



G i d r o l i c a

Drainage system manufacturing

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## GIDROLICA COMPANY

Gidrolica company is a trusted leader and one of the largest Russian manufacturers of surface drainage systems sold in Russia and the CIS countries.

Gidrolica company monitors and examines customer needs, develops and makes decisions that can solve drainage problems most effectively.

Gidrolica company supports project design of facilities, prepares industrial computations, offers recommendations and provides consultancy support, as well as supervised installation with specialist on-site visits.

## OUR COMPANY IS A MANUFACTURER

We manufacture more than 3 million drainage gutters per year, constantly expanding the range of products. In addition, Gidrolica company is the largest manufacturer of grass pavers and dirt-guard systems, as well as a supplier of grate flooring from leading global producers.

### Manufacturing capacity of Gidrolica company:

- 💧 Production lines for plastic, concrete and polymer concrete gutters and sand traps, as well as components for the manufacturing of professional drainage systems;
- 💧 Production lines for cast iron stormwater grates;
- 💧 Production lines for steel stormwater grates and gutter components;
- 💧 Production lines for grass pavers for ecoparking;
- 💧 Production lines for entrance dirt-guard systems.

## JUST AROUND THE CORNER, NEVER OUT OF STOCK

Gidrolica company has storage facilities throughout Russia and the CIS countries, sufficient to provide stock reserves and to implement prompt shipments.

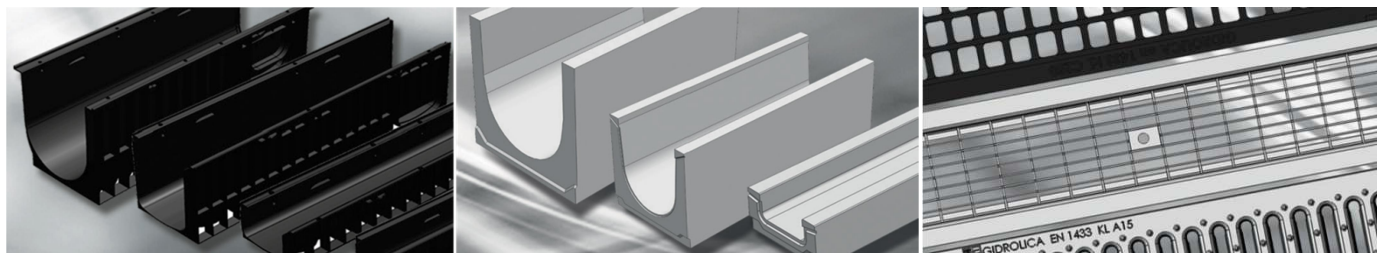
Gidrolica company has a wide dealer network of more than 800 companies representing our products in Russia and abroad. For the convenience of our customers, we deliver our products to any place in Russia, the CIS and Europe.



## WIDE RANGE OF PRODUCTS

### SURFACE DRAINAGE SYSTEMS GIDROLICA® AND BG GIDROLICA:

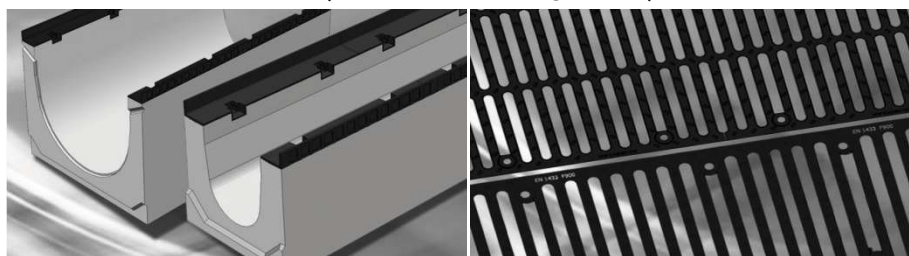
1. for private and civil construction (class of loading A15-C250)



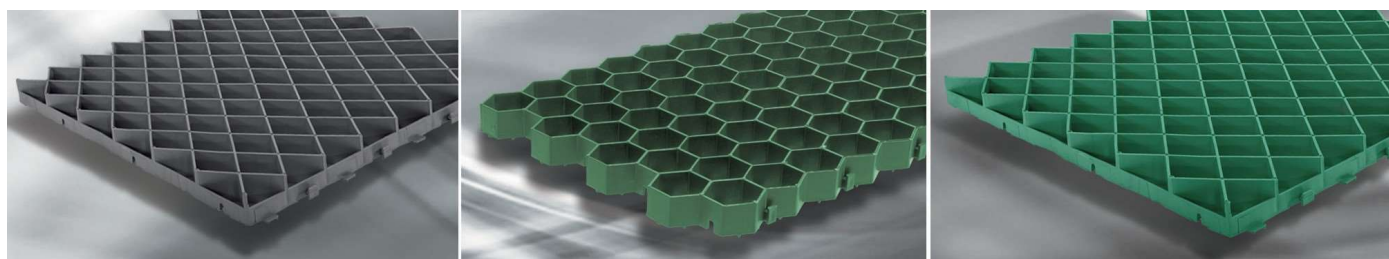
2. for industrial and road construction (class of loading D400-E600)



3. for airfield and road construction (class of loading F900)



### GRASS PAVERS GIDROLICA®



### ENTRANCE DIRT-GUARD SYSTEMS GIDROLICA®



### MULTIPURPOSE GRATE FLOORING





## DOMESTIC PRODUCTS OF INTERNATIONAL QUALITY

The products of Gidrolica company are certified and confirmed by test reports, including certificates of conformity GOST R of Gosstandart of Russia, "Opytnoye" LLC RSTs and certificates of conformity with the European Quality Management System Standard ISO 9001:2008 and ISO 9001:2011.



We aim to develop continuously, for this reason, we not only expand the product range and increase manufacturing capacity, but also combine the experience of Russian and foreign experts in the area of development, design and production of drainage systems, entrance dirt-guard systems, and grass pavers.

In 2011, Gidrolica company began an effective cooperation with BG Graspontner GmbH (Austria), which allowed the company to present unique gutters for various classes of loading (from C250 to F900) and throughput capability from DN100 to DN500, manufactured by vibration pressing on the Russian market. They combined perfect European quality and affordable price for a domestic product. Created by BG Graspontner GmbH technologies, taking into account the characteristics of the Russian climatic and operational conditions, the products satisfy all the demands of the drainage systems market.

## FREE CUSTOMER SUPPORT SERVICE

Our specialists provide no-cost consultations on the design and selection of outdoor drainage systems Gidrolica®, as well as prepare a complete set of documents with all the necessary calculations.

We are always ready to help you, providing:

- ◆ Consultancy support;
- ◆ Engineering design preparation;
- ◆ Pre-design concepts;
- ◆ Full project design support;
- ◆ Recommendations on installation of a drainage system;
- ◆ Supervised installation with specialist on-site visits.

