



GRASPOINTNER
Sustainable innovation.



Austria Center – Uno City, Vienna

Technology
in harmony
with nature.

BG-FILCOTEN

light
city mini
tec
pro

Drainage channel systems

BG-FILCOTEN When opposites,

FILCOTEN HPC (High Performance Concrete) is a material, that unites outstanding technical properties with ecological sustainability. The optimized high-density structure of HPC makes it possible to construct highly stable lightweight drainage channels – but it's the idea behind it that makes it unique.

Unique concept, revolutionary results.

Our engineers wanted to create a thing where two extreme opposites come together: maximum performance with minimum environmental impact.

Maximum performance, minimal environmental impact.

After intensive development work, they achieved their goal at last. FILCOTEN HPC embodies these opposites, making it unique in the marketplace.



Minimal weight

- FILCOTEN HPC enables lightweight construction
- Quick and easy to install
- Dimensionally stable, robust concrete elements



Maximum robustness

- Unsurpassed stability and durability
- High pressure resistance clearly exceeding the requirements per EN 1433 for concrete channels



Resistant to extreme temperatures and UV light

- Maximum frost and de-icing salt resistance
- UV-resistant



Fireproof

- Non-combustible building material – Class A1
- Therefore emits no toxic smoke



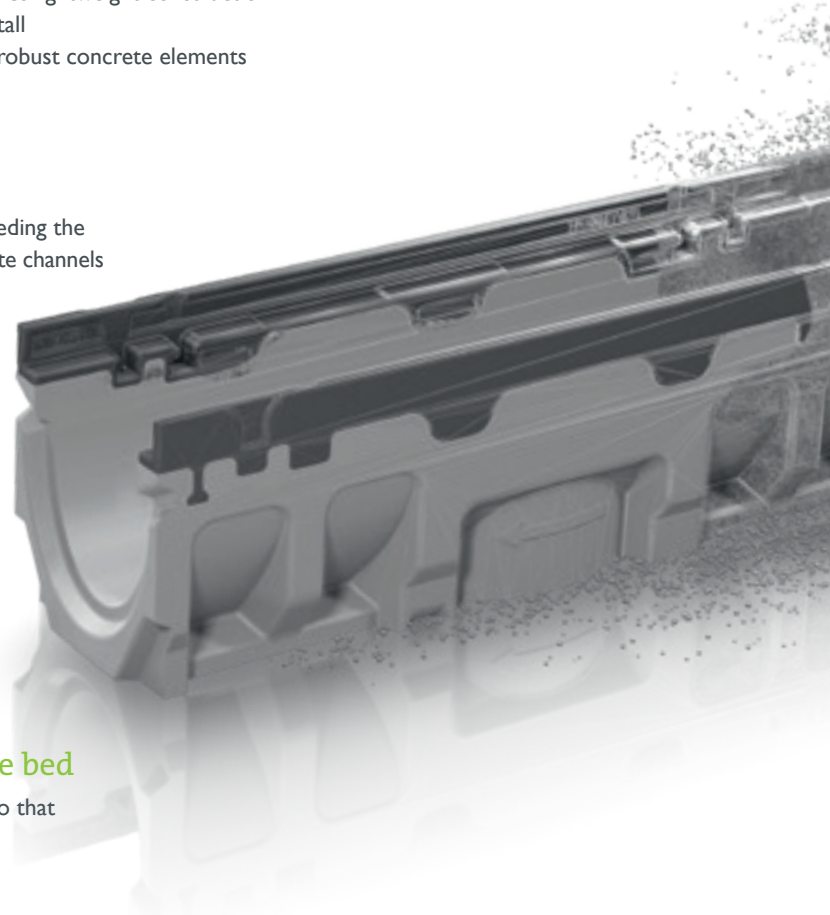
Perfect hold: in the concrete bed

- Ideal expansion coefficient, identical to that of the surrounding concrete



High drainage performance

- Low water absorption and penetration
- Smooth channel surface for high drainage performance and optimal self-cleaning effect



attract great things.

Sustainability



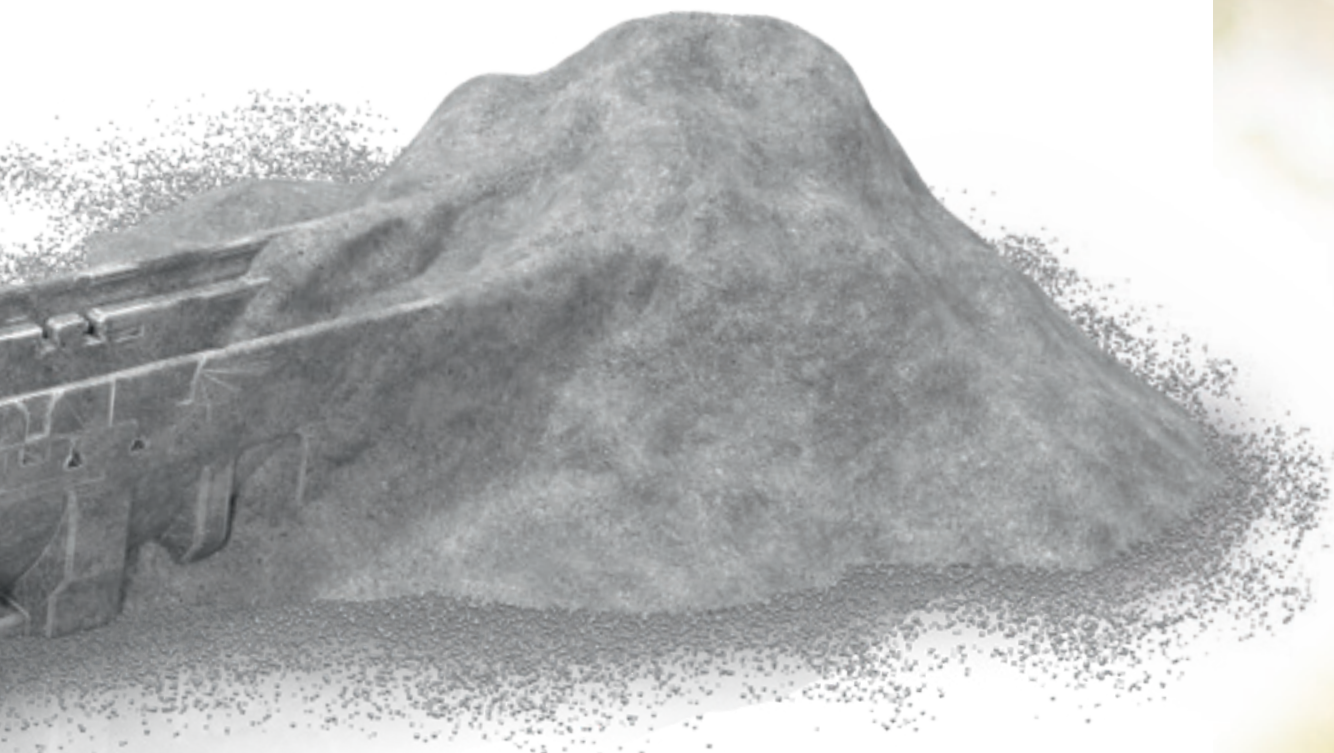
Verified Life Cycle Assessment

- Greater ecological transparency under ISO 14040/14044 and EN 15804
- Ideal for sustainable construction projects



Sustainable production

- Manufactured using 100% green electricity
- Resource-saving production process



End-to-end resource conservation

- Certified 100% recyclable
- Quality class U-A (certified by the Salzburg Institute for Construction Engineering Research (bvfs)).



Certified for sustainability and low emissions

- Certified environmental and energy management under ISO 14001 or 50001 at the location of Oberwang/AT
- Certified biologically sound construction material that meets the stringent testing criteria of the IBR, the Institute for Biologically Sound Construction, for heavy metals, VOCs, biocides and radioactivity, styrene free¹⁾





Proven sustainability that can be seen & leaves a lasting impression

Today, many companies claim sustainability credentials, but the key question is: How much of this is backed up by hard facts behind the green facade?

Full transparency – nature deserves it.

With FILCOTEN HPC, we are following a unique path of total transparency and have subjected the system to rigorous, independent environmental analysis¹⁾. That takes the form of a **Life Cycle Assessment** in line with ISO 14040 & ISO 14044 or EN 15804 and using recognized indicators such as the Global Warming Potential (GWP), Cumulative Energy Expenditure (CEE) and Abiotic Resource Use (ARU).

We play with our cards on the table – and even let others look over our shoulder.

To confirm our transparent data, the product Life Cycle Assessment for phases A1–A4 was subsequently verified by external experts²⁾ in line with EN 15804.



Non-renewable
primary energy resources



Global Warming Potential

Environmental indicators:

BG-FILCOTEN				
light	city mini	tec V	pro G	
21,7	20,7	58,1	117	MJ
2,97	10,2	5,77	11,5	kg CO ₂ -eq

These data are related to the extraction of raw materials, their transport, the manufacturing of the product (A1-A3) and its distribution (A4) in line with EN 15804. Values per linear metre of BG-FILCOTEN light, city mini, tec and pro each with NW 100.

Analysed and verified by:



GRASPOINTNER
Sustainable innovation.

¹⁾ ECODESIGN company – www.ecodesign-company.com

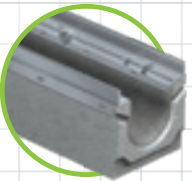
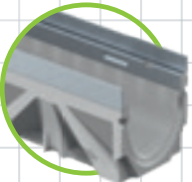
²⁾ ESU-services GmbH – www.esu-services.ch

One **victory**, two winners.

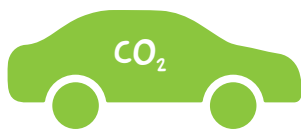
FILCOTEN HPC compared to conventional concrete.

A **comparison** of drainage channels made of FILCOTEN HPC and conventional concrete yields two winners: On the one hand is FILCOTEN HPC and on the other – the environment.

Because, as the **example calculation** shows, the use of BG-FILCOTEN channels significantly reduces CO₂ emissions. This gives the term „win-win situation“ a completely new, global meaning.

	global warming potential	total global warming potential for 500 m
 BGU-Z SV V 100 C 250	14,86 CO ₂ -eq*	7.430 CO ₂ -eq
 BG-FILCOTEN tec V 100 C 250	5,77 CO ₂ -eq*	- 2.885 CO ₂ -eq
		= <u>4.545 CO₂-eq</u>

A saving of 4,545 kg CO₂ equivalent equals...



..... 18.700 km

...approx 18.700 km journey of a diesel passenger car (243,2 g/km CO₂-eq)**



..... 4.500 km

...approx 4.500 km journey of a 40 tonne semitrailer truck (1.020,6 g/km CO₂-eq)**

*) Value basis LCA environmental indicators according to ISO 14040 and ISO 14044 modules A1-A4 in accordance with EN 15804, BG-Graspointner 2017, provided by ECODESIGN company - www.ecodesign-company.com

**) Source: Emission figures of the Austrian Federal Environment Agency, database 2017. Figures used consider total emissions, including statistically average occupancy rates.

When environmental protection is part of the **DNA...**

Sustainability is one of the most important components of our corporate culture. This is evident in the materials used, the manufacturing processes or the energy employed. This is the reason why we are a member of the **CLIMATE ALLIANCE** Austria, the largest municipal climate protection network in the Alpine Republic.

Our view of entrepreneurship is not to look at the profit alone.

The company's success and development will always be closely connected to its responsibility for the community – and for the environment. After all, what will the highest profit be worth if one cannot look into the mirror at the end of the day?

Living sustainably in all its facets.

For this reason, the sustainable use of our environment is a central element of our corporate culture. BG-Graspointner attaches great importance to transparency.

Certified environmentally friendly production.

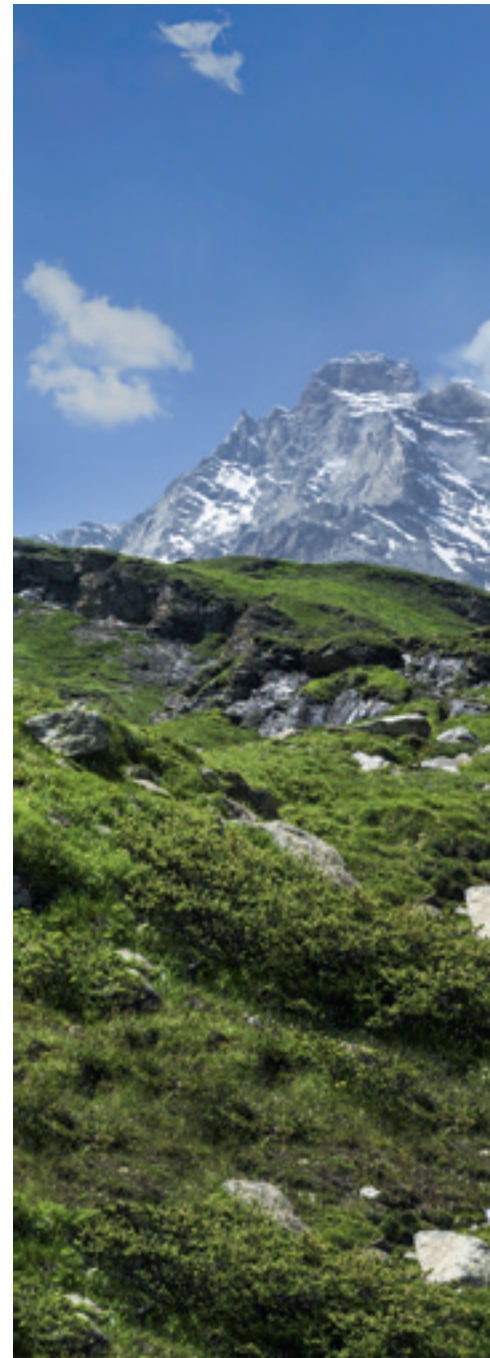
In the production process, we focus on maximum environmental protection, whether in the selection of raw materials or in the avoidance of unnecessary waste. Accordingly, we have implemented a certified environmental and energy management system in accordance with ISO 14001 and 50001 at our site in Oberwang, Austria.

Maximum performance, maximum sustainability.

We develop our products with the aim of making them as efficient as possible. And by efficiency, we also understand that these products protect people and the environment as much as possible.

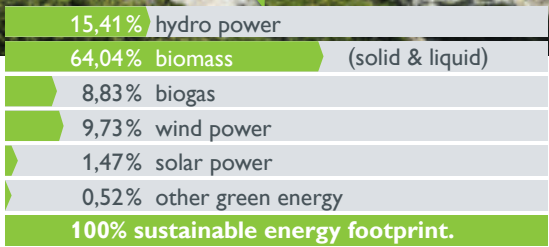
FILCOTEN HPC as an example: environmental compatibility guaranteed.

Our most innovative material, FILCOTEN HPC, is tested for harmful substances¹⁾ – guaranteed environmentally compatible and IBR-certified, 100% recyclable, and the economical use of raw materials make FILCOTEN HPC unique in terms of its environmental performance.





BG green energy:



As of 2019

**Sustainable to the end:
We rely on recyclable raw materials.**

Most of our products are made of mineral raw materials or metal. They are therefore 100% recyclable and can be assigned to quality class U-A according to the certification by the Salzburg Institute for Construction Engineering Research (bvfs), a state accredited test and research facility for building constructions and building materials.

Clean energy for clean products.

We rely on the use of green energy. With our BG-FILCOTEN channels we even use 100% renewable energies.



Detailed **planning,** for an outstanding **system.**



Easy access

- easy cleaning of the outlet unit
- large outlet openings in channel bottom for attaching the silt bucket

End cap with outlet

- closure of run with socket DN 150
- for a connection with the sewage pipe
- galvanised or stainless steel

Special element

- Smooth sidewall for drilling outlets
- T-piece & crossings feasible
- NW 100/150/200
- Length 500 mm No. 5-0

Sump unit

- Easy maintenance and cleaning of the drainage system
- Sealed pipe connection
- Length 500 mm

System representation: BG-FILCOTEN pro NW 200





Binds easily to the concrete bed

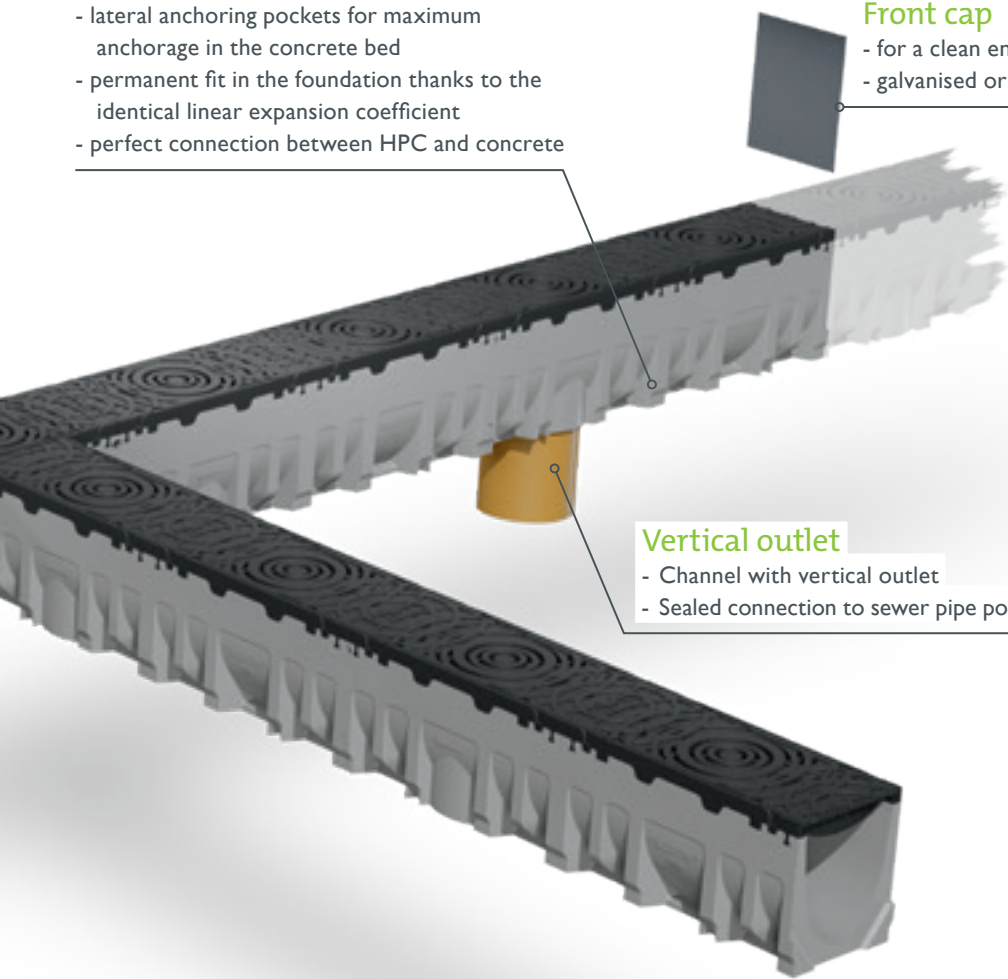
- lateral anchoring pockets for maximum anchorage in the concrete bed
- permanent fit in the foundation thanks to the identical linear expansion coefficient
- perfect connection between HPC and concrete

Front cap

- for a clean end to a channel line
- galvanised or stainless steel

Vertical outlet

- Channel with vertical outlet
- Sealed connection to sewer pipe possible



BG-FILCOTEN light
up to class C | S. 10-21



BG-FILCOTEN light mini
up to class C | S. 10-21



BG-FILCOTEN city mini
up to class C | S. 22-25



BG-FILCOTEN tec
up to class C | S. 26-37



BG-FILCOTEN tec mini
up to class C | S. 26-37

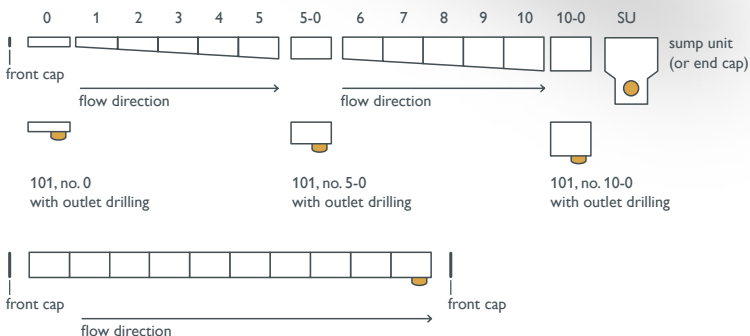


BG-FILCOTEN pro
up to class E | S. 38-56



BG-FILCOTEN pro mini
up to class E | S. 38-56

Channels with and without slope



Light in weight, a heavyweight for performance.

Robust, dimensionally stable and yet still light enough for construction in urban green and open spaces – BG-FILCOTEN light is the compact, cost effective channel system for many different areas of use. It offers you all of the advantages of FILCOTEN HPC (High Performance Concrete) and is suitable to be laid with pavement stones, tiles and other surfaces.

BG-FILCOTEN light is resilient up to class C 250 (in accordance with EN 1433) and is also available in a smaller, mini version, with a lower construction height.

Areas of use

Particularly suitable for landscaping projects, terraces, balconies, garages, pavements, sports facilities, driveways, pedestrian areas and similar surfaces.

Load class C 250

Slot top coverings

When the design is as important as the function, the slot top is your first choice. This is suitable for architecturally demanding surfaces, and with a slot width of 12,5 or 2x6 mm it can be perfectly fitted into the alignment of slots on the surface. Suitable for BG-FILCOTEN light and tec channels.

Smooth surface

The surface of FILCOTEN HPC is smoother than concrete, ensuring the best flow and self-cleaning characteristics.

