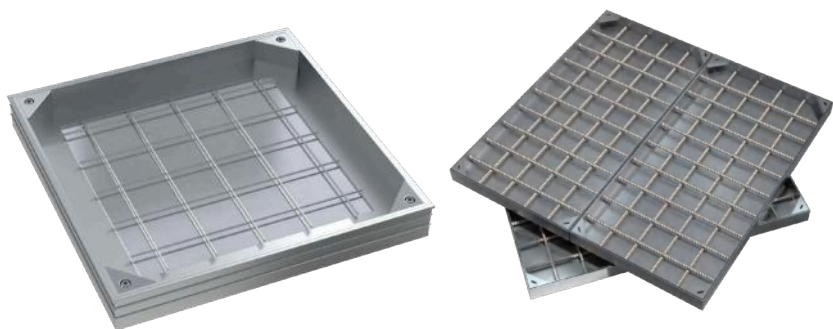




Drain Channel System



Manhole covers

MoonBay Profile

Hangzhou Moonbay Industrial Co., Ltd is a professional construction material manufacturer integrating obligation with R&D, design, produce, sale and service.

Since its **establishment on July 25, 2013**, we have over **50 engineers and more than 150 workers**, the company has developed and produced products such as: PP/HDPE Drain channel, Polymer concrete drain channel, Steel pedestal, Adjustable Pedestal, Manhole Cover, Aluminum Decking, Garden Edge, Tile Leveling System etc... with **32 innovative patents**.

Being honest, professional, innovative and positive is our business concept. Offering great quality product and excellent service is one of our mission.

Moonbay factory located in Zhuji, Shaoxing with **13000 SQM area**. There are over **60 automatic production Line**. Moonbay building material support **10,000+ project** every year. It's now world-famous brand and hot selling in Europe, Asia, Australia, North America. We look forward to cooperating with you.



13000+

13000 SQM area factory



30+

Innovative patents



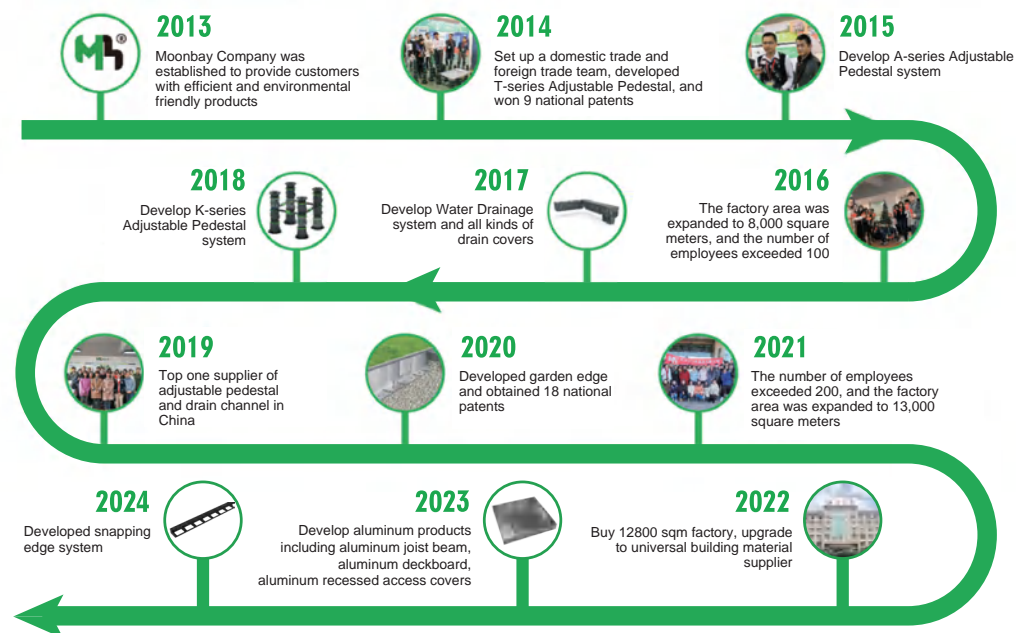
60+

Automatic production Line



60+

Sales around the world



Mission: Create More Efficient And Eco-friendly Product

Vision: To Be The Benchmarking Enterprise In Building Material Industrial

Value: Honesty, Profession, Innovation, Optimism



Factory video

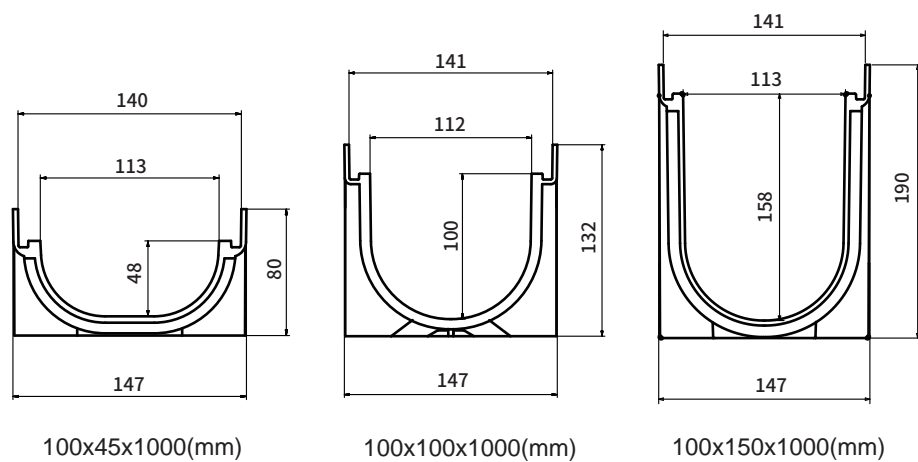
Drainage Ditch



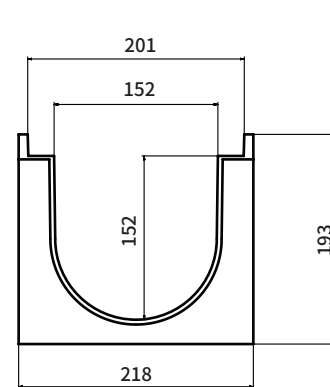
ID100 Series(mm)



