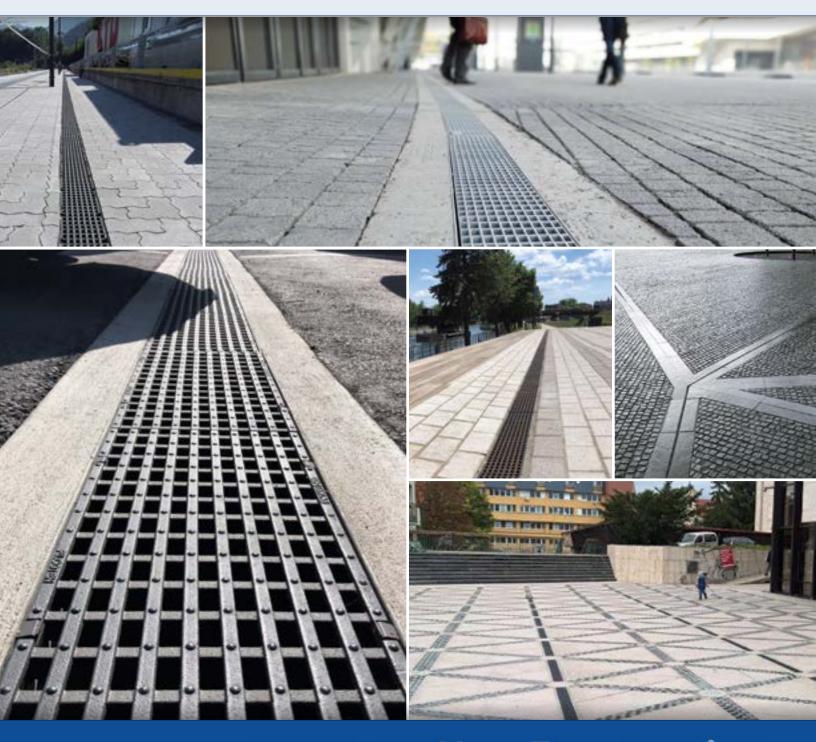


BG-FILCOTEN® High Performance Concrete Trench Drains



ndsprofessionalsolutions.com



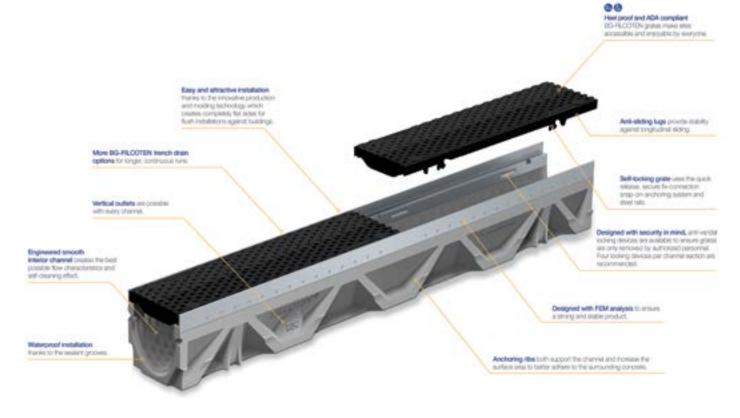




Design Worx



High Performance Concrete is Stronger than Polymer Concrete, Allowing for Lightweight Construction



Additional HPC Features

- Temperature, frost and UV resistant. Less contraction and expansion and longer product life.
- **High load carrying capabilities.** Suitable for installation in industrial areas such as factories, warehouses and garages.
- Non-flammable. Manufactured without resins, FILCOTEN® HPC is rated A1, non-combustible.
- Monolithic adhesion. Free from de-molding agents, FILCOTEN[®] HPC High Performance Concrete bonds securely with the surrounding concrete.
- 100% recyclable, 0% harmful substances. Sustainable solution free from: VOCs, styrene* and biocides, heavy metals, radioactivity.