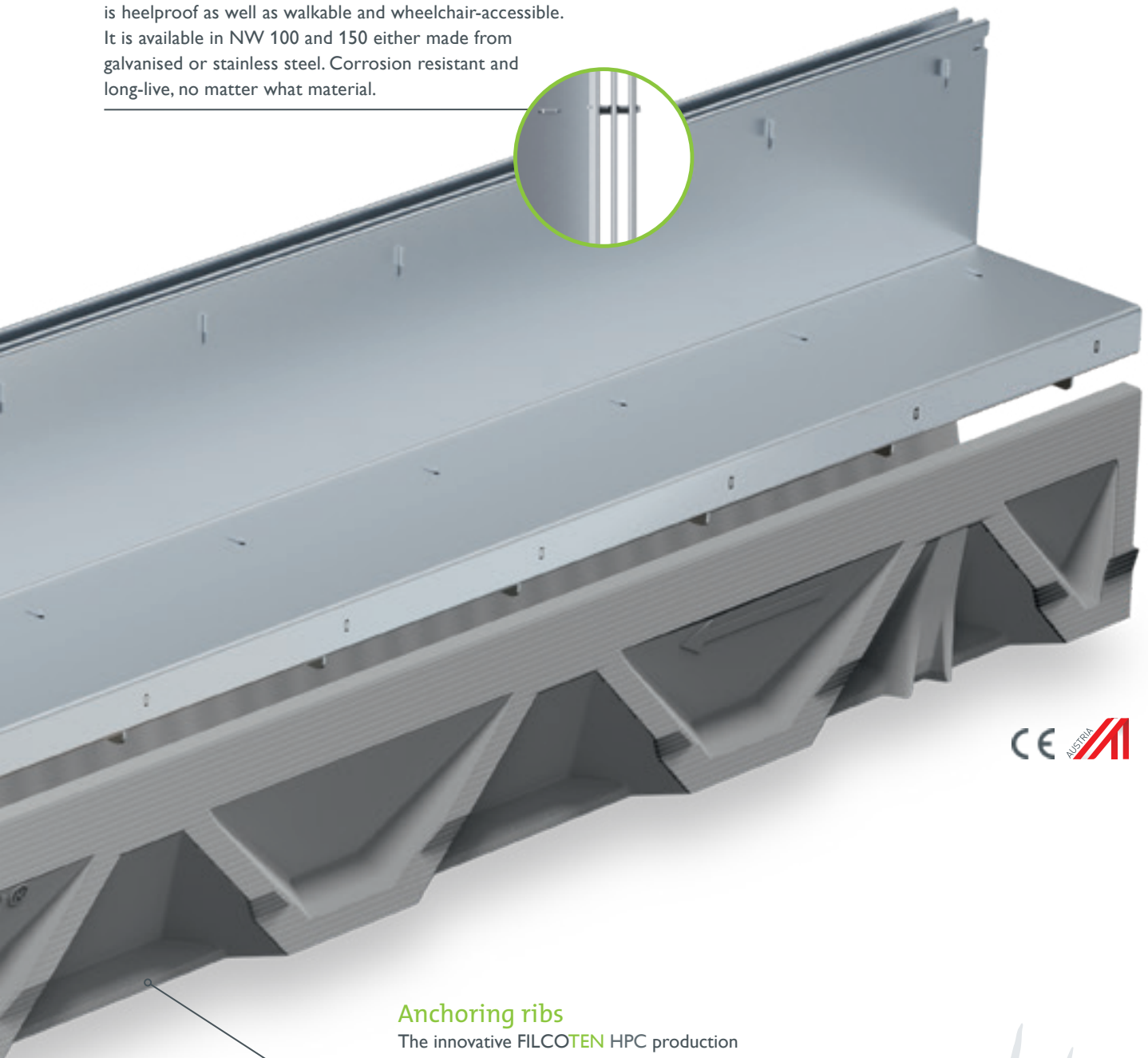
Safety joint

A sealable safety joint enables a sealed connection between the individual modules.



Slot top – 2S Heelproof

With double slot construction 2x6 mm the slot top is heelproof as well as walkable and wheelchair-accessible. It is available in NW 100 and 150 either made from galvanised or stainless steel. Corrosion resistant and long-live, no matter what material.



Anchoring ribs

The innovative FILCOTEN HPC production and moulding technology made designing anchoring ribs, therefore ensuring a secure bonding with the surrounding concrete bed.

Download here:

Tender text, datasheets, DoP, installation guidelines, installation detail, product drawing, BIM-Data



www.say.bg/en/light/download



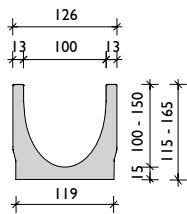
up to class C 250

BG-FILCOTEN

light



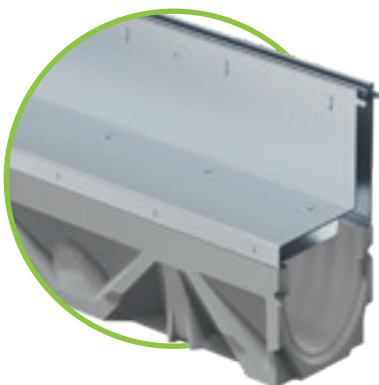
BG-FILCOTEN light 100



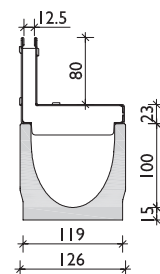
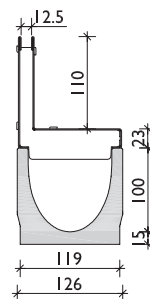
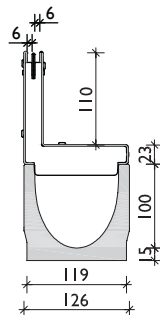
BG-FILCOTEN light NW 100 – Channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) up to class C, gratings lockable

Item no.	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope				
10311000	0	1000	115	10,7
10311050	0	500	115	5,4
10311061	5-0	1000	140	13,4
10311051	5-0 ²⁾	500	140	8,7
10311062	10-0	1000	165	16,0
10311052	10-0	500	165	8,1
Channel with bottom outlet DN 100				
10311070	0	1000	115	10,3
10311071	5-0	1000	140	13,0
10311072	10-0	1000	165	15,6
Channel with 0.5% slope				
10311001	1	1000	120	11,1
10311002	2	1000	125	11,6
10311003	3	1000	130	12,1
10311004	4	1000	135	12,7
10311005	5	1000	140	13,2
10311006	6	1000	145	13,6
10311007	7	1000	150	14,0
10311008	8	1000	155	14,4
10311009	9	1000	160	14,9
10311010	10	1000	165	15,5



BG-FILCOTEN light 100
incl. slot top



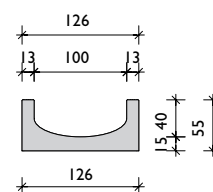
BG-FILCOTEN light mini NW 100 – Channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with a very low construction height, up to class C

Item no.	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope				
10110000	mini	1000	55	7,7
Channel with bottom outlet DN 100				
10110070	mini	1000	55	7,5



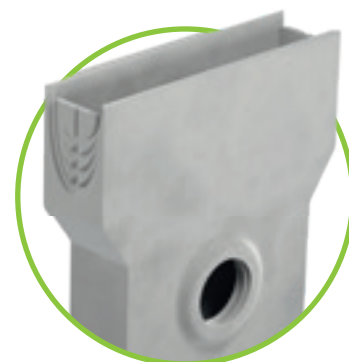
BG-FILCOTEN light mini 100



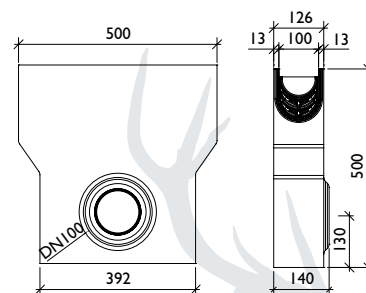
Accessories

for BG-FILCOTEN light and light mini, NW 100

Item no.	Accessories	Material	Weight in kg
10310094	sump unit 500/140/500 incl. pipe coupling DN 100 and plastic silt bucket bucket	FILCOTEN HPC	25,1
30056	odour trap for sump unit for backfitting DN 100	plastic	0,1
30019	odour trap for bottom outlet DN 100	plastic	0,2
19010230	front cap	galvanised steel	0,3
19010232	end cap with outlet DN 100	galvanised steel	0,4
19010330	front cap	stainless steel	0,3
19010332	end cap with outlet DN 100	stainless steel	0,4
19010200	mini front cap	galvanised steel	0,1
19010300	mini front cap	stainless steel	0,1
19010902	installation chairs – set incl. bolts requirement: number of channels + 1 ³⁾	galvanised steel	0,6
32080	interlocking clip for mesh grating	galvanised steel	0,1
32067	interlocking clip for ductile iron mesh grating	black painted	0,1
32068	interlocking bracket (bolted) for ductile iron mesh grating	black painted	0,1



BG-FILCOTEN light sump unit 100



Accessory details including additional images = page 20.

Gratings

for BG-FILCOTEN light and light mini, NW 100

Item no.	Gratings	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh-width in mm	Weight in kg	Inlet cross-section
17010200	1 Slotted grating	galvanised steel	1000/124/2	A 15	SW 8/80	1,6	225 cm ² /m
17010201		galvanised steel	500/124/2	A 15	SW 8/80	0,8	225 cm ² /m
17010300		stainless steel	1000/124/2	A 15	SW 8/80	1,6	140 cm ² /m
17010301		stainless steel	500/124/2	A 15	SW 8/80	0,8	140 cm ² /m
17010210	2 Mesh grating	galvanised steel	1000/124/2	B 125	MW 30/10	2,6	795 cm ² /m
17010211		galvanised steel	500/124/2	B 125	MW 30/10	1,3	795 cm ² /m
17010310		stainless steel	1000/124/2	B 125	MW 30/10	2,6	795 cm ² /m
17010311		stainless steel	500/124/2	B 125	MW 30/10	1,3	795 cm ² /m
17010100	3 Ductile iron mesh gr.	ductile iron	500/124/5	C 250	MW 15/25	2,6	455 cm ² /m
17010150		ductile iron-KTL	500/124/5	C 250	MW 15/25	2,6	455 cm ² /m

Slot tops asymmetric

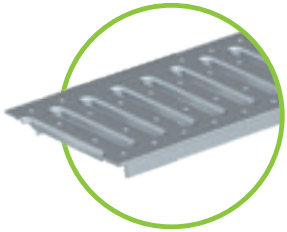
for BG-FILCOTEN light and light mini, NW 100

Item no.	Gratings	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh-width in mm	Weight in kg	Inlet cross-section
17110237	4 Slot top SH 80 mm	galvanised steel	1000/123/103	B 125	SW 12,5	4,4	125 cm ² /m
17110238		galvanised steel	500/123/103	B 125	SW 12,5	2,2	125 cm ² /m
17110297		Maintenance unit SH 80 mm	galvanised steel	500/123/103	B 125	SW 12,5	4,1
17110337	4 Slot top SH 80 mm	stainless steel	1000/123/103	B 125	SW 12,5	4,4	125 cm ² /m
17110338		stainless steel	500/123/103	B 125	SW 12,5	2,2	125 cm ² /m
17110397		Maintenance unit SH 80 mm	stainless steel	500/123/103	B 125	SW 12,5	4,1
17110243	4 Slot top SH 110 mm	galvanised steel	1000/123/133	C 250	SW 12,5	5,4	125 cm ² /m
17110244		galvanised steel	500/123/133	C 250	SW 12,5	2,7	125 cm ² /m
17110281		Maintenance unit SH 110 mm	galvanised steel	500/123/133	C 250	SW 12,5	5,0
17110343	4 Slot top SH 110 mm	stainless steel	1000/123/133	C 250	SW 12,5	5,4	125 cm ² /m
17110344		stainless steel	500/123/133	C 250	SW 12,5	2,7	125 cm ² /m
17110381		Maintenance unit SH 110 mm	stainless steel	500/123/133	C 250	SW 12,5	5,0
17111204	5 Slot top 2S, Heelproof	galvanised steel	1000/123/133	C 250	SW 2x6	5,8	120 cm ² /m
17111205		galvanised steel	500/123/133	C 250	SW 2x6	3,0	120 cm ² /m
17111206		Maintenance unit 2S, Heelproof	galvanised steel	500/123/133	C 250	SW 2x6	5,3
17111304	5 Slot top 2S, Heelproof	stainless steel	1000/123/133	C 250	SW 2x6	5,8	120 cm ² /m
17111305		stainless steel	500/123/133	C 250	SW 2x6	3,0	120 cm ² /m
17111306		Maintenance unit 2S, Heelproof	stainless steel	500/123/133	C 250	SW 2x6	5,3
17110280	front cap V NW 100, variable height 80 – 200 mm, fitting both slot tops					0,1	
17110380	front cap E NW 100, variable height 80 – 200 mm, fitting both slot tops					0,1	
37962	construction time barrier for slot top SW 12 mm and SW 2x6 mm, L = 1000 mm, wood					0,1	
13399	opening tool for maintenance unit cover – 2 pcs. required, plastic					0,1	

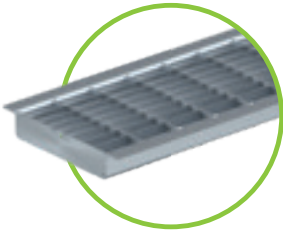


The retaining spring in the ductile iron mesh grating ensures a secure hold of the grating in the channel body.





1 Slotted grating, class A, SW 8/80, galvanised or stainless steel



2 Mesh grating, class B MW 30/10, galvanised or stainless steel



3 Ductile iron mesh grating, class C, MW 15/25



4 Slot top, class B or class C, SW 12,5mm SH 80/110mm, galvanised or stainless steel



5 Slot top, class C SW 2x6 mm, SH 110 mm, galvanised or stainless steel

BG-FILCOTEN slot top coverings

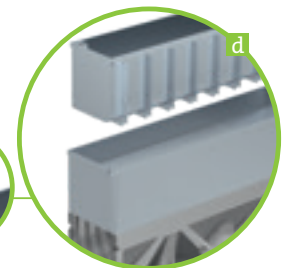
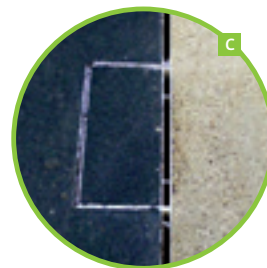
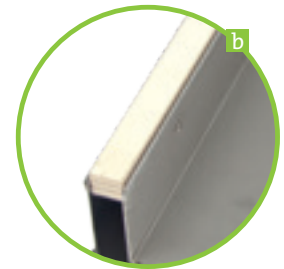
Slot tops are particularly suitable for architecturally challenging surfaces in which the design is just as important as the function.

a The narrow slot width of 12,5 mm or the Heelproof slot top with double slot SW 2x6 mm, means that they can be perfectly fitted into the alignment of slots on the surface.

b During the entire period of construction, the construction time barrier should remain in the slot top as this prevents deformation or contamination of the system.

c The maintenance units are integrated into the channel run. This does not damage the optics of the slot top profile.

d The recessed cover of the maintenance unit can quickly and easily be removed for cleaning purposes using a lifting grip.



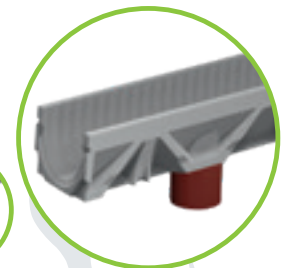
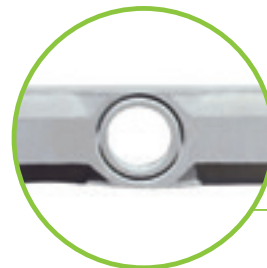
In-/Outlet cross-section

If channel runs have a length of more than 2 meters, the water flows off just as well with a slot top as with a classic cover.

The reason:

The inlet cross-section of the slot top is – as the inlet cross-section of a classic cover – larger than the flow cross-section of the connected sewer pipe.

The amount of draining water is limited by the drain pipe and not by the inlet cross sections of the grates.



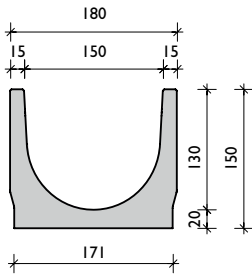
up to class C 250

BG-FILCOTEN

light



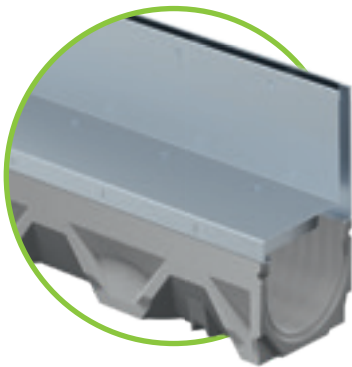
BG-FILCOTEN light 150



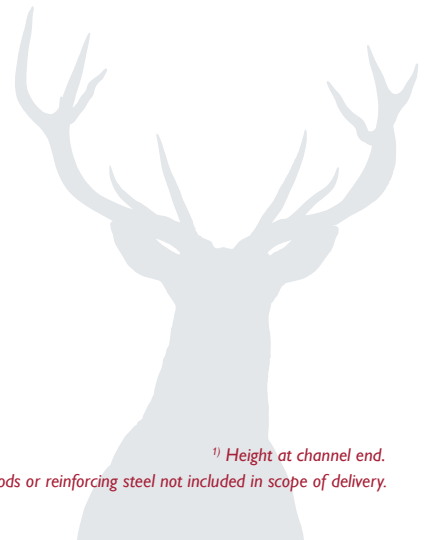
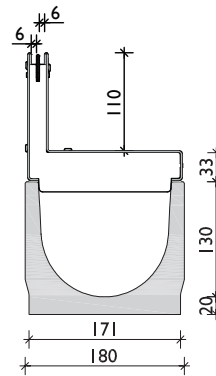
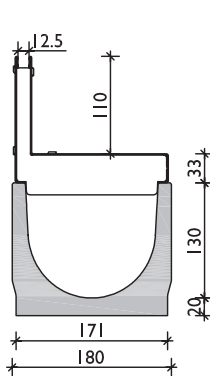
BG-FILCOTEN light NW 150 – Channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) up to class C, gratings lockable

Item no.	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope				
10315000	0	1000	150	20,6
10315050	0	500	150	10,3
Channel with bottom outlet DN 100				
10315070	0	1000	150	19,9



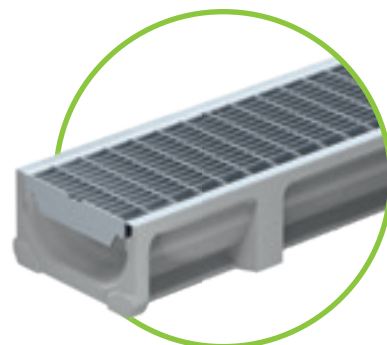
BG-FILCOTEN light 150
incl. slot top



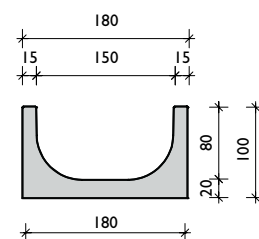
BG-FILCOTEN light mini NW 150 – Channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with a very low construction height, up to class C

Item no.	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope				
10115000	mini	1000	100	16,8
Channel with bottom outlet DN 100				
10115070	mini	1000	100	16,2



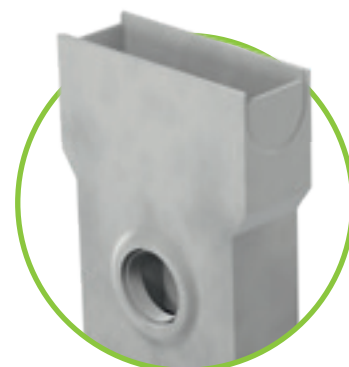
BG-FILCOTEN light mini 150



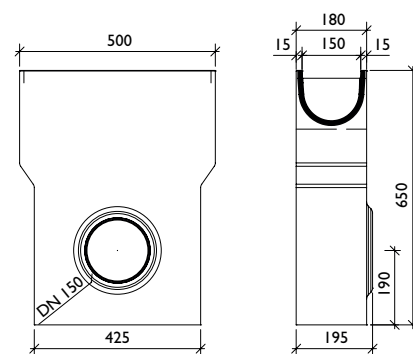
Accessories

for BG-FILCOTEN light and light mini, NW 150

Item no.	Accessories	Material	Weight in kg
10315092	sump unit 500/195/650 incl. pipe coupling DN 150 and plastic silt bucket	FILCOTEN HPC	45,3
30030	odour trap made of PVC bends DN 150/87°	plastic	3,9
30057	odour trap for sump unit for backfitting DN 150	plastic	0,2
19015230	front cap	galvanised steel	0,5
19015232	end cap with outlet DN 100	galvanised steel	0,4
19015330	front cap	stainless steel	0,5
19015332	end cap with outlet DN 100	stainless steel	0,4
19015200	mini front cap	galvanised steel	0,3
19015300	mini front cap	stainless steel	0,3
19020902	installation chairs – set incl. bolts requirement: number of channels + 1 ²⁾	galvanised steel	0,8
32080	interlocking clip for mesh grating	galvanised steel	0,1
32067	interlocking clip for ductile iron mesh grating	black painted	0,1
32068	interlocking bracket (bolted) for ductile iron mesh grating	black painted	0,1



BG-FILCOTEN light sump unit 150



Accessory details including additional images = page 20.

up to class C 250

BG-FILCOTEN

light

Gratings

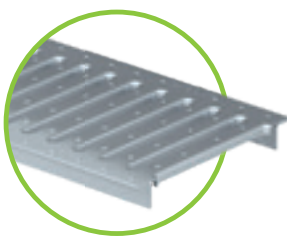
for BG-FILCOTEN light and light mini, NW 150

Item no.	Gratings	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh-width in mm	Weight in kg	Inlet cross-section
17015200	1 Slotted grating	galvanised steel	1000/178/3	A 15	SW 8/130	2,5	390 cm ² /m
17015201		galvanised steel	500/178/3	A 15	SW 8/130	1,3	390 cm ² /m
17015210	2 Mesh grating	galvanised steel	1000/178/2	B 125	MW 30/10	4,6	1195 cm ² /m
17015211		galvanised steel	500/178/2	B 125	MW 30/10	2,3	1195 cm ² /m
17015100	3 Ductile iron mesh gr.	ductile iron	500/178/7	C 250	MW 15/28	4,6	740 cm ² /m

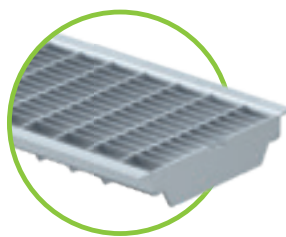
Slot tops asymmetric

for BG-FILCOTEN light and light mini, NW 150

Item no.	Gratings	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh-width in mm	Weight in kg	Inlet cross-section
17115243	4 Slot top SH 110 mm	galvanised steel	1000/173/143	C 250	SW 12,5	6,7	125 cm ² /m
17115244		galvanised steel	500/173/143	C 250	SW 12,5	3,3	125 cm ² /m
17115281		Maintenance unit SH 110 mm	galvanised steel	500/173/143	C 250	SW 12,5	5,9
17115343	4 Slot top SH 110 mm	stainless steel	1000/173/143	C 250	SW 12,5	6,7	125 cm ² /m
17115344		stainless steel	500/173/143	C 250	SW 12,5	3,3	125 cm ² /m
17115381		Maintenance unit SH 110 mm	stainless steel	500/173/143	C 250	SW 12,5	5,9
17116204	5 Slot top 2S, Heelproof	galvanised steel	1000/173/143	C 250	SW 2x6	7,0	120 cm ² /m
17116205		galvanised steel	500/173/143	C 250	SW 2x6	3,5	120 cm ² /m
17116206		Maintenance unit 2S, Heelproof	galvanised steel	500/173/143	C 250	SW 2x6	6,1
17116304	5 Slot top 2S, Heelproof	stainless steel	1000/173/143	C 250	SW 2x6	7,0	120 cm ² /m
17116305		stainless steel	500/173/143	C 250	SW 2x6	3,5	120 cm ² /m
17116306		Maintenance unit 2S, Heelproof	stainless steel	500/173/143	C 250	SW 2x6	6,1
17110280	front cap V NW 150, variable height 80 – 200 mm, fitting both slot tops					0,1	
17110380	front cap E NW 150, variable height 80 – 200 mm, fitting both slot tops					0,1	
37962	construction time barrier for slot top SW 12 mm and SW 2x6 mm, L = 1000 mm, wood					0,1	
13399	opening tool for maintenance unit cover – 2 pcs. required, plastic					0,1	



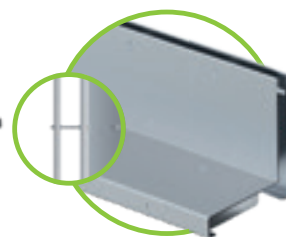
1 Slotted grating, class A, SW 8/130, galvanised steel



2 Mesh grating, class B, MW 30/10, galvanised steel



3 Ductile iron mesh grating, class C, MW 15/28



4 Slot top, class C, SW 12,5 mm, galvanised or stainless steel



5 Slot top 2S, class C, SW 2x6 mm, galvanised or stainless steel



Special slot tops on request!