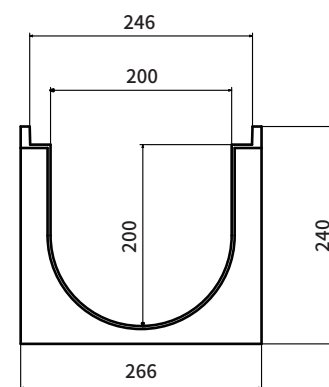
Drain Channel System



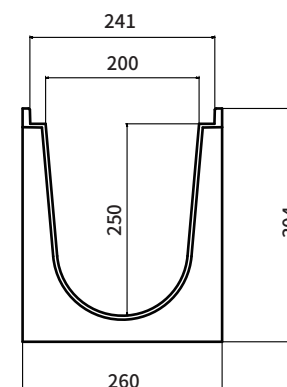
ID 150/200/250 Series(mm)



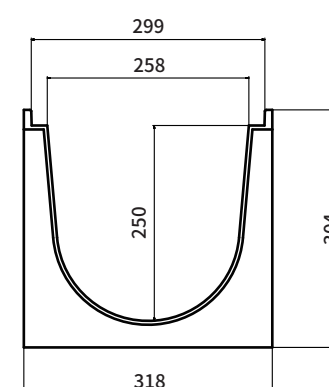
150X150X1000(mm)



200X200X1000(mm)



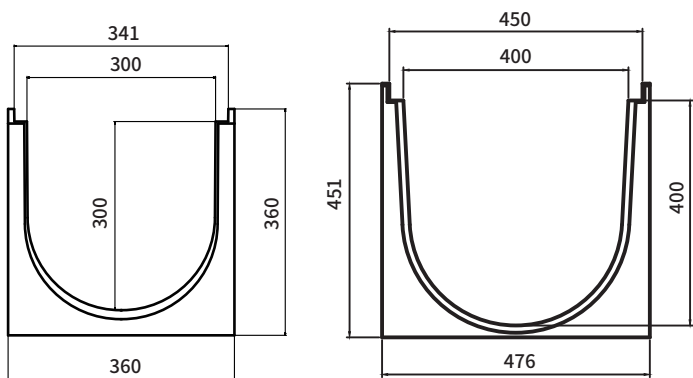
200X250X1000(mm)



250X250X1000(mm)

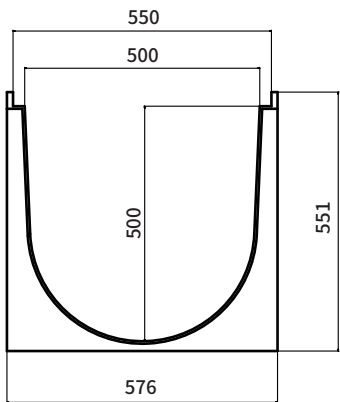


ID 300/400/500 Series(mm)









300X300X1000(mm)

400X400X1000(mm)

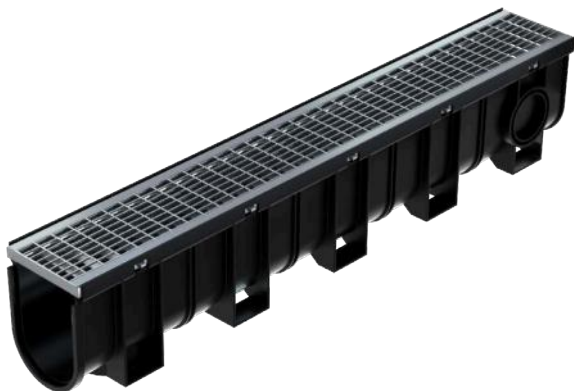


500X500X1000(mm)

Load Classification

	Class Rating	Load(KN)	Typical Uses
	A	15	Residential and light pedestrian traffic
	B	125	Sidewalks and small private parking lots
	C	250	Parking lots and general commercial areas
	D	400	Trafficked sections of roads and highways
	E	600	Aircraft hangars, industrial areas, gas stations and light commercial forklifts
	F	900	Aircraft runways, military establishments, docks, heavy industrial, heavy fork trucks and very heavy wheel loads

Channel Covering



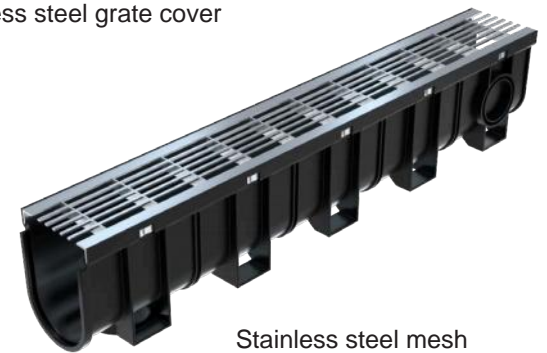
galvanized steel
mesh grate cover



Stainless steel grate cover



PP/HDPE plastic cover



Stainless steel mesh
grate cover



Iron cast cover



T slot stainless
steel cover



L slot stainless
steel cover



U slot stainless
steel cover



Channel Covering

Drainage Ditch Details



100x45x1000
Drain Channel And PP/HDPE Cover
Four-way Joint And PP/HDPE Cover
End Cap










100x100x1000
Drain Channel And PP/HDPE Cover
Four-way Joint And PP/HDPE Cover
End Cap



100x150x1000
Drain Channel And PP/HDPE Cover
Four-way Joint And PP/HDPE Cover
End Cap

ID 100 drain channel cover details

Covers				
Name	Stainless steel grate cover	PP/HDPE plastic grate cover	L slot stainless steel cover	T slot stainless steel cover
Loading	A15	B125	B125/C250/D400	B125/C250/D400
Material	stainless steel/galvanized steel	PP/HDPE	stainless steel	stainless steel
Type	grate cover	grate cover	L slot cover	T slot cover
Note	customized	mold production	customized	customized





Covers			
Name	Stainless steel mesh grate cover	Galvanized steel mesh grate cover	Iron cast cover
Loading	C250/D400	C250/D400	D400
Material	stainless steel	galvanized steel	iron cast
Type	mesh grate cover	mesh grate cover	grate cover
Note	customized	customized	mold production






