

Specialists in Supply Solutions

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## TECHNICAL MANUAL



**DRAINAGE** 

CHANNEL DRAINAGE



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### COMPLETE DRAINAGE SOLUTIONS

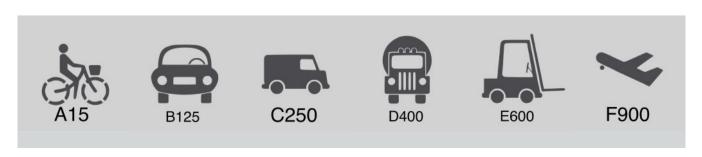


EBP provides an extensive range of sustainable drainage solutions that are suitable for commercial and residential applications including; industrial areas, highways, car parks, driveways, patios, gardens, sports pitches and more.

Channel drains are usually installed below ground surface level and typically fitted with slotted gratings to enable the entry of surface water. Multiple channels may be combined to create continuous drainage runs and form a complete system.

Preferred options include EBP Drain, ULMA Eurokit, Mini, Domo, Hydro, U, UK Self K, MultiV+, F System & KOMPAQDRAIN, as well as PAVE-A-DRAIN mini profile channel system, providing discrete channel drainage for buildings, driveways, patios, gardens, pool decks and a range of general domestic and commercial light drainage applications.

Complementing the channel drainage range, EBP's ECO-PARKING Grass Grid Paver allows up to 40 tonnes of axle load and provides ground reinforcement as a permeable paving solution for car parks, construction sites, private roads, access roads, cycle paths, embankments, livestock facilities and green roofs.



ALL LOADING CLASSES (BS EN 1433)



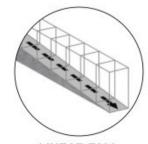
## LOADING CLASSES

Channel Types	A15 (1.5t)	<b>B125</b> (12.5t)	C250 (25t)	<b>D400</b> (40t)	<b>F900</b> (90t)
(Available)	Pedestrian	Car Parks & Parking Decks	Parking areas & Road-side	Roadways	Industrial & Special areas
Pave-A-Drain	✓				
EBP-Drain	✓				
Eurokit	✓				
<u>Mini</u>	✓	✓	✓		
Hydro	✓	✓	✓		
Domo	✓	✓	✓		
<u>ū</u>	✓	✓	✓		
<u>UK</u>	✓	✓	✓		
Self K	✓	✓	✓		
MultiV+	✓	✓	✓	✓	
F System	✓	✓	✓	✓	✓
Kompaqdrain	✓	✓	✓	✓	✓

### CHANNEL RUNS

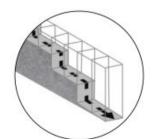


A straight channel run, when no fall is needed or the natural fall suffices



LINEAR FALL

Channel runs with an integrated inear fall at a continuous gradient of 0.5%. Standard runs with lengths of up to 20 metres are possible. Runs up to 30 metres with fall are available on request.



STEPPED FALL

Channel runs for cost-effective, efficient and uniform drainage are constructed by combining no fall channel elements of different heights with fall channels.



MIXED FALL

A combination of the previous systems (i.e. level, linear & stepped falls), to be considered where drainage is required over long-length stretches.



### EBP-DRAIN

#### 100% RECYCLED PLASTIC

Domestic channel drainage solutions that are durable and easy to install. Each channel interlocks to provide improved stability.

Available with polyproylene or galvanised grating options, each of which have 'heel-guard' slim-slots as standard. EBP-Drain channels & gratings also incorporate integral locking and anti-shunt features.

The latest addition to the range is Pave Slot; a discrete slot grating which is particulary suitable for paved areas where a more discrete, yet efficient method of surface water drainage is prefered.



#### **TECHNICAL:**

LENGTH: 1000mm WIDTH: 130mm

130<sub>MM</sub>

#### **ACCESSORIES:**

CORNER UNITS END CAP OUTLETS PAVESLOT ADAPTOR LEAF/DIRT TRAP



#### **TECHNICAL:**

LENGTH: 2000mm WIDTH: 38mm DEPTH: 80mm

#### **ACCESSORIES:**

CONNECTORS
END CAP CLOSED
RODDING ACCESS
END CAP OUTLET

# PAVE-A-DRAIN DURABLE MINI-PROFILE

Manufactured from tough, long-lasting, noncorrosive PVC, this unique 'mini-profile' drainage system eliminates the need for deep excavations, reducing the volume of trenching with less digging required and installation being kept as simple as possible.