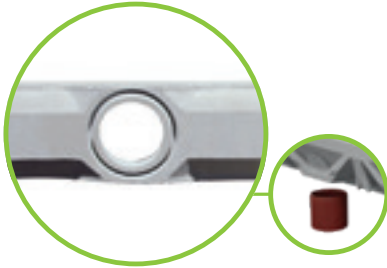
GRASPOINTNER
Sustainable innovation.

References



BG-FILCOTEN

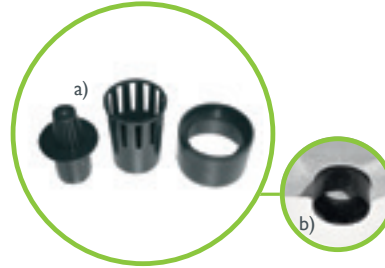
light



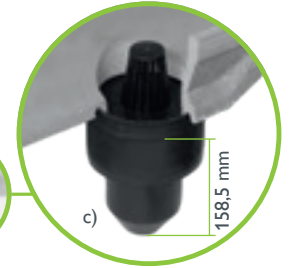
prefabricated outlet opening
DN 100 (NW 100)
or DN 150 (NW 150)



bottom outlet, made
of PVC sewer pipes,
on site installation



a) odour trap for bottom outlet
consisting of 3 parts
b) outlet pipe must be inserted
into outlet opening from below
before installation.

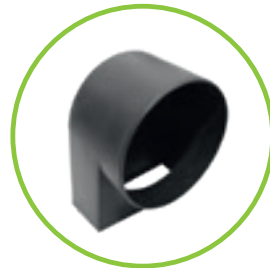


c) The two remaining parts
complete the foul-air trap
(only for NW 100) finished!

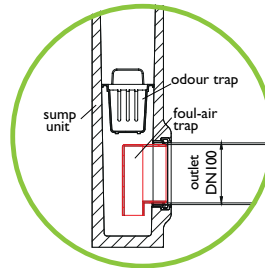
i Positioning of outlet opening: channel end to outlet centre = 250 mm



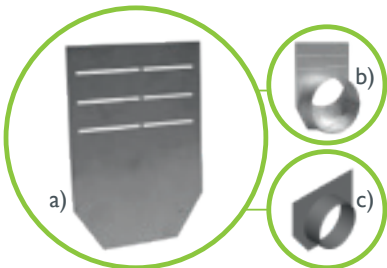
light sump unit
L=500 mm incl. silt bucket
made of plastic, to fit NW



odour trap for sump unit for backfitting DN 100/150
Installation: Insert the odour trap from the inside and
connect with the sewage pipe.



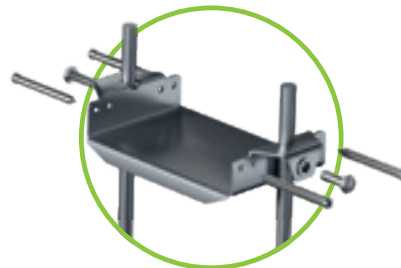
Odour trap made of PVC bends
suitable for sump units
with outlets DN 150



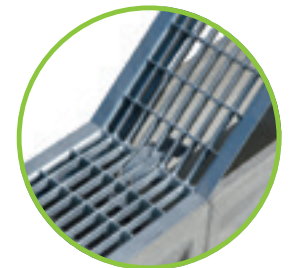
a) front cap NW 100/150
b) end cap with outlet NW 100
c) end cap with outlet NW 150



front cap
light mini



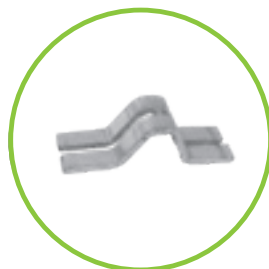
installation chairs
made of galvanised steel,
to fit NW



adjustment of the mesh gratings
with interlocking clip



Interlocking clip for ductile
iron mesh gratings



Interlocking clip for
mesh gratings



Interlocking bracket
(bolted) for ductile
iron mesh gratings



sealant material for sealing the
channel joints, for channels
with safety seam

References



The Channel & Grate System which is just Great.



The new reference class for parking garages and underground car parks: BG-FILCOTEN city mini: the first drainage channel made entirely of FILCOTEN HPC, with all the corresponding advantages. Extremely stable and robust, yet lightweight and high-performing. A channel that reflects our mission statement: innovation for sustainability.

Double the efficiency: for corrosion protection and costs.

The city mini does not require any edge protection. This makes it both cost-effective and fully corrosion-resistant – because frames without galvanized steel or cast iron don't corrode.

Load class C 250

One-material drainage channel

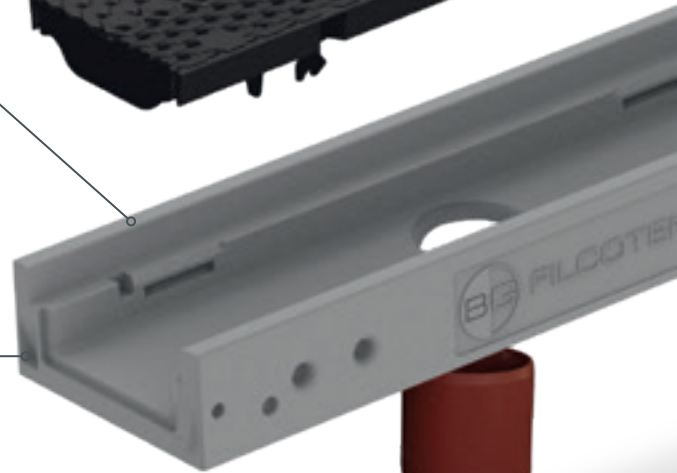
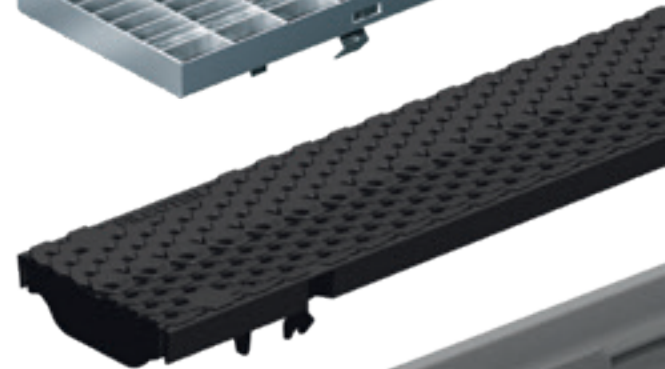
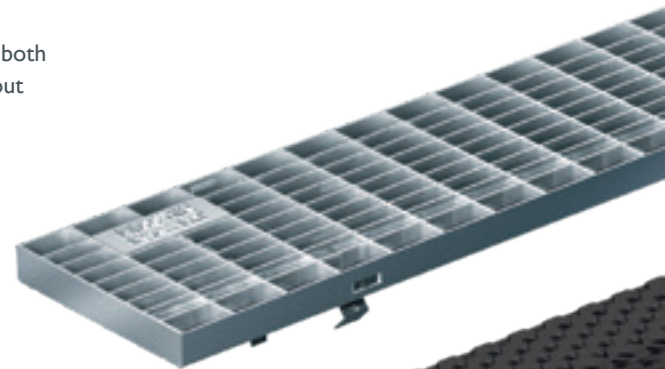
- channel body, edge and grating bearing made entirely of FILCOTEN HPC
- protection against longitudinal movement and fix-locking recess in the channel body made of HPC
- very low construction height of 65 mm

Tongue/tenon system

- non-directional – randomly layable from either end
- **rebated** channel edge seals off the water flow

Your benefits at a glance:

- drainage channel made entirely of FILCOTEN HPC
- environmentally friendly, stable and lightweight
- quick and easy installation
- combine with COMBee design grating for a completely corrosion-free system
- integrated anchoring pockets
- with optional DN 100 drain



Optional bottom outlet

- DN 100



End cap with outlet

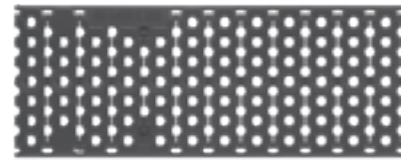
- made of stainless steel
- DN 50





Mesh grating, MW 30/10

- made of stainless steel
- up to load class C 250
- protection against longitudinal movement & fiX-locking



COMBee design grating



- made of polyamide; corrosion-free and UV-resistant
- up to load class C 250
- protection against longitudinal movement & fiX-locking
- anti-slip honeycomb profile

Extremely durable hold

- round recess for maximum anchorage
- permanent fit in the foundation thanks to identical linear expansion coefficient
- perfect connection between HPC and concrete

Front cap

- made of FILCOTEN HPC

Download here:

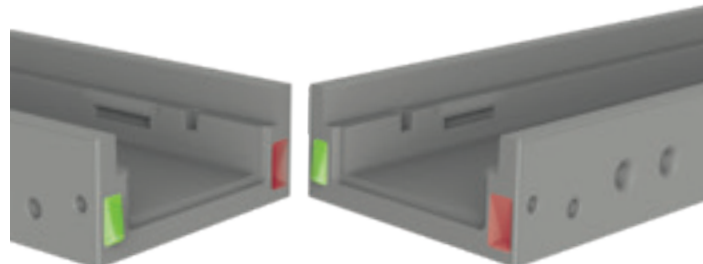
tender text, datasheets, DoP, installation guidelines, installation detail, product drawing, BIM-Data



www.say.bg/en/citymini/download

Innovation for increased precision:

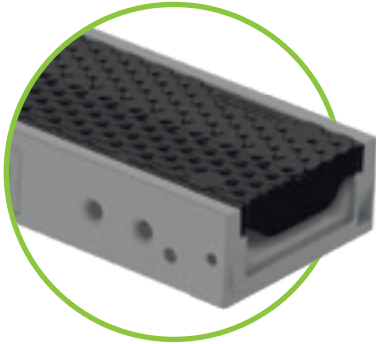
Wedge-shaped connectors enable direction-independent installations and precise connection of the channel elements. So the installation of the BG-FILCOTEN city mini becomes much easier and more efficient.



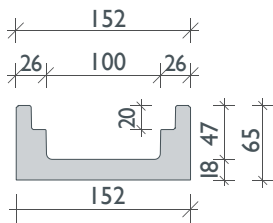
up to class C 250

BG-FILCOTEN

city mini



BG-FILCOTEN city mini 100
incl. COMBee design grating



H = 65

BG-FILCOTEN city mini

Complete drainage channel made of FILCOTEN HPC (High Performance Concrete)
incl. edge and grating bearing, protection against longitudinal movement and fiX-locking

Item no.	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope				
10810000	mini	1000	65	10,2
Channel with bottom outlet DN 100				
10810070	mini	1000	65	10,0

Accessories

for BG-FILCOTEN city mini, NW 100

Item no.	Accessories	Material	Weight in kg
19010001	front cap	FILCOTEN HPC	0,3
19010390	end cap with outlet DN 50	stainless steel	0,2



front cap, made of
FILCOTEN HPC



end cap with outlet DN 50,
made of stainless steel

¹⁾ Height at channel end.

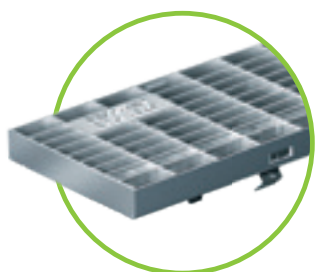
²⁾ Delivery time on request.

³⁾ No anti-vandalism locking device possible.

Gratings

for BG-FILCOTEN city mini, NW 100

Item no.	Gratings with fiX-locking	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17010322 ²⁾	1 Mesh grating	stainless steel	1000/122/20	C 250	MW 30/10	3,3	910 cm ² /m
17010401 ³⁾	2 COMBee design gr.	plastic PA6	500/123/20	B 125	Ø 7,3 mm	0,9	290 cm ² /m
17010402 ³⁾		plastic PA6	500/123/20	C 250	Ø 7,3 mm	1,1	290 cm ² /m



1 Mesh grating, class C, MW 30/10, galvanised or stainless steel



2 COMBee design grating Ø 7,3 mm, class B or C, plastic PA6



Further suitable gratings see BG-FILCOTEN tec gratings page 30-31.

References



Additional safety aspects for channel & grate.

The BG-FILCOTEN tec channel system offers the superior characteristics of FILCOTEN HPC and supplements these with additional safety aspects. Anchoring ribs ensure a secure bonding with the surrounding concrete bed. The special design of the galvanised steel edge allows for secure grating locking with the fiX-locking system. Adjacent covering surfaces can easily be attached to the border of the edges. The BG-FILCOTEN tec mini is the shallow channel for limited heights applications. The channel system is resilient up to class C 250 (in accordance with EN 1433).

Areas of use

Optimal for installation in pedestrianised areas, parks, sports and leisure facilities, car parks and similar surfaces.

Load class C 250



Galvanised steel edge

The special design of the galvanised steel edge allows for secure grating locking with the fiX self-locking system.

Smooth surface

The surface of FILCOTEN HPC is smoother than concrete, ensuring the best flow and self-cleaning characteristics.

Safety seam

A sealable safety seam enables a sealed connection between the individual modules.

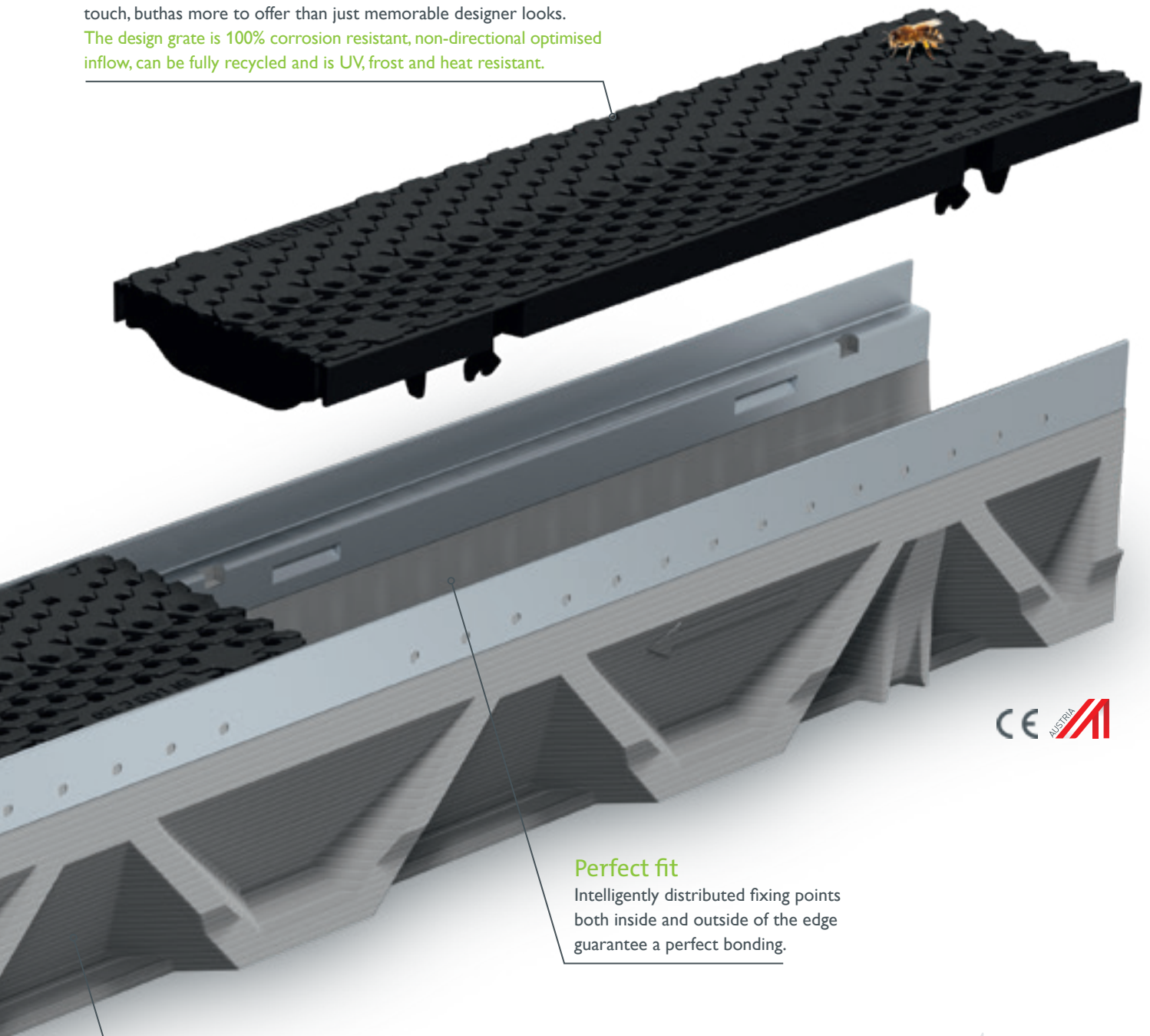


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Sustainable innovation.

COMBee design grating

The COMBee designer grate is a very special creation of our Development department. This classic black grate with unique honeycomb-pattern surface lends a highly aesthetic touch, but has more to offer than just memorable designer looks.

The design grate is 100% corrosion resistant, non-directional optimised inflow, can be fully recycled and is UV, frost and heat resistant.



Perfect fit

Intelligently distributed fixing points both inside and outside of the edge guarantee a perfect bonding.

Anchoring ribs

The innovative FILCOTEN HPC production and moulding technology made designing anchoring ribs, therefore ensuring a secure bonding with the surrounding concrete bed.

Download here:

tender text, datasheets, DoP, installation guidelines, installation detail, product drawing, BIM-Data



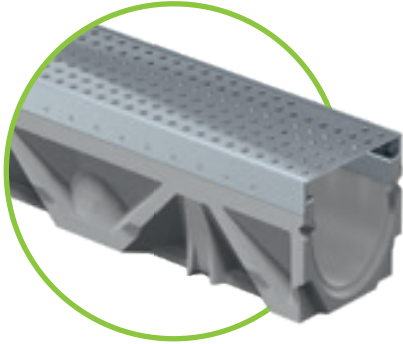
www.say.bg/en/tec/download



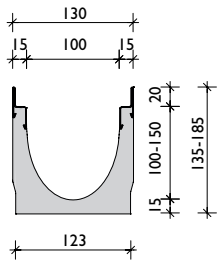
up to class C 250

BG-FILCOTEN

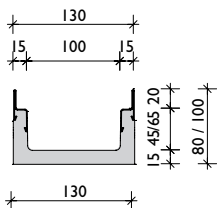
tec



BG-FILCOTEN tec V/E 100
incl. galvanised or stainless steel edge



BG-FILCOTEN tec mini V/E 100
incl. galvanised or stainless steel edge



BG-FILCOTEN tec NW 100 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated galvanised (V) or stainless steel edge (E), up to class C

Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope					
10410200	10410300	0	1000	135	13,4
10410250	10410350	0	500	135	6,6
10410261	10410361	5-0	1000	160	16,1
10410251	10410351	5-0 ³⁾	500	160	9,4
10410262	10410362	10-0	1000	185	18,7
Channel with bottom outlet DN 100					
10410270	10410370	0	1000	135	12,7
10410271	10410371	5-0	1000	160	15,8
10410272	10410372	10-0	1000	185	18,4
Channel with 0,5% slope					
10410201	10410301	1	1000	140	13,4
10410202	10410302	2	1000	145	14,1
10410203	10410303	3	1000	150	14,8
10410204	10410304	4	1000	155	15,4
10410205	10410305	5	1000	160	15,9
10410206	10410306	6	1000	165	16,4
10410207	10410307	7	1000	170	16,8
10410208	10410308	8	1000	175	17,4
10410209	10410309	9	1000	180	18,0
10410210	10410310	10	1000	185	18,5

BG-FILCOTEN tec mini NW 100 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated galvanised (V) or stainless steel edge (E) up to class C – very low construction height

Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope					
10210201	10210301	mini	1000	80	9,1
10210202	10210302	mini	1000	100	10,5
Channel with bottom outlet DN 100					
10210271	10210371	mini	1000	80	8,8
10210202	10210302	mini	1000	100	10,5

¹⁾ Height at channel end.

²⁾ Delivery time on request.

³⁾ Side and/or bottom drilling – see picture on page 40.

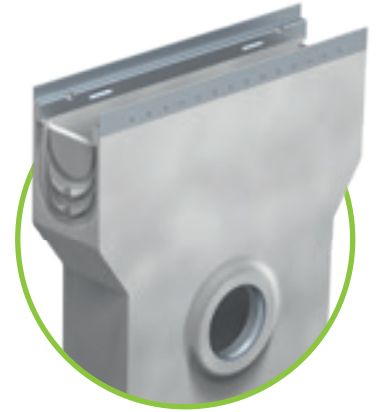
⁴⁾ Threaded rods or reinforcing steel not included in scope of delivery.