Channel Covering




ID 150/200/250 drain channel cover details

Covers				
Name	Stainless steel grate cover	PP/HDPE plastic grate cover	L slot stainless steel cover	T slot stainless steel cover
Loading	A15	A15	B125/C250/D400	B125/C250/D400
Material	stainless steel/galvanized steel	PP/HDPE	stainless steel	stainless steel
Type	grate cover	grate cover	L slot cover	T slot cover
Note	customized	mold production	customized	customized





Covers			
Name	Stainless steel mesh grate cover	Galvanized steel mesh grate cover	Iron cast cover
Loading	C250/D400	C250/D400	C250
Material	stainless steel	galvanized steel	iron cast
Type	mesh grate cover	mesh grate cover	grate cover
Note	customized	customized	mold production



ID 300 drain channel cover details

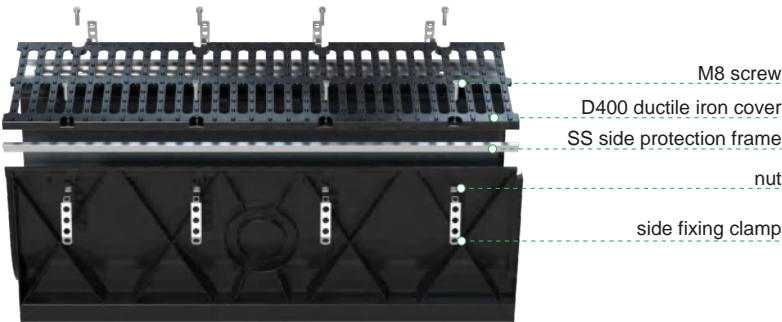
Covers				
Name	PP/HDPE plastic grate cover	L slot stainless steel grate cover	T slot stainless steel cover	U slot stainless steel cover
Loading	A15	B125/C250/D400	B125/C250/D400	B125/C250/D400
Material	PP/HDPE	stainless steel	stainless steel	stainless steel
Type	grate cover	L slot cover	T slot cover	U slot cover
Note	customized	customized	customized	customized

ID 400/500 drain channel cover details

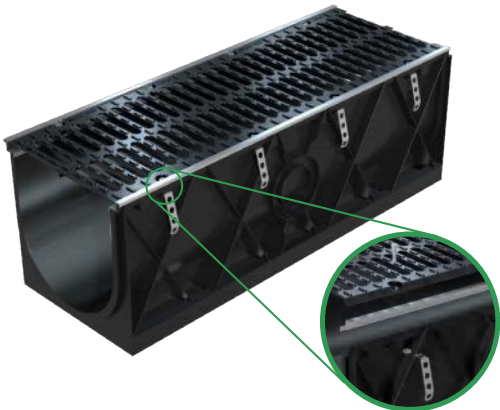
Covers				
Name	Stainless steel mesh grate cover	Galvanized steel mesh grate cover	Iron cast cover	PP/HDPE plastic grate cover
Loading	C250/D400	C250/D400	C250	A15
Material	stainless steel	galvanized steel	iron cast	PP/HDPE
Type	mesh grate cover	mesh grate cover	grate cover	grate cover
Note	customized	customized	mold production	customized

D400 Ductile Iron Side Protection Bar

This ductile iron side protection frame is specially designed for D400 loading cover, matched with Moonbay PP/HDPE drain channel and SMC/GRP drain channel. Each meter using 4 pcs of ductile iron protection bar, and locked with screws and nuts. After pouring the concrete, the side clamps are firmly fixed to the concrete.



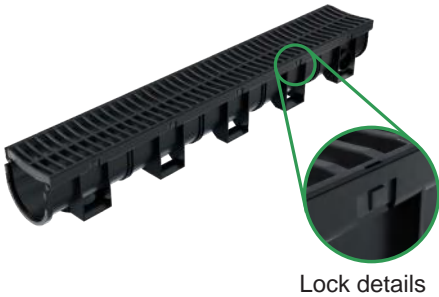
PP/HDPE drain channel assembled with stainless steel side protection frame(D400 cover), when loading requirement is D400, we recommend to use this stainless steel side protection frame, this will help to protect the channel edge, and the side clamp can be security fixed to concrete.



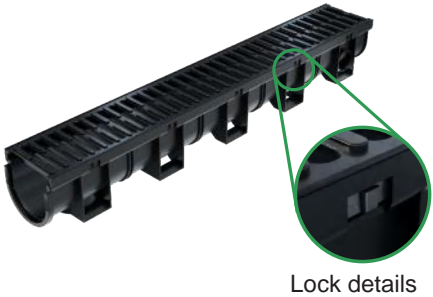
Each meter using 8 pcs M8 screws and nuts, they can lock the cover one the channel. After pouring the concrete, the side clamp are firmly fixed to the concrete. This means the cover are locked with concrete by the screws and side fixing clamps.

Cover lock detail

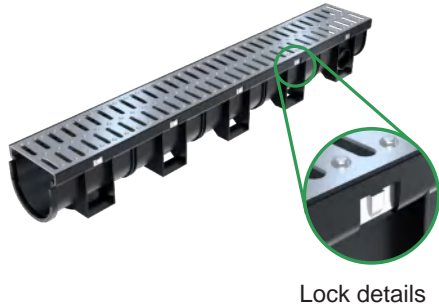
ID100 PP/HDPE Drain Channel And PP/HDPE Cover



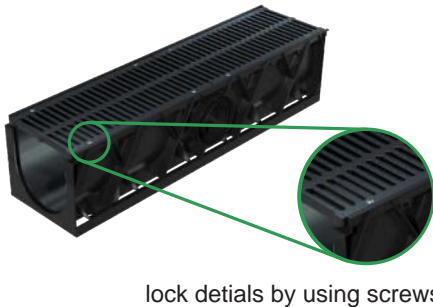
ID100 PP/HDPE Drain Channel And Iron cast cover



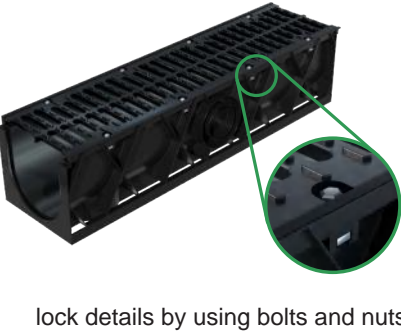
ID100 PP/HDPE Drain Channel And Stainless steel grate cover