* Environmental LCA data available

2

The BG-FILCOTEN® Line



Example Run Lengths below illustrate potential run lengths using various combinations of sloped and neutral channels and catch basins.

7 <u>33-47</u> 50 50 50 50 50 50 50 50 50 50 50 50 Neutral Run - neutral runs can be any length
I I <thi< th=""> I I I</thi<>
39-10' 0.0 0.0 5.0 5.0 10.0 10.0 20.0 20.0 Step slope
44-11" 0.0 1 2 3 4 5 5-0 6 7 8 9 10 10-0 CB Linear run with neutrals
68:-4" 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 C8 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 C8 Maximum linear run without neutrals C
68-4"
81-7" Go 1 2 3 4 5 50 6 7 8 9 10 10-0 11 12 13 14 15 16 17 18 19 20 20-0 CB Maximum linear run with neutrals
Drawings are not to scale. See product pages for actual dimensions.

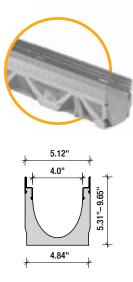
Maximum Run Lengths:

- 135' using only sloped channels with a catch basin in the middle.
- 162' using all slopes with 1 each of the neutrals and a catch basin in the middle.

See Load Recommendation Guide on back page.

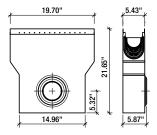
4" BG-FILCOTEN® tec V 100

BG-FILCOTEN tec V 100 trench drain system is available with galvanized rails in pre-sloped and neutral sections with load ratings from Class A to E600 (in accordance to DIN 19580). Stainless steel rails and grates are also available.



4" Catch Basin Kit





Trench Drains

PART NO.	DESCRIPTION ¹	INVERT DEPTH ²
10410200	4" CONSTANT DEPTH CHANNEL #0-0	4.72"
10410201	4" SLOPED CHANNEL #1	4.92"
10410202	4" SLOPED CHANNEL #2	5.12"
10410203	4" SLOPED CHANNEL #3	5.31"
10410204	4" SLOPED CHANNEL #4	5.51"
10410205	4" SLOPED CHANNEL #5	5.71"
10410261	4" CONSTANT DEPTH CHANNEL #5-0	5.71"
10410206	4" SLOPED CHANNEL #6	5.91"
10410207	4" SLOPED CHANNEL #7	6.10"
10410208	4" SLOPED CHANNEL #8	6.30"
10410209	4" SLOPED CHANNEL #9	6.50"
10410210	4" SLOPED CHANNEL #10	6.69"
10410262	4" CONSTANT DEPTH CHANNEL #10-0	6.69"
10410211	4" SLOPED CHANNEL #11	6.89"
10410212	4" SLOPED CHANNEL #12	7.09"
10410213	4" SLOPED CHANNEL #13	7.28"
10410214	4" SLOPED CHANNEL #14	7.48"
10410215	4" SLOPED CHANNEL #15	7.68"
10410216	4" SLOPED CHANNEL #16	7.87"
10410217	4" SLOPED CHANNEL #17	8.07"
10410218	4" SLOPED CHANNEL #18	8.27"
10410219	4" SLOPED CHANNEL #19	8.46"
10410220	4" SLOPED CHANNEL #20	8.66"
10410264	4" CONSTANT DEPTH CHANNEL #20-0	8.66"
10410294	4" CATCH BASIN KIT W/BASKET & 6" OUTLET	19.29"

¹ Channels have a galvanized rail, a stainless steel rail version is available by special order ² Invert depths are male end, for female invert depth, subtract 0.2" from dimension shown.

