light industrial
- HGV parking
- Petrol station forecourts
- SuDS

# Discreet slot drainage gratings

The ACO Brickslot gratings are available in two material finishes, hot –dipped galvanised and stainless steel (Grade 304), to suit the ACO MultiDrain<sup>™</sup> M100D/M100DS, M150D/M150DS and M200D/M200DS wide channels. The off set grating has an heelguard 10mm drainage inlet, which is compatible with most types of paviours, setts, block and flags up to a maximum of 100mm depth. The ACO Brickslot gratings are listed in the charts below and are sold separately to the channel units. For information on the ACO MultiDrain<sup>®</sup> M100D/M100DS, M150D/M150DS and M200D/M200DS wide channels. Please refer to pages 14 and 30.

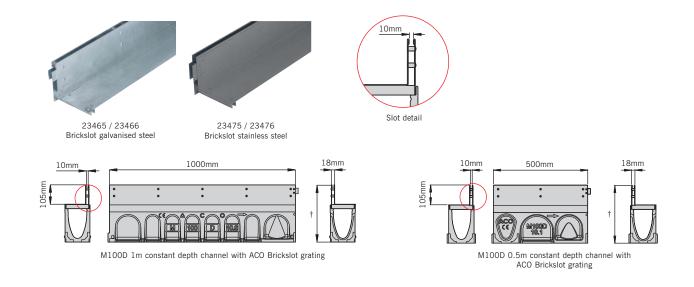
#### ACO Brickslot gratings suitable for use with ACO MultiDrain" M100D/M100DS

#### Gratings for Load Class C 250 applications

Product code	Description	Length (mm)			Slot width /hole dia (mm)	Intake area (mm²/m)	Weight (kg)
23460	Brickslot galvanised steel 23460	1000	135	105	10	10000	6.6
23461	Brickslot galvanised steel 23461	500	135	105	10	10000	3.3



Gratings for Load Class C 250 / D 400* applications								
Product code	Description	Length (mm)	Width overall (mm)	Depth overall (mm)	Slot width /hole dia (mm)	Intake area (mm²/m)	Weight (kg)	
23465	Brickslot galvanised steel 23465	1000	135	105	10	10000	6.6	
23466	Brickslot galvanised steel 23466	500	135	105	10	10000	3.3	
23475	Brickslot stainless steel 23475	1000	135	105	10	10000	6.6	
23476	Brickslot stainless steel 23476	500	135	105	10	10000	3.3	

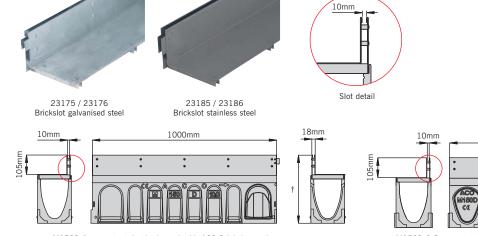


Note: To obtain the overall height (marked †) add 105mm to the overall channel depth. The overall depth of each channel can be found in the channel tables in this brochure. \*Not suitable for carriageways of public roads or motorways.

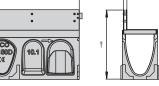
# ACO Brickslot gratings suitable for use with ACO MultiDrain<sup>®</sup> M150D/M150DS

# Gratings for Load Class C 250 / D 400\* applications

-									
Product code	Description	Length (mm)	Width overall (mm)	Depth overall (mm)	Slot width /hole dia (mm)	Intake area (mm²/m)	Weight (kg)		
23175	Brickslot galvanised steel 23175	1000	185	105	10	10000	7.6		
23176	Brickslot galvanised steel 23176	500	185	105	10	10000	3.8		
23185	Brickslot stainless steel 23185	1000	185	105	10	10000	7.6		
23186	Brickslot stainless steel 23186	500	185	105	10	10000	3.8		



M150D 1m constant depth channel with ACO Brickslot grating



18mm

C 250

D 400

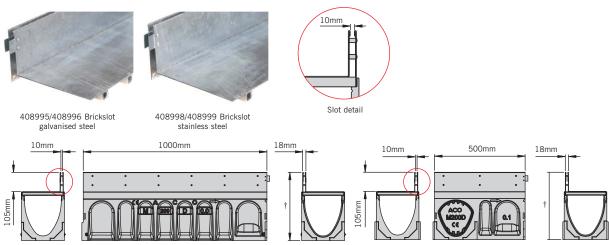
M150D 0.5m constant depth channel with ACO Brickslot grating