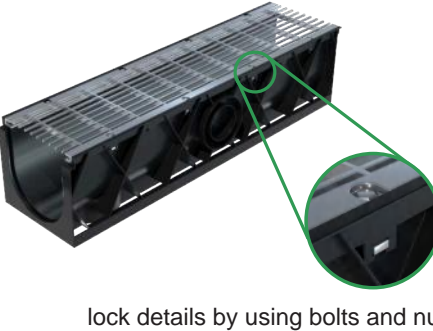
ID150/200/250/300/400/500 PP/HDPE Drain Channel And PP/HDPE Cover



ID150/200/250/300/400/500 PP/HDPE Drain Channel And Iron cast cover



ID150/200/250/300/400/500 And galvanized steel mesh grate cover



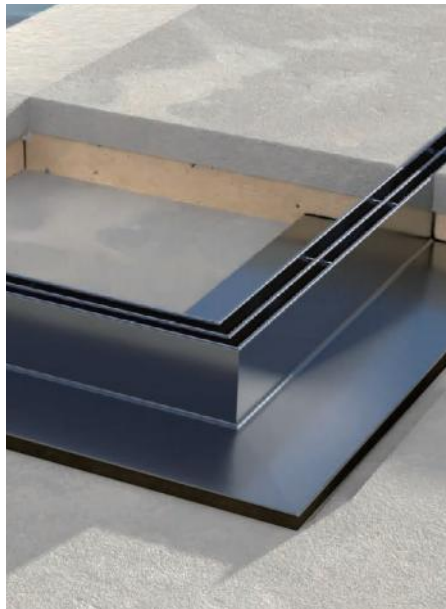
Polymer concrete drain channel & SMC trench drain channel



Polymer concrete drain channel



SMC trench drain channel





Drain Channel with Stainless
Steel Cover installation operation video



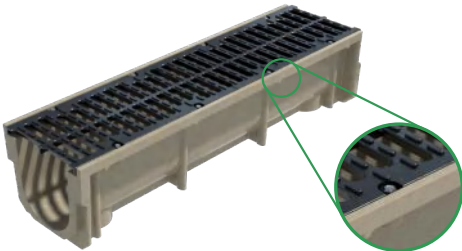
Polymer concrete
drain channel



Compare	Polymer concrete drain channel	SMC trench drain channel
Material	Polymer concrete	SMC (Sheet molding compound)
Picture		
Additive	Resin, sand, gravel	Unsaturated polyester resin
Forming process	Vibration or compaction process	High pressure mold filling process
Loading	A15/B125/C250/D400/E600/F900	A15/B125/C250/D400
Advantage	Hight strength, hight loading, low maintenance	light, cheap, middle-high strength and loading, low maintenance
Disadvantage	Heavy, a little expensive	Can not stand E600/F900 loading
Cover	Iron cast, stainless steel, polymer concrete etc...	Iron cast, stainless steel, SMC etc...
Product Cost	High Cost	Cost Effective

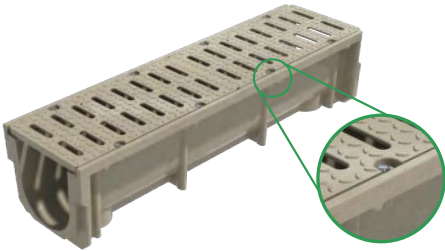
Cover lock detail

SMC polymer drain channel and iron cast cover



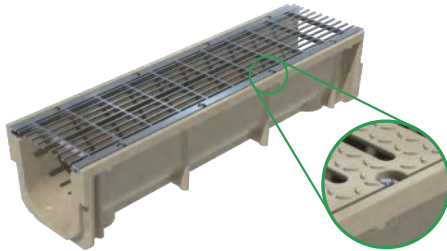
lock details by using bolts and nuts

SMC polymer drain channel and polymer concrete cover



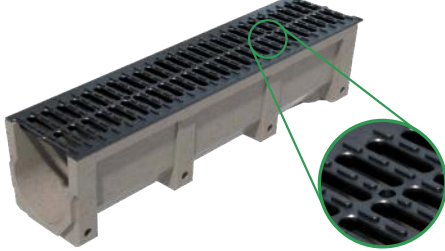
lock details by using bolts and nuts

SMC polymer drain channel and stainless steel mesh grate cover



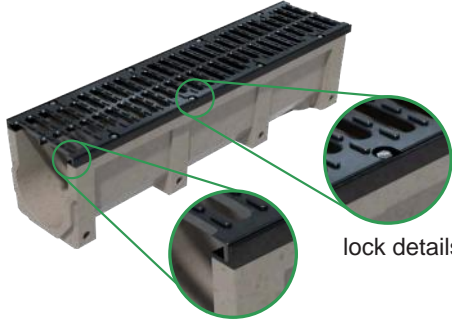
lock details by using bolts and nuts

Polymer concrete drain channel and iron cast cover



lock details by using bolts and nuts

Polymer concrete drain channel and iron cast cover with side protect



lock details by using bolts and nuts

Moonbay SMC polymer drain channel

Code	Size	Material	inner width (mm)	inner height (mm)	outer width (mm)	outer height (mm)	spacing for cover width (mm)	weight (kgs/pc)
U-80	YBW U80-60-1000	SMC	80	45	120	60	100	3.4
U-100	YBW U100-100-1000		100	65	165	100	146	4.3
	YBW U100-150-1000			115		150		5
U-150	YBW U150-200-1000		150	165	220	200	200	8
	YBW U150-250-1000			215		250		9.2
	YBW U150-300-1000			265		300		11
U-200	YBW U200-200-1000		200	165	265	200	245	8
	YBW U200-250-1000			215		250		9.8
	YBW U200-300-1000			265		300		11.2
U-250	YBW U250-250-1000		250	215	315	250	293	11
	YBW U250-300-1000			265		300		12
	YBW U250-350-1000			315		350		14.8
U-300	YBW U300-300-1000		300	275	360	300	336	14.8
	YBW U300-350-1000			315		350		15.5
	YBW U300-400-1000			365		400		18



Installation steps



► Step 1: Excavate virgin soil according to the channel size, put the pipe on position.