Constant depth channels will be the same for male and female ends

PART NO. DESCRIPTION 10510200 4" CONSTANT DEPTH 2.36" X 4" 19010200 4" FRONT END CAP (USE w/10510200) 19011204 4" NO HUB BOTTOM OUTLET (USE w/10510200, 10520202 & 10530200)

NDS





Perforated Galvanized Steel





Mesh

Galvanized Steel

Slotted Galvanized Steel

Honeycomb COMBee Composite



Longitudinal Bar Ductile Iron



Slotted Ductile Iron

Ductile Iron



KIARO

Ductile Iron

VIA



VILLE Ductile Iron



PART	NO.	HEEL PROOF	ADA		
HALF 19.69"	FULL 39.37"		E	DESCRIPTION	
Load Class A	4				
17010203	17010202		•	4" GALV STEEL / SLOTTED GRATE	
17010205	17010204	•	•	4" GALV STEEL / PERFORATED GRATE	
Load Class E	3				
17010221	17010220		٠	4" GALV MESH GRATE	
17010401		•	•	4" HONEYCOMB / COMPOSITE	
Load Class C)				
17010106		•	•	4" DUCTILE IRON BAR GRATE	
17010207	17010206			4" GALV SLOTTED GRATE	
17010229	17010228	•	•	4" GALV PERFORATED GRATE	
17010402		•	•	4" HONEYCOMB / COMPOSITE	
Load Class [)				
17010110			•	4" DUCTILE IRON BAR GRATE	
17010183		•	•	4" DUCTILE IRON / KIARO	
17010184		٠	٠	4" DUCTILE IRON / VIA (Decorative Longitudinal Bar Grate)	
Load Class E					
17010105				4" DUCTILE IRON SLOTTED GRATE	
17010180		٠	٠	4" DUCTILE IRON / VILLE	

All load classes are DIN EN 1433 Grates attach via hidden 4-point Locking System

Accessories

PART NO.	DESCRIPTION
22515	4" TRASH BUCKET
32087	4" VANDAL PROOF LOCK
19010400	4" END CAP BLANK W/KNOCKOUT OUTLET
19010902	4" REBAR SUPPORT FOR CHANNEL
19011204	4" NO HUB BOTTOM OUTLET
56-44	NDS 4.38" TO 4.38" NO HUB FLEX COUPLING
56-64	NDS 4.38" TO 6.38" NO-HUB REDUCER FLEX COUPLING
56-66	NDS 6.38" TO 6.38" NO-HUB FLEX COUPLING

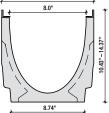


4" Slot Top Grates Available

8" BG-FILCOTEN® pro V 200

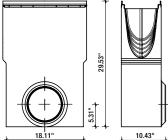
BG-FILCOTEN pro V 200 is stable, yet lightweight, so you don't have to compromise on quality or durability. It is available with galvanized rails in neutral and sloped sections and up to load class E 600 (according to EN 1433). Stainless steel rails and grates are also available.





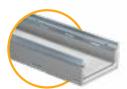
8" Catch Basin Kit





pro V mini

NDS



Trench Drains

PART NO.	DESCRIPTION ¹	INVERT DEPTH ²
10620200	8" CONSTANT DEPTH CHANNEL #0-0	9.45"
10620201	8" SLOPED CHANNEL #1	9.45"
10620202	8" SLOPED CHANNEL #2	9.84"
10620203	8" SLOPED CHANNEL #3	10.04"
10620204	8" SLOPED CHANNEL #4	10.24"
10620205	8" SLOPED CHANNEL #5	10.44"
10620261	8" CONSTANT DEPTH CHANNEL #5-0	10.44"
10620206	8" SLOPED CHANNEL #6	10.63"
10620207	8" SLOPED CHANNEL #7	10.83"
10620208	8" SLOPED CHANNEL #8	11.02"
10620209	8" SLOPED CHANNEL #9	11.22"
10620210	8" SLOPED CHANNEL #10	11.42"
10620262	8" CONSTANT DEPTH CHANNEL #10-0	11.42"
10620211	8" SLOPED CHANNEL #11	11.61"
10620212	8" SLOPED CHANNEL #12	11.81"
10620213	8" SLOPED CHANNEL #13	12.01"
10620214	8" SLOPED CHANNEL #14	12.20"
10620215	8" SLOPED CHANNEL #15	12.40"
10620216	8" SLOPED CHANNEL #16	12.60"
10620217	8" SLOPED CHANNEL #17	12.80"
10620218	8" SLOPED CHANNEL #18	12.99"
10620219	8" SLOPED CHANNEL #19	13.19"
10620220	8" SLOPED CHANNEL #20	13.38"
10620264	8" CONSTANT DEPTH CHANNEL #20-0	13.38"
10620292	8" CATCH BASIN KIT W/BASKET & 8" OUTLET (REQUIRES 70154 PIPE CONNECTOR)	28.22"