Specifically designed for patio areas, driveways, decks and light commercial applications, with a slimline profile of only 38mm wide, Pave-A-Drain can also be used as a screed rail in the final pour and to server as an effective expansion and contraction joint.

Pave-A-Drain's flat profile allows a tight fit against any wall, and the inclusion of simple, yet highly effective 'clean out' panels enables the rapid removal of any dirt or silt.



### EUROKIT

#### POLYMER CONCRETE

#### **TYPICAL APPLICATIONS:**

Interior Streets, Gardens, Recreational Areas, Squares, Parks.....

Multipurpose, constant height channels (without slope), very practical in short drain stretches or with frequent outlets.

Available with various grating locking systems (quick system, locking bars, with screws), all types of grating materials up to load class C250.





**TECHNICAL:** 

**ACCESSORIES:** 

LENGTH: 1000mm

120<sub>MM</sub>

**85**MM

END CAP CLOSED **END CAP OUTLET** 



#### **TECHNICAL:**

#### **ACCESSORIES:**

LENGTH: 1000<sub>MM</sub> WIDTH:

98-360<sub>MM</sub> 50-150<sub>MM</sub>

END CAP CLOSED

## MINI RANGE

### LOW-PROFILE SYSTEMS

#### **TYPICAL APPLICATIONS:**

Housing Estates, Pedestrian Walkways, Squares, Car Parks, Access ways.....

Channels specially designed for areas with limited height, such as reinforced slabs and floors of garages, basements, showers, changing rooms, inverted roofs, etc.

Channels from 50 mm (MINIKIT model) to 150 mm in height.

All types of grating, materials (cast iron, galvanized steel, stainless steel, etc.) and load classes up to C 250 available.



### DOMO

#### POLYMER CONCRETE

#### **TYPICAL APPLICATIONS:**

Interior Streets, Gardens, Recreational Areas, Squares, Parks.....

Multipurpose, constant height channels (without slope), very practical in short drain stretches or with frequent outlets.

Available with various grating locking systems (quick system, locking bars, with screws), all types of grating materials up to load class C250.





#### **TECHNICAL:**

LENGTH: 1000mm WIDTH: 130mm

NEPTH: 8

80<sub>MM</sub>

#### **ACCESSORIES:**

END CAP CLOSED SUMP BUCKET



#### **TECHNICAL:**

LENGTH: 1000mm WIDTH: 130-266mm DEPTH: 65-185mm

#### **ACCESSORIES:**

END CAP CLOSED END CAP OPEN\* LEAF GUARD\*

## HYDRO RANGE

### DURABLE & LIGHT

#### **TYPICAL APPLICATIONS:**

Interior Streets, Domestic Driveways, Gardens, Recreational Areas, Squares, Parks, Food Warehouses, Sports Facilities, Dressing Rooms.....

Multipurpose, constant height channels (without slope), available in a range of profiles. Manufactured in thermoplastic matrix composite, Polypropylene (PP)/Polyethylene (PEHD), with mineral filler reinforcement. Lightweight and easy to transport and handle. High drainage capacity & widely chemical resistant.

Available with various grating locking systems (quick system, locking bars, with screws), all types of grating materials up to load class C250.



### U-SYSTEM

#### POLYMER CONCRETE

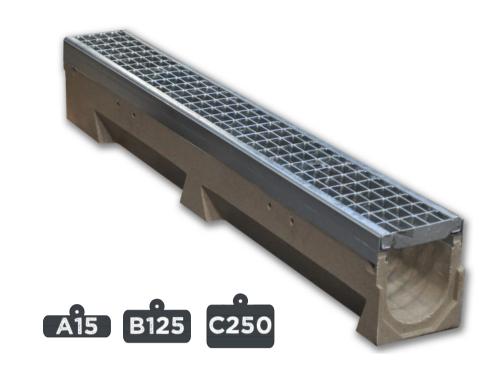
#### **TYPICAL APPLICATIONS:**

Housing Estates, Squares, Pedestrian Access to Car Parks.....

Channels without slope & with built-in slope, continuous and/or cascaded. A15, B125 and C250 class gratings.

The continuous and/or cascaded slope arrangement makes it possible to install long stretches of channelling between evacuation points.