► Step 2: Cut the bottom hole



► Step 3: Pour the foundation with C20/25 cement, mount the channel to the foundation



► Step 4: Use glue to seal the connection area



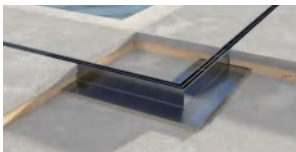
► Step 5: Carry out side support of the channel with C20/25 cement



► Step 6: Lay and compact the sub-base, Lay sand and cement bedding, Lay the surface pavement.



► Step 7: Install the corner with right-angle channel,



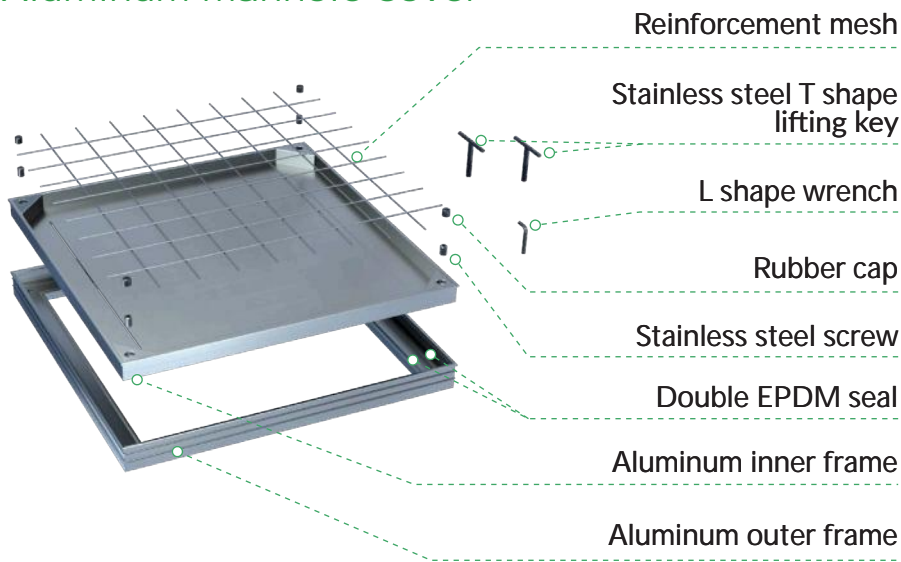
► Step 8: Repeat step 4-5



► Step 9: Repeat step 6

Manhole covers

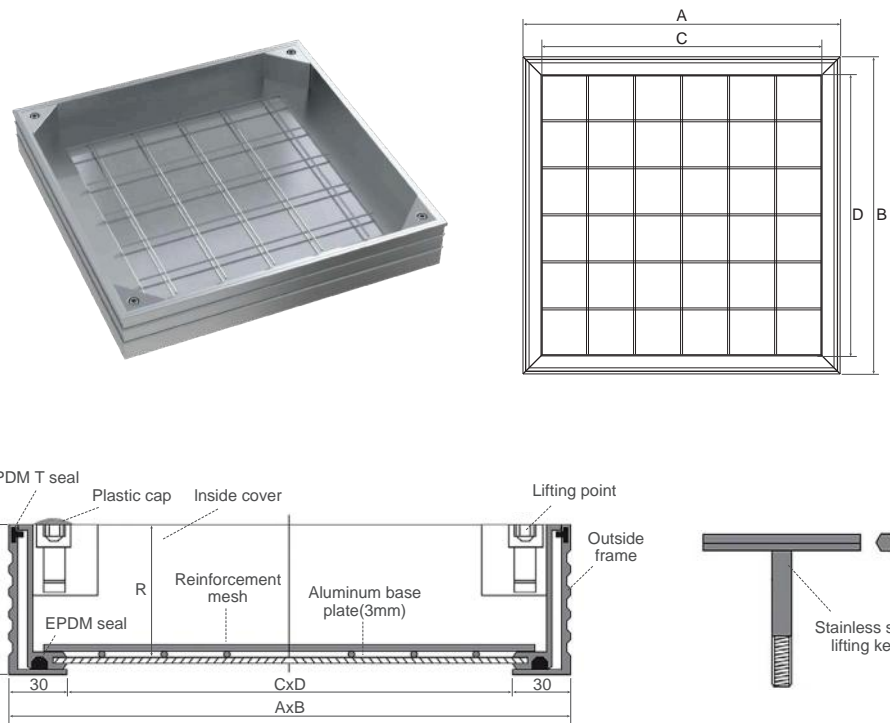
Aluminum manhole cover

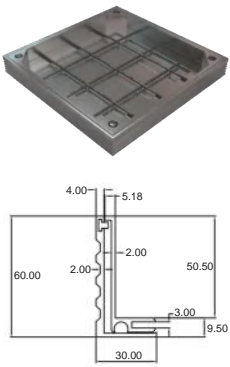
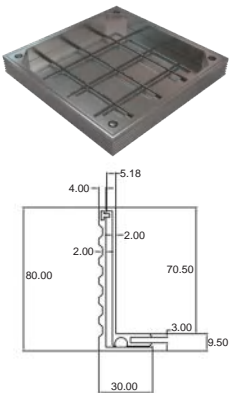


Aluminum manhole cover have many advantage over stainless manhole cover is some area, especially light loading areas. The bottom plate can be made of aluminum or galvanized steel. Aluminum is much cheaper and lighter than stainless steel, this means they are more easy and fast to install, saving a lot labor, with the seal strip, they are more quite when walking on it, and aluminum cover are 100% recyclable.