¹ Channels have a galvanized rail, a stainless steel rail version is available by special order

² Invert depths are male end, for female invert depth, subtract 0.2" from dimension shown.

Constant depth channels will be the same for male and female ends

pro V mini | Shallow Channel

PART NO.	DESCRIPTION
10520202	8" CONSTANT DEPTH 3.94" X 8"
19020200	8" FRONT END CAP (USE w/10520202)
19011204	4" NO HUB BOTTOM OUTLET (USE w/10510200, 10520202 & 10530200)
19016206	6" NO HUB BOTTOM OUTLET (USE w/10520202 & 10530200)
19021208	8" NO HUB BOTTOM OUTLET (USE w/10520202 & 10530200)

NEW



Perforated Galvanized Steel



KIARO

Ductile Iron



Ductile Iron





VILLE Ductile Iron



Longitudinal Bar

	1		
		. 1	
	20	S	
100			
1.172			

VIA
Ductile Iron

8" Grates

PART	NO.	HEEL PROOF	ADA	
HALF 19.69"	FULL 39.37"		E.	DESCRIPTION
Load Class C	;			
17020229	17020228	•	•	8" GALV PERFORATED GRATE
Load Class D)			
17020104		٠	٠	8" DUCTILE IRON BAR GRATE
17020183		٠	٠	8" DUCTILE IRON / KIARO
17020184		•	•	8" DUCTILE IRON / VIA
Load Class E				
17030180			٠	8" DUCTILE IRON / VILLE
17020105				8" DUCTILE IRON BAR GRATE

All load classes are DIN EN 1433 Grates attach via hidden 4-point Locking System

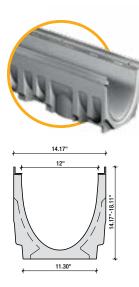
Accessories

PART NO.	DESCRIPTION
22512	8" TRASH BUCKET (included in kit)
32089	8" VANDAL PROOF LOCK
70154	8" PIPE CONNECTOR FOR CATCH BASIN
19020215	8" GALV END CAP CLOSED
19020216	8" GALV END CAP W/OUTLET
19020295	8" STEP PLATE
19020902	8" REBAR SUPPORT FOR CHANNEL
19021208	8" NO HUB BOTTOM OUTLET

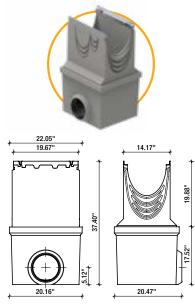


12" BG-FILCOTEN® pro V 300

BG-FILCOTEN pro V 300 is ideal for large capacity water management. Available with a galvanized rail in both pre-sloped and neutral sections and up to load class E 600 (according to EN 1433). Stainless steel rails and grates are also available.