500mm

# ACO Brickslot grating suitable for use with ACO MultiDrain<sup>™</sup> M200D/M200DS

# Gratings for Load Class C 250/D 400\* applications

				Depth overall (mm)Slot width /hole dia (mm)Intake area (mm²/m)Weight (kg)10510100009.810510100004.8			
Product code	Description	Length (mm)	Width overall (mm)				
408995	Brickslot galvanised steel	1000	223	105	10	10000	9.8
408996	Brickslot galvanised steel	500	223	105	10	10000	4.8
408998	Brickslot stainless steel	1000	223	105	10	10000	9.8
408999	Brickslot stainless steel	500	223	105	10	10000	4.8



M200D 1m constant depth channel with ACO Brickslot grating

M200D 0.5m constant depth channel with ACO Brickslot grating

Note: To obtain the overall height (marked †) add 105mm to the overall channel depth. The overall depth of each channel can be found in the channel tables in this brochure. \*Not suitable for carriageways of public roads or motorways.

These products are subject to weight and dimensional tolerances. The dimensions shown on this page are for guidance purposes only.

# Discreet slot drainage access units

The ACO Brickslot grating system has an access unit for easy maintenance and cleaning of the drainage system.

The access unit is positioned within the channel; it has a removable tray section which is lifted out of the frame by a lifting tool to gain access to the system.

The access unit is 0.5m in length and is available in the galvanised and stainless steel finishes and is suitable for use with any ACO MultiDrain<sup>™</sup> M100D/M100DS, M150D/M150DS and M200D/M200DS wide channels.

The unit has a heelguard 10mm off set drainage inlet, providing continuous aesthetic and drainage performance once installed with the drainage system.

The ACO Brickslot access units are listed in the charts below and are sold separately to the channel units. For information on the ACO MultiDrain M100D/M100DS, M150D/M150DS and M200D/M200DS wide channels. Please refer to pages 14 and 30.

#### ACO Brickslot Access covers suitable for use with ACO MultiDrain<sup>®</sup> M100D/M100DS

# Access covers for Load Class C 250 applications

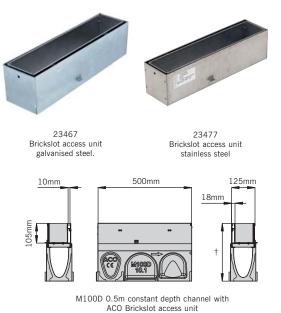
Product code	Description	Length (mm)			Slot width /hole dia (mm)	Intake area (mm²/m)	Weight (kg)
23462	Brickslot access unit galvanised steel 23462	500	135	105	10	10000	6.4



4.0	A
C 250	D 400

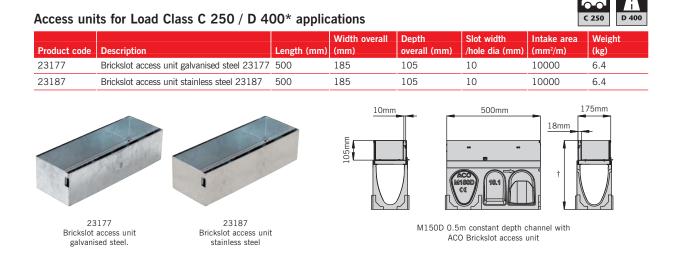
#### Access covers for Load Class C 250 / D 400\*

			Width overall	Depth	Slot width	Intake area	Weight
Product code	Description	Length (mm)	(mm)	overall (mm)	/hole dia (mm)	(mm²/m)	(kg)
23467	Brickslot access unit galvanised steel 23467	500	135	105	10	10000	6.4
23477	Brickslot access unit stainless steel 23477	500	135	105	10	10000	6.4



Note: To obtain the overall height (marked †) add 105mm to the overall channel depth. The overall depth of each channel can be found in the channel tables in this brochure. \*Not suitable for carriageways of public roads or motorways.

# ACO Brickslot access units for use with ACO MultiDrain<sup>™</sup> M150D/M150DS



# ACO Brickslot access units for use with ACO MultiDrain" M200D/M200DS

Access units for Load Class C 250/D 400* application							
Product code	Description	Length (mm)	Width overall (mm)	Depth overall (mm)	Slot width /hole dia (mm)	Intake area (mm²/m)	Weight (kg)
408997	Brickslot access unit galvanised steel 408997	500	223	105	10	10000	8.5
409000	Brickslot access unit stainless steel 409000	500	223	105	10	10000	8.5

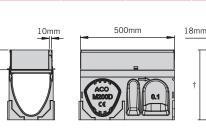
L05mm

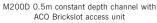


408997 Brickslot access unit galvanised steel.

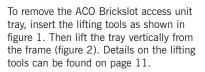


409000 Brickslot access unit stainless steel





# **Removal instructions.**







225mm

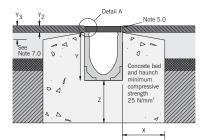
Figure 2

Note: To obtain the overall height (marked †) add 105mm to the overall channel depth. The overall depth of each channel can be found in the channel tables in this brochure. \*Not suitable for carriageways of public roads or motorways.