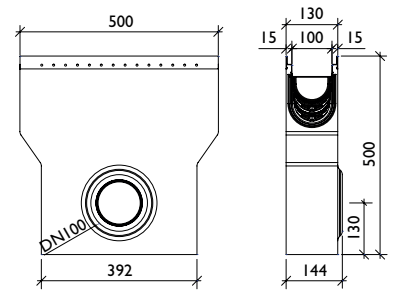
Accessories

for BG-FILCOTEN tec & tec mini, NW 100

Item no.	Accessories	Material	Weight in kg
10410293	sump unit V 500/144/500 incl. pipe coupling DN 100 and plastic silt bucket	FILCOTEN HPC	24,2
10410393	sump unit E 500/144/500 incl. pipe coupling DN 100 and plastic silt bucket ²⁾	FILCOTEN HPC	24,2
30030	odour trap made of PVC bends DN 150/87°	plastic	3,9
30056	odour trap for sump unit for backfitting DN 100	plastic	0,1
30019	odour trap for bottom outlet DN 100	plastic	0,2
19010230	front cap	galvanised steel	0,3
19010231	end cap with outlet DN 100	galvanised steel	0,4
19010330	front cap ²⁾	stainless steel	0,3
19010331	end cap with outlet DN 100 ²⁾	stainless steel	0,4
19010200	mini front cap	galvanised steel	0,1
19010300	mini front cap ²⁾	stainless steel	0,1
19010902	installation chairs – set incl. bolts requirement: number of channels + 1 ⁴⁾	galvanised steel	0,6
32087	anti-vandalism locking device 2 pcs. required per grating	stainless steel	0,1



BG-FILCOTEN tec
sump unit V/E 100



Accessory details including additional images = page 36.

up to class C 250

BG-FILCOTEN

tec / tec mini / city mini

Gratings with fiX-locking

for BG-FILCOTEN tec & tec mini & city mini NW 100

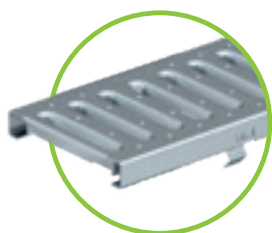
Item no.	Gratings with fiX-locking	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17010202	1 Slotted grating ¹⁾	galvanised steel	1000/122/20	A 15	SW 8/80	1,5	225 cm ² /m
17010203		galvanised steel	500/122/20	A 15	SW 8/80	0,8	225 cm ² /m
17010302		stainless steel	1000/122/20	A 15	SW 8/80	1,5	225 cm ² /m
17010303		stainless steel	500/122/20	A 15	SW 8/80	0,8	225 cm ² /m
17010206		galvanised steel	1000/122/20	C 250	SW 8/80	4,5	225 cm ² /m
17010207		galvanised steel	500/122/20	C 250	SW 8/80	2,2	225 cm ² /m
17010306		stainless steel	1000/122/20	C 250	SW 8/80	4,5	225 cm ² /m
17010307		stainless steel	500/122/20	C 250	SW 8/80	2,2	225 cm ² /m
17010204	2 Perforated grating	galvanised steel	1000/122/20	A 15	Ø 6,0 mm	1,9	170 cm ² /m
17010205		galvanised steel	500/122/20	A 15	Ø 6,0 mm	1,0	170 cm ² /m
17010304		stainless steel	1000/122/20	A 15	Ø 6,0 mm	1,9	170 cm ² /m
17010305		galvanised steel	500/122/20	A 15	Ø 6,0 mm	1,0	170 cm ² /m
17010228		galvanised steel	1000/122/20	C 250	Ø 6,0 mm	3,3	170 cm ² /m
17010229		galvanised steel	500/122/20	C 250	Ø 6,0 mm	1,7	170 cm ² /m
17010328		stainless steel	1000/122/20	C 250	Ø 6,0 mm	3,3	170 cm ² /m
17010329		stainless steel	500/122/20	C 250	Ø 6,0 mm	1,7	170 cm ² /m
17010220	3 Mesh grating	galvanised steel	1000/122/20	B 125	MW 30/10	2,8	980 cm ² /m
17010221		galvanised steel	500/122/20	B 125	MW 30/10	1,4	950 cm ² /m
17010222		galvanised steel	1000/122/20	C 250	MW 30/10	3,3	910 cm ² /m
17010223		galvanised steel	500/122/20	C 250	MW 30/10	1,6	885 cm ² /m
17010322		stainless steel	1000/122/20	C 250	MW 30/10	3,3	910 cm ² /m
17010323		stainless steel	500/122/20	C 250	MW 30/10	1,6	885 cm ² /m
	4 Design gratings	on request		walkable and wheelchair-accessible			
17010401 ¹⁾	5 COMBee design gr.	plastic PA6	500/123/20	B 125	Ø 7,3 mm	0,9	290 cm ² /m
17010402 ¹⁾		plastic PA6	500/123/20	C 250	Ø 7,3 mm	1,1	290 cm ² /m
17010111	6 Ductile iron slotted gr.	ductile iron	500/122/20	B 125	SW 10/100	2,6	330 cm ² /m
17010101	7 Ductile iron bar gr.	ductile iron	500/122/20	C 250	MW 29/13	3,2	505 cm ² /m
17010106		ductile iron	500/122/20	C 250	MW 29/6	3,6	320 cm ² /m



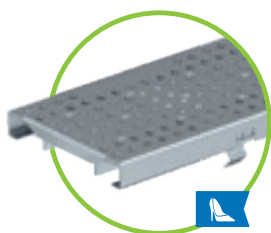
Slot tops asymmetric

for BG-FILCOTEN tec & tec mini & city mini NW 100

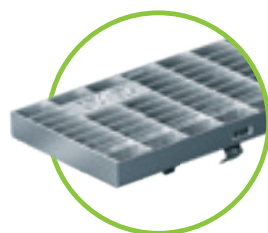
Item no.	Gratings with fiX-locking	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17110237	8 Slot top SH 80 mm	galvanised steel	1000/123/103	B 125	SW 12,5	4,4	125 cm ² /m
17110238		galvanised steel	500/123/103	B 125	SW 12,5	2,2	125 cm ² /m
17110297	Maintenance unit SH 80 mm	galvanised steel	500/123/103	B 125	SW 12,5	4,1	125 cm ² /m
17110243	8 Slot top SH 110 mm	galvanised steel	1000/123/133	C 250	SW 12,5	5,4	125 cm ² /m
17110244		galvanised steel	500/123/133	C 250	SW 12,5	2,7	125 cm ² /m
17110281	Maintenance unit SH 110 mm	galvanised steel	500/123/133	C 250	SW 12,5	5,0	125 cm ² /m
17110343	8 Slot top SH 110 mm	stainless steel	1000/123/133	C 250	SW 12,5	5,4	125 cm ² /m
17110344		stainless steel	500/123/133	C 250	SW 12,5	2,7	125 cm ² /m
17110381	Maintenance unit SH 110 mm	stainless steel	500/123/133	C 250	SW 12,5	5,0	125 cm ² /m
17111204	9 Slot top 2S, Heelproof	galvanised steel	1000/123/133	C 250	SW 2x6	5,8	120 cm ² /m
17111205		galvanised steel	500/123/133	C 250	SW 2x6	3,0	120 cm ² /m
17111206	Maintenance unit 2S, Heelproof	galvanised steel	500/123/133	C 250	SW 2x6	5,3	120 cm ² /m
17111304	9 Slot top 2S, Heelproof	stainless steel	1000/123/133	C 250	SW 2x6	5,8	120 cm ² /m
17111305		stainless steel	500/123/133	C 250	SW 2x6	3,0	120 cm ² /m
17111306	Maintenance unit 2S, Heelproof	stainless steel	500/123/133	C 250	SW 2x6	5,3	120 cm ² /m
17110280	front cap V NW 100, variable height 80 – 200 mm, fitting both slot tops					0,1	
17110380	front cap E NW 100, variable height 80 – 200 mm, fitting both slot tops					0,1	
37962	construction time barrier for slot top SW 12 mm and SW 2x6 mm, L = 1000 mm, wood					0,1	
13399	opening tool for maintenance unit cover – 2 pcs. required, plastic					0,1	



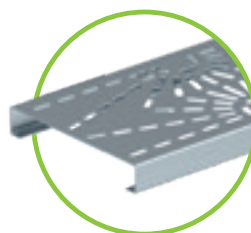
1 Slotted grating, class C & class B, galvanised or stainless steel, SW 8/80,



2 Perforated grating, Ø 6,0 mm, class C, galvanised or stainless steel



3 Mesh grating, class C, MW 30/10, galvanised or stainless steel



4 Design grating different designs on request



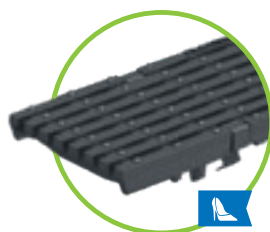
5 COMBee design grating Ø 7,3 mm, class B or C plastic PA6



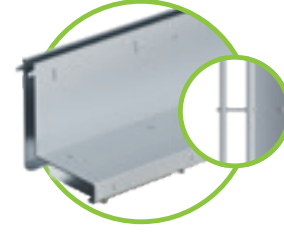
6 Ductile iron slotted grating, SW 10/100, class B



7 Ductile iron elongated bar grating MW 29/13, class C



7 Ductile iron elongated bar grating MW 29/6 narrow SW, class C



8 Slot top SW 12,5 mm, class B – galvanised steel, class C – galvanised or stainless steel



9 Slot top 2S, Heelproof SW 2x6 mm, class C, galvanised or stainless steel

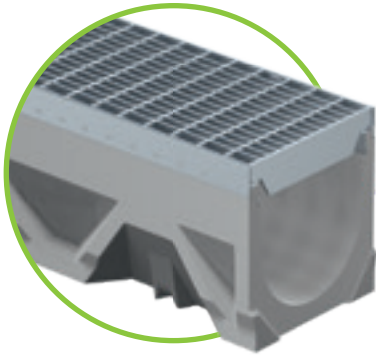


Special slot tops on request!

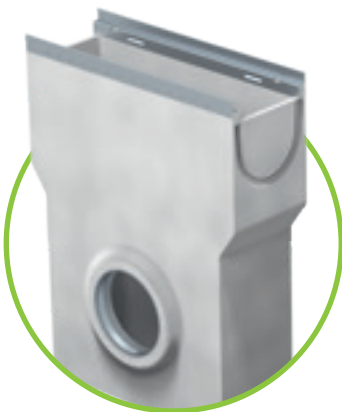
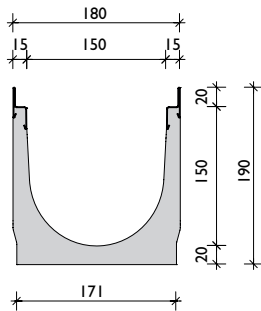
up to class C 250

BG-FILCOTEN

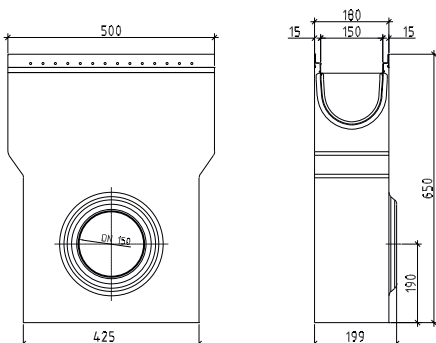
tec



BG-FILCOTEN tec V/E 150
incl. galvanised or stainless steel edge



BG-FILCOTEN tec
sump unit V/E 150



BG-FILCOTEN tec NW 150 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated galvanised (V) or stainless steel edge (E), up to class C

Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope					
10415200	10415300	0	1000	190	22,2
10415250	10415350	0	500	190	11,2
Channel with bottom outlet DN 150					
10415270	10415370	0	1000	190	21,2

Accessories

for BG-FILCOTEN tec NW 150

Item no.	Accessories	Material	Weight in kg
10415292	sump unit V 500/197/650 incl. pipe coupling DN 150 and plastic silt bucket	FILCOTEN HPC	40,3
10415392	sump unit E 500/197/650 incl. pipe coupling DN 150 and plastic silt bucket	FILCOTEN HPC	40,3
30030	Odour trap made of PVC bends DN 150/87°	plastic	3,9
30057	Odour trap for sump unit for backfitting DN 150	plastic	0,2
19015230	front cap	galvanised steel	0,5
19015231	end cap with outlet DN 150	galvanised steel	0,6
19015330	front cap	stainless steel	0,5
19015331	end cap with outlet DN 150	stainless steel	0,6
19020902	installation chairs – set incl. bolts – requirement: number of channels + 1 ²⁾	galvanised steel	0,8
32088	anti-vandalism locking device 2 pcs. required per grating	stainless steel	0,1



Accessory details including additional images = page 36

¹⁾ Height at channel end.

²⁾ Threaded rods or reinforcing steel not included in scope of delivery.

Gratings with fiX-locking

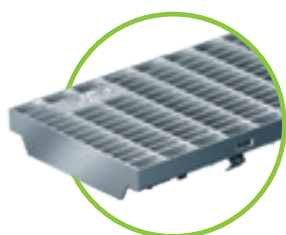
for BG-FILCOTEN tec NW 150

Item no.	Gratings with fiX-locking	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17015220	1 Mesh grating	galvanised steel	1000/172/20	B 125	MW 30/10	4,6	1330 cm ² /m
17015221		galvanised steel	500/172/20	B 125	MW 30/10	2,4	1285 cm ² /m
17015222		galvanised steel	1000/172/20	C 250	MW 30/10	6,9	1280 cm ² /m
17015223		galvanised steel	500/172/20	C 250	MW 30/10	3,6	1240 cm ² /m
17015322		stainless steel	1000/172/20	C 250	MW 30/10	6,9	1280 cm ² /m
17015323		stainless steel	500/172/20	C 250	MW 30/10	3,6	1240 cm ² /m
17015111	2 Ductile iron slotted gr.	ductile iron	500/172/20	B 125	SW 10/150	4,5	515 cm ² /m
17015101	3 Ductile iron bar gr.	ductile iron	500/172/20	C 250	MW 29/13	4,9	710 cm ² /m

Slot tops asymmetric

for BG-FILCOTEN tec NW 150

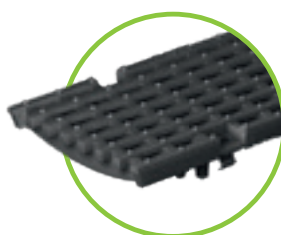
Item no.	Gratings	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17115243	4 Slot top SH 110 mm	galvanised steel	1000/173/143	C 250	SW 12,5	6,7	125 cm ² /m
17115244		galvanised steel	500/173/143	C 250	SW 12,5	3,3	125 cm ² /m
17115281		Maintenance unit SH 110 mm	galvanised steel	500/173/143	C 250	SW 12,5	5,9
17115343	4 Slot top SH 110 mm	stainless steel	1000/173/143	C 250	SW 12,5	6,7	125 cm ² /m
17115344		stainless steel	500/173/143	C 250	SW 12,5	3,3	125 cm ² /m
17115381		Maintenance unit SH 110 mm	stainless steel	500/173/143	C 250	SW 12,5	5,9
17116204	5 Slot top 2S, Heelproof	galvanised steel	1000/173/143	C 250	SW 2x6	7,0	120 cm ² /m
17116205		galvanised steel	500/173/143	C 250	SW 2x6	3,5	120 cm ² /m
17116206		Maintenance unit 2S, Heelproof	galvanised steel	500/173/143	C 250	SW 2x6	6,1
17116304	5 Slot top 2S, Heelproof	stainless steel	1000/173/143	C 250	SW 2x6	7,0	120 cm ² /m
17116305		stainless steel	500/173/143	C 250	SW 2x6	3,5	120 cm ² /m
17116306		Maintenance unit 2S, Heelproof	stainless steel	500/173/143	C 250	SW 2x6	6,1
17110280	front cap V NW 150, variable height 80 – 200 mm, fitting both slot tops					0,1	
17110380	front cap E NW 150, variable height 80 – 200 mm, fitting both slot tops					0,1	
37962	construction time barrier for slot top SW 12 mm and SW 2x6 mm, L = 1000 mm, wood					0,1	
13399	opening tool for maintenance unit cover – 2 pcs. required, plastic					0,1	



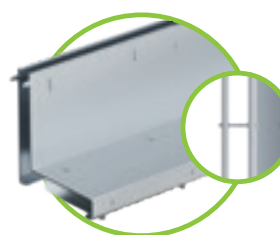
1 Mesh grating, class B – galvanised steel class C – galvanised or stainless steel, MW 30/10



2 Ductile iron slotted grating, SW 10/150, class B



3 Ductile iron elongated bar grating MW 29/13, class C



4 Slot top, class C, SW 12,5mm, SH 80/110mm, galvanised or stainless steel



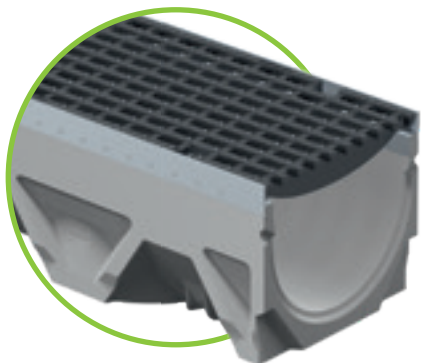
5 Slot top 2S, Heelproof class C, SW 2x6 mm, galvanised or stainless steel



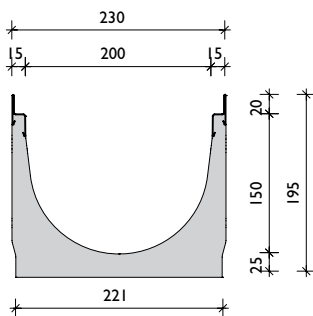
Special slot tops on request!

up to class C 250

BG-FILCOTEN tec



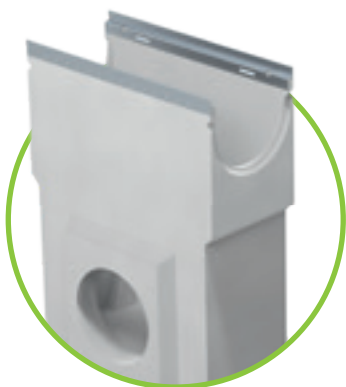
BG-FILCOTEN tec V/E 200
incl. galvanised or stainless steel edge



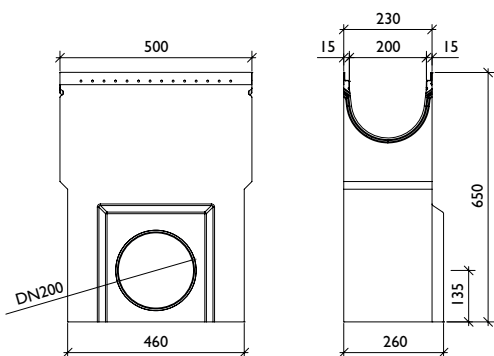
BG-FILCOTEN tec NW 200 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated galvanised (V) or stainless steel edge (E), up to class C

Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope					
10220200	10220300	0	1000	195	30,2
10220250	10220350	0	500	195	15,1
Channel with bottom outlet DN 200					
10220270	10220370	0	1000	195	28,4



BG-FILCOTEN tec
sump unit V/E 200



Accessories

for BG-FILCOTEN tec NW 200

Item no.	Accessories	Material	Weight in kg
10220292	sump unit V 500/260/650 incl. pipe coupling DN 200 and plastic silt bucket	FILCOTEN HPC	48,7
10220392	sump unit E 500/260/650 incl. pipe coupling DN 200 and plastic silt bucket	FILCOTEN HPC	48,7
30040	odour trap made of PVC bends DN 200/87°	plastic	7,4
19020230	front cap	galvanised steel	0,8
19020232	end cap with outlet DN 150	galvanised steel	0,5
19020330	front cap	stainless steel	0,8
19020332	end cap with outlet DN 150	stainless steel	0,5
19020902	installation chairs – set incl. bolts – requirement: number of channels + 1 ²⁾	galvanised steel	0,8
32089	anti-vandalism locking device / 2 pcs. required per grating	stainless steel	0,1



Accessory details including additional images = page 36.

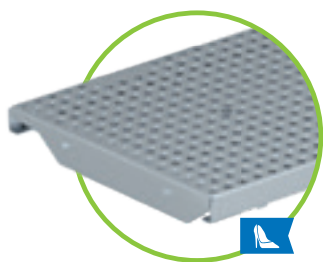
¹⁾ Height at channel end.

²⁾ Threaded rods or reinforcing steel not included in scope of delivery.

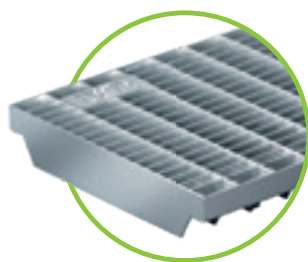
Gratings with fiX-locking

for BG-FILCOTEN tec NW 200

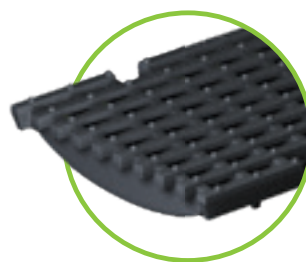
Item no.	Gratings with fiX-locking	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17020228	1 Perforated grating	galvanised steel	1000/222/20	C 250	Ø 6,0 mm	13,5	265 cm ² /m
17020229		galvanised steel	500/222/20	C 250	Ø 6,0 mm	6,7	260 cm ² /m
17020328		stainless steel	1000/222/20	C 250	Ø 6,0 mm	13,5	265 cm ² /m
17020329		stainless steel	500/222/20	C 250	Ø 6,0 mm	6,7	260 cm ² /m
17020220	2 Mesh grating	galvanised steel	1000/222/20	B 125	MW 30/10	6,0	1775 cm ² /m
17020221		galvanised steel	500/222/20	B 125	MW 30/10	3,1	1720 cm ² /m
17020222		galvanised steel	1000/222/20	C 250	MW 30/10	8,8	1650 cm ² /m
17020223		galvanised steel	500/222/20	C 250	MW 30/10	4,5	1595 cm ² /m
17020322		stainless steel	1000/222/20	C 250	MW 30/10	8,8	1650 cm ² /m
17020323		stainless steel	500/222/20	C 250	MW 30/10	4,5	1595 cm ² /m
17020101	3 Ductile iron bar gr.	ductile iron	500/222/20	C 250	MW 29/13	7,3	955 cm ² /m



1 Perforated grating, Ø 6,0 mm, galvanised or stainless steel,



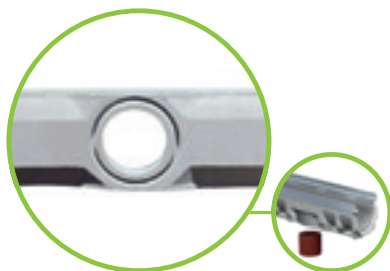
2 Mesh grating, class B – galvanised steel & class C – galvanised or stainless steel, MW 30/10



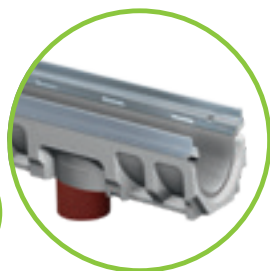
3 Ductile iron elongated bar grating MW 29/13, class C

BG-FILCOTEN

tec



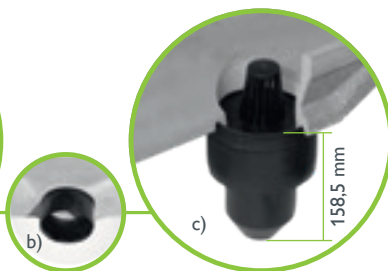
prefabricated outlet opening
DN 100 (NW 100), DN 150 (NW 150)
and DN 200 (NW 200)



bottom outlet made of
PVC sewer pipes,
on site installation



a) odour trap for bottom outlet
consisting of 3 parts
b) outlet pipe must be inserted
into outlet opening from below
before installation.



c) The two remaining parts
complete the foul-air trap
(only for NW 100) finished!

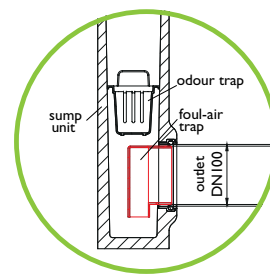
i Positioning of outlet opening: channel end to outlet centre = 250 mm.



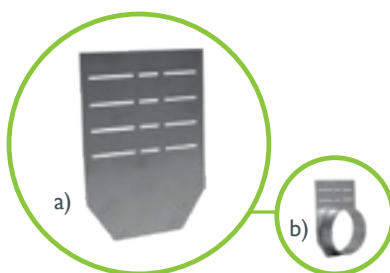
tec sump unit, L=500 mm,
incl. silt bucket
made of plastic, to fit NW



odour trap for sump unit for backfitting DN 100/150
Installation: Insert the odour trap from the inside and
connect with the sewage pipe.