## GIDROLICA IS A RELIABLE PARTNER

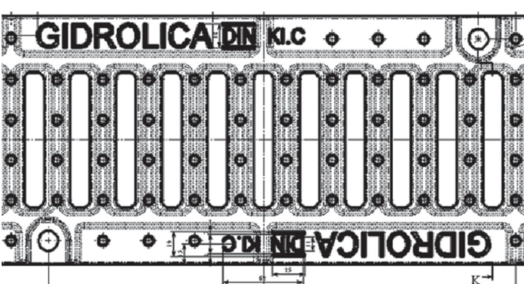
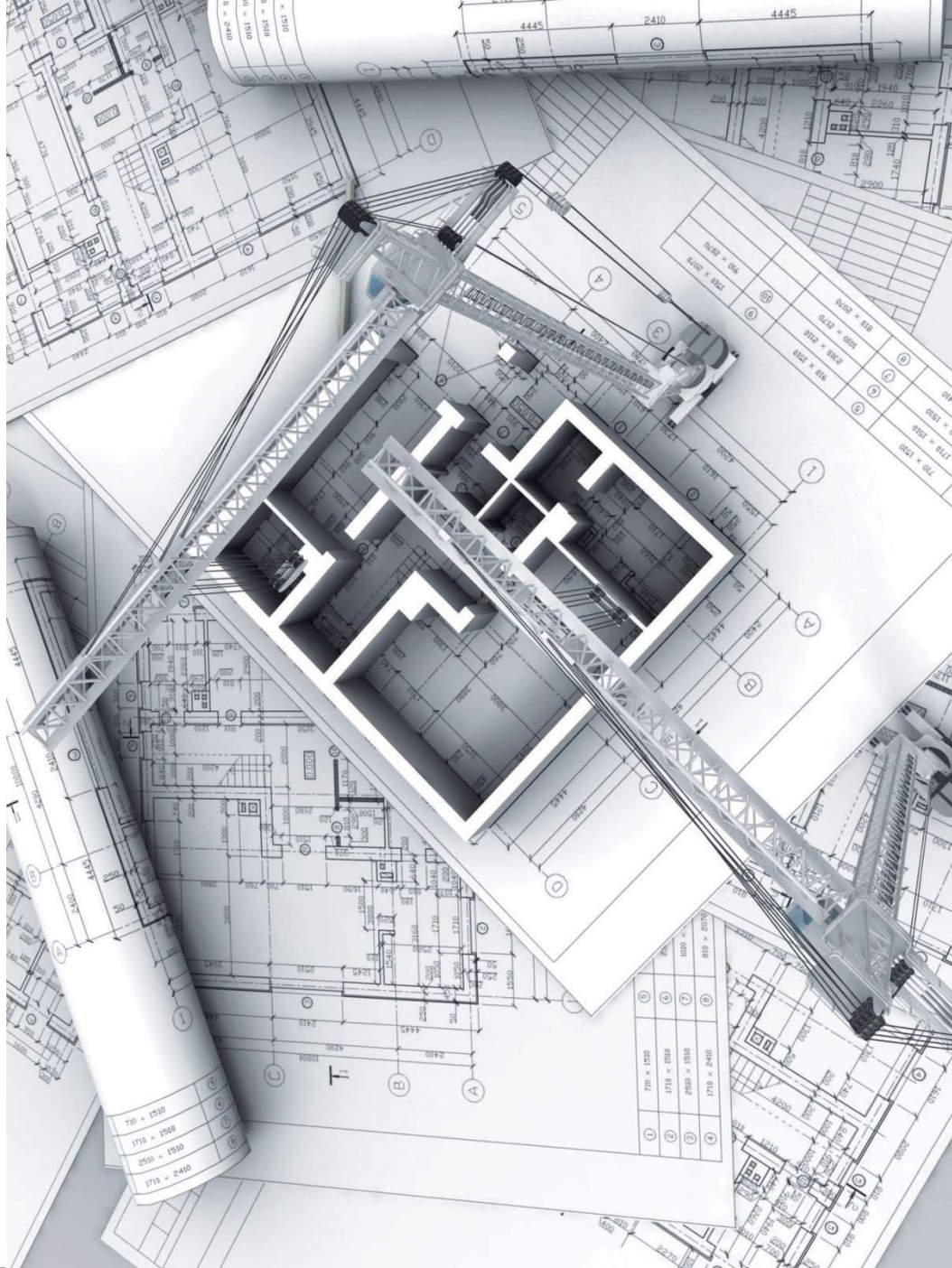
The advantage of our drainage systems has been appreciated by RosKosmos, RusGidro, RosAtom, Lukoil, Gazprom, SIBUR, Rosneft, Russian Railways, Norilsk Nickel and many other companies engaged in construction of federal facilities.

Among the customers of Gidrolica company there are large foreign DIY retail chains, such as Leroy Merlin, OBI, Castorama, STD Petrovich, etc.





- MATERIAL CHARACTERISTICS
- RECOMMENDATIONS ON SELECTION, INSTALLATION AND OPERATION
- CLASSES OF LOADING AND FIELD OF APPLICATION
- HYDRAULIC CALCULATION
- HYDRAULIC PROPERTIES OF DRAINAGE GUTTERS
- GENERAL RECOMMENDATIONS ON INSTALLATION AND OPERATION OF SURFACE DRAINAGE SYSTEMS
- GENERAL DIAGRAMS OF SURFACE DRAINAGE SYSTEM CONSTRUCTION



## PRODUCT SPECIFICATIONS AND RECOMMENDATIONS ON INSTALLATION OF SURFACE DRAINAGE SYSTEMS GIDROLICA®



## MATERIAL CHARACTERISTICS

To ensure the quality and long-term operation of surface drainage systems Gidrolica®, modern sound materials are used to manufacture them in accordance with GOST and building regulations.

Surface drainage systems Gidrolica® are the only systems that offer drainage gutters from all types of materials on the market today: concrete, polymer concrete, polymer sand, and frost-resistant plastic.

### Concrete

Concrete is a well-known material characterized by resistance to high loads, moisture and frost resistance, reliability, high quality properties, which is successfully used for the manufacturing of drainage gutters Gidrolica®.

Concrete specification

| PARAMETER NAME                                                                                                    | NOMINAL VALUE      |
|-------------------------------------------------------------------------------------------------------------------|--------------------|
| Compressive strength class                                                                                        | B60                |
| Bending tensile strength class                                                                                    | B(tb) 5,7          |
| Concrete grade according to frost resistance (acc. to the second method – 5% aqueous solution of sodium chloride) | F <sub>2</sub> 300 |
| Водопоглощение бетона, %                                                                                          | 2,2%               |
| Water-resistant concrete grade                                                                                    | W10                |

### Plastic

When manufacturing surface drainage systems Gidrolica®, frost-resistant polypropylene with improved impact and freeze-thaw resistance is used.

Propylene copolymer specification (frost-resistant polypropylene), (according to GOST 26996-86)

| PARAMETER NAME              | NOMINAL VALUE |
|-----------------------------|---------------|
| Density, kg/m <sup>3</sup>  | 889           |
| Water absorption for 24h, % | 0,013         |
| Melting temperature, °C     | 163           |
| Brittle temperature, °C     | -54           |
| Flex modulus                | 1120          |
| Rockwell hardness number,   | 46            |





## GENERAL RECOMMENDATIONS ON SELECTION, INSTALLATION AND OPERATION OF SURFACE DRAINAGE SYSTEMS

In order for the surface drainage system to work efficiently for a long time, it is necessary:

- 💧 to select all components of the surface drainage system properly.
- 💧 To install the system correctly.
- 💧 To operate the system correctly.

To make a professional decision concerning drainage at your facility, we recommend you to contact the specialists of our company, who select the most suitable solution for your facility in accordance with the basic rules.

### The first rule – compliance with classes of loading

The basic rule in selecting components of surface drainage systems is their compliance with the stated loading of the area where these systems are installed. Whether it is a pedestrian area, a passage zone for cars, trucks, or snow-cleaning equipment, you should always select gutters and grates, as well as sand traps and storm water basins according to the class of loading. Gidrolica company uses the load classification according to EN 1433.

### The second rule – compliance with throughput capability

When designing surface drainage systems, it is necessary to take into account the water catchment area at your facility, slopes of the surfaces from which the catchment is performed, the volume of storm and melt water of your region. For this purpose, a hydraulic calculation is carried out, and experts select drainage gutters with the necessary throughput capability.

### The third rule – compliance with installation requirements

In order for the surface drainage system to operate for many years, installation of the system should be carried out in accordance with the installation requirements. It is mandatory to install gutters in a concrete base. The thickness of the base depends on the intended load.