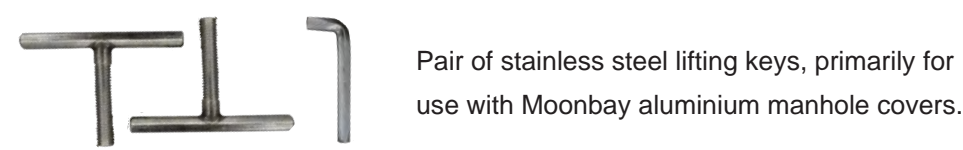


Aluminum manhole cover



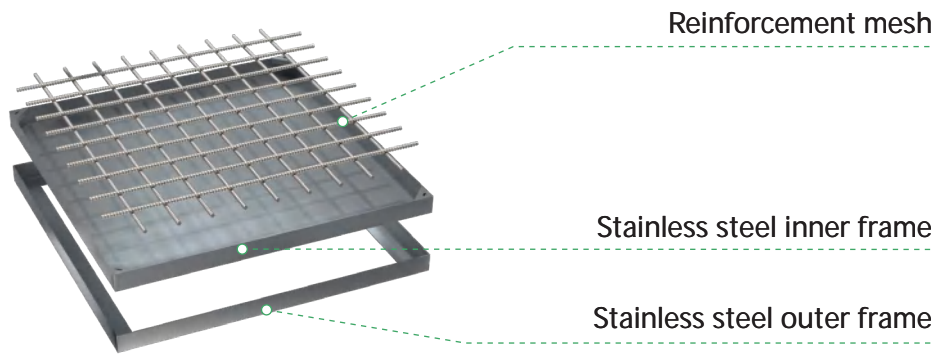
Picture	Overall Size (AxB)(mm)	Clear Opening (CxD)(mm)	Weight (kg)	Overall Depth (H)(mm)	In Tray Depth (R)(mm)
	300*300	240*240	2.35	60	52
	400*400	340*340	4		
	500*500	440*440	5.46		
	600*600	540*540	7.03		
	700*700	640*640	8.94		
	800*800	740*740	10.97		
	900*900	840*840	13.03		
	1000*1000	940*940	15.47		
	300*300	240*240	2.8	80	72
	400*400	340*340	4.7		
	500*500	440*440	6.31		
	600*600	540*540	8.03		
	700*700	640*640	10.1		
	800*800	740*740	12.29		
	900*900	840*840	14.5		
	1000*1000	940*940	17.1		

Accessories - Aluminium Manhole Cover Lifting Keys



Stainless steel manhole cover

Stainless steel manhole covers are used in various project areas where their specific advantages. They perform excellent in some factor, such as good durability, Corrosion Resistance, Chemical Resistance, Low Maintenance, Longevity, Versatility, Fire Resistance, etc.



Compare	Aluminum manhole cover	Stainless steel manhole cover
Material	Aluminum	Stainless steel
Picture		
Loading	A15/B125/C250	A15/B125/C250/D400
Forming process	Extrusion, cut, weld, polish	Laser cut, weld, polish
Size	Length and width easy to be customized, New height require new mold	No mold required, easy to make any size and height
Advantage	Cheap, Quiet(absorb car pass sound), neat surface, low maintenance	High loading, neat surface, easy customized, low maintenance
Disadvantage	load up to C250, New height require new mold	Not as cheap and quiet as aluminum manhole cover
Application	Indoor, sidewalk, public square, garden etc...	Public square, parking lot, driveway, sidewalk,garden etc...

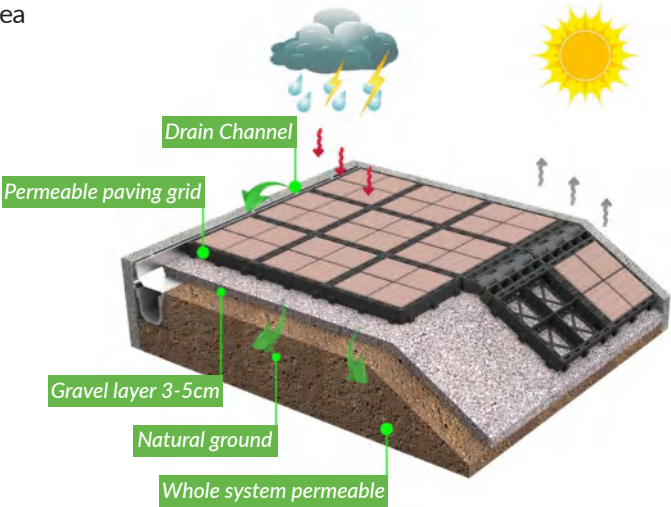
Moonbay permeable paving grid

Benefits

- ✔ Easy and quick installation (up to 100 m²/h per person)
- ✔ High resilience (up to 800 t/m²)
- ✔ Low maintenance
- ✔ Installation without heavy construction equipment
- ✔ No edging needed
- ✔ Permeable ground reinforcement
- ✔ Low transport and handling costs
- ✔ Versatile applicable, accessories available
- ✔ Weatherproof and unbreakable
- ✔ Safety interlocking, 36 notches per m²
- ✔ UV-resistant and frost proof
- ✔ Immediately green area
- ✔ 20 years warranty

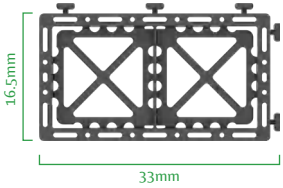


permeable paving grid



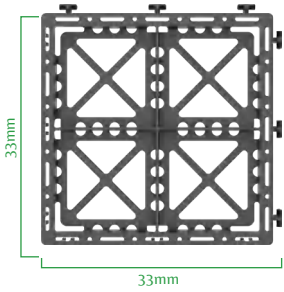
1/2 Permeable paving grid

Type	Moonbay
Dimensions	33cm x 16.5cm x 5cm
Weight/m ²	appro..85kg
Dimensional stability	-50 °C / 90 °C
Block dimensions	140x140x50mm (pieces)
Available colors	grey,white,red,dark grey
Special	rubber inserts available



Permeable paving grid

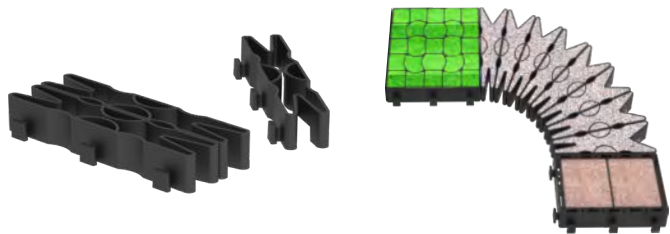
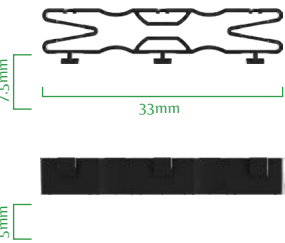
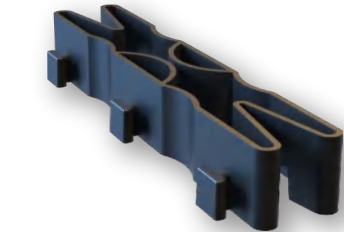
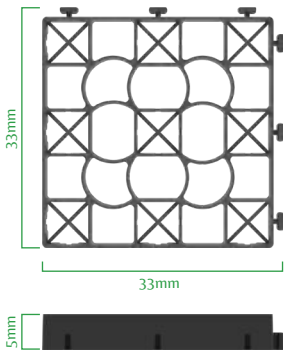
Type	Moonbay
Dimensions	33cm x 33cm x 5cm
Weight/m ²	appro..85kg
Dimensional stability	-50 °C / 90 °C
Block dimensions	140x140x50mm (pieces)
Available colors	grey,white,red,dark grey
Special	rubber inserts available