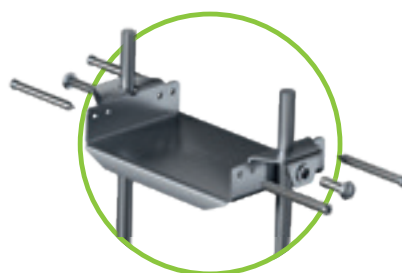
odour trap made of PVC bends
suitable for sump units
with outlets DN 150 or 200



a) front cap
b) end cap with outlet



front cap
tec mini



installation chairs
made of galvanised steel,
to fit NW



sealant material for sealing
the channel joints, for
channels with safety seam



Anti-vandalism locking device for all gratings
for NW 100/150/200, except slotted gratings
and COMBee design gratings (tec).
Required per grating: 2 pcs.

i Detailed description on page 57.

References



Only a **heavyweight** when it comes to **features:**

With our BG-FILCOTEN pro channel, you don't have compromise quality or durability. It's stable yet lightweight, and can be adapted to suit your needs. BG-FILCOTEN pro is available with galvanised or stainless steel edges up to class E 600 (acc. to EN 1433). The cast-iron edge model is tested up to class F 900 (acc. to EN 1433). BG-FILCOTEN pro channels are also available in a shallow version with a lower overall height.



Areas of use.

Because BG-FILCOTEN pro can handle a high load capacity, it is especially suitable for installation in industrial areas such as in factories, warehouses and garages. However, with its sleek good looks it can just as easily be used in public places like railway stations, and pedestrian or residential areas.

Load class E 600

Edge variants

The BG-FILCOTEN pro channel system is available with various integral edges made of galvanised steel, stainless steel or cast iron.

Channel geometry / smooth surface

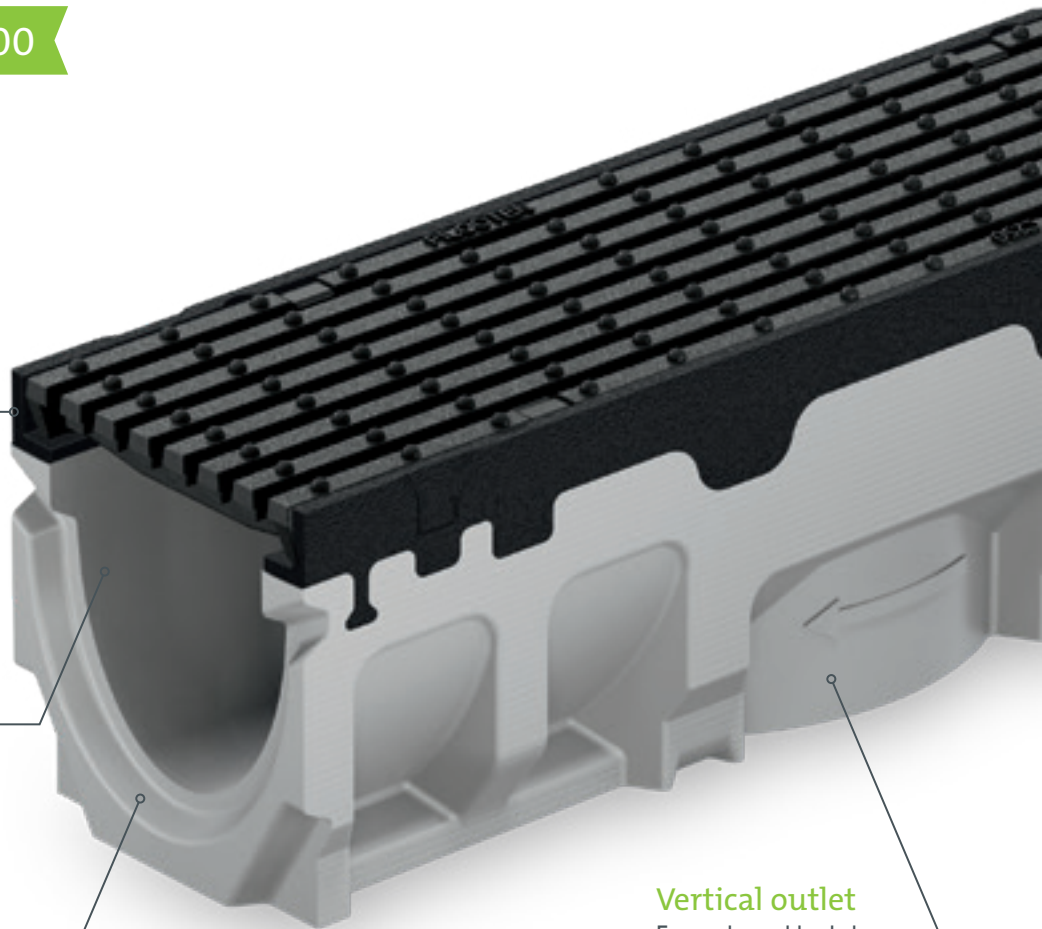
The optimised channel geometry and the smooth surface ensure maximum flow and self-cleaning effects.

Sealant groove

Sealant groove enables a tight, waterproof connection between the individual segments.

Vertical outlet

Every channel body has a vertical outlet possibility.



GRASPOINTNER
Sustainable innovation.

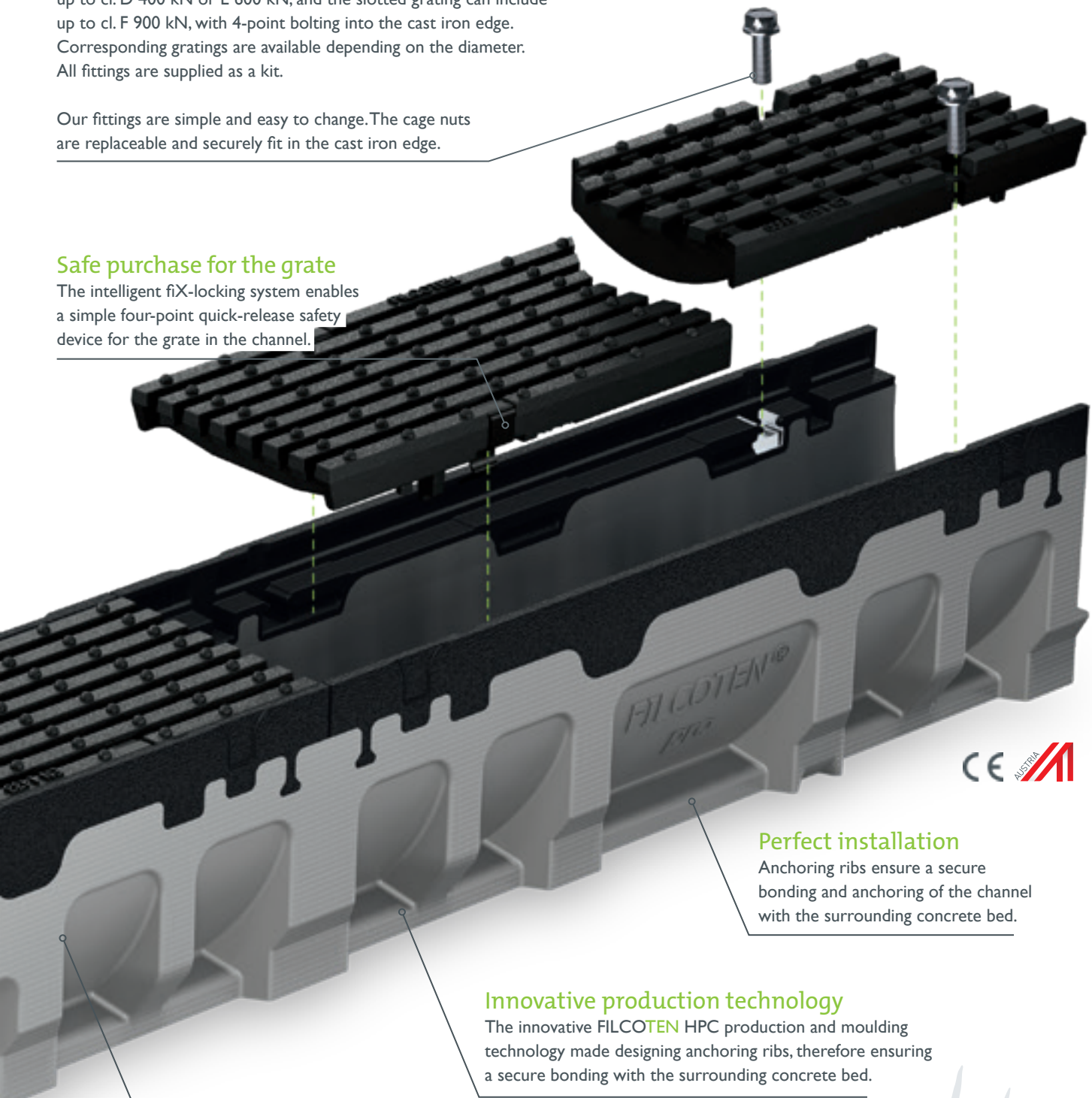
High traffic bolted iron grip

As an alternative to the fiX-locking, the bar grating can include up to cl. D 400 kN or E 600 kN, and the slotted grating can include up to cl. F 900 kN, with 4-point bolting into the cast iron edge. Corresponding gratings are available depending on the diameter. All fittings are supplied as a kit.

Our fittings are simple and easy to change. The cage nuts are replaceable and securely fit in the cast iron edge.

Safe purchase for the grate

The intelligent fiX-locking system enables a simple four-point quick-release safety device for the grate in the channel.



Perfect installation

Anchoring ribs ensure a secure bonding and anchoring of the channel with the surrounding concrete bed.

Innovative production technology

The innovative FILCOTEN HPC production and moulding technology made designing anchoring ribs, therefore ensuring a secure bonding with the surrounding concrete bed.

Stable thanks to the FEM analysis

The FEM analysis is a computer-assisted process which simulates exactly which constructions withstand which loads. The more accurately the effect of the forces is known, the easier it is to choose the optimal solution.

Downloaden Sie hier:

Ausschreibungstext, Datenblatt, DoP, Einbaubeschreibung, Einbaudetail, Produktzeichnung, BIM-Daten

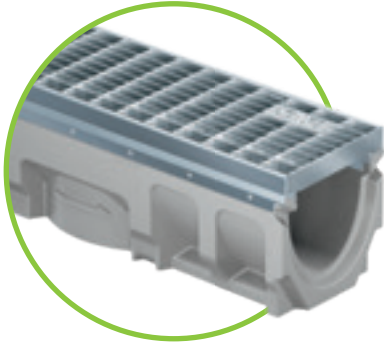


www.say.bg/en/pro/download

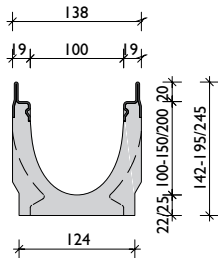
up to class E 600

BG-FILCOTEN

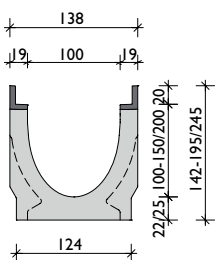
pro



BG-FILCOTEN pro V/E 100
incl. stainless or galvanized steel edges



BG-FILCOTEN pro G 100
incl. cast iron edges



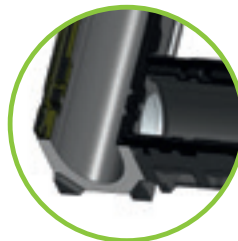
BG-FILCOTEN pro NW 100 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated ductile iron (G), galvanised (V) or stainless steel edge (E), up to class E

Item no. G-edge	Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg G V-E	
Channel without slope							
10610100	10610200	10610300	0	1000	142	19,1	18,3
10610180	10610280	10610380	0	500	142	9,7	9,6
10610161	10610261	10610361	5-0	1000	170	22,6	21,6
10610181	10610281	10610381	5-0 ²⁾	500	170	13,5	13,2
10610162	10610262	10610362	10-0	1000	195	26,1	24,9
10610182	10610282	10610382	10-0	500	195	11,6	11,0
10610164	10610264	10610364	20-0	1000	245	32,0	31,0
Channel with bottom outlet DN 100							
10610170	10610270	10610370	0	1000	142	18,8	18,0
10610171	10610271	10610371	5-0	1000	170	22,3	21,3
10610172	10610272	10610372	10-0	1000	195	25,8	24,6
10610174	10610274	10610374	20-0	1000	245	31,6	30,6
Channel with 0.5% slope							
10610101	10610201	10610301	1	1000	150	19,5	18,6
10610102	10610202	10610302	2	1000	155	20,2	19,3
10610103	10610203	10610303	3	1000	160	20,9	20,0
10610104	10610204	10610304	4	1000	165	21,6	20,6
10610105	10610205	10610305	5	1000	170	22,3	21,3
10610106	10610206	10610306	6	1000	175	23,0	21,9
10610107	10610207	10610307	7	1000	180	23,3	22,6
10610108	10610208	10610308	8	1000	185	24,0	23,3
10610109	10610209	10610309	9	1000	190	24,7	23,9
10610110	10610210	10610310	10	1000	195	25,4	24,6

Channel body for side and/or bottom drilling

The position of bottom drilling and/or sided drilling (left/right) can be selected. Different diameters depending on the nominal width:



max. sided drilling diameter

NW 100	ø 86 mm
NW 150	ø 130 mm
NW 200	ø 180 mm

T- or cross-pieces can be produced easily and quickly.



For questions, please contact our application engineering department.



GRASPOINTNER
Sustainable innovation.

¹⁾ Height at channel end.

²⁾ Side and/or bottom drilling – see picture on page 40.

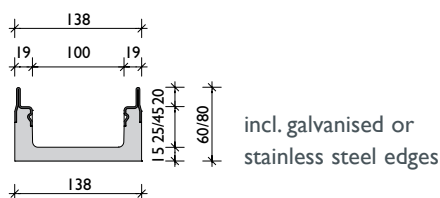
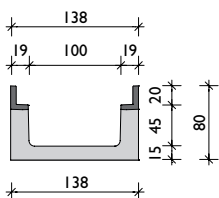
³⁾ Threaded rods or reinforcing steel not included in scope of delivery.

⁴⁾ Bolting only possible when used with cast iron edges. | Locking device kit to be ordered separately.

BG-FILCOTEN pro mini NW 100 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated galvanised (V) or stainless steel edge (E) up to class C – very low construction height

Item no. G-edge	Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg	
						G	V-E
Channel without slope							
	10510200	10510300	mini	1000	60		9,1
10510101	10510201	10510301	mini	1000	80	11,1	10,7
Channel with bottom outlet DN 100							
	10510270	10510370	mini	1000	60		8,3
10510171	10510271	10510371	mini	1000	80	10,4	10,0



BG-FILCOTEN
pro mini G/V/E 100

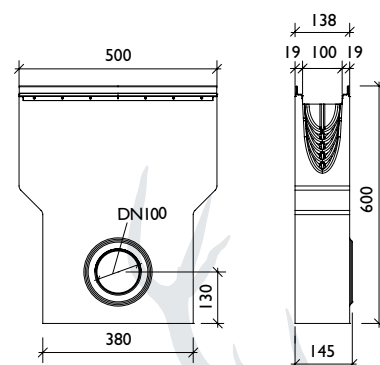
Accessories

for BG-FILCOTEN pro & pro mini NW 100

Item no.	Accessories	Material	Weight in kg
10610192	sump unit G 500/145/600 with pipe coupling DN 100 and plastic silt bucket	FILCOTEN HPC	33,1
10610292	sump unit V 500/145/600 with pipe coupling DN 100 and plastic silt bucket	FILCOTEN HPC	32,6
10610392	sump unit E 500/145/600 with pipe coupling DN 100 and plastic silt bucket	FILCOTEN HPC	32,6
30056	drain trap for sump unit DN 100 for backfitting	plastic	0,1
30019	drain trap for bottom outlet DN 100	plastic	0,2
19010200	front cap (pro mini)	galvanised steel	0,1
19010300	front cap (pro mini)	stainless steel	0,1
19010230	front cap (no. 0-10-0)	galvanised steel	0,3
19010231	end cap with outlet DN 100 (no. 0 –10-0)	galvanised steel	0,4
19010330	front cap (no. 0-10-0)	stainless steel	0,3
19010331	end cap with outlet DN 100 (no. 0 –10-0)	stainless steel	0,4
19010215	front cap (no. 20-0)	galvanised steel	0,3
19010216	end cap with outlet DN 100 (no. 20-0)	galvanised steel	0,4
19010315	front cap (no. 20-0)	stainless steel	0,3
19010316	end cap with outlet DN 100 (no. 20-0)	stainless steel	0,4
19010902	instalation chairs – set incl. bolts – requirement: number of channels + 1 ³⁾	galvanised steel	0,6
32087	anti-vandalism locking device 2 pcs. required per grating	stainless steel	0,1
32103	bolts/nuts for class E ductile iron bar grating (8 pcs. required per m) ⁴⁾		
32109	bolts/nuts (stainless steel) for class E ductile iron bar grating (8 pcs. required per m) ⁴⁾		



BG-FILCOTEN pro
sump unit G/V/E 100



Accessory details including additional images = page 56.

Gratings with fiX-locking

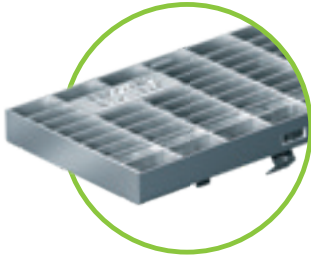
for BG-FILCOTEN pro & pro mini NW 100

Item no.	Gratings fiX-locking	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17010222	1 Mesh grating	galvanised steel	1000/122/20	C 250	MW 30/10	3,3	910 cm ² /m
17010223		galvanised steel	500/122/20	C 250	MW 30/10	1,6	885 cm ² /m
17010322		stainless steel	1000/122/20	C 250	MW 30/10	3,3	910 cm ² /m
17010323		stainless steel	500/122/20	C 250	MW 30/10	1,6	885 cm ² /m
17010226	2 Mesh grating	galvanised steel	1000/122/20	D 400	MW 25/10	7,4	780 cm ² /m
17010227		galvanised steel	500/122/20	D 400	MW 25/10	3,8	765 cm ² /m
17010326		stainless steel	1000/122/20	D 400	MW 25/10	7,4	780 cm ² /m
17010327		stainless steel	500/122/20	D 400	MW 25/10	3,8	765 cm ² /m
17010206	3 Slotted grating ¹⁾	galvanised steel	1000/122/20	C 250	SW 8/80	4,5	225 cm ² /m
17010207		galvanised steel	500/122/20	C 250	SW 8/80	2,2	225 cm ² /m
17010306		stainless steel	1000/122/20	C 250	SW 8/80	4,5	225 cm ² /m
17010307		stainless steel	500/122/20	C 250	SW 8/80	2,2	225 cm ² /m
17010228	4 Perforated grating	galvanised steel	1000/122/20	C 250	Ø 6,0 mm	3,3	170 cm ² /m
17010229		galvanised steel	500/122/20	C 250	Ø 6,0 mm	1,7	170 cm ² /m
17010328		stainless steel	1000/122/20	C 250	Ø 6,0 mm	3,3	170 cm ² /m
17010329		stainless steel	500/122/20	C 250	Ø 6,0 mm	1,7	170 cm ² /m
17010402 ¹⁾	5 COMBee design gr.	polyamide	500/123/20	C 250	Ø 7,3 mm	1,1	290 cm ² /m
17010101	6 Ductile iron bar gr.	ductile iron	500/122/20	C 250	MW 29/13	3,2	505 cm ² /m
17010106		ductile iron	500/122/20	C 250	MW 29/6	3,6	320 cm ² /m
17010104		ductile iron	500/122/20	D 400	MW 29/13	3,4	495 cm ² /m
17010110		ductile iron	500/122/20	D 400	MW 28/9	3,4	475 cm ² /m
17010105	7 Ductile iron slotted gr.	ductile iron	500/122/20	E 600	SW 14/100	3,8	465 cm ² /m
17010183 ¹⁾	8 Ductile iron design gr.	ductile iron	500/122/20	D 400	KIARO, SW 7	4,1	425 cm ² /m
17010184 ¹⁾		ductile iron	500/122/20	D 400	VIA, SW 7	3,6	390 cm ² /m
17010180		ductile iron	500/122/20	E 600	VILLE, SW 7	5,2	160 cm ² /m

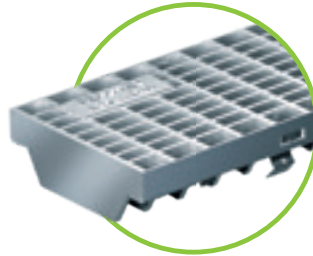
Gratings with 4-point bolting system

for BG-FILCOTEN pro & pro mini NW 100

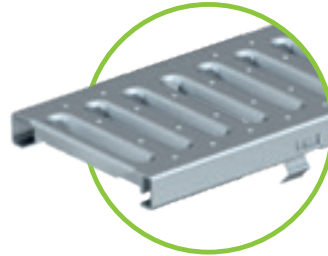
Item no.	Gratings fiX-locking	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17010103 ³⁾	9 Ductile iron bar gr.	ductile iron	500/122/20	E 600	MW 22/13	4,2	435 cm ² /m



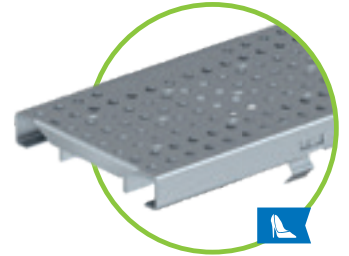
1 Mesh grating MW 30/10, class C, galvanised & stainless steel



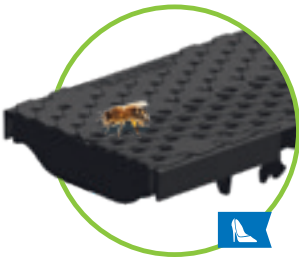
2 Mesh grating MW 25/10, class D, galvanised & stainless steel



3 Slotted grating SW 8/80, class C, galvanised & stainless steel



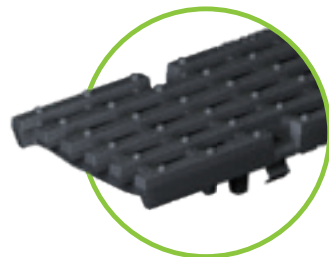
4 Perforated grating, Ø 6,0 mm, class C, galvanised & stainless steel



5 COMBee-design grating, class C, Ø 7,3 mm



6 Ductile iron elongated bar grating, narrow slot MW 29/6, cl. C



6 Ductile iron elongated bar grating, cl. C or D, MW 29/13



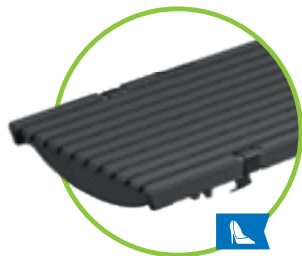
6 Ductile iron elongated bar grating, class D, MW 28/9