### The fourth rule – compliance with operation requirements

For effective and smooth operation of the surface drainage system it is necessary to ensure its timely cleaning and constant monitoring of the clogging level. Cleaning of the system is very simple due to the removable storm water grates. The frequency depends on the facility, at average, cleaning should be carried out once a month.



|                                                                                     |       |          | Class of loading                                                                         | Permissible loading<br>kN/t | Application field                                                                                | Plastic drainage systems | Concrete drainage systems                                                                            | Soil protection and stabilization systems, | Class of loading |
|-------------------------------------------------------------------------------------|-------|----------|------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------|
|    | A 15  | 15/1,5   | Pedestrian areas?<br>Sidewalks, public gardens, parks, bikeways, private house building  | DN100                       | Gidrolica® Light<br>PolyLight<br>Gidrolica® Standart<br>Standart Plus<br>Gidrolica® PolyStandart | BGF<br>BGU               | Gidrolica® Point<br>Gidrolica® Garden<br>Gidrolica® Street<br>Gidrolica® Step Pro<br>Gidrolica® Step |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN150                       | Gidrolica® Standart<br>Gidrolica® Standart Plus                                                  | BGF<br>BGU               |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN200                       | Gidrolica® Standart<br>Gidrolica® Standart Plus<br>Gidrolica® PolyStandart                       | BGF<br>BGU               |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN300                       | Gidrolica® Light<br>Standart                                                                     | BGU                      |                                                                                                      |                                            |                  |
|    | B 125 | 125/12,5 | Private house building<br>private garages                                                | DN100                       | Gidrolica® Standart<br>Gidrolica® Standart Plus<br>Gidrolica® PolyStandart                       | BGF<br>BGU               | Gidrolica® Point<br>Gidrolica® Eco Pro<br>Gidrolica® Eco Standart                                    |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN150                       | Gidrolica® Standart<br>Gidrolica® Standart Plus                                                  | BGF<br>BGU               |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN200                       | Gidrolica® Standart<br>Gidrolica® Standart Plus<br>Gidrolica® PolyStandart                       | BGF<br>BGU               |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN300                       | Gidrolica® Standart                                                                              | BGU                      |                                                                                                      |                                            |                  |
|  | C 250 | 250/25   | Roadsides, parking lots, garages                                                         | DN100                       | Gidrolica® Standart<br>Gidrolica® Standart Plus<br>Gidrolica® PolyStandart<br>Gidrolica® Pro     | BGF<br>BGU               | Gidrolica® Point<br>Gidrolica® Eco Pro<br>Gidrolica® Eco Standart                                    |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN150                       | Gidrolica® Standart<br>Gidrolica® Standart Plus<br>Gidrolica® Pro                                | BGF<br>BGU               |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN200                       | Gidrolica® Standart<br>Gidrolica® Standart Plus<br>Gidrolica® PolyStandart                       | BGF<br>BGU               |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN300                       | Gidrolica® Standart<br>Gidrolica® Pro                                                            | BGU                      |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN400                       |                                                                                                  | BGU                      |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN500                       |                                                                                                  | BGU-XL                   |                                                                                                      |                                            |                  |
|  | D 400 | 400/40   | Fuel stations,<br>carwashes, automobile companies, transport terminals, Industrial zones | DN100                       | Gidrolica® Super                                                                                 | BGF-Z<br>BGU-Z           | Gidrolica® Eco Super                                                                                 |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN150                       | Gidrolica® Super                                                                                 | BGF-Z<br>BGU-Z           |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN200                       | Gidrolica® Super                                                                                 | BGF-Z<br>BGU-Z           |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN300                       | Gidrolica® Super                                                                                 |                          |                                                                                                      |                                            |                  |
|  | E 600 | 600/60   | Industrial facilities,<br>moorings, storage facilities                                   | DN100                       | Gidrolica® Super                                                                                 | BGF-Z<br>BGU-Z           |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN150                       | Gidrolica® Super                                                                                 | BGF-Z<br>BGU-Z<br>BGZ-S  |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN200                       | Gidrolica® Super                                                                                 | BGF-Z<br>BGU-Z<br>BGZ-S  |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN300                       | Gidrolica® Super                                                                                 | BGZ-S                    |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN400                       |                                                                                                  | BGZ-S                    |                                                                                                      |                                            |                  |
|  | F 900 | 900/90   | Areas with high load on road carpet,<br>airports, military bases, cargo terminals        | DN200                       |                                                                                                  | BGM                      |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN300                       |                                                                                                  | BGM                      |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN400                       |                                                                                                  | BGM                      |                                                                                                      |                                            |                  |
|                                                                                     |       |          |                                                                                          | DN500                       |                                                                                                  | BGM                      |                                                                                                      |                                            |                  |

## HYDRAULIC CALCULATION OF WATER DISPOSAL SYSTEMS

Hydraulic calculation of surface drainage systems is carried out according to SP 32.13330.2012 "Sewerage. Public utilities", revised edition of SNiP 2.04.03-85.

The design flow of rainwater  $Q_r$ , l/s, in sections of drainage lines that back away rain and melt water from residential areas and enterprise sites, should be determined by the method of limiting intensities according to the formula:

$$Q_r = \frac{\psi_{mid} A F}{t_r^n}, \quad (1)$$

where  $A$ ,  $n$  – parameters characterizing the intensity and duration of rain for a particular area;

$\psi_{mid}$  – average drain coefficient, determined as a weighted mean value depending on the value of  $\psi_i$  for various types of catchment surfaces;

$F$  – nominal drain area, ha;

$t_r^n$  – nominal duration of rain up to the calculated area, equal to the duration of surface water flow over the surface to the considered section of the gutter and along the gutter lines.

The parameters  $A$  and  $n$  are determined according to the formula:

$$A = q_{20} 20^n \left(1 + \frac{\lg P}{\lg m_r}\right)^y, \quad (2)$$

where  $q_{20}$  – rain intensity for a given area lasting 20 minutes at  $P = 1$ ;  $P$  – period of single exceeding of the calculated rain intensity, years;

$m_r$  – average amount of rain per year;

$y$  – exponent that takes into account the climatic characteristics of the regions.

Nominal duration of rain  $t_m$  is determined according to the formula:

$$t_r = t_{con} + t_{can}, \quad (3)$$

where  $t_{con}$  – time of surface concentration of rainwater drain, min;

$t_{con}$  – duration of the rainwater flow along rain gutters, min.

Duration of the rainwater flow along rain gutters  $t_{con}$  is determined according to the formula:

$$t_{can} = 0,021 \sum_{i=1}^n (l_{can} / v_{can}), \quad (4)$$

where  $l_{can}$  – length of gutter sections, m;

$v_{can}$  – design flow rate at a section, m/s.

Average drain coefficient depends on the drain surface type  $z_{mid}$  and is determined according to the formula:

$$\psi_{mid} = \frac{z_{mid} A^{0,2}}{t_r^{0,2n-0,1}}, \quad (5)$$

where  $z_{mid}$  – average coefficient value characterizing the type of the drain surface (cover coefficient) is determined as a weighted mean value depending on the coefficients  $z_i$  for different types of surface.

When introducing the coefficient  $\psi_{mid}$  to the formula (1), main calculating formula to determine the rainwater flow rate, l/s, is the following:

$$Q_r = \frac{z_{mid} A^{1,2} F}{t_r^{1,2n-0,1}}, \quad (6)$$

Gutter filling degree, %:

$$a = \frac{Q_r}{q_{can}} \cdot 100\%, \quad (7)$$

where  $q_{can}$  – gutter throughput capability, l/s.





