

# SLOT GRATINGS

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Aesthetics  
and hydraulic  
capacity



ARCHITECTURAL SOLUTIONS

# SLOT Gratings

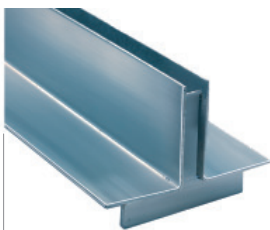
The **SLOT Drainage** is part of an integral system, consisting of a discrete slot, a channel body and an access unit for an optimal maintenance of the drainage system.

It is an inverted "T" or "L" shaped grating model, that stands out mainly for its aesthetic, since **it integrates perfectly in the pavement** (either concrete, paving stone or tiles) **achieving a total blend with the urban landscape.**

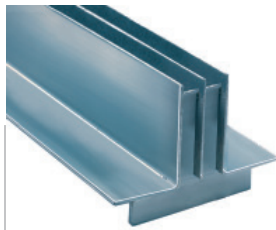
It is an integral system developed by the Department of Engineering of ULMA Architectural Solutions, adaptable to different models of channel and available in galvanized and stainless steel.

Supports a load class up to **D-400** according to Standard **EN1433**.

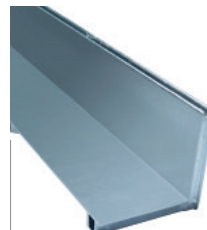
It can be either **single slot**, center or **offset** to install close to walls, or **double slot** for greater hydraulic efficiency.



**SINGLE SLOT**  
Aesthetic solution

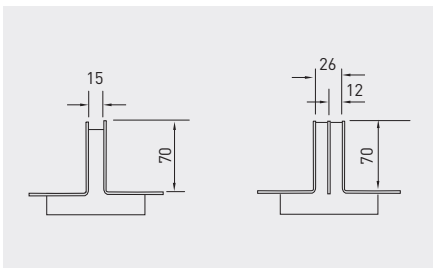


**DOUBLE SLOT**  
Same solution with greater hydraulic capacity.

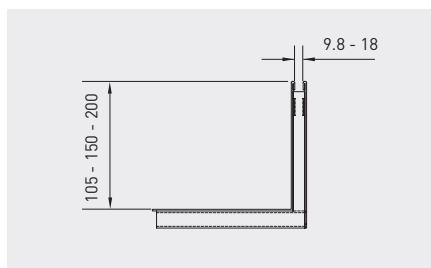


**OFFSET SLOT GRATE**  
Ideal solution for areas near walls.

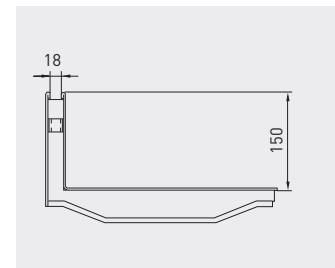
## DIMENSIONS



Width 100/150



Width 100/150/200



Width 250/300

## MATERIALS

### ■ STAINLESS Steel

Stainless steel is mandatory when a high corrosion resistance is required: AISI 304 stainless steel is recommended when gratings are exposed to aggressive atmospheres like seaside or highly polluted industrial areas.

AISI 316 or 316L stainless steels are available on request for even more critical applications like pools or marine environments with constant condensation or high salinity.

