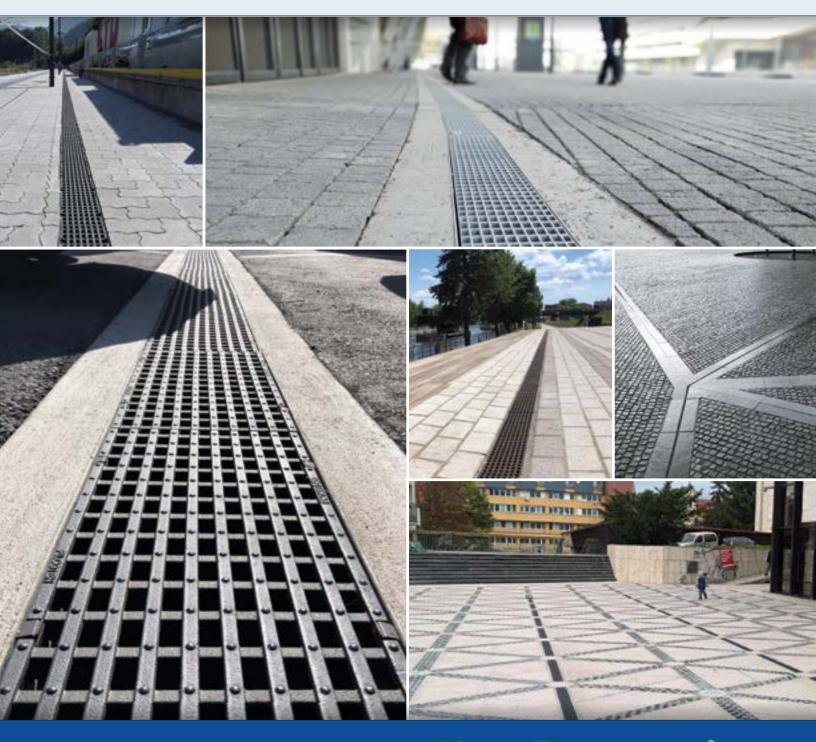


BG-FILCOTEN® High Performance Concrete Trench Drains



ndsprofessionalsolutions.com



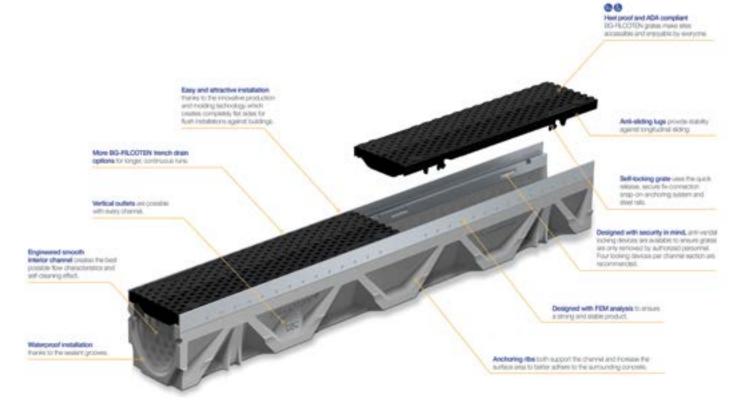




Design Worx



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 I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I 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. |

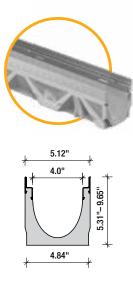
Maximum Run Lengths:

- 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.

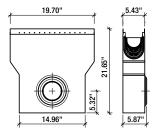
4" BG-FILCOTEN® tec V 100

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 |

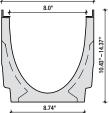


4" Slot Top Grates Available

8" BG-FILCOTEN® pro V 200

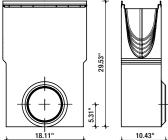
BG-FILCOTEN pro V 200 is stable, yet lightweight, so you don't have to compromise on quality or durability. It is available with galvanized rails in neutral and sloped sections and up to load class E 600 (according to EN 1433). Stainless steel rails and grates are also available.





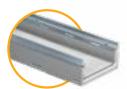
8" Catch Basin Kit





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

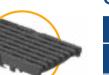


Ductile Iron





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

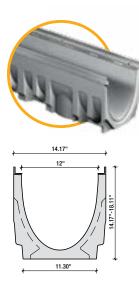
Accessories

| 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 |

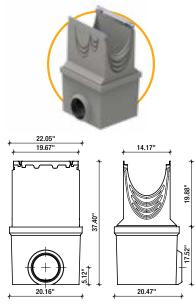


12" BG-FILCOTEN® pro V 300

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

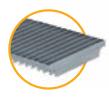
² Invert depths are male end, for female invert depth, subtract 0.2" from dimension shown.

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



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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.

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