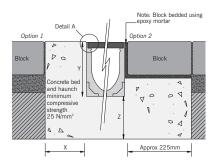
# Installation details

### CHANNELS WITH TRADITIONAL GRATINGS

#### **Asphalt Pavement**



#### Block Pavement (option 1 and 2)



# 1.0 Ground Conditions:

The customer should ensure that the minimum dimensions shown are suitable for the existing ground conditions. Engineering advice may be required.

#### 2.0 Block Pavements:

The channels must be supported laterally and therefore blocks must be restrained from movement by bedding securely. e.g. by using an Epoxy or Polymer Modified Mortar for bed and perpendicular joints (for example RONAFIX Mortar Mix C or similar). Engineering advice may be required.

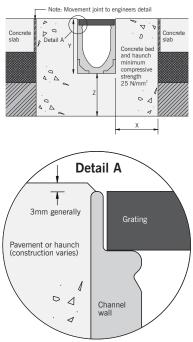
### 3.0 Surface Cracks:

Alternate crack control and movement joints traversely within bed and haunch may reduce unsightly surface cracking. Engineering advice may be required.

### 4.0 Joint Sealant:

Where ACO channel joints and fittings are to be sealed (where used in foul water applications or where impermeability is required, for example) contacting a sealant specialist for guidance on the most appropriate sealing compound to use.

# **Concrete Pavement**



#### 5.0 Surface Protection:

In asphalt pavements avoid contact between compaction equipment and channel/grating. This may be achieved by ensuring that the finished surface level lies above the grating level (by at least 3mm). Stones should be removed from grating prior to laying/rolling wearing course.

# 6.0 General Installation Notes:

See ACO drawing E1-E01-003 for general notes on installation. This information is available on request.

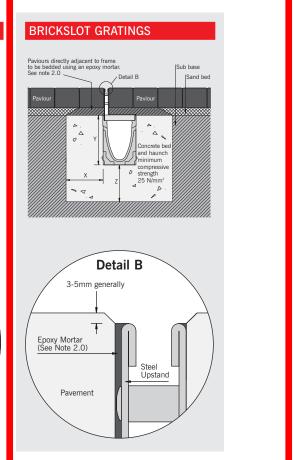
#### 7.0 Minimum Dimensions of Concrete Surround:

\*e.g. parking areas for all types of road vehicle. Not suitable for carriageway of roads or motorways.

\*\*Note dashed line printed on edge rails 35mm below top.

Load Class		A 15	B 125	C 250	D 400*	
	х	100	150	150	200	
	Full channel height (Less Y2 where necessary)					
Minimum Dimensions (mm)	Z	100	150	150	200	
	Y2**	35	35	35	35	
Maximum Dimensions (mm)	Y3	100	60	60	60	

# Typical slot drain detail



#### 8.0 Grating Security Locks:

All the gratings are held in the channel units by the Drainlock fixing. In addition, gratings type 23405 (Cast Iron) and 12680/12682 (Composite) can be locked in place with an optional security locking kit. See installation drawing E1-E01-040-3.

#### ACO Technologies plc

- ACO Water Management Civils + Infrastructure Urban + Landscape
- ACO Building Drainage
- ACO Sport

ACO Wildlife 















ISO 9001 FM 13502



ISO 14001 EMS 538781



© November 2013 ACO Technologies plc. All reasonable care has been taken in compiling the information in this document. All recommendations and suggestions on the use of ACO products are made without guarantee since the conditions of use are beyond the control of the Company. It is the customer's responsibility to ensure that each product is fit for its intended purpose, and that the actual conditions of use are suitable. This brochure and any advice is provided by ACO Technologies plc (the Company) free of charge and accordingly on terms that no liability including liability for negligence will attach to the Company or its servants or agents arising out of or in connection with or in relation to this brochure or any such advice. Any goods supplied by the Company will be supplied solely upon its standard conditions of sale, copies of which are available on request. The Company's policy of continuous product development and improvement renders specifications liable to modification. Information provided in this brochure is therefore subject to change without prior notification.

ACO CARES ABOUT THE ENVIRONMENT Printed on material approved by the Forest Stewardship Council (FSC) who provide a means of assuring that products come from responsibly managed forest.

**ACO Water Management:** Civils + Infrastructure

A division of ACO Technologies plc ACO Business Park, Hitchin Road, Shefford, Bedfordshire SG17 5TE Tel: 01462 816666 Fax: 01462 815895 e-mail Sales: customersupport@aco.co.uk

e-mail Technical: technical@aco.co.uk website: www.aco.co.uk

The ACO Group: A strong family you can depend on.