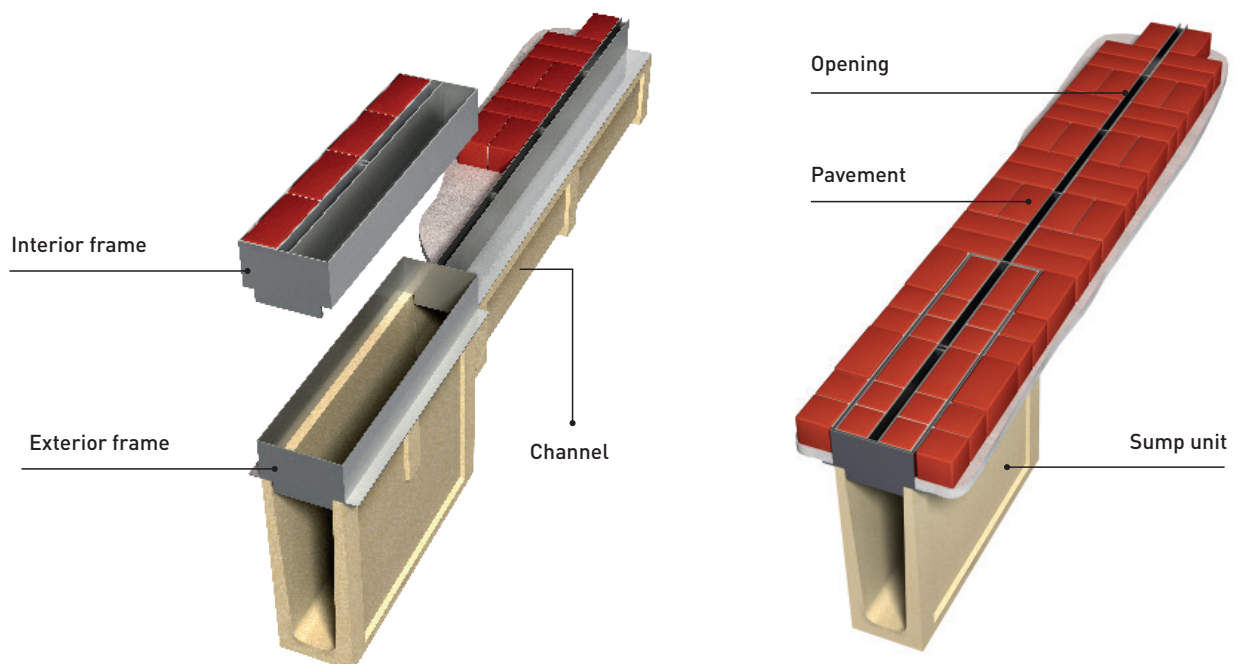
### ■ GALVANIZED Steel

All ULMA slot gratings are Hot Dip Galvanized according to ISO 1461 standard, a very resistant and durable anti-corrosive protection, for general use in urban, industrial and rural areas with low or moderate pollution levels.



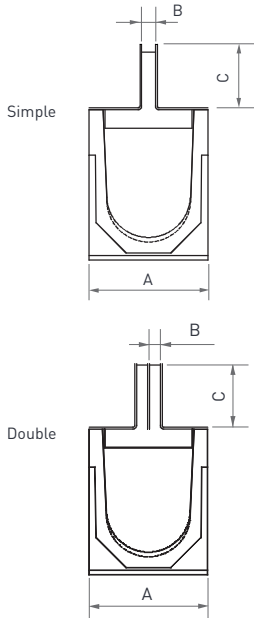
## DRAINAGE SYSTEM

■ With **SLOT** grating



Slot grating in an inverted "T" shape that stands out for its aesthetic, since it integrates perfectly in the pavement (concrete, paving stone or tile) achieving a total blend with the urban landscape. It can be a single slot or a double slot for greater hydraulic efficiency. Supports a load class up to C-250 according to Standard EN1433.

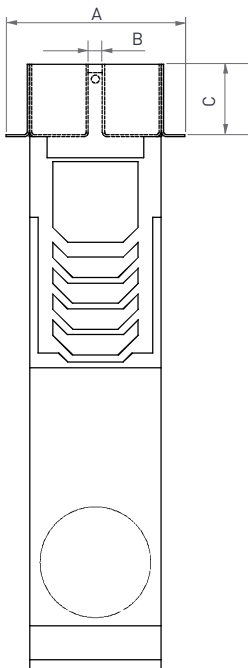
## GRATINGS



Material	Width (mm)	Code	Type	L (mm)	A (mm)	B (mm)	C (mm)	Intake area (cm <sup>2</sup> /ML)	Compatible system
GALVANIZED STEEL	100	GR100UOC	SIMPLE	1000	130	15	70	150	SELF/U
		GDR100UOC	DOUBLE	1000	130	12 x 2	70	240	SELF/U
	150	GR150UOC	SIMPLE	1000	200	15	70	150	SELF/U
		GDR150UOC	DOUBLE	1000	200	12 x 2	70	240	SELF/U
	200	GR200UOC	SIMPLE	1000	260	15	70	150	SELF/U
		GDR200UOC	DOUBLE	1000	260	12 x 2	70	240	SELF/U
STAINLESS STEEL	100	IR100UOC	SIMPLE	1000	130	15	70	150	SELF/U
		IDR100UOC	DOUBLE	1000	130	12 x 2	70	240	SELF/U
	150	IR150UOC	SIMPLE	1000	200	15	70	150	SELF/U
		IDR150UOC	DOUBLE	1000	200	12 x 2	70	240	SELF/U
	200	IR200UOC	SIMPLE	1000	260	15	70	150	SELF/U
		IDR200UOC	DOUBLE	1000	260	12 x 2	70	240	SELF/U