7 Ductile iron slotted grating class E, SW 14/100



8 Ductile iron design grating KIARO, class D, SW 7



8 Ductile iron design grating VIA, class D, SW 6-7



8 Ductile iron design grating VILLE, KI. E, SW 7

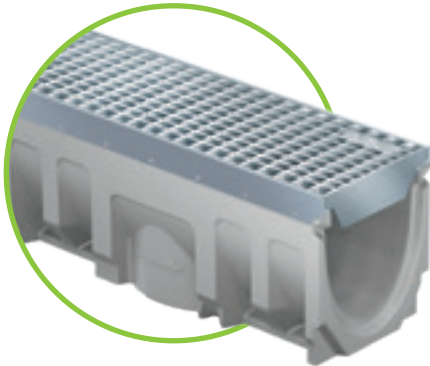


9 Ductile iron elongated bar grating, MW 22/13, class E
4-point bolted only available in cast iron edge ²⁾

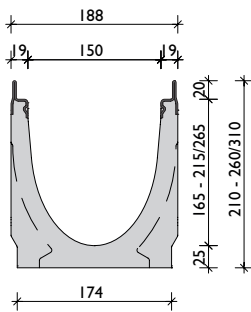
up to class E 600

BG-FILCOTEN

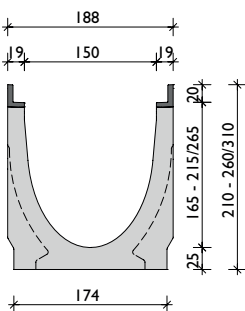
pro



BG-FILCOTEN pro V/E 150
incl. galvanised or stainless steel edges



BG-FILCOTEN pro G 150
incl. cast iron edges



BG-FILCOTEN pro NW 150 – channel body

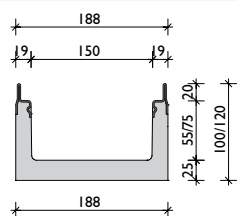
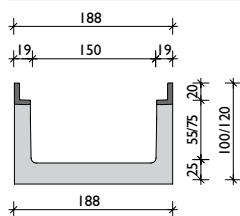
Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated ductile iron (G), galvanised (V) or stainless steel edge (E), up to class E

Item no. G-edge	Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg G V-E	
Channel without slope							
10615100	10615200	10615300	0	1000	210	31,8	30,8
10615180	10615280	10615380	0	500	210	15,7	15,2
10615161	10615261	10615361	5-0	1000	235	35,6	34,6
10615181	10615281	10615381	5-0 ²⁾	500	235	21,2	20,7
10615162	10615262	10615362	10-0	1000	260	38,8	37,8
10615182	10615282	10615382	10-0	500	260	19,8	19,3
10615164	10615264	10615364	20-0	1000	310	48,7	47,7
Channel with bottom outlet DN 100							
10615170	10615270	10615370	0	1000	210	30,7	29,7
10615171	10615271	10615371	5-0	1000	235	34,5	33,5
10615172	10615272	10615372	10-0	1000	260	37,7	36,7
10615174	10615274	10615374	20-0	1000	310	47,6	46,6
Channel with 0.5% slope							
10615101	10615201	10615301	1	1000	215	32,5	31,5
10615102	10615202	10615302	2	1000	220	33,2	32,2
10615103	10615203	10615303	3	1000	225	33,9	32,9
10615104	10615204	10615304	4	1000	230	34,6	33,6
10615105	10615205	10615305	5	1000	235	35,3	34,3
10615106	10615206	10615306	6	1000	240	35,9	34,9
10615107	10615207	10615307	7	1000	245	36,6	35,6
10615108	10615208	10615308	8	1000	250	37,2	36,2
10615109	10615209	10615309	9	1000	255	37,9	36,9
10615110	10615210	10615310	10	1000	260	38,5	37,5

BG-FILCOTEN pro mini NW 150 – channel body

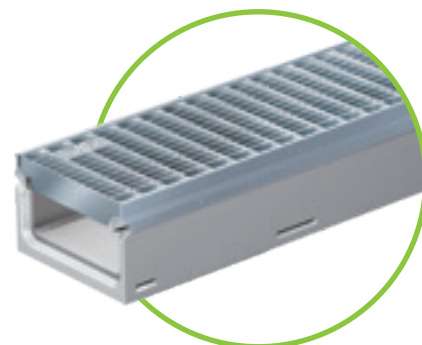
Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated galvanised (V) or stainless steel edge (E) up to class C – very low construction height

Item no. G-edge	Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg G V-E	
Channel without slope							
10515102	10515202	10515302	mini	1000	100	19,8	18,9
10515100	10515200	10515300	mini	1000	120	21,7	20,2
Channel with 0.5% slope							
10515172	10515272	10515372	mini	1000	100	18,8	18,0
10515170	10515270	10515370	mini	1000	120	20,6	19,3



incl. cast iron edges

incl. galvanised or stainless steel edges

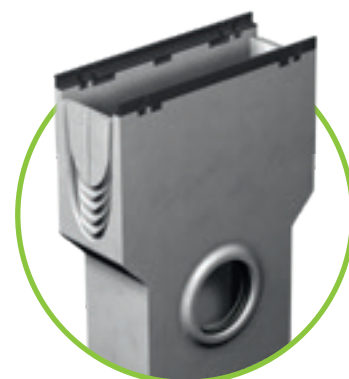


BG-FILCOTEN
pro mini G/V/E 150

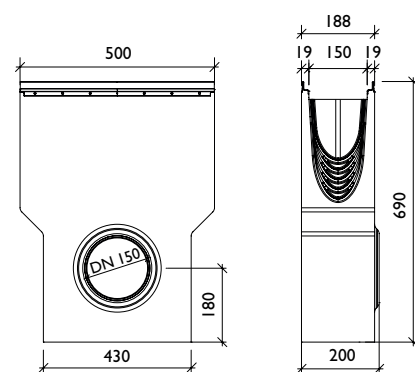
Accessories

for BG-FILCOTEN pro & pro mini NW 150

Item no.	Accessories	Material	Weight in kg
10615192	sump unit G 500/200/690 with pipe coupling DN 150 and plastic silt bucket	FILCOTEN HPC	45,3
10615292	sump unit V 500/200/690 with pipe coupling DN 150 and plastic silt bucket	FILCOTEN HPC	44,8
10615392	sump unit E 500/200/690 with pipe coupling DN 150 and plastic silt bucket	FILCOTEN HPC	44,8
30030	odour trap made of PVC sewer pipes DN 150/87°	plastic	3,9
30057	odour trap for sump unit for backfitting DN 150	plastic	0,2
19015200	front cap (pro mini)	galvanised steel	0,3
19015300	front cap (pro mini)	stainless steel	0,3
19015230	front cap (no. 0-10-0)	galvanised steel	0,5
19015231	end cap with outlet DN 150 (no. 0 –10-0)	galvanised steel	0,6
19015330	front cap (no. 0-10-0)	stainless steel	0,5
19015331	end cap with outlet DN 150 (no. 0 –10-0)	stainless steel	0,6
19015215	front cap (no. 20-0)	galvanised steel	0,6
19015216	end cap with outlet DN 150 (no. 20-0)	galvanised steel	0,7
19015315	front cap (no. 20-0)	stainless steel	0,6
19015316	end cap with outlet DN 150 (no. 20-0)	stainless steel	0,7
19020902	instalation chairs – set incl. bolts – requirement: number of channels + 1 ³⁾	galvanised steel	0,8
32088	anti-vandalism locking device 2 pcs. required per grating	stainless steel	0,1
32103	bolts/nuts for class E ductile iron bar grating (8 pcs. required per m) ⁴⁾		
32109	bolts/nuts (stainless steel) for class E ductile iron bar grating (8 pcs. required per m) ⁴⁾		



BG-FILCOTEN pro
sump unit G/V/E 150



Accessory details including additional images = page 56.

up to class E 600

BG-FILCOTEN

pro

Gratings with fiX-locking

for BG-FILCOTEN pro & pro mini NW 150

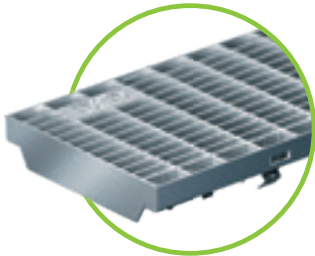
Item no.	Gratings fiX-locking	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17015222	1 Mesh grating	galvanised steel	1000/172/20	C 250	MW 30/10	6,9	1280 cm ² /m
17015223		galvanised steel	500/172/20	C 250	MW 30/10	3,6	1240 cm ² /m
17015322		stainless steel	1000/172/20	C 250	MW 30/10	6,9	1280 cm ² /m
17015323		stainless steel	500/172/20	C 250	MW 30/10	3,6	1240 cm ² /m
17015226	2 Mesh grating	galvanised steel	1000/172/20	D 400	MW 25/10	10,4	1080 cm ² /m
17015227		galvanised steel	500/172/20	D 400	MW 25/10	5,3	1075 cm ² /m
17015101	3 Ductile iron bar gr.	ductile iron	500/172/20	C 250	MW 29/13	5,1	710 cm ² /m
17015104		ductile iron	500/172/20	D 400	MW 29/13	5,2	710 cm ² /m
17015110		ductile iron	500/172/20	D 400	MW 28/9	5,5	565 cm ² /m
17015105	4 Ductile iron slotted gr.	ductile iron	500/172/20	E 600	SW 14/150	7,0	710 cm ² /m
17015183 ¹⁾	5 Ductile iron design gr.	ductile iron	500/172/20	D 400	KIARO, SW 7	6,0	600 cm ² /m
17015184 ¹⁾		ductile iron	500/172/20	D 400	VIA, SW 7	5,6	515 cm ² /m
17015180		ductile iron	500/172/20	E 600	VILLE, SW 7	8,6	170 cm ² /m

Gratings with 4-point bolting system

for BG-FILCOTEN pro & pro mini NW 150

Item no.	Gratings 4-point bolted	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17015103	6 Ductile iron bar gr. ²⁾	ductile iron	500/172/20	E 600	MW 22/13	7,2	640 cm ² /m
17015108	7 Ductile iron slotted gr. ²⁾	ductile iron	500/172/20	D 400	SW 14/150	5,5	680 cm ² /m

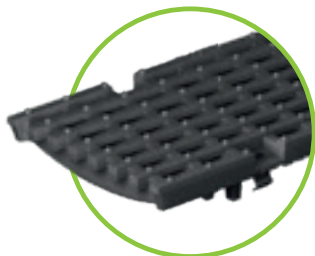




1 Mesh grating MW 30/10, class C, galvanised & stainless steel



2 Mesh grating MW 25/10, class D, galvanised



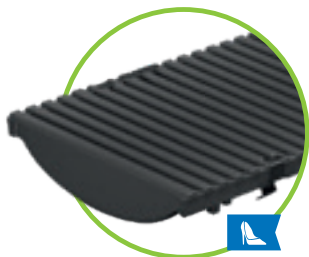
3 Ductile iron elongated bar grating, cl. C or D, MW 29/13



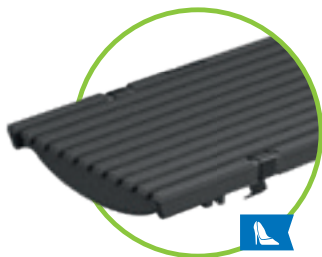
3 Ductile iron elongated bar grating, class D, MW 28/9



4 Ductile iron slotted grating, class E, SW 14/150



5 Ductile iron design grating KIARO, class D, SW 7



5 Ductile iron design grating VIA, class D, SW 7



5 Ductile iron design grating VILLE, KI. E, SW 7



6 Ductile iron elongated bar grating, MW 22/13, class E 4-point bolted ²⁾



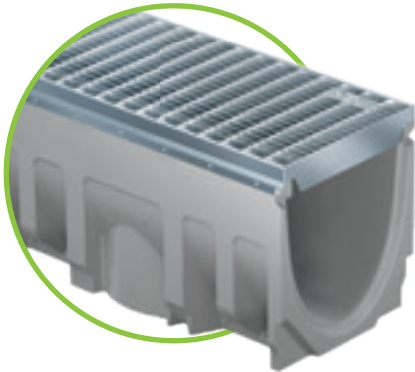
7 Ductile iron slotted grating class D, SW 14/150 4-point bolted ²⁾



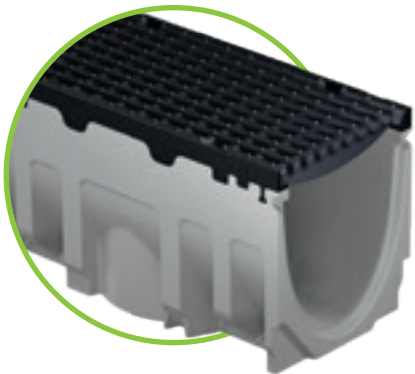
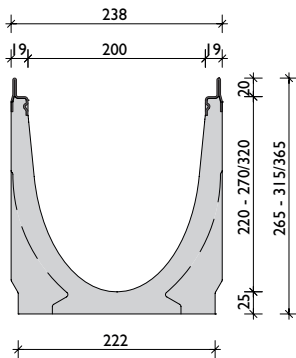
up to class E 600

BG-FILCOTEN

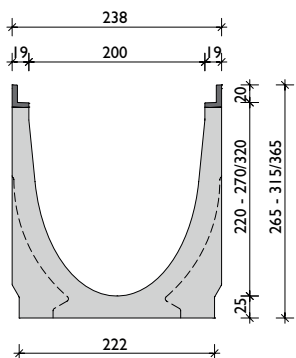
pro



BG-FILCOTEN pro V/E 200
incl. galvanised or stainless steel edges



BG-FILCOTEN pro G 200
incl. cast iron edges

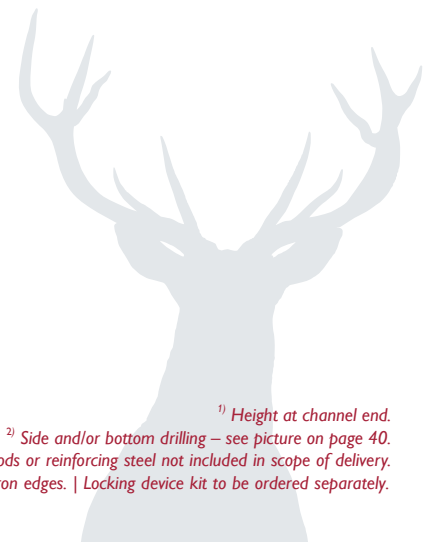


BG-FILCOTEN pro NW 200 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated ductile iron (G), galvanised (V) or stainless steel edge (E), up to class E

Item no. G-edge	Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg G V-E	
Channel without slope							
10620100	10620200	10620300	0	1000	265	45,0	44,0
10620180	10620280	10620380	0	500	265	22,6	22,1
10620161	10620261	10620361	5-0	1000	290	50,3	49,3
10620181	10620281	10620381	5-0 ²⁾	500	290	30,1	29,6
10620162	10620262	10620362	10-0	1000	315	55,3	54,3
10620182	10620282	10620382	10-0	500	315	27,5	27,0
10620164	10620264	10620364	20-0	1000	365	65,6	64,6
Channel with bottom outlet DN 200							
10620170	10620270	10620370	0	1000	265	42,1	41,1
10620171	10620271	10620371	5-0	1000	290	47,1	46,1
10620172	10620272	10620372	10-0	1000	315	52,1	51,1
10620174	10620274	10620374	20-0	1000	365	62,4	61,4
Channel with 0.5% slope							
10620101	10620201	10620301	1	1000	270	45,5	44,5
10620102	10620202	10620302	2	1000	275	46,5	45,5
10620103	10620203	10620303	3	1000	280	47,5	46,5
10620104	10620204	10620304	4	1000	285	48,6	47,6
10620105	10620205	10620305	5	1000	290	49,6	48,6
10620106	10620206	10620306	6	1000	295	50,7	49,7
10620107	10620207	10620307	7	1000	300	51,7	50,7
10620108	10620208	10620308	8	1000	305	52,8	51,8
10620109	10620209	10620309	9	1000	310	53,8	52,8
10620110	10620210	10620310	10	1000	315	54,9	53,9

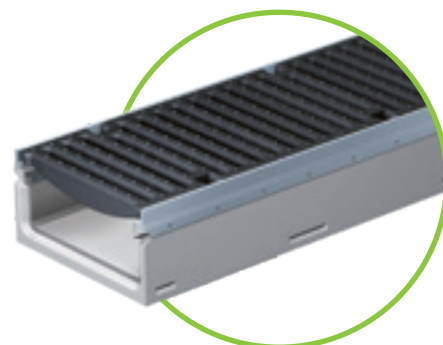
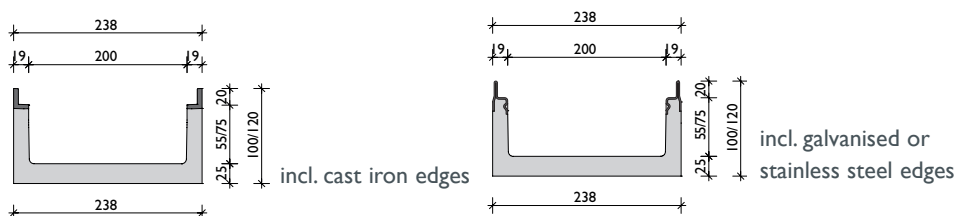
¹⁾ Height at channel end.
²⁾ Side and/or bottom drilling – see picture on page 40.
³⁾ Threaded rods or reinforcing steel not included in scope of delivery.
⁴⁾ Bolting only possible when used with cast iron edges. | Locking device kit to be ordered separately.



BG-FILCOTEN pro mini NW 200 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated galvanised (V) or stainless steel edge (E) up to class C – very low construction height

Item no. G-edge	Item no. V-edge	Item no. E-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg G V-E	
Channel without slope							
10520102	10520202	10520302	mini	1000	100	22,8	21,3
10520100	10520200	10520300	mini	1000	120	24,4	23,2
Channel with bottom outlet DN 200							
10520172	10520272	10520372	mini	1000	100	20,3	20,0
10520170	10520270	10520370	mini	1000	120	23,0	21,8



BG-FILCOTEN pro mini
G/V/E 200

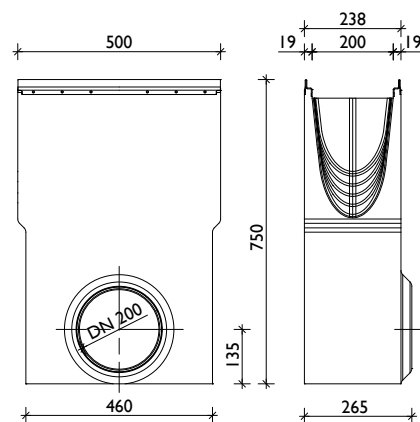


BG-FILCOTEN pro
sump unit G/V/E 200

Accessories

for BG-FILCOTEN pro & pro mini NW 200

Item no.	Accessories	Material	Weight in kg
10620192	sump unit G 500/200/690 with pipe coupling DN 200 and plastic silt bucket	FILCOTEN HPC	49,1
10620292	sump unit V 500/200/690 with pipe coupling DN 200 and plastic silt bucket	FILCOTEN HPC	48,7
10620392	sump unit E 500/200/690 with pipe coupling DN 200 and plastic silt bucket	FILCOTEN HPC	48,7
30040	odour trap made of PVC sewer pipes DN 200/87°	plastic	7,4
19015200	front cap (pro mini H=100 and H=120 mm)	galvanised steel	0,3
19015300	front cap (pro mini H=100 and H=120 mm)	stainless steel	0,3
19020230	front cap (no. 0-10-0)	galvanised steel	0,8
19020231	end cap with outlet DN 200 (no. 0-10-0)	galvanised steel	1,1
19020330	front cap (no. 0-10-0)	stainless steel	0,8
19020331	end cap with outlet DN 200 (no. 0-10-0)	stainless steel	1,1
19020215	front cap (no. 20-0)	galvanised steel	0,9
19020216	end cap with outlet DN 200 (no. 20-0)	galvanised steel	1,2
19020315	front cap (no. 20-0)	stainless steel	0,9
19020316	end cap with outlet DN 200 (no. 20-0)	stainless steel	1,2
19020902	instalation chairs – set incl. bolts – requirement: number of channels + 1 ³⁾	galvanised steel	0,8
32089	anti-vandalism locking device 2 pcs. required per grating	stainless steel	0,1
32103	bolts/nuts for class E ductile iron bar grating (8 pcs. required per m) ⁴⁾		
32109	bolts/nuts (stainless steel) for class E ductile iron bar grating (8 pcs. required per m) ⁴⁾		



Accessory details including additional images = page 56.