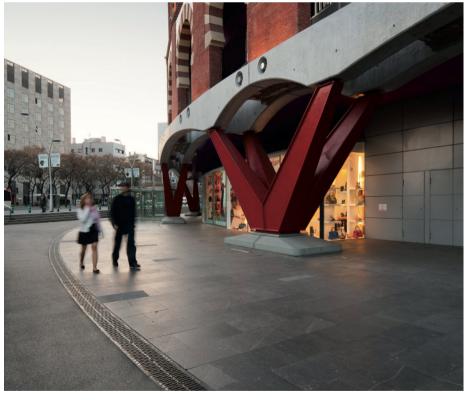
#### **TECHNICAL:**

LENGTH: 1000mm WIDTH: 130-360mm

ГН: 130-465мм

#### **ACCESSORIES:**

END CAP CLOSED END CAP OPEN SUMP & BUCKET STEP UNITS



## A15 B125 C250

#### **TECHNICAL:**

LENGTH: 1000mm WIDTH: 130-360mm DEPTH: 150-490mm

#### **ACCESSORIES:**

END CAP CLOSED END CAP OPEN SUMP & BUCKET STEP UNITS

## UK SYSTEM

### POLYMER CONCRETE

### TYPICAL APPLICATIONS:

Squares, Pipes, Housing Estates.....

Channels without slope, with continuous and/ or cascaded slope, provided with galvanized reinforcement profile, embedded in the channel, which also facilitates the execution on site and proper finishing of the adjacent pavement.

This system allows the use of gratings of up to load class C250, suitable for areas with transverse passage of vehicles, such as housing estates and car parks for light vehicles.



### SELF-K

#### POLYMER CONCRETE

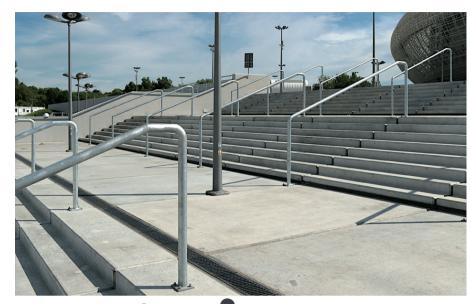
#### **TYPICAL APPLICATIONS:**

Interior Streets, Gardens, Recreational Areas, Squares, Parks.....

Multipurpose, constant height channels (without slope), very practical in short drain stretches or with frequent outlets.

Available with various grating locking systems (quick system, locking bars, with screws), all types of grating materials up to load class C250.







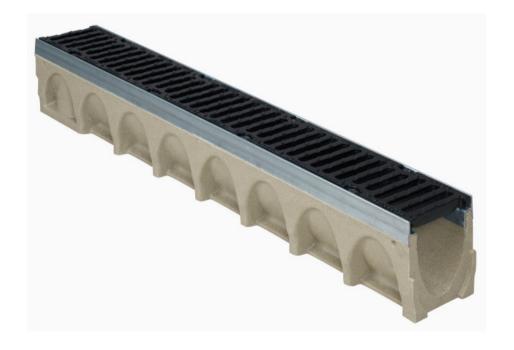
#### **TECHNICAL:**

LENGTH: 1000mm 130<sub>MM</sub>

100<sub>MM</sub>

#### **ACCESSORIES:**

END CAP CLOSED SUMP BUCKET









#### **TECHNICAL:**

LENGTH: 1000<sub>MM</sub> 136-236мм 80-370<sub>MM</sub>

#### **ACCESSORIES:**

END CAP CLOSED **END CAP OPEN** SUMP & BUCKET STEP UNITS

## MULTIV+

### POLYMER CONCRETE

#### **TYPICAL APPLICATIONS:**

**Pedestrian & Shopping Areas, Parking Areas** for All Types of Vehicles.....

The evolution of R&D processes and our 20+ years of experience in drainage solutions has enabled us to develop a new line of products better suited to market needs, providing in a single system the advantages of our other lines: the economy of the SELF system, the low heights of the MINI range, the 8-point fastening of the F line and the option of presloped, cascaded or mixed slope provided for by the U and UK systems.

The MULTIV+ is available in different heights, and up to a load class of D400.



### F-SYSTEM

#### POLYMER CONCRETE

TYPICAL APPLICATIONS: Motorways, Airports, Loading & Unloading Areas, Ports...