\*Customized options available

## ACCESS UNITS



Material	Width (mm)	Code	Type	L (mm)	A (mm)	B (mm)	C (mm)	Intake area (cm <sup>2</sup> /ML)	Compatible system
GALVANIZED STEEL	100	GR100UOCMA	SIMPLE	500	178	15	70	150	SELF/U
		GDR100UOCMA	DOUBLE	500	178	12 x 2	70	240	SELF/U
	150	GR150UOCMA	SIMPLE	500	250	15	70	150	SELF/U
		GDR150UOCMA	DOUBLE	500	250	12 x 2	70	240	SELF/U
	200	GR200UOCMA	SIMPLE	500	310	15	70	150	SELF/U
		GDR200UOCMA	DOUBLE	500	310	12 x 2	70	240	SELF/U
STAINLESS STEEL	100	IR100UOCMA	SIMPLE	500	178	15	70	150	SELF/U
		IDR100UOCMA	DOUBLE	500	178	12 x 2	70	240	SELF/U
	150	IR150UOCMA	SIMPLE	500	250	15	70	150	SELF/U
		IDR150UOCMA	DOUBLE	500	250	12 x 2	70	240	SELF/U
	200	IR200UOCMA	SIMPLE	500	310	15	70	150	SELF/U
		IDR200UOCMA	DOUBLE	500	310	12 x 2	70	240	SELF/U

\*Customized options available

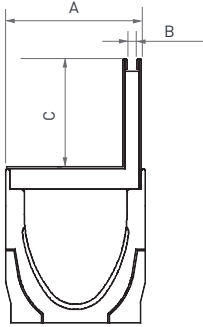


Application detail



Inverted "L" shape slot grating that stands out for its aesthetic, since it integrates perfectly in the pavement (concrete, paving stone or tile) achieving a total blend with the urban landscape. It is especially designed to be installed in areas close to walls. Supports a load class up to D-400 according to Standard EN1433.