| Nominal size of gutter            | SURFACE SLOPE ALONG GUTTER LINE, ‰ |        |        |        |        |        |        |        |        |        |        |
|-----------------------------------|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                   | 1                                  | 2      | 3      | 5      | 6      | 8      | 10     | 20     | 30     | 50     | 100    |
| GIDROLICA® LIGHT                  |                                    |        |        |        |        |        |        |        |        |        |        |
| DN90                              |                                    |        |        |        |        |        |        |        |        |        |        |
| H = 96 mm                         | 1.74                               | 2.46   | 3.01   | 3.88   | 4.26   | 4.91   | 5.49   | 7.77   | 9.52   | 12.28  | 17.37  |
| GIDROLICA® STANDART/STANDART PLUS |                                    |        |        |        |        |        |        |        |        |        |        |
| DN100                             |                                    |        |        |        |        |        |        |        |        |        |        |
| H = 63 mm                         | 1.25                               | 1.77   | 2.16   | 2.79   | 3.06   | 3.54   | 3.95   | 5.59   | 6.85   | 8.84   | 12.50  |
| H = 80 mm                         | 1.68                               | 2.37   | 2.90   | 3.75   | 4.10   | 4.74   | 5.30   | 7.49   | 9.18   | 11.85  | 16.75  |
| H = 100 mm                        | 2.47                               | 3.49   | 4.28   | 5.52   | 6.05   | 6.99   | 7.81   | 11.05  | 13.53  | 17.47  | 24.70  |
| H = 120 mm                        | 3.63                               | 5.13   | 6.29   | 8.12   | 8.89   | 10.27  | 11.48  | 16.23  | 19.88  | 25.66  | 36.29  |
| H = 135 mm                        | 3.65                               | 5.17   | 6.33   | 8.17   | 8.95   | 10.34  | 11.56  | 16.34  | 20.02  | 25.84  | 36.55  |
| H = 185 mm                        | 5.92                               | 8.38   | 10.26  | 13.25  | 14.51  | 16.76  | 18.73  | 26.50  | 32.45  | 41.89  | 59.24  |
| DN150                             |                                    |        |        |        |        |        |        |        |        |        |        |
| H = 100 mm                        | 4.47                               | 6.32   | 7.74   | 9.99   | 10.94  | 12.64  | 14.13  | 19.98  | 24.47  | 31.59  | 44.68  |
| H = 185 mm                        | 11.45                              | 16.19  | 19.83  | 25.60  | 28.04  | 32.38  | 36.20  | 51.20  | 62.71  | 80.95  | 114.48 |
| DN200                             |                                    |        |        |        |        |        |        |        |        |        |        |
| H = 100 mm                        | 6.07                               | 8.59   | 10.52  | 13.58  | 14.88  | 17.18  | 19.21  | 27.17  | 33.27  | 42.95  | 60.75  |
| H = 185 mm                        | 17.18                              | 24.29  | 29.75  | 38.41  | 42.07  | 48.58  | 54.32  | 76.82  | 94.08  | 121.46 | 171.77 |
| H = 235 mm                        | 23.97                              | 33.90  | 41.51  | 53.59  | 58.71  | 67.79  | 75.79  | 107.19 | 131.28 | 169.48 | 239.68 |
| DN300                             |                                    |        |        |        |        |        |        |        |        |        |        |
| H = 280 mm                        | 41.05                              | 58.05  | 71.10  | 91.79  | 100.55 | 116.10 | 129.81 | 183.57 | 224.83 | 290.25 | 410.48 |
| H = 380 mm                        | 68.54                              | 96.94  | 118.72 | 153.27 | 167.90 | 193.87 | 216.76 | 306.54 | 375.44 | 484.69 | 685.45 |
| H = 480 mm                        | 96.83                              | 136.93 | 167.71 | 216.51 | 237.18 | 273.87 | 306.19 | 433.02 | 530.34 | 684.67 | 968.27 |
| GIDROLICA® SUPER                  |                                    |        |        |        |        |        |        |        |        |        |        |
| DN100                             |                                    |        |        |        |        |        |        |        |        |        |        |
| H = 82 mm                         | 1.25                               | 1.77   | 2.16   | 2.79   | 3.06   | 3.54   | 3.95   | 5.59   | 6.85   | 8.84   | 12.50  |
| H = 98 mm                         | 1.68                               | 2.37   | 2.90   | 3.75   | 4.10   | 4.74   | 5.30   | 7.49   | 9.18   | 11.85  | 16.75  |
| H = 118 mm                        | 2.47                               | 3.49   | 4.28   | 5.52   | 6.05   | 6.99   | 7.81   | 11.05  | 13.53  | 17.47  | 24.70  |
| H = 138 mm                        | 3.63                               | 5.13   | 6.29   | 8.12   | 8.89   | 10.27  | 11.48  | 16.23  | 19.88  | 25.66  | 36.29  |
| H = 154 mm                        | 3.65                               | 5.17   | 6.33   | 8.17   | 8.95   | 10.34  | 11.56  | 16.34  | 20.02  | 25.84  | 36.55  |
| H = 203 mm                        | 5.92                               | 8.38   | 10.26  | 13.25  | 14.51  | 16.76  | 18.73  | 26.50  | 32.45  | 41.89  | 59.24  |
| DN150                             |                                    |        |        |        |        |        |        |        |        |        |        |
| H = 119 mm                        | 4.47                               | 6.32   | 7.74   | 9.99   | 10.94  | 12.64  | 14.13  | 19.98  | 24.47  | 31.59  | 44.68  |
| H = 204 mm                        | 11.45                              | 16.19  | 19.83  | 25.60  | 28.04  | 32.38  | 36.20  | 51.20  | 62.71  | 80.95  | 114.48 |
| DN200                             |                                    |        |        |        |        |        |        |        |        |        |        |
| H = 119 mm                        | 6.07                               | 8.59   | 10.52  | 13.58  | 14.88  | 17.18  | 19.21  | 27.17  | 33.27  | 42.95  | 60.75  |
| H = 204 mm                        | 17.18                              | 24.29  | 29.75  | 38.41  | 42.07  | 48.58  | 54.32  | 76.82  | 94.08  | 121.46 | 171.77 |
| H = 253 mm                        | 23.97                              | 33.90  | 41.51  | 53.59  | 58.71  | 67.79  | 75.79  | 107.19 | 131.28 | 169.48 | 239.68 |
| DN300                             |                                    |        |        |        |        |        |        |        |        |        |        |
| H = 296 mm                        | 41.05                              | 58.05  | 71.10  | 91.79  | 100.55 | 116.10 | 129.81 | 183.57 | 224.83 | 290.25 | 410.48 |
| H = 396 mm                        | 68.54                              | 96.94  | 118.72 | 153.27 | 167.90 | 193.87 | 216.76 | 306.54 | 375.44 | 484.69 | 685.45 |
| H = 496 mm                        | 96.83                              | 136.93 | 167.71 | 216.51 | 237.18 | 273.87 | 306.19 | 433.02 | 530.34 | 684.67 | 968.27 |

Note: Throughput capability of gutters is specified in l/s and deigned for 100% filling of a gutter