4 screws per grating, designed for heavy traffic areas & especially for sections where the grating is subject to large axial forces due to the manoeuvring & braking of vehicles, such as service stations, loading & unloading areas in ports & warehouses, airports, public roads, car parks for heavy vehicles, etc. Reinforced with galvanized steel profiles. It is possible to incorporate a continuous 2.5% slope &/or cascaded slope.

Available with modular cast iron grating with a load class of up to F900.





#### **TECHNICAL:**

LENGTH: 1000mm WIDTH: 156-362mm

DEPTH: 190-600mm

#### **ACCESSORIES:**

END CAP CLOSED SUMP BUCKET



#### **TECHNICAL:**

LENGTH: 1000mm WIDTH: 154-262mm DEPTH: 235-725mm

#### **ACCESSORIES:**

END CAP CLOSED END CAP OPEN SUMP & BUCKET STEP UNITS

## KOMPAQDRAIN

### MONOLITHIC RANGE

TYPICAL APPLICATIONS: Motorways, Service Stations, Airports, Loading & Unloading Areas, Ports...

'One-piece' polymer concrete construction, with formed grating incorporated seamlessly within the channel, specially designed for areas with high traffic density and is suitable up to load class F900.

This system is Compact, Extremely Durable, Quick to Install, Self-Cleaning & Provides Maximum Security.

Incorporates Max Flow® System, increasing the water speed and the drainage capacity.



### GRATING OPTIONS

### GALVANISED STEEL

- Available in standard slot, slim slot, mesh & perforated types
- A15 to C250 loading classes
- Slim slot (6mm) available in A15, standard slot up to C250
- To suit a 100mm, 150mm & 200mm wide channel from stock
- Click lock, Base Screw and Bolt & bar locking available

#### DUCTILE IRON

- Available in standard slot, slim slot, wave & solid top types
- B125 to F900 loading classes
- Slim slot (6mm) available for C250, D400, E600 & F900 loading
- To suit 100, 150, 200 & 300mm wide channels from stock
- Click lock, Base Screw, Bolt & bar, RapidLock & 4-bolt locking

#### COMPOSITE

- Available in slim slot (6mm slot)
- C250 loading class
- To suit a 100mm wide channel from stock
- Reduced risk of theft
- Base Screw and Bolt & bar locking versions available

### STAINLESS STEEL

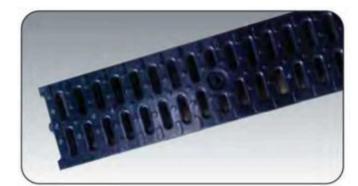
- Available in standard slot, mesh, topslot & perforated types
- A15 to C250 loading classes
- Suits a 100mm wide channel (other widths manufactured to order)
- Base Screw and Bolt & bar locking versions available
- Stainless steel edge channels available (manufactured to order)

### TOPSLOT

- Available in galvanised steel & stainless steel
- To suit various widths of channel
- C250 loading class
- Available with centred or off-set slots
- A range of upstands available from 70 200mm