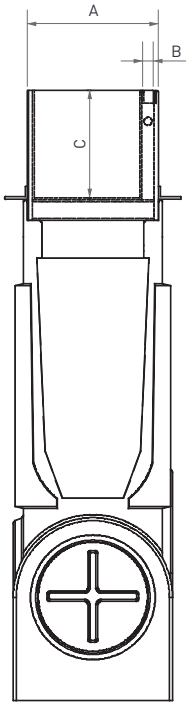
## GRATINGS



Material	Width (mm)	Code	Type	L (mm)	A (mm)	B (mm)	C (mm)	Intake area (cm <sup>2</sup> /ML)	Compatible system		
GALVANIZED STEEL	100	GRL100RODM	OFFSET	500	131	9,8	105	98	MULTIV100		
		GRL100ROD		1000	131	9,8	105	98	MULTIV100		
		GRL100RODE18		1000	131	18	105	180	MULTIV100		
		GRL100RODH150		1000	131	9,8	150	98	MULTIV100		
		GRL100RODH150E18		1000	131	18	150	180	MULTIV100		
		GRL100RODH200		1000	131	9,8	200	98	MULTIV100		
		GRL100RODH200E18		1000	131	18	200	180	MULTIV100		
	150	GRL150RODM		500	181	9,8	105	98	MULTIV150		
		GRL150ROD		1000	181	9,8	105	98	MULTIV150		
		GRL150RODE18		1000	181	18	105	180	MULTIV150		
		GRL150RODH150		1000	181	9,8	150	98	MULTIV150		
		GRL150RODH150E18		1000	181	18	150	180	MULTIV150		
		GRL150RODH200		1000	181	9,8	200	98	MULTIV150		
		GRL150RODH200E18		1000	181	18	200	180	MULTIV150		
	200	GRL200RODM		500	231	9,8	105	98	MULTIV200		
		GRL200ROD		1000	231	9,8	105	98	MULTIV200		
		GRL200RODE18		1000	231	18	105	180	MULTIV200		
		GRL200RODH150		1000	231	9,8	150	98	MULTIV200		
		GRL200RODH150E18		1000	231	18	150	180	MULTIV200		
		GRL200RODH200		1000	231	9,8	200	98	MULTIV200		
		GRL200RODH200E18		1000	231	18	200	180	MULTIV200		
	250	GRL250FOD		1000	305	18	150	180	S300F/F250K		
	300	GRL300FOD		1000	355	18	150	180	S350F/F300K		
	STAINLESS STEEL	100		IRL100RODM	OFFSET	500	131	9,8	105	98	MULTIV100
				IRL100ROD		1000	131	9,8	105	98	MULTIV100
				IRL100RODE18		1000	131	18	105	180	MULTIV100
				IRL100RODH150		1000	131	9,8	150	98	MULTIV100
				IRL100RODH150E18		1000	131	18	150	180	MULTIV100
IRL100RODH200			1000	131		9,8	200	98	MULTIV100		
IRL100RODH200E18			1000	131		18	200	180	MULTIV100		
150		IRL150RODM	500	181		9,8	105	98	MULTIV150		
		IRL150ROD	1000	181		9,8	105	98	MULTIV150		
		IRL150RODE18	1000	181		18	105	180	MULTIV150		
		IRL150RODH150	1000	181		9,8	150	98	MULTIV150		
		IRL150RODH150E18	1000	181		18	150	180	MULTIV150		
		IRL150RODH200	1000	181		9,8	200	98	MULTIV150		
		IRL150RODH200E18	1000	181		18	200	180	MULTIV150		
200		IRL200RODM	500	231		9,8	105	98	MULTIV200		
		IRL200ROD	1000	231		9,8	105	98	MULTIV200		
		IRL200RODE18	1000	231		18	105	180	MULTIV200		
		IRL200RODH150	1000	231		9,8	150	98	MULTIV200		
		IRL200RODH150E18	1000	231		18	150	180	MULTIV200		
		IRL200RODH200	1000	231		9,8	200	98	MULTIV200		
		IRL200RODH200E18	1000	231		18	200	180	MULTIV200		
250		IRL250FOD	1000	305		18	150	180	S300F/F250K		
300		IRL300FOD	1000	355		18	150	180	S350F/F300K		

\*Customized options available

## ACCESS UNITS



Material	Width (mm)	Code	Type	L (mm)	A (mm)	B (mm)	C (mm)	Intake area (cm <sup>2</sup> /ML)	Compatible system
GALVANIZED STEEL	100	GRL100RODMA	OFFSET	500	128	9,8	105	98	MULTIV100
		GRL100RODMAE18		500	128	18	105	180	MULTIV100
		GRL100RODMAH150		500	128	9,8	150	98	MULTIV100
		GRL100RODMAH150E18		500	128	18	150	180	MULTIV100
		GRL100RODMAH200		500	128	9,8	200	98	MULTIV100
		GRL100RODMAH200E18		500	128	18	200	180	MULTIV100
	150	GRL150RODMA		500	178	9,8	105	98	MULTIV150
		GRL150RODMAE18		500	178	18	105	180	MULTIV150
		GRL150RODMAH150		500	178	9,8	150	98	MULTIV150
		GRL150RODMAH150E18		500	178	18	150	180	MULTIV150
		GRL150RODMAH200		500	178	9,8	200	98	MULTIV150
		GRL150RODMAH200E18		500	178	18	200	180	MULTIV150
	200	GRL200RODMA		500	228	9,8	105	98	MULTIV200
		GRL200RODMAE18		500	228	18	105	180	MULTIV200
		GRL200RODMAH150		500	228	9,8	150	98	MULTIV200
		GRL200RODMAH150E18		500	228	18	150	180	MULTIV200
		GRL200RODMAH200		500	228	9,8	200	98	MULTIV200
		GRL200RODMAH200E18		500	228	18	200	180	MULTIV200
	250	GRL250FODMA		500	302	18	150	180	S300F/F250K
	300	GRL300FODMA		500	352	18	150	180	S350F/F300K
	STAINLESS STEEL	100		IRL100RODMA	OFFSET	500	128	9,8	105
IRL100RODMAE18			500	128		18	105	180	MULTIV100
IRL100RODMAH150			500	128		9,8	150	98	MULTIV100
IRL100RODMAH150E18			500	128		18	150	180	MULTIV100
IRL100RODMAH200			500	128		9,8	200	98	MULTIV100
IRL100RODMAH200E18			500	128		18	200	180	MULTIV100
150		IRL150RODMA	500	178		9,8	105	98	MULTIV150
		IRL150RODMAE18	500	178		18	105	180	MULTIV150
		IRL150RODMAH150	500	178		9,8	150	98	MULTIV150
		IRL150RODMAH150E18	500	178		18	150	180	MULTIV150
		IRL150RODMAH200	500	178		9,8	200	98	MULTIV150
		IRL150RODMAH200E18	500	178		18	200	180	MULTIV150
200		IRL200RODMA	500	228		9,8	105	98	MULTIV200
		IRL200RODMAE18	500	228		18	105	180	MULTIV200
		IRL200RODMAH150	500	228		9,8	150	98	MULTIV200
		IRL200RODMAH150E18	500	228		18	150	180	MULTIV200
		IRL200RODMAH200	500	228		9,8	200	98	MULTIV200
		IRL200RODMAH200E18	500	228		18	200	180	MULTIV200
250		IRL250FODAM	500	302		18	150	180	S300F/F250K
230		IRL300FODAM	500	352		18	150	180	S350F/F300K