Permeable landscape grid

Type	Moonbay
Dimensions	33cm x 33cm x 5cm
Dimensional stability	-50 °C / 90 °C
Filling	Fill with gravel-glue-mix, screed redundant material
Available colors	grey,white,red,dark grey



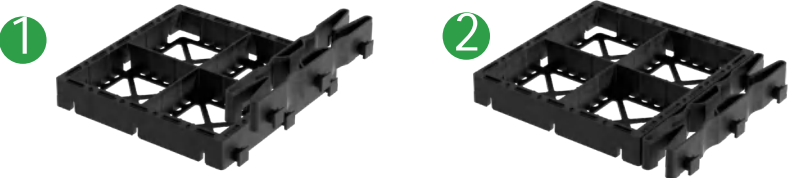
Turn accessory

Type	Moonbay
Dimensions	33cm x 7.5cm x 5cm
Dimensional stability	-50 °C / 90 °C
Filling	Fill with gravel-glue-mix, screed redundant material
Available colors	grey,white,red,dark grey

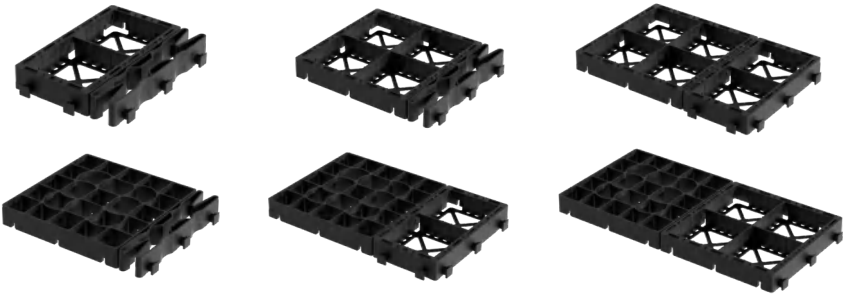


permeable paving grid

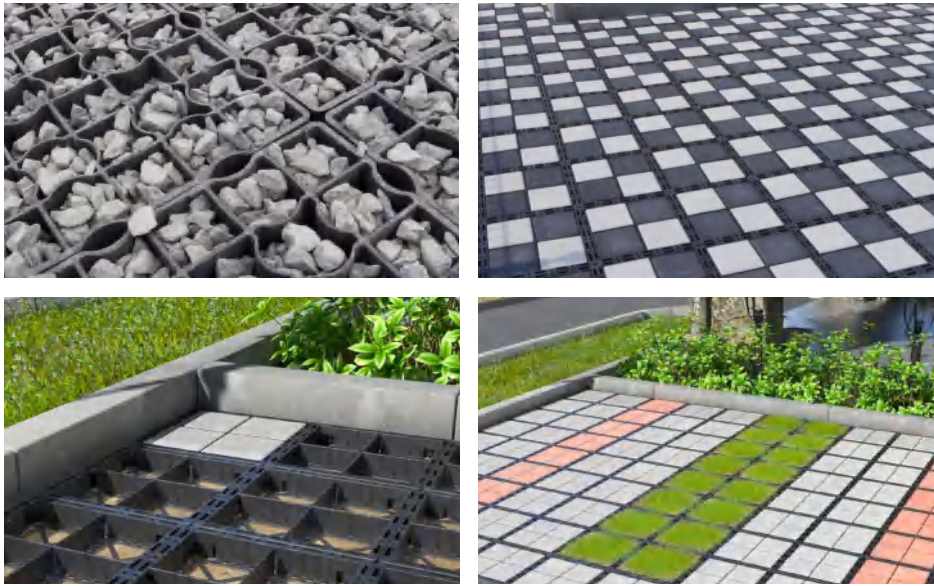
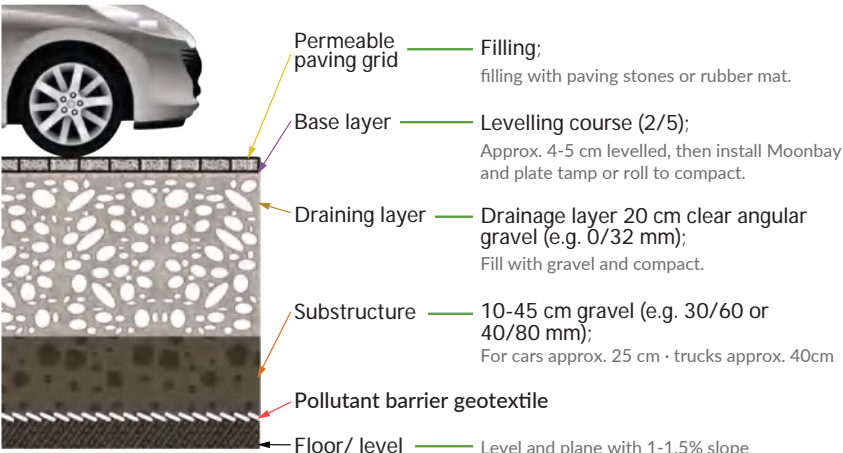
Click interlocking connection



Moonbay permeable paving grid system can be installed quickly and easily without heavy construction equipment. One pack is equal to 1.33 m² and consists of 12 single pieces (4x3). The weight of each pack is low and the click interlocking works quickly and easily.