| Nominal size of gutter | SURFACE SLOPE ALONG GUTTER LINE, ‰ |        |        |        |        |        |        |        |        |         |         |
|------------------------|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
|                        | 1                                  | 2      | 3      | 5      | 6      | 8      | 10     | 20     | 30     | 50      | 100     |
| BGF                    |                                    |        |        |        |        |        |        |        |        |         |         |
| DN100                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 60 mm              | 0.50                               | 0.70   | 0.86   | 1.11   | 1.22   | 1.40   | 1.57   | 2.22   | 2.72   | 3.51    | 4.96    |
| H = 80 mm              | 0.87                               | 1.22   | 1.50   | 1.93   | 2.12   | 2.45   | 2.73   | 3.87   | 4.74   | 6.11    | 8.65    |
| H = 100 mm             | 1.40                               | 1.98   | 2.42   | 3.12   | 3.42   | 3.95   | 4.42   | 6.25   | 7.65   | 9.88    | 13.97   |
| BGU                    |                                    |        |        |        |        |        |        |        |        |         |         |
| DN100                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 125 mm             | 1.85                               | 2.61   | 3.20   | 4.13   | 4.53   | 5.23   | 5.84   | 8.26   | 10.12  | 13.07   | 18.48   |
| H = 132 mm             | 2.05                               | 2.90   | 3.55   | 4.58   | 5.02   | 5.79   | 6.48   | 9.16   | 11.22  | 14.49   | 20.49   |
| H = 157 mm             | 2.78                               | 3.93   | 4.81   | 6.21   | 6.80   | 7.86   | 8.78   | 12.42  | 15.21  | 19.64   | 27.77   |
| H = 182 mm             | 3.52                               | 4.97   | 6.09   | 7.86   | 8.61   | 9.95   | 11.12  | 15.73  | 19.26  | 24.87   | 35.17   |
| DN150                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 190 mm             | 6.11                               | 8.65   | 10.59  | 13.67  | 14.98  | 17.29  | 19.33  | 27.34  | 33.49  | 43.23   | 61.14   |
| H = 215 mm             | 7.38                               | 10.43  | 12.77  | 16.49  | 18.07  | 20.86  | 23.32  | 32.98  | 40.40  | 52.15   | 73.75   |
| H = 240 mm             | 8.59                               | 12.15  | 14.88  | 19.21  | 21.05  | 24.30  | 27.17  | 38.43  | 47.06  | 60.76   | 85.93   |
| H = 240 mm             | 7.74                               | 10.94  | 13.40  | 17.30  | 18.95  | 21.88  | 24.46  | 34.60  | 42.37  | 54.70   | 77.36   |
| H = 265 mm             | 9.21                               | 13.03  | 15.95  | 20.60  | 22.56  | 26.05  | 29.13  | 41.19  | 50.45  | 65.13   | 92.11   |
| H = 290 mm             | 10.70                              | 15.13  | 18.53  | 23.92  | 26.21  | 30.26  | 33.83  | 47.84  | 58.60  | 75.65   | 106.98  |
| H = 315 mm             | 12.19                              | 17.25  | 21.12  | 27.27  | 29.87  | 34.49  | 38.56  | 54.54  | 66.79  | 86.23   | 121.95  |
| H = 340 mm             | 13.58                              | 19.21  | 23.52  | 30.37  | 33.27  | 38.41  | 42.95  | 60.74  | 74.39  | 96.04   | 135.82  |
| DN200                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 255 mm             | 13.09                              | 18.51  | 22.67  | 29.27  | 32.06  | 37.03  | 41.40  | 58.54  | 71.70  | 92.56   | 130.90  |
| H = 280 mm             | 15.10                              | 21.36  | 26.16  | 33.77  | 36.99  | 42.72  | 47.76  | 67.54  | 82.72  | 106.79  | 151.02  |
| H = 305 mm             | 17.13                              | 24.22  | 29.67  | 38.30  | 41.95  | 48.44  | 54.16  | 76.60  | 93.81  | 121.11  | 171.28  |
| H = 295 mm             | 15.93                              | 22.53  | 27.59  | 35.62  | 39.02  | 45.06  | 50.38  | 71.25  | 87.26  | 112.65  | 159.31  |
| H = 320 mm             | 18.26                              | 25.83  | 31.63  | 40.83  | 44.73  | 51.65  | 57.75  | 81.67  | 100.02 | 129.13  | 182.61  |
| H = 345 mm             | 20.62                              | 29.16  | 35.71  | 46.10  | 50.50  | 58.31  | 65.19  | 92.20  | 112.92 | 145.78  | 206.16  |
| H = 370 mm             | 22.97                              | 32.48  | 39.78  | 51.35  | 56.25  | 64.96  | 72.62  | 102.71 | 125.79 | 162.39  | 229.66  |
| H = 395 mm             | 25.33                              | 35.83  | 43.88  | 56.65  | 62.06  | 71.66  | 80.12  | 113.30 | 138.76 | 179.14  | 253.35  |
| DN300                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 395 mm             | 43.97                              | 62.19  | 76.16  | 98.32  | 107.71 | 124.37 | 139.05 | 196.65 | 240.84 | 310.93  | 439.71  |
| H = 420 mm             | 47.06                              | 66.55  | 81.51  | 105.23 | 115.27 | 133.10 | 148.81 | 210.45 | 257.75 | 332.76  | 470.59  |
| H = 445 mm             | 50.83                              | 71.89  | 88.05  | 113.67 | 124.52 | 143.78 | 160.75 | 227.34 | 278.43 | 359.45  | 508.35  |
| H = 470 mm             | 54.62                              | 77.24  | 94.60  | 122.13 | 133.78 | 154.48 | 172.71 | 244.25 | 299.14 | 386.19  | 546.16  |
| H = 495 mm             | 58.23                              | 82.35  | 100.86 | 130.21 | 142.64 | 164.71 | 184.15 | 260.42 | 318.95 | 411.76  | 582.32  |
| DN400                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 395 mm             | 62.31                              | 88.12  | 107.92 | 139.33 | 152.62 | 176.23 | 197.04 | 278.65 | 341.27 | 440.58  | 623.08  |
| H = 420 mm             | 69.28                              | 97.98  | 120.00 | 154.92 | 169.71 | 195.97 | 219.10 | 309.85 | 379.48 | 489.91  | 692.84  |
| H = 445 mm             | 76.17                              | 107.72 | 131.94 | 170.33 | 186.58 | 215.45 | 240.88 | 340.65 | 417.21 | 538.62  | 761.73  |
| H = 470 mm             | 83.11                              | 117.53 | 143.95 | 185.83 | 203.57 | 235.06 | 262.81 | 371.67 | 455.20 | 587.66  | 831.08  |
| H = 495 mm             | 90.18                              | 127.54 | 156.20 | 201.66 | 220.90 | 255.08 | 285.19 | 403.31 | 493.96 | 637.69  | 901.84  |
| BGU-XL                 |                                    |        |        |        |        |        |        |        |        |         |         |
| DN500                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 450 mm             | 96.05                              | 135.83 | 166.36 | 214.77 | 235.26 | 271.66 | 303.72 | 429.53 | 526.07 | 679.15  | 960.46  |
| H = 475 mm             | 106.22                             | 150.21 | 183.97 | 237.51 | 260.18 | 300.42 | 335.88 | 475.01 | 581.77 | 751.06  | 1062.16 |
| H = 500 mm             | 116.49                             | 164.74 | 201.76 | 260.47 | 285.33 | 329.47 | 368.36 | 520.94 | 638.02 | 823.68  | 1164.86 |
| H = 525 mm             | 126.84                             | 179.38 | 219.70 | 283.63 | 310.70 | 358.76 | 401.11 | 567.25 | 694.74 | 896.91  | 1268.42 |
| H = 550 mm             | 137.27                             | 194.13 | 237.76 | 306.95 | 336.25 | 388.27 | 434.09 | 613.90 | 751.87 | 970.66  | 1372.73 |
| H = 575 mm             | 147.77                             | 208.98 | 255.94 | 330.42 | 361.96 | 417.95 | 467.28 | 660.84 | 809.36 | 1044.88 | 1477.68 |
| H = 600 mm             | 158.32                             | 223.90 | 274.22 | 354.02 | 387.81 | 447.80 | 500.66 | 708.03 | 867.16 | 1119.50 | 1583.21 |
| H = 625 mm             | 168.92                             | 238.90 | 292.59 | 377.73 | 413.78 | 477.79 | 534.19 | 755.45 | 925.24 | 1194.48 | 1689.25 |
| H = 650 mm             | 179.57                             | 253.95 | 311.03 | 401.54 | 439.86 | 507.91 | 567.86 | 803.08 | 983.56 | 1269.77 | 1795.73 |

Note: Throughput capability of gutters is specified in l/s and deigned for 100% filling of a gutter