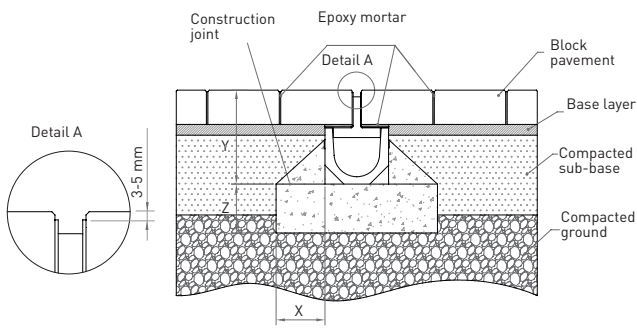
\*Customized options available



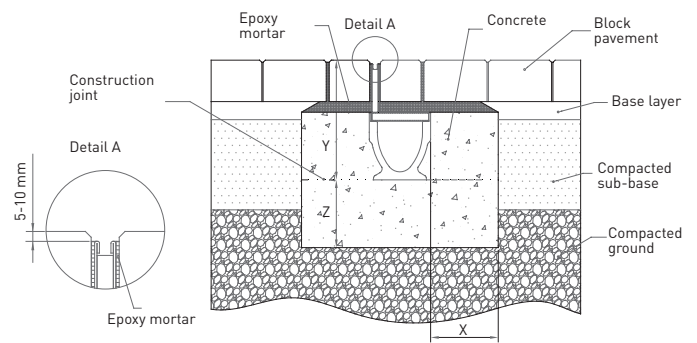
Application detail

# INSTALLATION

## PAVING STONE

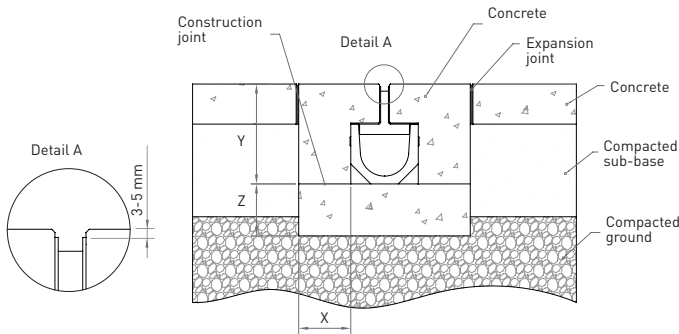


Load class EN 1433 Standard	A15	B125	C250	D400	E600	F900
Type of concrete EN 206-1 Standard	C 12/15 (x0)	C 12/15 (x0)	C 20/25 (x0)			
Minimum distances (mm)	X	100	100	150		
	Y	Channel height + grating + 3 - 5 mm (see Detail A)				
	Z	100	100	150		