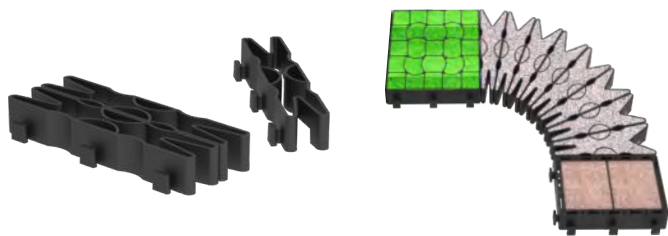
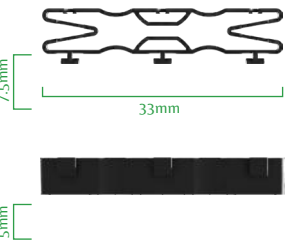
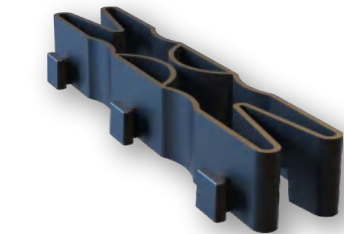
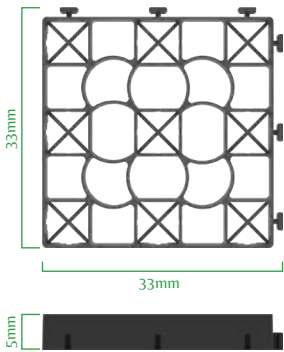
Click interlocking connection





Permeable landscape grid

Type	Moonbay
Dimensions	33cm x 33cm x 5cm
Dimensional stability	-50 °C / 90 °C
Filling	Fill with gravel-glue-mix, screed redundant material
Available colors	grey,white,red,dark grey



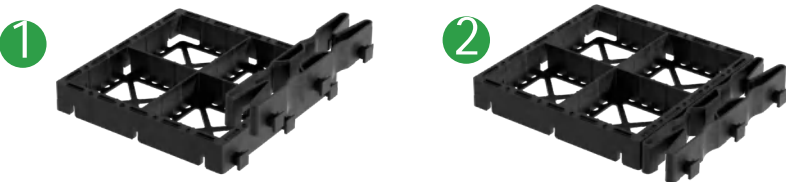
Turn accessory

Type	Moonbay
Dimensions	33cm x 7.5cm x 5cm
Dimensional stability	-50 °C / 90 °C
Filling	Fill with gravel-glue-mix, screed redundant material
Available colors	grey,white,red,dark grey

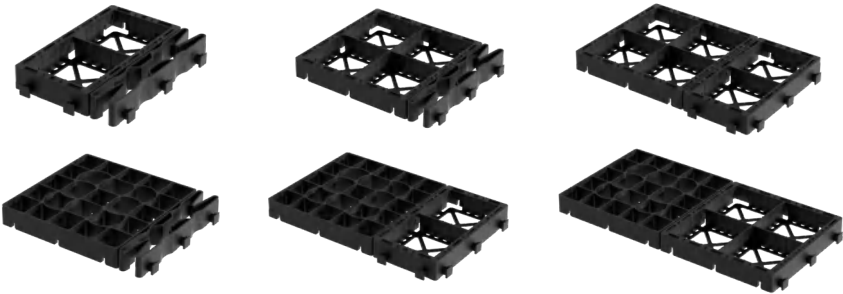


permeable paving grid

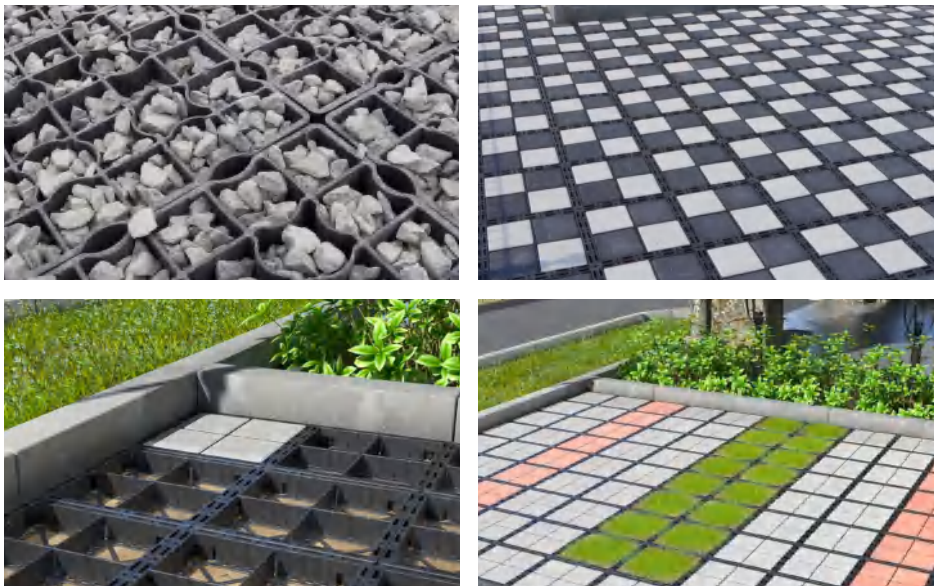
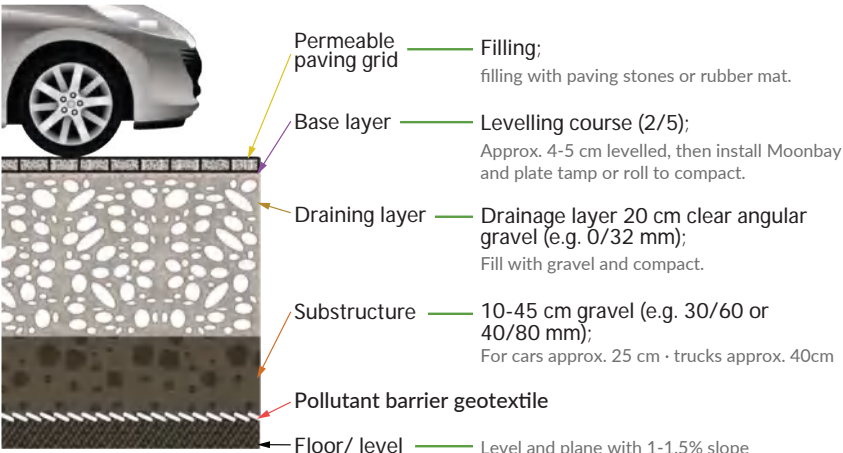
Click interlocking connection



Moonbay permeable paving grid system can be installed quickly and easily without heavy construction equipment. One pack is equal to 1.33 m² and consists of 12 single pieces (4x3). The weight of each pack is low and the click interlocking works quickly and easily.



Click interlocking connection





Profession



Honesty



Innovation

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