| Nominal size of gutter | SURFACE SLOPE ALONG GUTTER LINE, ‰ |        |        |        |        |        |        |        |        |        |         |
|------------------------|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
|                        | 1                                  | 2      | 3      | 5      | 6      | 8      | 10     | 20     | 30     | 50     | 100     |
| BGF-Z                  |                                    |        |        |        |        |        |        |        |        |        |         |
| DN100                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 100 mm             | 0.73                               | 1.03   | 1.26   | 1.63   | 1.78   | 2.06   | 2.30   | 3.26   | 3.99   | 5.15   | 7.28    |
| DN150                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 100 mm             | 1.21                               | 1.71   | 2.10   | 2.71   | 2.96   | 3.42   | 3.83   | 5.41   | 6.63   | 8.56   | 12.10   |
| DN200                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 100 mm             | 1.71                               | 2.42   | 2.96   | 3.82   | 4.19   | 4.84   | 5.41   | 7.65   | 9.37   | 12.09  | 17.10   |
| BGU-Z                  |                                    |        |        |        |        |        |        |        |        |        |         |
| DN100                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 165 mm             | 2.02                               | 2.86   | 3.50   | 4.52   | 4.95   | 5.71   | 6.39   | 9.04   | 11.07  | 14.29  | 20.20   |
| H = 190 mm             | 2.75                               | 3.89   | 4.76   | 6.15   | 6.73   | 7.77   | 8.69   | 12.29  | 15.05  | 19.43  | 27.48   |
| H = 215 mm             | 3.49                               | 4.93   | 6.04   | 7.80   | 8.54   | 9.86   | 11.03  | 15.60  | 19.10  | 24.66  | 34.88   |
| DN150                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 215 mm             | 5.94                               | 8.40   | 10.29  | 13.28  | 14.55  | 16.80  | 18.78  | 26.56  | 32.53  | 41.99  | 59.39   |
| H = 240 mm             | 7.19                               | 10.18  | 12.47  | 16.10  | 17.64  | 20.36  | 22.77  | 32.20  | 39.43  | 50.91  | 71.96   |
| H = 265 mm             | 8.56                               | 12.10  | 14.82  | 19.13  | 20.96  | 24.20  | 27.06  | 38.27  | 46.87  | 60.51  | 85.57   |
| DN200                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 280 mm             | 12.62                              | 17.85  | 21.87  | 28.23  | 30.92  | 35.71  | 39.92  | 56.46  | 69.14  | 89.26  | 126.24  |
| H = 305 mm             | 15.01                              | 21.23  | 26.00  | 33.56  | 36.77  | 42.45  | 47.46  | 67.12  | 82.21  | 106.13 | 150.09  |
| H = 330 mm             | 17.20                              | 24.32  | 29.78  | 38.45  | 42.12  | 48.64  | 54.38  | 79.90  | 94.19  | 121.59 | 171.96  |
| BGZ-S                  |                                    |        |        |        |        |        |        |        |        |        |         |
| DN150                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 240 mm             | 6.59                               | 9.33   | 11.42  | 14.74  | 16.15  | 18.65  | 20.85  | 29.49  | 36.12  | 46.63  | 65.94   |
| H = 265 mm             | 8.06                               | 11.39  | 13.95  | 18.01  | 19.73  | 22.79  | 25.48  | 36.03  | 44.13  | 56.97  | 80.56   |
| H = 290 mm             | 9.48                               | 13.41  | 16.42  | 21.20  | 23.22  | 26.81  | 29.98  | 42.39  | 51.92  | 67.03  | 94.79   |
| H = 315 mm             | 10.97                              | 15.51  | 19.00  | 24.53  | 26.87  | 31.02  | 34.68  | 49.05  | 60.07  | 77.56  | 109.68  |
| H = 340 mm             | 12.41                              | 17.55  | 21.49  | 27.75  | 30.39  | 35.10  | 39.24  | 55.49  | 67.96  | 87.74  | 124.08  |
| DN200                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 295 mm             | 13.17                              | 18.62  | 22.81  | 29.44  | 32.25  | 37.24  | 41.64  | 58.88  | 72.12  | 93.10  | 131.66  |
| H = 320 mm             | 15.47                              | 21.88  | 26.80  | 34.60  | 37.90  | 43.76  | 48.90  | 69.19  | 84.74  | 109.40 | 154.71  |
| H = 345 mm             | 17.80                              | 25.17  | 30.83  | 39.80  | 43.60  | 50.34  | 56.28  | 79.60  | 97.48  | 125.85 | 177.98  |
| H = 370 mm             | 20.14                              | 28.48  | 34.89  | 45.04  | 49.34  | 56.98  | 63.69  | 90.07  | 110.32 | 142.42 | 201.41  |
| H = 395 mm             | 22.50                              | 31.82  | 38.97  | 50.31  | 55.11  | 63.63  | 71.14  | 100.61 | 123.22 | 159.08 | 224.98  |
| DN300                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 395 mm             | 39.42                              | 55.74  | 68.27  | 88.13  | 96.55  | 111.48 | 124.64 | 176.27 | 215.88 | 278.71 | 394.15  |
| H = 420 mm             | 43.77                              | 61.91  | 75.82  | 97.88  | 107.22 | 123.81 | 138.42 | 195.76 | 239.76 | 309.24 | 437.73  |
| H = 445 mm             | 48.50                              | 68.59  | 84.01  | 108.45 | 118.80 | 137.18 | 153.73 | 216.90 | 265.65 | 342.95 | 485.01  |
| H = 470 mm             | 52.95                              | 74.88  | 91.71  | 118.40 | 129.70 | 149.76 | 167.44 | 236.80 | 290.02 | 374.41 | 529.49  |
| H = 495 mm             | 57.69                              | 81.59  | 99.92  | 129.00 | 141.31 | 163.17 | 182.43 | 258.00 | 315.98 | 407.93 | 576.90  |
| DN400                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 395 mm             | 56.38                              | 79.74  | 97.66  | 126.07 | 138.10 | 159.47 | 178.29 | 252.15 | 308.82 | 398.68 | 563.82  |
| H = 420 mm             | 63.45                              | 89.73  | 109.90 | 141.88 | 155.42 | 179.46 | 200.64 | 283.75 | 347.53 | 448.65 | 634.49  |
| H = 445 mm             | 70.59                              | 99.83  | 122.27 | 157.85 | 172.91 | 199.66 | 223.23 | 315.70 | 386.65 | 499.16 | 705.92  |
| H = 470 mm             | 77.80                              | 110.02 | 134.75 | 173.96 | 190.57 | 220.05 | 246.02 | 347.92 | 426.12 | 550.11 | 777.98  |
| H = 495 mm             | 85.06                              | 120.29 | 147.32 | 190.19 | 208.35 | 240.58 | 268.98 | 380.39 | 465.88 | 601.45 | 850.57  |
| DN500                  |                                    |        |        |        |        |        |        |        |        |        |         |
| H = 450 mm             | 84.62                              | 119.67 | 146.56 | 189.21 | 207.27 | 239.34 | 267.58 | 378.42 | 463.47 | 598.34 | 846.18  |
| H = 475 mm             | 94.65                              | 133.86 | 163.94 | 211.65 | 231.85 | 267.72 | 299.32 | 423.30 | 518.43 | 669.29 | 946.52  |
| H = 500 mm             | 104.81                             | 148.22 | 181.53 | 243.36 | 256.72 | 296.44 | 331.43 | 468.71 | 574.05 | 741.09 | 1048.07 |
| H = 525 mm             | 115.06                             | 162.72 | 199.30 | 257.29 | 281.85 | 325.45 | 363.86 | 514.58 | 630.23 | 813.62 | 1150.63 |
| H = 550 mm             | 125.41                             | 177.35 | 217.21 | 280.42 | 307.18 | 354.71 | 396.57 | 560.84 | 686.88 | 886.76 | 1254.07 |

Note: Throughput capability of gutters is specified in l/s and deigned for 100% filling of a gutter