Gratings with fiX-locking

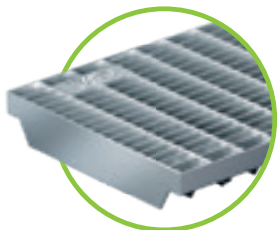
for BG-FILCOTEN pro & pro mini NW 200

Item no.	Gratings fiX-locking	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17020222	1 Mesh grating	galvanised steel	1000/222/20	C 250	MW 30/10	8,8	1650 cm ² /m
17020223		galvanised steel	500/222/20	C 250	MW 30/10	4,5	1595 cm ² /m
17020322		stainless steel	1000/222/20	C 250	MW 30/10	8,8	1650 cm ² /m
17020323		stainless steel	500/222/20	C 250	MW 30/10	4,5	1595 cm ² /m
17020226	2 Mesh grating	galvanised steel	1000/222/20	D 400	MW 25/10	15,7	1400 cm ² /m
17020227		galvanised steel	500/222/20	D 400	MW 25/10	8,0	1390 cm ² /m
17020228	3 Perforated grating	galvanised steel	1000/222/20	C 250	Ø 6,0 mm	13,5	265 cm ² /m
17020229		galvanised steel	500/222/20	C 250	Ø 6,0 mm	6,7	260 cm ² /m
17020328		stainless steel	1000/222/20	C 250	Ø 6,0 mm	13,5	265 cm ² /m
17020329		stainless steel	500/222/20	C 250	Ø 6,0 mm	6,7	260 cm ² /m
17020101	4 Ductile iron bar gr.	ductile iron	500/222/20	C 250	MW 29/13	7,3	955 cm ² /m
17020104		ductile iron	500/222/20	D 400	MW 29/13	7,7	940 cm ² /m
17020105	5 Ductile iron slotted gr.	ductile iron	500/222/20	E 600	SW 14/200	8,9	965 cm ² /m
17020183 ¹⁾	6 Ductile iron design gr.	ductile iron	500/222/20	D 400	KIARO, SW 7	7,9	775 cm ² /m
17020184 ¹⁾		ductile iron	500/222/20	D 400	VIA, SW 6	8,2	625 cm ² /m
17020180		ductile iron	500/222/20	E 600	VILLE, SW 7	10,8	296 cm ² /m

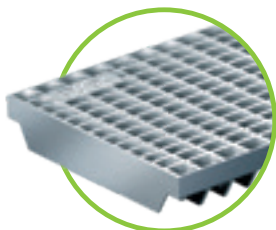
Gratings with 4-point bolting system

for BG-FILCOTEN pro & pro mini NW 200

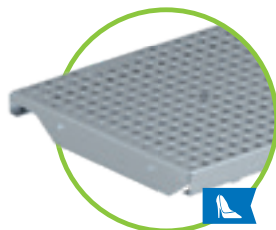
Item no.	Gratings 4-point bolted	Material	Dimensions in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17020103	7 Ductile iron bar gr. ²⁾	ductile iron	500/222/20	E 600	MW 22/13	8,8	780 cm ² /m
17020108	8 Ductile iron slotted gr. ²⁾	ductile iron	500/222/20	D 400	SW 14/200	7,9	965 cm ² /m



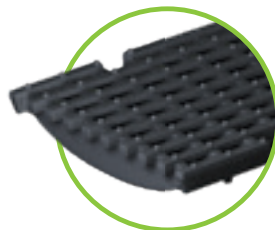
1 Mesh grating MW 30/10
cl. C, galvanised & stainless steel



2 Mesh grating MW 25/10,
cl. D, galvanised steel



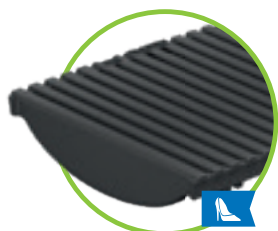
3 Perforated grating, Ø 6,0 mm,
cl. C, galvanised & stainless steel



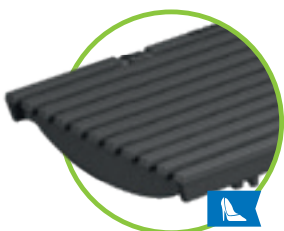
4 Ductile iron elongated bar
grating MW 29/13, cl. D or cl. C



5 Ductile iron slotted grating
14/200, cl. E with fiX-locking
8 cl. D, 4-point bolted²⁾



6 Ductile iron design grating
KIARO, class D, SW 7



6 Ductile iron design grating
VIA, class D, SW 6



6 Ductile iron design grating
VILLE, class E, SW 7



7 Ductile iron elongated bar
grating, MW 22/13, class E
4-point bolted²⁾

References



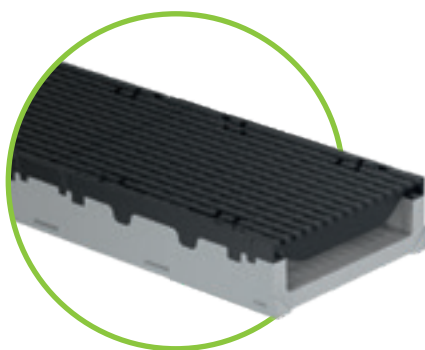
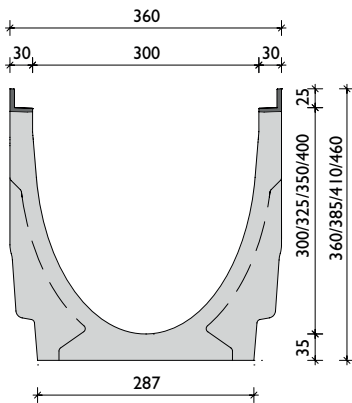
up to class E 600

BG-FILCOTEN

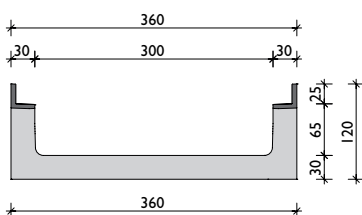
pro



BG-FILCOTEN pro G 300
incl. ductile iron edge



BG-FILCOTEN pro mini G 300
incl. ductile iron edge



BG-FILCOTEN pro NW 300 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated ductile iron (G) or galvanised steel edge (V), up to class E

Item no. G-edge	Item no. V-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg	
					G	V
Channel without slope						
10630100	10630200	0	1000	360	77,3	75,6
10630180	10630280	0	500	360	38,8	37,9
10630161	10630261	5-0	1000	385	83,9	82,2
10630162	10630262	10-0	1000	410	90,3	88,6
10630164	10630264	20-0	1000	460	110,7	109,0
Channel with bottom outlet DN 200						
10630170	10630270	0	1000	360	73,5	71,8
10630172	10630272	10-0	1000	410	86,5	84,8
10630174	10630274	20-0	1000	460	106,9	105,2
Channel with slope						
10630101	10630201	1	1000	360	78,0	76,3
10630102	10630202	2	1000	370	79,3	77,6
10630103	10630203	3	1000	375	80,6	78,9
10630104	10630204	4	1000	380	81,9	80,2
10630105	10630205	5	1000	385	83,2	81,5
10630106	10630206	6	1000	390	84,5	82,8
10630107	10630207	7	1000	395	85,8	84,1
10630108	10630208	8	1000	400	87,1	85,4
10630109	10630209	9	1000	405	88,4	86,7
10630110	10630210	10	1000	410	89,7	88

BG-FILCOTEN pro mini NW 300 – channel body

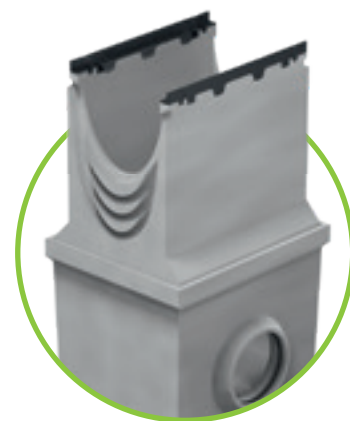
Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated ductile iron (G) or galvanised steel edge (V), up to class C – very low construction height

Item no. G-edge	Item no. V-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg	
					G	V
Channel without slope						
10530100	10530200	mini	1000	120	37,9	36,2
Channel with bottom outlet DN 200						
10530170	10530270	mini	1000	120	36,2	34,5

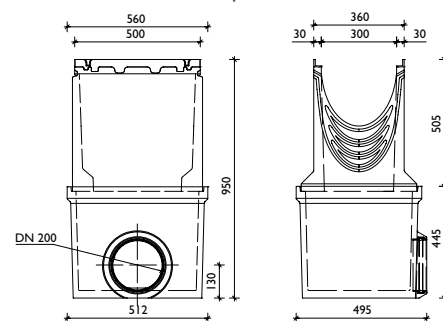
Accessories

for BG-FILCOTEN pro & pro mini NW 300

Item no.	Accessories	Material	Weight in kg
10630192	sump unit G 560/520/950, two parts, incl. pipe coupling DN 200 and silt bucket made of plastic	FILCOTEN HPC	127,0
10630292	sump unit V 560/520/950, two parts, incl. pipe coupling DN 200 and silt bucket made of plastic	FILCOTEN HPC	126,2
30040	odour trap made of PVC sewer pipes DN 200/87°	plastic	7,4
19030210	front cap (pro mini)	galvanised steel	0,5
19030213	end cap	galvanised steel	1,7
19030214	end cap with outlet DN 200	galvanised steel	1,6
32112	bolting kit for mesh gratings class C (4 pcs. required per m ²)		
32110	bolting kit for ductile iron elongated bar grating, class E (8 pcs. required per m ²)		
32122	bolting kit made of stainless steel for ductile iron elongated bar grating, class E (8 pcs. required per m ²)		



BG-FILCOTEN pro
sump unit G 300

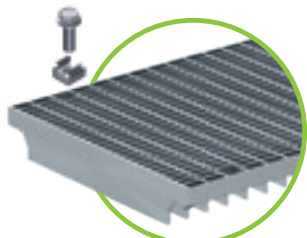


Accessory details including additional images = page 56.

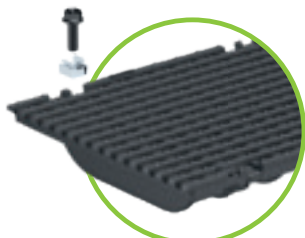
Gratings with fiX-locking and additionally 4-point bolting system

for BG-FILCOTEN pro & pro mini NW 300

Item no.	Gratings 4-point bolting	Material	Size in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17030222	1 Mesh grating ²⁾	galvanised steel	1000/347/25	C 250	MW 30/10	23,1	2305 cm ² /m
17030223		galvanised steel	500/347/25	C 250	MW 30/10	11,6	2295 cm ² /m
17030102	2 Ductile iron bar gr. ²⁾	ductile iron	500/347/25	D 400	MW 29/13	15,2	1210 cm ² /m
17030103		ductile iron	500/347/25	E 600	MW 29/13	17,9	1185 cm ² /m
17030108	3 Ductile iron slotted gr. ²⁾	ductile iron	500/347/25	D 400	SW 16/300	17,4	1.185 cm ² /m
17030183	4 Ductile iron design gr. ²⁾	ductile iron	500/347/25	D 400	KIARO, SW 7	19,3	1.080 cm ² /m
17030184		ductile iron	500/347/25	D 400	VIA, SW 6	16,9	990 cm ² /m
17030180		ductile iron	500/347/25	E 600	VILLE, SW 8	20,0	530 cm ² /m



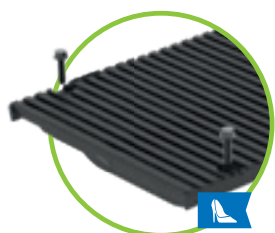
1 Mesh grating MW 30/10
class C, galvanised steel



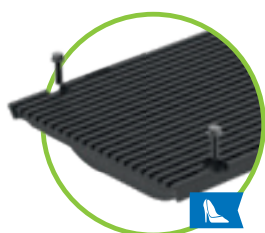
2 Ductile iron elongated bar grating
MW 29/13, class D or class E



3 Ductile iron slotted grating
SW 14/300, class D



4 Ductile iron design grating
KIARO, class D, SW 7



4 Ductile iron design grating
VIA, class D, SW 6



4 Ductile iron design grating
VILLE, class E, SW 8

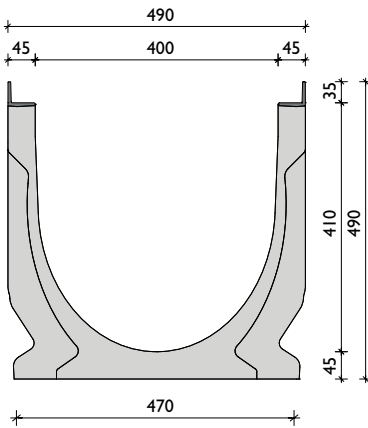
up to class E 600

BG-FILCOTEN

pro



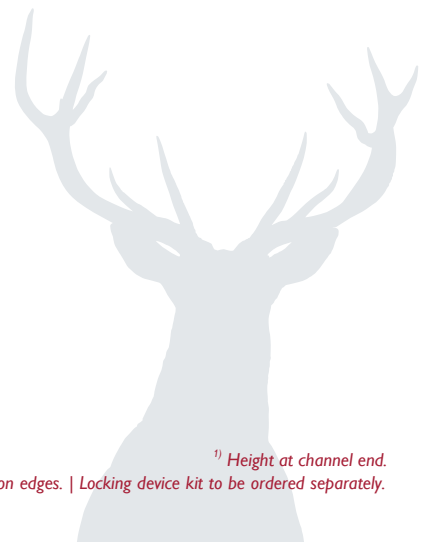
BG-FILCOTEN pro G 400
incl. ductile iron edge



BG-FILCOTEN pro NW 400 – channel body

Drainage channel made of FILCOTEN HPC (High Performance Concrete) with integrated ductile iron (G), galvanised (V) or stainless steel edge (E), up to class E

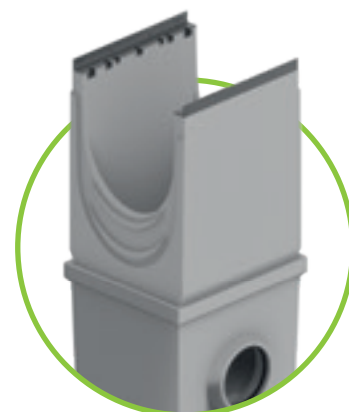
Item no. G-edge	Type channel	Length in mm	Height ¹⁾ in mm	Weight in kg
Channel without slope				
10641100	0	1000	490	146
Channel with bottom outlet DN 200				
10641170	0	1000	490	143



Accessories

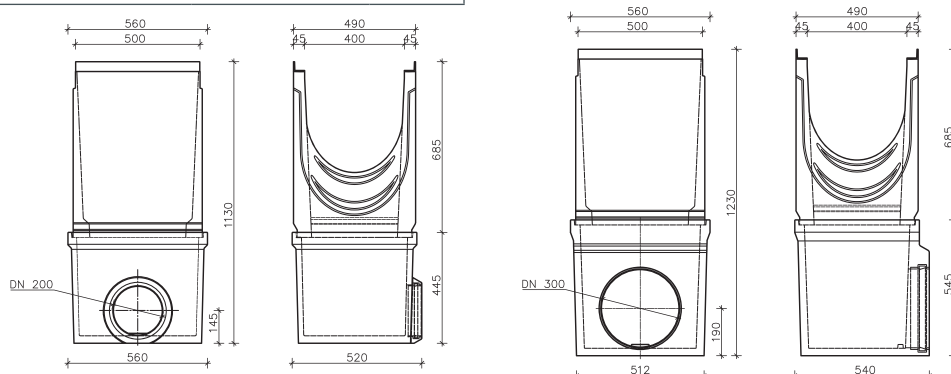
for BG-FILCOTEN pro NW 400

Item no.	Accessories	Material	Weight in kg
10640192	sump unit G 560/500/1130, two parts, incl. pipe coupling DN 200 and silt bucket made of plastic	FILCOTEN HPC	178,8
10640193	sump unit G 560/500/1130, two parts, incl. pipe coupling DN 300 and silt bucket made of plastic	FILCOTEN HPC	226,6
30040	odour trap made of PVC sewer pipes DN 200/87°	plastic	7,4
19040213	front cap	galvanised steel	4,5
19040214	end cap DN 200	galvanised steel	4,7
19040215	end cap with outlet DN 300	galvanised steel	4,4
32110	bolting kit for ductile iron slotted grating, class E (8 psc. required per m) ²⁾		
32122	bolting kit made in stainless steel for ductile iron slotted grating, class E (8 psc. required per m) ²⁾		



BG-FILCOTEN pro
sump unit G 400

i Accessory details including additional images = page 56.



Gratings with 4-point bolting system

for BG-FILCOTEN pro NW 400

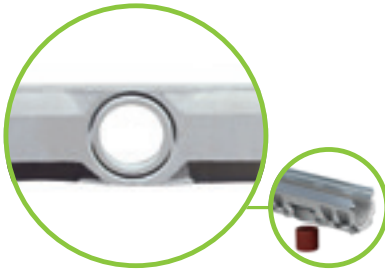
Item no.	Gratings 4-point bolting	Material	Size in mm	Load class as per EN-standard	Slot-/mesh width in mm	Weight in kg	Inlet cross-section
17040181	1 Ductile iron slotted gr. ²⁾	ductile iron	500/474/35	E 600	SW 18/215	34,5	1970 cm ² /m



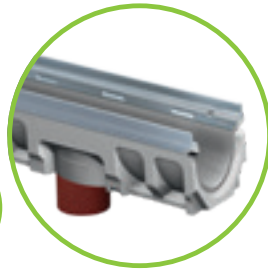
1 Ductile iron slotted grating
SW 18/215, class E
4-point bolted²⁾

BG-FILCOTEN

pro



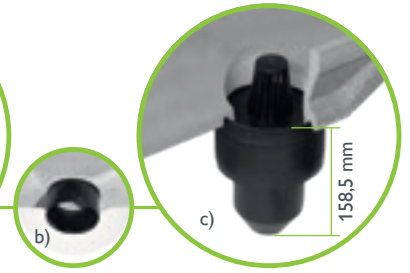
prefabricated outlet opening
DN 100 (NW 100), DN 150 (NW 150)
and DN 200 (NW 200/300/400)



bottom outlet made of
PVC sewer pipes,
on site installation



a) odour trap for bottom outlet
consisting of 3 parts
b) outlet pipe must be inserted
into outlet opening from below
before installation.



c) The two remaining parts
complete the foul-air trap
(only for NW 100) finished!

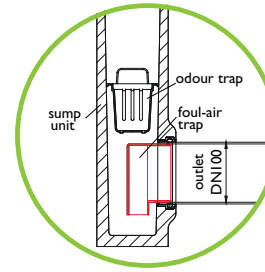
i Positioning of outlet opening: channel end to outlet centre = 250 mm.



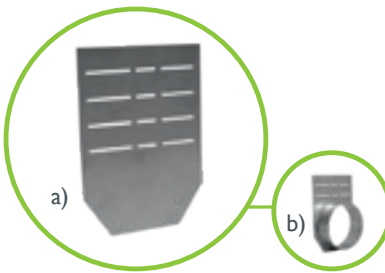
tec & pro sump unit
L=500 mm, incl. silt bucket
made of plastic, to fit NW



odour trap for sump unit for backfitting DN 100/150
Installation: Insert the odour trap from the inside and
connect with the sewage pipe.



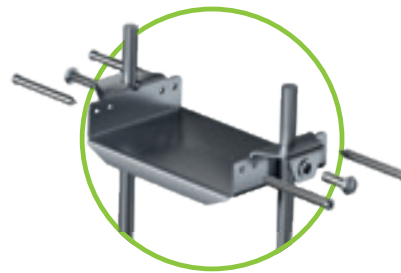
odour trap made of PVC bends
suitable for sump units
with outlets DN 150



a) front cap
b) end cap with outlet



front cap
pro mini



installation chairs
made of galvanised steel,
to fit NW

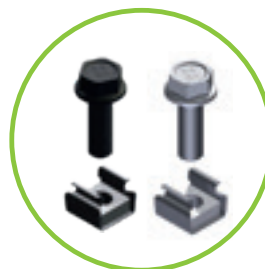


sealant material for sealing
the channel joints, for
channels with safety seam



Anti-vandalism locking device for all
gratings for NW 100/150/200,
except slotted gratings and
COMBee design gratings (tec / pro).
Required per grating: 2 pcs.

i Detailed description on page 57.



Bolting kits for BG-FILCOTEN pro
(to be ordered separately)

consisting of:
1 pc. bolt, 1 pc. nut
galvanised or stainless steel

Suitable for use with gratings:
see table per nominal width
See footnotes!

i M8 for NW 100-200 | M10 for NW 300-400

A connection, that **keeps** our **promises.**

The various different fixing options for our gratings meet the requirements of channel standard EN 1433. Furthermore, they also allow you to adapt the safety measures to your own specification.

The fiX-locking ensures a rapid, secure fixing of the grating while the anti-vandalism locking device goes one step further.

More security on request: optional anti-vandalism locking device (for NW 100, 150 and 200)



Step 1: Push the locking device into the fitting springs provided for this purpose until it snaps into place.



Step 2: Attach the grating as described for the fiX-locking below into the tec/pro channel.



Step 3: Push the grating firmly into the channel until it snaps into place.



Step 4: Lock the anti-vandalism device by twisting the bolt.



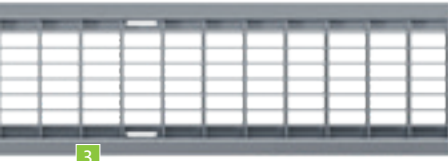
You can find a video how to use this system on: www.say.bg/en/vandalism-locking

Simply secure: the 4-point fiX-locking

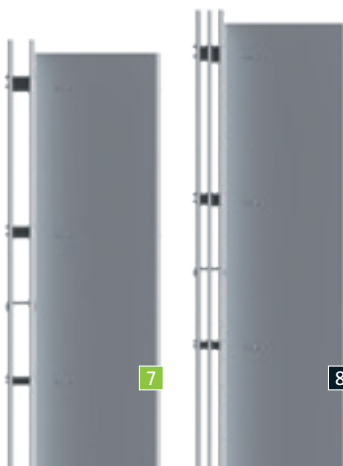
The „fiX-locking“ enables a 4-point boltless locking device for the grating in the channel. The fitting springs for each grating variant engage in the recess in the edge provided for this, and the grating is simply and securely mounted.

- The gratings are initially inserted on one side of the channel with an exact fit and are locked by means of a simple turning of the grating.
- When doing this, look out for the recesses in the edge in which the clamps against longitudinal slipping engage.
- The fiX-locking fix the grating in the edge. The grating can be unfastened by pulling out.
- The fiX-locking system can be used with ductile iron and mesh gratings.





The gratings on the left are
beautiful & functional.
 On the right, it's **the other way round.**



BG-FILCOTEN light

Gratings	SW, MW, Ø mm
1 Slotted grating ⁵⁾	SW 8/80
	SW 8/130
3 Mesh grating	MW 30/10
7 Slot top	SW 12,5
8 Slot top 2S, Heelproof	SW 2x6
9 Ductile iron mesh grating	MW 15/25
	MW 15/28

BG-FILCOTEN tec & city mini

Gratings	SW, MW, Ø mm
2 Slotted grating ⁵⁾	SW 8/80
4 Mesh grating	MW 30/10
6 Perforated grating	Ø 6,0
7 Slot top	SW 12,5
8 Slot top 2S, Heelproof	SW 2x6
16 COMBee design grating ⁵⁾	Ø 7,3
10 Ductile iron elongated bar grating	MW 29/13
15 Ductile iron slotted grating	SW 10
11 Ductile iron elongated bar grating, narrow SW	MW 29/6

BG-FILCOTEN pro

Gratings	SW, MW, Ø mm
2 Slotted grating ⁵⁾	SW 8/80
4 Mesh grating ³⁾	MW 30/10
5 Mesh grating	MW 25/10
6 Perforated grating	Ø 6,0
16 COMBee design grating ⁵⁾	Ø 7,3
10 Ductile iron elongated bar grating ³⁺⁴⁾	MW 29/13
11 Ductile iron elongated bar grating, narrow SW	MW 29/6
12 Ductile iron elongated bar grating, 4-point bolted	MW 22/13
13 Ductile iron elongated bar grating, narrow SW	MW 28/9
15 Ductile iron slotted grating ³⁺⁴⁾	SW 14
	SW 14
14	SW 16
17 Ductile iron design grating KIARO ³⁾⁺⁵⁾	SW 7
18 Ductile iron design grating VIA ³⁾⁺⁵⁾	SW 6-7
Ductile iron design grating VILLE ³⁾	SW 7-8
15 pro/green ductile iron slotted gr.	SW 18/215

²⁾ Material:

V: galvanised steel | E: stainless steel

PA6: plastic PA6

KTL: cathodic dip painting, coated ductile iron



GRASPOINTNER
Sustainable innovation.



NW 100	NW 150	NW 200	NW 300	Load class ¹⁾	Material ²⁾
✓				A	V, E
	✓			A	V
✓				B	V, E
	✓			B	V
✓				B	V, E
✓	✓			C	V, E
✓	✓			C	V, E
✓				C	d. iron, KTL
	✓			C	ductile iron



NW 100	NW 150	NW 200	NW 300	Load class ¹⁾	Material ²⁾
✓				A, C	V, E
✓	✓	✓		B	V
✓	✓	✓		C	V, E
✓				A, C	V, E
		✓		C	V, E
✓				B	V
✓	✓			C	V, E
✓	✓			C	V, E
✓				B, C	PA6
✓	✓	✓		C	ductile iron
✓	✓			B	ductile iron
✓				C	ductile iron



NW 100	NW 150	NW 200	NW 300	Load class ¹⁾	Material ²⁾
✓				C	V, E
✓	✓	✓		C	V, E
			✓	C	V
✓				D	V, E
	✓	✓		D	V
✓		✓		C	V, E
✓		✓		C	PA6
✓	✓	✓		C, D	ductile iron
			✓	D, E	ductile iron
✓				C	ductile iron
✓	✓	✓		E	ductile iron
✓	✓			D	ductile iron
✓				E	ductile iron
	✓	✓		D, E	ductile iron
			✓	D	ductile iron
✓	✓	✓	✓	D	ductile iron
✓	✓	✓	✓	D	ductile iron
✓	✓	✓	✓	E	ductile iron



www.say.bg/en/blacklabel_pdf



BG-BLACKLABEL
design line

8 14 16 17 18

¹⁾ Load class as per EN 1433:
A 15 kN | B 125 kN | C 250 kN | D 400 kN | E 600 kN | F 900 kN
²⁾ From NW 300 4-point bolted ⁴⁾ incl. fiX-locking system
³⁾ No anti-vandalism locking device possible.