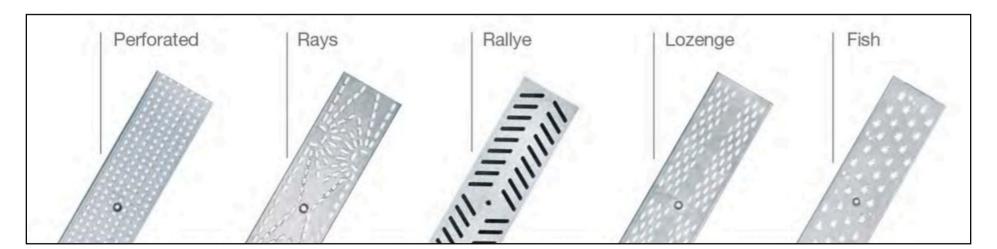








### DECORATIVE GRATINGS





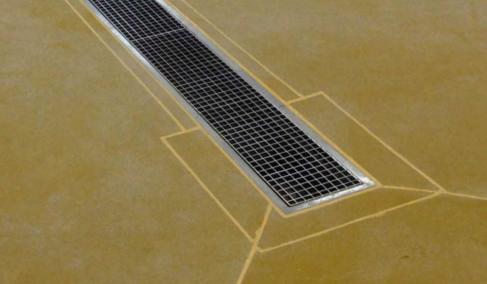
### STAINLESS STEEL FLOOR DRAINS

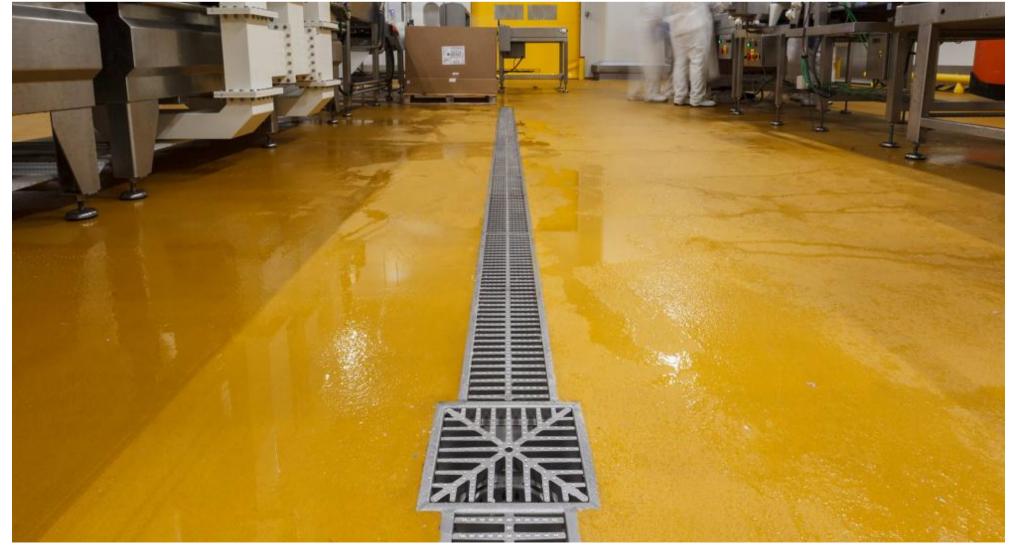
Know for its corrosion resistance & cleanability, stainless steel has proven to be an excellent choice for internal & external drainage where standard gratings may otherwise be unsuitable. Easy to install & maintain, both channels and floor drains can be supplied in a variety of profiles suitable for a range of floor finishes and applications.

#### KEY BENEFITS

- Suitable for most floor finishes inc. vinyl, tiled, epoxy resin & concrete
- Channels manufactured to suit each specific project (inc. technical drawings)
- Quick lead times for fabricated stainless steel
- Various depths, widths & lengths available
- Site visit and drawing take-offs readily available
- Loading classes A15 F900
- Stainless steel grades 304 and 316 available
- Certified to recognised quality standards ISO9001 (QA) & ISO14001 (Environment)

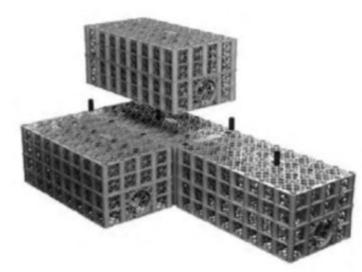








### RAINWATER HARVESTING & ATTENUATION



Modular geocellular structures can be used for the control & management of surface water. Most cellular structures are designed to withstand vertical loads of up to 40 tonnes and are suitable for attenuation or soakaway applications in light trafficked areas. Modular cells are assembled together to create a structure of any shape or size to hold water run-off from roofs, gutters or surface drains.

The modular structure can be wrapped in an impermeable membrane (attenuation) or permeable membrane (for infiltration) to control surface water entering & exiting the tank. The units are lightweight & easy to handle and have unique rounded corners to prevent punctures to the membrane during installation. With the use of a silt trap and Flow Control Device, sediments can be removed before entering the tanks to prevent 'silting-up' and water discharged at a set rate.

### KEY BENEFITS

- 95% void ratio providing greater water storage capacity & reduced excavation & disposal costs
- Modular versatility; ideal for shallow excavation systems, narrow strips or restricted areas
- Lightweight yet robust; installation benefits inc. reduced manual handling (better health & safety)
- Easy to handle; unique rounded corners for ease of handling & reduces likelyhood of punctures
- Cost effective, especially when used as a hybrid system
- Spans for 20 tonnes per square metre load bearing up to a maximum of 80 tonnes
- 50 year design life (100% recyclable at end of life)
- BBA approved

### GEOTEXTILES

Made from tightly woven extruded polypropylene tapes or thermally bonded non-woven material & giving a high degree of tensile strength with exceptional puncture resistance, our range of strong, durable & porous geotextiles are widely used in groundwork projects where filtration, drainage, seperation, stabilisation & reinforcement are required.