| Nominal size of gutter | SURFACE SLOPE ALONG GUTTER LINE, ‰ |        |        |        |        |        |        |        |        |         |         |
|------------------------|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
|                        | 1                                  | 2      | 3      | 5      | 6      | 8      | 10     | 20     | 30     | 50      | 100     |
| BGM                    |                                    |        |        |        |        |        |        |        |        |         |         |
| DN200                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 310 mm             | 10.65                              | 15.06  | 18.44  | 23.81  | 26.08  | 30.11  | 33.67  | 47.61  | 58.31  | 75.28   | 106.47  |
| H = 335 mm             | 12.85                              | 18.17  | 22.25  | 28.73  | 31.47  | 36.34  | 40.62  | 57.45  | 70.36  | 90.84   | 128.47  |
| H = 360 mm             | 15.20                              | 21.50  | 26.33  | 34.00  | 37.24  | 43.00  | 48.08  | 67.99  | 83.27  | 107.51  | 152.04  |
| H = 385 mm             | 17.52                              | 24.78  | 30.35  | 39.18  | 42.92  | 49.56  | 55.41  | 78.36  | 95.97  | 123.90  | 175.22  |
| H = 410 mm             | 19.72                              | 27.89  | 34.16  | 44.10  | 48.31  | 55.79  | 62.37  | 88.21  | 108.03 | 139.47  | 197.24  |
| DN300                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 310 mm             | 21.70                              | 30.69  | 37.58  | 48.52  | 53.15  | 61.37  | 68.62  | 97.04  | 118.85 | 153.43  | 216.98  |
| H = 410 mm             | 38.14                              | 53.94  | 66.06  | 85.28  | 93.42  | 107.87 | 120.60 | 170.56 | 208.89 | 269.68  | 381.38  |
| H = 450 mm             | 40.08                              | 56.69  | 69.43  | 89.63  | 98.19  | 113.38 | 126.76 | 179.26 | 219.55 | 283.44  | 400.85  |
| H = 475 mm             | 44.38                              | 62.77  | 76.88  | 99.25  | 108.72 | 125.54 | 140.36 | 198.49 | 243.10 | 313.85  | 443.85  |
| H = 500 mm             | 48.64                              | 68.78  | 84.24  | 108.76 | 119.14 | 137.57 | 153.81 | 217.51 | 266.40 | 343.92  | 486.38  |
| H = 525 mm             | 53.20                              | 75.24  | 92.15  | 118.97 | 130.32 | 150.49 | 168.25 | 237.94 | 291.41 | 376.21  | 532.04  |
| H = 550 mm             | 58.89                              | 83.28  | 102.00 | 131.68 | 144.25 | 166.57 | 186.23 | 263.36 | 322.55 | 416.41  | 588.90  |
| DN400                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 450 mm             | 63.25                              | 89.45  | 109.56 | 141.44 | 154.94 | 178.90 | 200.02 | 282.87 | 346.45 | 447.26  | 632.52  |
| H = 475 mm             | 70.38                              | 99.53  | 121.90 | 157.37 | 172.39 | 199.06 | 222.56 | 314.74 | 385.48 | 497.65  | 703.79  |
| H = 500 mm             | 77.57                              | 109.70 | 134.35 | 173.45 | 190.01 | 219.40 | 245.30 | 346.90 | 424.87 | 548.50  | 775.69  |
| H = 525 mm             | 83.81                              | 118.53 | 145.17 | 187.42 | 205.30 | 237.06 | 265.05 | 374.83 | 459.07 | 592.66  | 838.15  |
| H = 550 mm             | 90.08                              | 127.40 | 156.03 | 201.43 | 220.66 | 254.79 | 284.87 | 402.86 | 493.40 | 636.98  | 900.83  |
| DN500                  |                                    |        |        |        |        |        |        |        |        |         |         |
| H = 450 mm             | 79.81                              | 112.86 | 138.23 | 178.45 | 195.48 | 225.72 | 252.37 | 356.90 | 437.11 | 564.31  | 798.05  |
| H = 475 mm             | 89.78                              | 126.96 | 155.50 | 200.75 | 219.91 | 253.93 | 283.90 | 401.50 | 491.73 | 634.82  | 897.76  |
| H = 500 mm             | 99.66                              | 140.94 | 172.62 | 222.85 | 244.12 | 281.89 | 315.16 | 445.70 | 545.87 | 704.72  | 996.62  |
| H = 525 mm             | 110.09                             | 155.69 | 190.68 | 246.16 | 269.66 | 311.37 | 348.13 | 492.33 | 602.97 | 778.44  | 1100.87 |
| H = 550 mm             | 120.06                             | 169.79 | 207.95 | 268.46 | 294.08 | 339.57 | 379.66 | 536.91 | 657.58 | 848.94  | 1200.58 |
| H = 575 mm             | 130.78                             | 184.95 | 226.52 | 292.43 | 320.34 | 369.90 | 413.56 | 584.86 | 716.30 | 924.74  | 1307.78 |
| H = 600 mm             | 140.66                             | 198.93 | 243.63 | 314.53 | 344.55 | 397.85 | 444.81 | 629.06 | 770.43 | 994.62  | 1406.61 |
| H = 625 mm             | 151.75                             | 214.61 | 262.85 | 339.33 | 371.72 | 429.23 | 479.89 | 678.66 | 831.19 | 1073.06 | 1517.54 |
| H = 650 mm             | 161.62                             | 228.57 | 279.94 | 361.40 | 395.89 | 457.14 | 511.09 | 722.79 | 885.24 | 1142.84 | 1616.22 |

Note: Throughput capability of gutters is specified in l/s and deigned for 100% filling of a gutter

## GENERAL RECOMMENDATIONS ON INSTALLATION AND OPERATION OF POINT DRAINAGE

1. Having determined the exact location of the storm water inlet, it is necessary to mark the direction of the pipeline's drainage gutter trench (connection is possible using pipes  $\varnothing 50$ ,  $\varnothing 110$ ,  $\varnothing 160$  mm). The direction should be selected on the basis of the connection possibilities to the surface inlets.
2. Before installation and pouring the concrete casing of the rainwater inlet, it is necessary to prepare the base. The bottom of the casing should rest on the drainage layer, i.e. the base of sand and gravel mix.
3. The formed gravel base is laid on asphaltic felt layer, then a concrete casing is arranged according to the recommended model.
4. To connect the discharge pipe directly to the rainwater inlet, it is necessary to cut a hole in the rainwater inlet wall of the required diameter according to the given templates. The junction of the pipe and inlet should be sealed.
5. Concreting of the rainwater inlet casing is carried out in layers: in the beginning it is performed to the upper edge of the pipe, then to the upper level of the rainwater inlet grate.
6. After concreting and complete drying of the rainwater inlet casing, traps are installed from the side of the drainage pipe joint as partitions (fig. a, b).

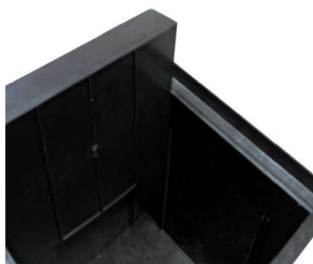


Fig. a



Fig. b

7. The basket is installed between partitions and is designed to collect garbage (fig. c).



Fig. c

8. The rainwater inlet is covered with a grate, which absorbs mechanical loads, holds large debris, and performs a decorative function (fig. d).



Fig. d

9. After installation, the level of the inlet sewer grate should be 3-5 mm lower than the level of the adjacent catchment surface.
10. To ensure the normal operation of the point drainage system, it is necessary to clean the drain box. The frequency is determined by the service conditions.

Paving blocks  
 Concrete-and-sand mix  
 Rubble mix (GOST 25607-94)  
 Sand (GOST 8736-93)

3.5  
 300  
 100H  
 50  
 50  
 300  
 300+2C  
 50

Storm water inlet Gidrolica Point  
 Concrete casing, B25 F200 W6 (GOST 26633-91)  
 Waterproof material (asphalted felt)  
 Crushed stone, M400 (GOST 8267-93)  
 Sand (GOST 8736-93)  
 Compacted soil

Asphalt covering (designed conventionally)

Stone-sand mixture(designed conventionally)

Sand (designed conventionally)

Compacted soil (designed conventionally)

Assembly A

Polymer asphalt covering "Brit A"

3-5

300

H

100

50

50

300+2C

Storm water inlet Gidrolica Point

Concrete casing B25 F200 W6 (GOST 26633-91)

Waterproof material (asphalted felt)

Crushed sand M400 (GOST 8267-93)

Sand (GOST 8736-93)

Compacted soil

Assembly A

Note: when changing concrete class, concrete casing dimensions change as well



## GENERAL RECOMMENDATIONS ON INSTALLATION AND OPERATION OF SURFACE DRAINAGE SYSTEMS GIDROLICA®

Gutters are laid in a trench on a concrete foundation. Installation should begin with the installation of a sand trap at the bottom elevation of the route, from which it is possible to mark the laying line of the drainage channel.

1. The casing bottom should rest on the drainage blanket, i.e. the base of the compacted sand and gravel mix. The thickness of the artificial base is 10 cm.
2. Waterproofing material is laid on the chipping base M400 (GOST 8267-93) (such materials as asphaltic felt, "Gidroizol", can be used as waterproofing material). After that, a concrete blinding is made of cement concrete B25 F200 W6 (GOST 26633-91). The thickness of the base depends on the received load on the gutter during operation. Concrete should be laid to a level 5-10 mm lower than the design elevation of the gutter bottom.
3. If it is necessary to reinforce the concrete casing of the gutter, reinforcement bars are placed on the formed surface of the concrete blinding. The bars are made of reinforcing steel of the class A-II (GOST 5781-82). The connection of reinforcement bars at the intersections is made by binding wire.

To provide a protective layer, the lower row of reinforcement is laid on the plates of fine-grained concrete or plastic clamps located along the surface of concrete blinding. Protective layer of working reinforcement in the bottom plate of the casing and walls is not less than 30 mm.