BG-Installation guidelines

« We are setting great examples... »

Installation guidelines

Here you can find some examples of installation for our drainage systems. Not all of them, of course. After all, there are almost endless possibilities for various conditions, from different types of new construction to renovation needs.



Please don't hesitate to get in touch to discuss your specific needs and for individual support:

Tel.: +43 6233/89 00-286

E-mail: tech.support@bg-graspointner.com

Yours sincerely, Robert Eder
Technical Support

Tip: Further examples of installation are available online at:



www.say.bg/installation

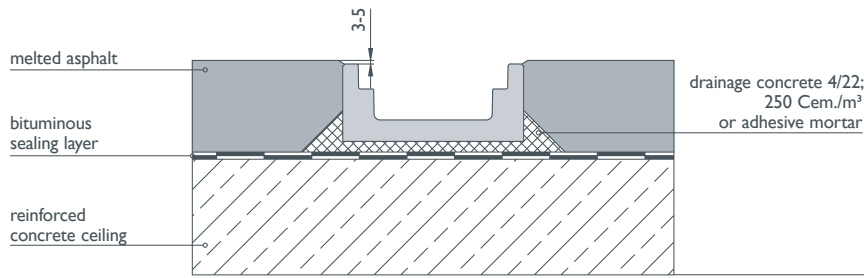
General information

The following installation guidelines and examples are designed to use for an accepted standard. The load class and the installation location according to EN 1433 have to be adapted to the location conditions from the planner. Consider the common known technical rules and guidelines which are accepted among experts. In special cases, please contact BG Technical Support.

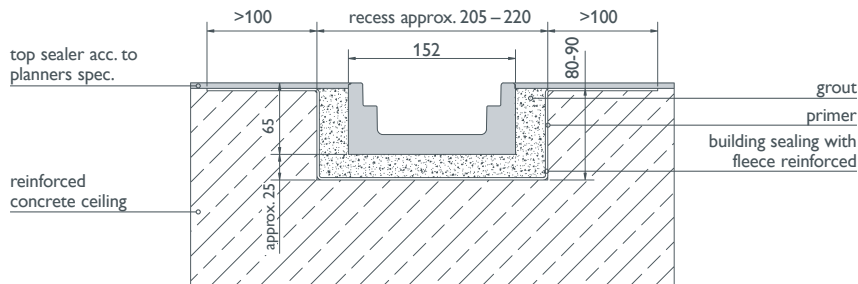
1. BG-FILCOTEN channels are installed in a concrete foundation according to Ö-Norm B4710-1 or in drainage-concrete according to RVS 08.18.01. Mind the slope of the channel while excavating. Start with the drainage channel while paying attention to the direction of flow marked with an arrow. Depending on the structural requirements you may need a supporting wedge – see the table and drawings for details. The channel elements should always be installed with suitable tools (e.g. BG lifting grab).
2. For a traffic-safe fastening of the gratings we recommend, depending on the application area, to use gratings with a quick-locking system or in conjunction with locking- or fixing-clips. According to Ö-Norm EN 1433 from cl. D 400 kN there is to use preferably a locking device e.g. bolting material.
3. The rebated joint between the channel bodies can be sealed and cemented with appropriate sealing compounds - for description of material and quantity calculation see BG sealing system – www.say.bg/en/sealing.
4. Before assembling the adjacent cover layer, make sure that the covers are inserted, and if necessary fixed, or the channels are braced adequate against compression. Pay attention not to damage the channels while compacting the superstructure and the pavement (asphalt, pavement, concrete).
5. If there are occurring horizontally forces (e.g. due to concrete areas, gradients,...) you have to build out an adequate running joint at an interval of 30-150 cm from the channel. In a concrete area where there are running joints crossing the channel line they have to be arranged to go through a rebated joint of the line.
6. In order to prevent uncontrolled stress cracks in a concrete stretcher along a channel line, planned crack or expansion joints must be added at regular intervals, according to recognised rules of technology or the specification of a static calculation. These joints should be added at right angles (of the channel section) to the channel element joints. The number and spacing of joints depend also on the concrete quality and the ambient temperatures during concreting – as well as the concrete after treatment – and should be carried out according to specification.
7. When shear forces occur, pavements must be force-locked to the backrest. This can be done by setting the first three rows of paving (next to the channel run) in a mortar bed. The joints must be mineral backfilled. Shear forces from the paving must not act directly on the channel walls (e.g. thermal expansion, braking forces, etc.). The respective technical guidelines for the production of paved surfaces, in bound or unbound construction, must be observed accordingly.
8. All adjacent surfaces should be permanently 3-5 mm higher than the surface of the channel/grating to avoid mechanical damage (e.g. snow clearing) and to guarantee the water drainage.
9. In areas that were enhanced chemical attacks (e.g. de-icing salts, acids, bases, etc.) can be expected, we recommend to install drainage channels with stainless steel edge or to use steel-channels out of high quality stainless steel.
10. Channel-grating-systems (drainage channels) are not suitable to use across the road on motorways and highways.
11. The channel system must be inspected at regular intervals (at least once a year) for contamination and its function and cleaned if necessary, especially the sump unit with silt bucket.



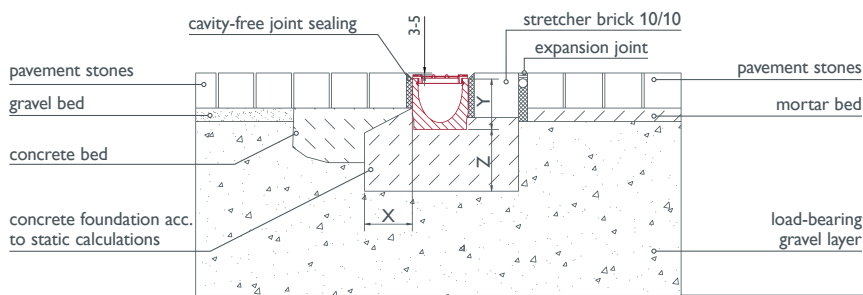
The installation instructions also apply to sump units.



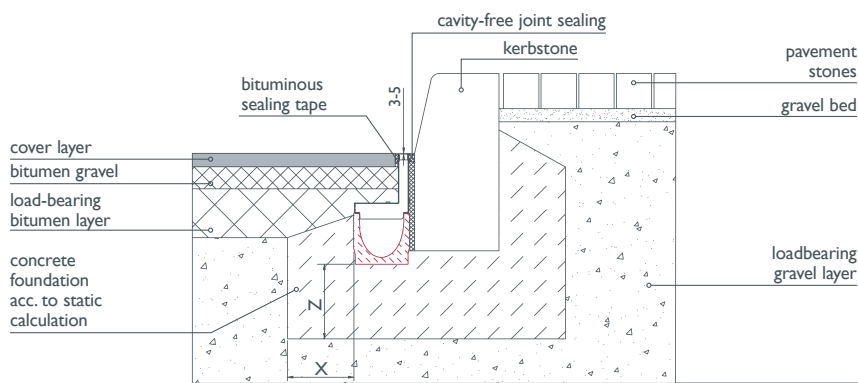
BG-FILCOTEN city mini cl.A-C
concrete – melted-asphalt



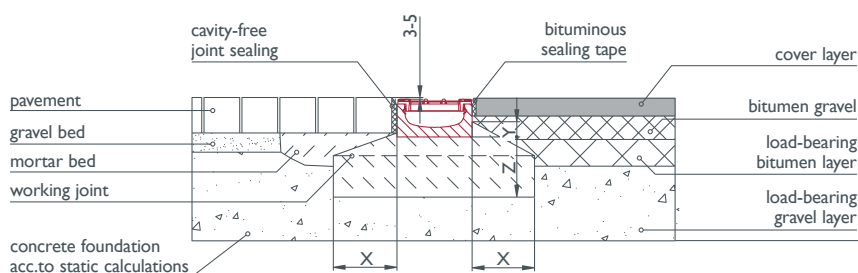
BG-FILCOTEN city mini cl.A-C
concrete coated



BG-FILCOTEN light Kl.A-C
pavement – pavement

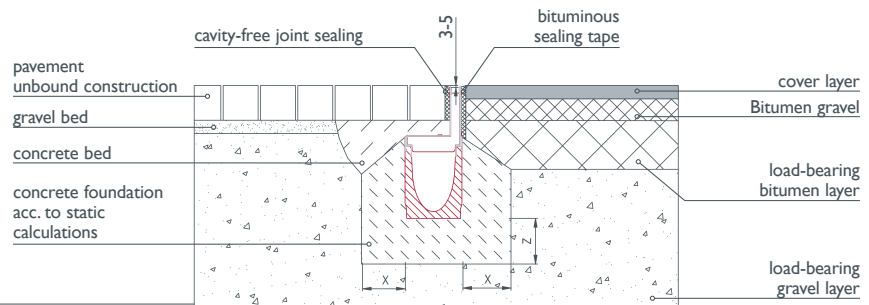


BG-FILCOTEN light cl. C with slot top
asphalt – kerbstone

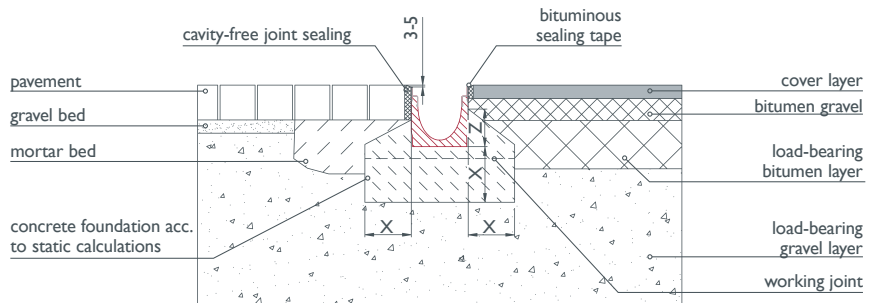


BG-FILCOTEN light mini cl.A-C
pavement – asphalt

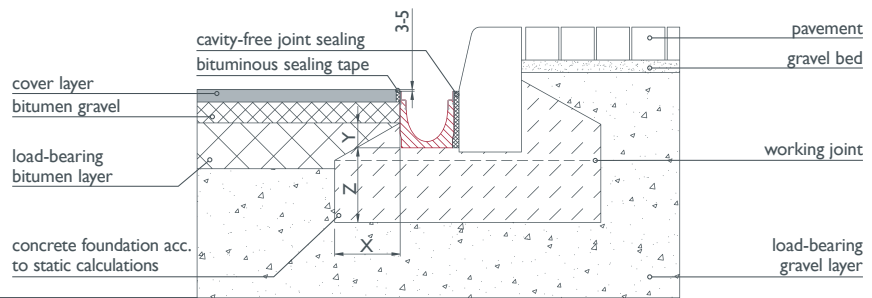
BG-FILCOTEN tec cl.A-C with slot top pavement – asphalt



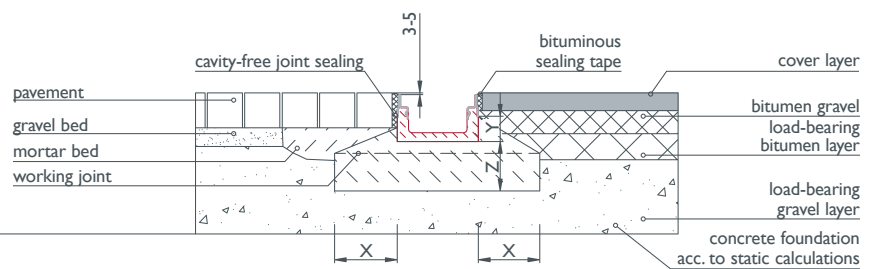
BG-FILCOTEN tec & pro cl.A-C pavement – asphalt

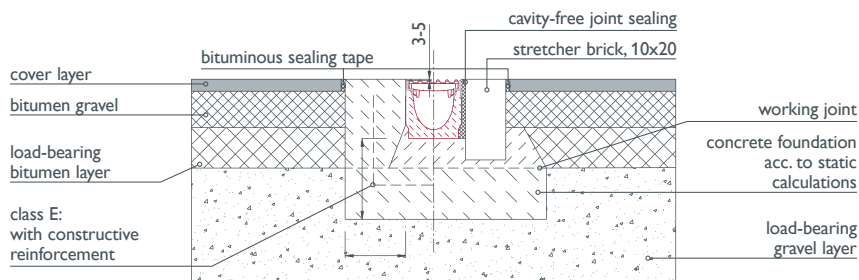


BG-FILCOTEN tec & pro cl. C asphalt – kerbstone

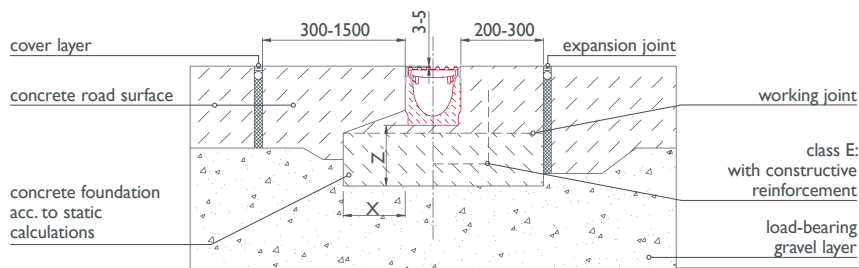


BG-FILCOTEN tec & pro mini cl.A-C pavement – asphalt

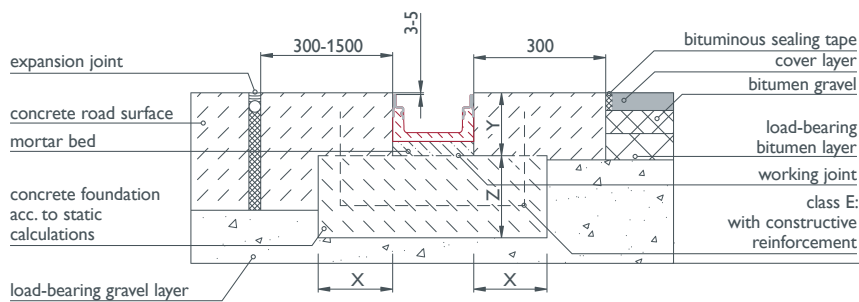




BG-FILCOTEN tec cl. A-C
pro cl. D-E
asphalt – asphalt



BG-FILCOTEN tec cl. A-C
pro cl. D-E
concrete – concrete



BG-FILCOTEN pro mini cl. D-E
concrete – asphalt

load class	A 15	B 125	C 250	D 400	E 600
concrete quality – base acc. to Ö-Norm B 4710-1*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
fundament width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
fundament height: Y	channel height: 5 cm (mini - 3 cm)			construction height of the channel	
fundament strength: Z	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 20 cm	≥ 20 cm
reinforcement bar	unnecessary			necessary	

* Required minimum quality strength concrete, which has to be adapted to the local requirements.

ATTENTION When used on motorways and highways. We recommend to use our monolithic drainage system BG-FILCOTEN one:



www.say.bg/en/one



www.say.bg/en/one_pdf

Areas of use.

Classification as per EN 1433

Channels or covers and gratings are divided in different classes according to the areas of use.

Load classes	Areas of use
 A 15 Load class 15 kN	Traffic areas which are only used by pedestrians and cyclists and similar areas e.g. urban green and open spaces.
 B 125 Load class 125 kN	Sidewalks, pedestrian areas and comparable areas, car parks or car parking decks, garages, driveways.
 C 250 Load class 250 kN	Applies only to tops / drainage channels in the curbstone-area, which may extend 0.5 m into the carriageway and 0.2 m into the sidewalk measured from the curbside, and for untraveled road verges.
 D 400 Load class 400 kN	Carriageways of roads (including pedestrian zones), road verges, car parks and similar fortified thoroughfares.
 E 600 Load class 600 kN	Private thoroughfares which are used by vehicles with heavy wheel loads, e.g. routes for industrial construction traffic.
 F 900 Load class 900 kN	Areas which are used by especially heavy wheel loads, e.g. air traffic areas of commercial airports.

Hydraulics.

Average Calculations

Channels with edges																		
Channel type:	up to class C 250 kN				up to class E 600 kN													
	tec 100		tec 150	tec 200	pro 100			pro 150			pro 200			pro 300			pro 400	
Height:	0	10-0	0	H=195	0	10-0	20-0	0	10-0	20-0	0	10-0	20-0	0	10-0	20-0	0	30-0
Capacity (l/m)	8,9	13,9	19,8	25,1	8,3	12,5	16,5	20,4	26,5	31,8	35,7	43,7	50,8	72,8	85,3	95,9	140,0	200,0
Qmax (l/s)	2,6	5,9	8,4	11,1	2,5	5,3	10,1	9,6	17,1	25,5	21,0	33,4	46,7	49,4	72,1	96,5	146,0	269,0
Precipitation (l/s ha)	maximum area to be drained (m ²)																	
200	130	290	420	550	120	260	500	480	850	1270	1050	1670	2330	2470	3600	4820	7300	13450
250	100	230	330	440	100	210	400	380	680	1020	840	1330	1860	1970	2880	3860	5840	10760
300	80	190	280	370	80	170	330	320	570	850	700	1110	1550	1640	2400	3210	4860	8960
350	70	160	240	310	70	150	280	270	480	720	600	950	1330	1410	2060	2750	4170	7680
400	60	140	210	270	60	130	250	240	420	630	520	830	1160	1230	1800	2410	3650	6720

Channels without edges				Shallow channels											
Channel type:	up to class C 250 kN			up to class C 250 kN				up to class E 600 kN							
	light 100		light 150	city mini 100	light mini 100	light mini 150	tec mini 100	pro mini 100		pro mini 150		pro mini 200		pro mini 300	
Height:	0	10-0	0	65 mm	55 mm	100 mm	80 mm	60 mm	80 mm	100 mm	120 mm	100 mm	120 mm	120 mm	
Capacity (l/m)	8,3	13,3	16,8	2,7	3,5	8,0	4,0	2,3	4,0	8,3	11,3	11,0	14,9	19,5	
Qmax (l/s)	2,1	5,5	6,6	0,4	0,3	1,9	0,7	0,2	0,5	0,9	2,3	1,5	2,2	1,5	
Precipitation (l/s ha)	maximum area to be drained (m ²)														
200	100	270	330	20	15	95	35	10	25	45	115	75	110	75	
250	80	220	260	16	12	76	28	8	20	36	92	60	88	60	
300	70	180	220	13	10	63	23	6	16	30	76	50	73	50	
350	60	150	180	11	8	54	20	5	14	25	65	42	62	42	
400	50	130	160	10	7	47	17	5	12	22	57	37	55	37	

COMMENT: These average calculations are based on a strand length of 20 running metres for channels with and without frame, 10 running metres for flat channels and free outlet, for each specified channel type. We will be pleased to provide you with an exact hydraulic calculation adapted to the local conditions at any time.

Further highlights from our product range.

BG-FILCOTEN self | step | spot



Domestic, Garden & Landscape products with BG-FILCOTEN

Our systems BG-FILCOTEN self (channel), step (shoe scraper) and spot (yard drainage) are light, robust and efficient and easy to install and maintain.

Fields of application

Outdoor areas, courtyard and garages, Parking areas, schoolyards, gardening and landscaping

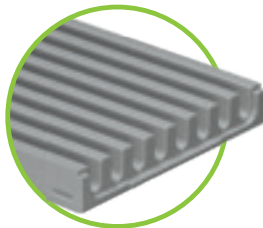


www.say.bg/en/gala



www.say.bg/en/gala_pdf

BG-FILCOTEN parkline Nominal width 150, 300 up to class C 250



The intelligent system without grate

- overall height only 35 and 50 mm
- channel body made of FILCOTEN HPC
- with or without slope
- slot width 12.5/17/18 mm
- no cover

Fields of application

Car parks, parking levels, garages, parking spaces, production facilities



www.say.bg/en/parkline



www.say.bg/en/parkline_pdf

BG-BLACKLABEL design line



High-quality design gratings for our channel systems

With BG-BLACKLABEL we offer you a range of design gratings that combine top-class design with the usual BG-performance.

Thanks to the state-of-the-art production technologies, even self-designed design gratings can be implemented.

A design highlight for your design concept of public and private facilities such as pedestrian areas, parks or gardens.



www.say.bg/en/bg-blacklabel



www.say.bg/en/bg-blacklabel_pdf

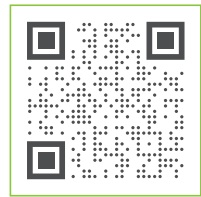




The more information, the better.
Especially when it's so valuable...

All brochures, leaflets and the **product catalogue** are available for download on our website. Get to know our entire product range very conveniently.

www.say.bg/brochures



BG-FILCOTEN green

Nominal width 400

up to class E 600



More sustainable protection of the water cycle – where simply clean is not enough

- channel body made of FILCOTEN HPC incl. innovative substrate filter system
- cast frame set in concrete & bolted cast grate
- ensures efficient purification of the surface water

Fields of application

Commercial and residential buildings, parking lots, logistics centres, houses with zinc or copper roofs



www.say.bg/en/green



www.say.bg/en/green_pdf

BG-FILCOTEN one

Nominal width 150, 200

up to class F 900



Channel and grate in one piece for dynamic loads

- monolithic channel body made of FILCOTEN HPC
- inlet openings in S-design
- tongue/groove/tenon system for non-directional installation
- verified ecobalance (LCA)

Fields of application

Industrial areas, logistics centres, airports, railway crossings, roundabouts, ports, car parks, asphalt surfaces



www.say.bg/en/one



www.say.bg/en/one_pdf

BG-FLEX steel channel systems



Our flexible and high-quality solution for facade, terrace and loggia

- minimum overall height, optimum drainage capacity
- solid, durable and at the same time lightweight channel body made of steel
- channel elements in the widths RB 130 and 200
- element lengths 500, 1000 or 2000 mm

Ideal for use on all exterior facades, terraces, flat roofs, green roofs, etc.



www.say.bg/en/bg-flex



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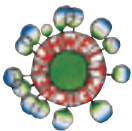
E-Mail: office@bg-graspointner.com

Web: www.bg-graspointner.com



www.say.bg/blog/print

Find out more about our commitment to sustainable print products in our blog article.



Printed according to criteria documents of the austrian Eco-Label "printed products", gugler®print, Melk, UVWZ-Nr. 609, www.gugler.at



This product is made of material from well-managed, FSC®-certified forests and other controlled sources.

greenprint*
carbon positive printed



* Our contribution to the reforestation project of BOKU Wien in Ethiopia

Your Partner for BG-Graspointner Drainage Systems