Perfect for dividing layers of infill materials & aggregates, also effective in wrapping around drainage pipes or geocellular structures to create a filtration membrane. Our long lasting, weather/UV resistant geotextiles are also ideal for ground cover problems, including weed control.







### ECO PARKING GRASS PAVER





Eco-Parking is quick and easy to install creating attractive, permeable and low maintenance parking areas, driveways, walkways & hard-standings for a multitude of applications including cabins, containers, garden rooms, sheds and much more.

The honeycomb design provides increased strength and each panel creates an interlocking system that can simply be laid over any area of stable ground, that once in-filled can withstand traficking from pedestrians and vehicles with up to 20 tonne axle load.

Filled with attractive coloured aggregate, gravel or seeded soil, the finished appearance is aesthetically pleasing and provides stability to an area of ground that would otherwise be vulnerable to scrubbing & churning effects caused by pedestrian & vehiclar access. Eco Parking is particularly suitable for locations where the introduction of traditional hard landscaping materials could potentially have a negative visual impact.

Structural integrity is guaranteed as frost and UV resistant Eco-Parking will remain dimensionally stable during all seasonal conditions making it the ideal choice for any location requiring erosion prevention and ground reinforcement/stabilisation.

Eco-Parking is extremely versatile, easy to install and can be cut so as not to impede planted trees or shrubbery, enabling inclusion of railings, fencing and other physical barriers if required.

Parking bays and walkways are easily demarcated using ECO-Parking delineator accessories.

#### KEY BENEFITS

- Reinforces ground and increases wear resistance
- Provides cost-effective & hardwearing surface
- Permeable design facilitating natural drainage
- Quick & easy to install
- Durable & lightweight
- Easy-Fix connection system
- Minimal maintenance
- Prevents gravel migration
- Non-slip and crack-proof
- Environmentally effective
- Sustainable solution vs traditional surfacing types
- Weatherproof (water, frost & UV resistant)
- Dimensionally stable
- High strength (up to 200 t/m)
- Up to 20 tonne axle load available
- Low transport and handling costs
- Delineation accessories available (spaces & walkways)
- Available in 333 x 333mm or 500 x 500mm versions





# MANHOLE COVERS, GULLY GRATES, & ACCESS COVERS

Manufactured from cast iron, ductile iron, galvanised steel, stainless steel, aluminium, GRP or composite material our comprehensive range is available in a variety of sizes and types to suite most applications.

All manhole covers & frames are manufactured to a clear opening size (this is the size of the hole which the cover & frame is to span). We can also offer a design and quotation service for non-standard items which can be made to specification.

Our extensive range also includes many ancillary items including stop tap boxes, surface boxes and lifting keys.

COMPOSITE MANHOLE COVERS





STEEL MANHOLE COVERS



DUCTILE IRON MANHOLE COVERS



LIFTING KEYS



GULLY GRATES



GRIDS



NEED A BESPOKE COVER?..... WE CAN TAKE CARE OF THAT TOO!



## BLOCK PAVIOR COVERS

WITH INTEGRAL KEYS





#### **SPECIFICATION**

- 80mm deep in-tray, medium duty, recessed manhole cover for block paving or slab infill / screed
- Built-in heavy duty lifting keys No tools required!
- Suits block paving and slabs up to 65mm deep
- Robust metal frame, lid & lifting keys
- Usage: For external usage with infrequent slow moving traffic up to 10 tonnes

300 & 450mm Recessed Square to Round PPI Chamber Covers for block paving & flagged areas Circular clear opening to fit proprietary inspection chambers.

600 x 450 Shallow 45mm deep, ideal for imprinted concrete driveways & thinner paving stones TECHNICAL DETAILS:

With in-built keys Shallow	600 x 600mm 600 x 450mm 600 x 450mm
Square to Round Square to Round	450mm 300mm

600 x 450mm
600 x 600mm
750 x 600mm
900 x 600mm
750 x 750mm
1200 x 600mm
750 x 750mm
600 x 450mm
600 x 600mm
600 x 450mm
600 x 600mm



Alternatives available with screw-down lids



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