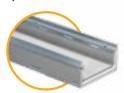


12" Catch Basin Kit



pro V mini

NDS



Trench Drains

PART NO.	DESCRIPTION ¹	INVERT DEPTH ²
10630200	12" CONSTANT DEPTH CHANNEL #0-0	12.79"
10630201	12" SLOPED CHANNEL #1	12.99"
10630202	12" SLOPED CHANNEL #2	13.19"
10630203	12" SLOPED CHANNEL #3	13.38"
10630204	12" SLOPED CHANNEL #4	13.58"
10630205	12" SLOPED CHANNEL #5	13.78"
10630261	12" CONSTANT DEPTH CHANNEL #5-0	13.78"
10630206	12" SLOPED CHANNEL #6	13.98"
10630207	12" SLOPED CHANNEL #7	14.17"
10630208	12" SLOPED CHANNEL #8	14.37"
10630209	12" SLOPED CHANNEL #9	14.57"
10630210	12" SLOPED CHANNEL #10	14.76"
10630262	12" CONSTANT DEPTH CHANNEL #10-0	14.76"
10630211	12" SLOPED CHANNEL #11	14.96"
10630212	12" SLOPED CHANNEL #12	15.16"
10630213	12" SLOPED CHANNEL #13	15.35"
10630214	12" SLOPED CHANNEL #14	15.55"
10630215	12" SLOPED CHANNEL #15	15.75"
10630216	12" SLOPED CHANNEL #16	15.94"
10630217	12" SLOPED CHANNEL #17	16.14"
10630218	12" SLOPED CHANNEL #18	16.34"
10630219	12" SLOPED CHANNEL #19	16.54"
10630220	12" SLOPED CHANNEL #20	16.73"
10630264	12" CONSTANT DEPTH CHANNEL #20-0	16.73"
10630292	12" CATCH BASIN KIT W/BASKET & 8" OUTLET (REQUIRES 70154 PIPE CONNECTOR)	36.28"
Channola have	a galvanized rail, a stainloss steel rail version is available by special order	

¹ Channels have a galvanized rail, a stainless steel rail version is available by special order

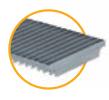
² Invert depths are male end, for female invert depth, subtract 0.2" from dimension shown.

Constant depth channels will be the same for male and female ends

pro V mini | Shallow Channel

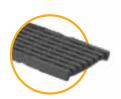
PART NO.	DESCRIPTION
10530200	12" CONSTANT DEPTH 4.72" X 12"
19030200	12" FRONT END CAP (USE w/10530200)
19011204	4" NO HUB BOTTOM OUTLET (USE w/10510200, 10520202 & 10530200)
19016206	6" NO HUB BOTTOM OUTLET (USE w/10520202 & 10530200)
19021208	8" NO HUB BOTTOM OUTLET (USE w/10520202 & 10530200)

NEW



Mesh Galvanized Steel





Longitudinal Bar Ductile Iron



KIARO Ductile Iron

VIA Ductile Iron



VILLE Ductile Iron



4-POINT BOLTING SYSTEM

12" Grates

PART NO.		HEEL PROOF	ADA					
HALF 19.69"	FULL 39.37"		E	DESCRIPTION				
Load Class C								
17030223	17030222		•	12" MESH GRATE				
32112				BOLT FOR GALVANIZED GRATE ORDER 4 PER GRATE				
Load Class D								
17030183			•	12" DUCTILE IRON / KIARO				
17030184		•	•	12" DUCTILE IRON / VIA				
Load Class E								
17030180		٠	•	12" DUCTILE IRON / VILLE				
17030103			•	12" DUCTILE IRON BAR GRATE				
32110				BOLT FOR DUCTILE IRON GRATE ORDER 4 PER GRATE				

All load classes are DIN EN 1433 Grates attach via 4-point Bolting System

Accessories

PART NO.	DESCRIPTION			
22213	12" TRASH BUCKET (included in kit)			
32112	BOLT & NUT FOR GALVANIZED GRATE (ORDER 4 PER GRATE)			
32110	BOLT FOR DUCTILE IRON GRATE (ORDER 4 PER GRATE)			
70154	8" PIPE CONNECTOR FOR CATCH BASIN			
19021208	8" NO HUB BOTTOM OUTLET			
19030213	12"ACC GALV END CAP CLOSED			
19030214	12"ACC GALV END CAP WITH 8" OUTLET			
19030290	12" BASIN END CAP CONNECTOR			
19030295	12" STEP PLATE			
19030929	12" REBAR SUPPORT FOR CHANNEL			