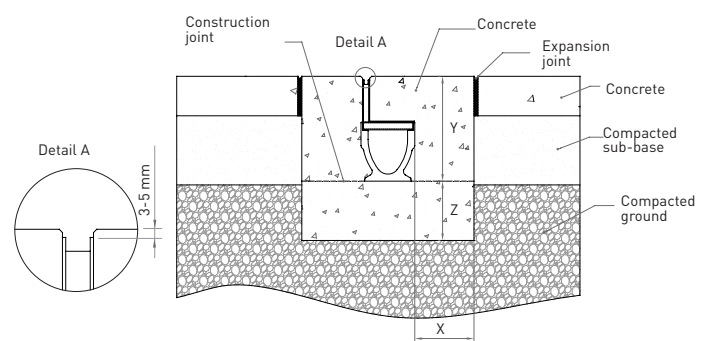


Load class EN 1433 Standard	A15	B125	C250	D400	E600	F900
Type of concrete EN 206-1 Standard				C 25/30 (x0)		
Minimum distances (mm)	X			150		
	Y	Channel height + grating + 3 - 5 mm (see Detail A)				
	Z			150		

## CONCRETE



Load class EN 1433 Standard	A15	B125	C250	D400	E600	F900
Type of concrete EN 206-1 Standard	C 12/15 (x0)	C 12/15 (x0)	C 20/25 (x0)			
Minimum distances (mm)	X	100	100	150		
	Y	Channel height + grating + 3 - 5 mm (see Detail A)				
	Z	100	100	150		



Load class EN 1433 Standard	A15	B125	C250	D400	E600	F900
Type of concrete EN 206-1 Standard	C 12/15 (x0)	C 12/15 (x0)	C 20/25 (x0)	C 25/30 (x0)		
Minimum distances (mm)	X	100	100	150	150	
	Y	Channel height + grating + 3 - 5 mm (see Detail A)				
	Z	100	100	150	150	

\* Installation minimal conditions. For more details, see installation instructions. It is the customer's responsibility to make sure that installation instructions are compatible with the type of soil.

# MAINTENANCE

Steps to follow for the correct removal of the access unit and cleaning of the drainage system.



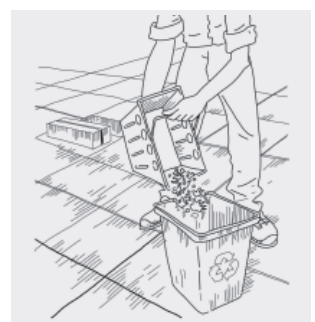
**1.** Identify the access unit, insert the two rods from the opening of the slot and turn.



**2.** Lift the access unit with the bars and set aside.



**3.** Remove the bucket located in that grating.



**4.** Empty and clean the bucket before placing it again.



Italy



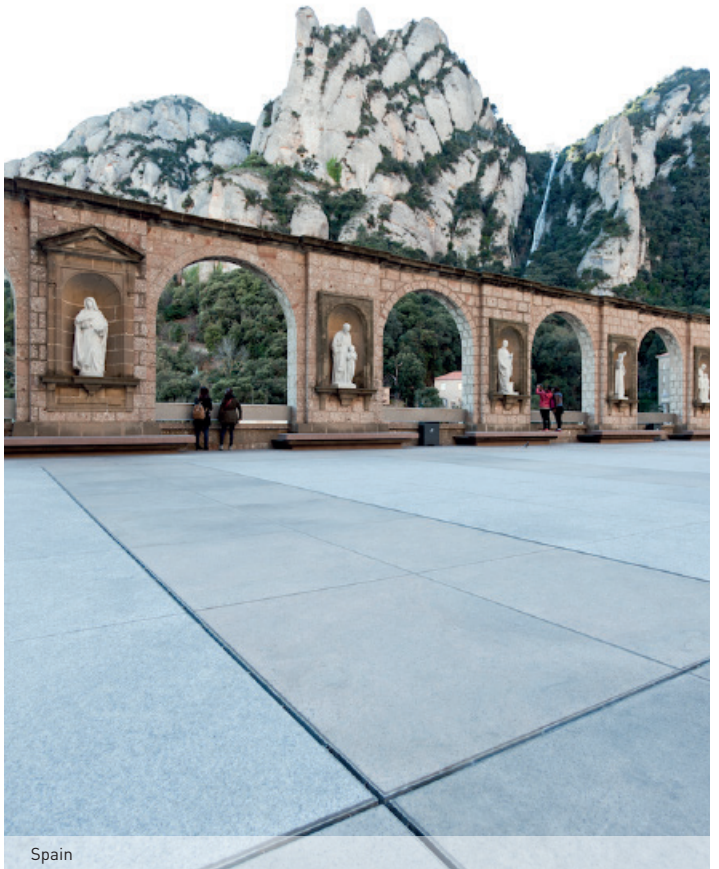
Spain



United Kingdom



Brazil



Spain



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