Slot Top Grates

With a slot width of 0.5", BG-FILCOTEN[®] slot top grates, distributed by NDS[®], blend in with any design aesthetic. They offer a slim profile when site design demands low visibility without sacrificing high performance. The sleek maintenance unit makes this grate option versatile enough to be used in many applications. Available in both galvanized steel and stainless steel.



Slot Top Stainless Steel or Galvanized Steel

Maintenance Unit



Stainless Steel or Galvanized Steel

NDS

PART NO.		HEEL PROOF	ADA				
HALF 19.69"	FULL 39.37"		Ŀ	DESCRIPTION			
Load Class C							
17111205	17111204	٠	٠	4" GALV SLOT TOP GRATE			
17111206		٠	٠	4" GALV SLOT TOP MAINTENANCE UNIT			
17111305	17111304	٠	٠	4" STAINLESS STEEL SLOT TOP GRATE			
17111306		٠	٠	4" STAINLESS STEEL SLOT TOP MAINTENANCE UNIT			
13399	4" OPENING TOOL SLOT TOP MAINTENANCE UNIT						

The slot top maintenance unit accepts pavers– blending in while providing easy, hidden access to the cleanout. It can be installed inside the channel or catch basin at the end of the run.

BG GRAGPOINTNER Saitshable Innovation



Find Us on CAD Details: CADDETAILS.COM Search "NDS" for a full range of product drawings

The NDS DesignWorx[™] Team Can Draft Your Plan.

NDS civil engineers and technical experts are ready to partner with you to make your project successful. Our team will work to find the most practical solution for your application and send you supporting materials or a system layout. NDS products align with best stormwater practices and help you save costs.

We will evaluate your plans & help in preparation of submittal drawings.



Upload your CAD or PDF File Thru Our Website: NDSpro.com/submityourdesign

For Technical Service Call 1-800-726-1994, Option 3

11

Load Recommendation Guide

According to EN1433 Standards



CLASS A · Max Design Load: 3,372 lbs.

- · Pedestrians
- · Bicyclists · Planted areas
- · Flanteu are



 CLASS B
 Max Design Load: 28,100 lbs.
 Pedestrians

- · Parking lots
- \cdot Delivery vehicles



CLASS C · Max Design Load: 56,200 lbs. · Curbs · Road shoulders · Parking lots



CLASS D · Max Design Load: 89,920 lbs. · Highways · H-20 – HS-25 · Parking lots



CLASS E • Max Design Load: 134,800 lbs. • Industry • Military • Heavy wheel loads



CLASS F · Max Design Load: 202,320 lbs. · Airport · Docks

Cranes

The American Association of State Highway and Transportation Officials' (AASHTO) "Standard Specification for Highway Bridges" defines H-20 loading as a two-axle truck with a maximum single-axle load of 32,000 lbs. HS-20 loading is defined as a tractor truck with a tandem axle semi-trailer with a single-axle load of 32,000 lbs.

From NDS[®] The Leader in Stormwater Management

NDS is your knowledgeable and trusted partner for the best in water

management solutions. Our products are engineered and produced for

performance, durability, ease of installation and the efficient use of resources.

We provide the service and support to ensure that you are successful.

Manufactured by



Visit ndsprofessionalsolutions.com for:



Downloads Downloads Case







Need design help?

Contact our civil engineers and technical experts at **designworx@ndspro.com** Download our Mobile App - Search for NDS Drainage

App Store





NDS Customer Service 851 N. Harvard Ave., Lindsay, CA 93247 Phone: 800.726.1994 · 559.562.9888 Fax: 800.726.1998 · 559.562.4488

Google Play