4. After the installation of the concrete base, plywood form or ready made form is installed. Form should be reliable, rigid and stable under the influence of installation and transport loads, as well as loads during concreting. Plywood, sawn wood and other wood materials should be processed or covered with waterproof substances. The ends of sawn wood forms should be protected from moisture with a moisture-proof sealant and from mechanical damage – with plastic or metal casing. The installed form should not have vertical and horizontal deviations from the base of the installed gutter line.
5. Before application of the concrete mixture, all the pockets and inside surfaces of the form should be cleaned out of debris and foreign objects. A leveling blanket of cement and sand mix M150 with a thickness of 10 mm across the width of the gutter base is performed on the formed concrete base of the plate.
6. Gutter jointing is carried out at the tongue-and-groove connection. After the gutter installation, it is necessary to check its position by elevation from four sides along the top of the corner.
7. Having installed the sand trap and the adjacent gutters in the design position, joint grouting of the casing walls should be performed. In order to avoid channel displacement, concreting around the channels should be carried out in horizontal layers without a technological gap in one direction of all layers. Each subsequent layer of concrete mix should be laid before the initial set of concrete in the previous layer.

When grouting pockets of the concrete casing, grates or spacers should be installed in the channel during the laying and setting of the concrete. The grates should be wrapped with a film to protect against contamination and ingress of concrete into the channels.

To preserve the properties of concrete and accelerate the strength development, fresh concrete should be covered with a film until it develops strength of at least 70%.

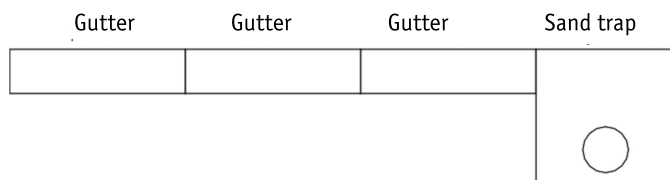
8. The form should be removed, when the concrete develops stripping strength.
9. If necessary, the gutter joints should be sealed (GOST 25945).
10. To make the sealing joint on the line between the grouting casing and gutter during the concreting, it is necessary to use flexible foam polystyrene form along both sides of the drainage gutters to form the joint chamber.

When the concrete develops design strength of the grouting casing, remove the temporary foam polystyrene pad. Pad removal should be performed mechanically using a metal brush. Before sealing the seam, clean it with a brushing machine, purge and dry it with hot air equipment. Drying the seam is a mandatory activity. Treat the seam walls with a primer, then fill the seam chamber with sealant (GOST 25945).

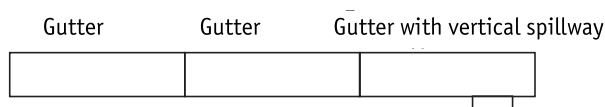
11. After installation, the level of sewer grate should be 3-5 mm lower than the road pavement level. When asphaltting the territory, the asphalt spreader should not run into the line of channels.
12. If it is necessary to connect the gutters at an unspecified angle different from the angle of 90°, cut the gutters and grates at the joint point at an angle equal to half of the required angle.
13. To ensure the normal operation of the entire linear drainage system, it is necessary to clean the sand trap basket. The frequency is determined by the service conditions.

## GENERAL CONSTRUCTION SCHEMES FOR SURFACE DRAINAGE SYSTEM

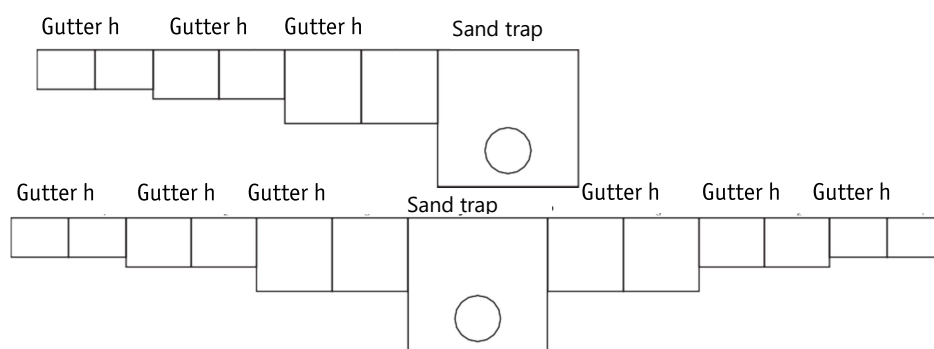
The construction scheme for linear drainage system with the discharge in the sewage facilities using sand traps



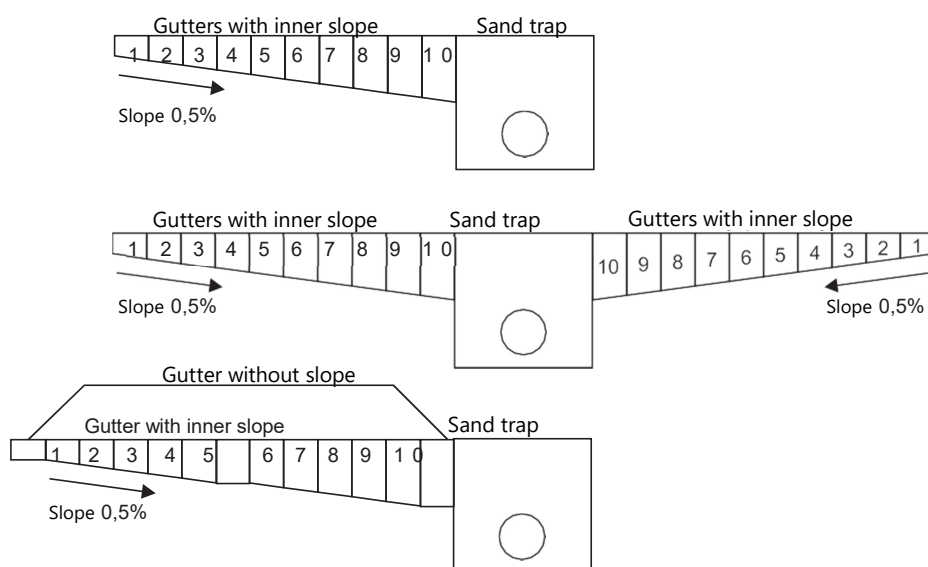
The construction scheme for linear drainage system with the discharge in the sewage facilities using a gutter with vertical spillway



The construction scheme for linear drainage system на местности без уклона с применением каскадного построения лотков

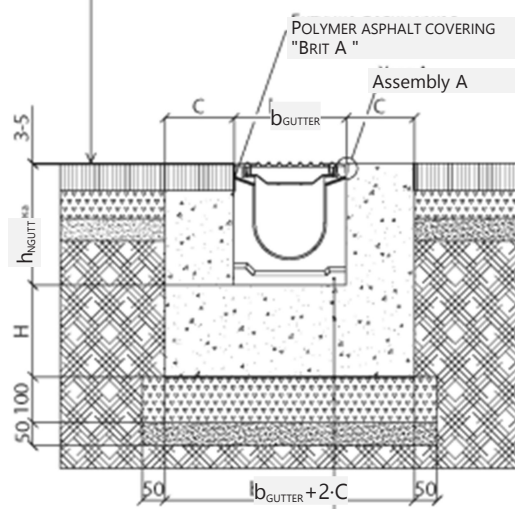


The construction scheme for linear drainage system at the territory without slopes using sloping gutters

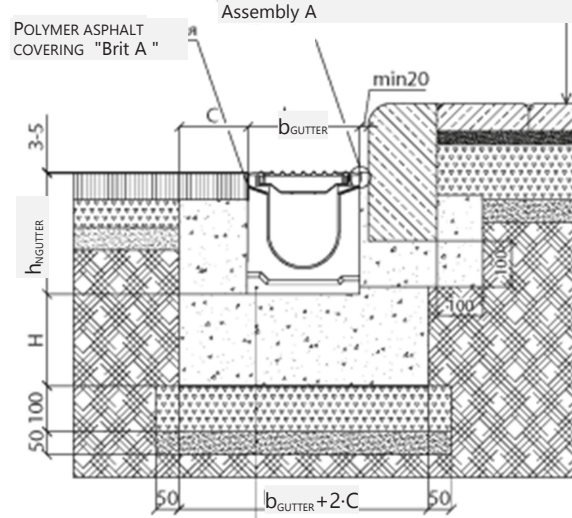


Installation diagram for concrete gutter, class of loading D400 – E600

ASPHALT COVERING (DESIGNED CONVENTIONALLY)  
STONE-SAND MIXTURE (DESIGNED CONVENTIONALLY)  
SAND (DESIGNED CONVENTIONALLY)  
COMPACTED SOIL (DESIGNED CONVENTIONALLY)



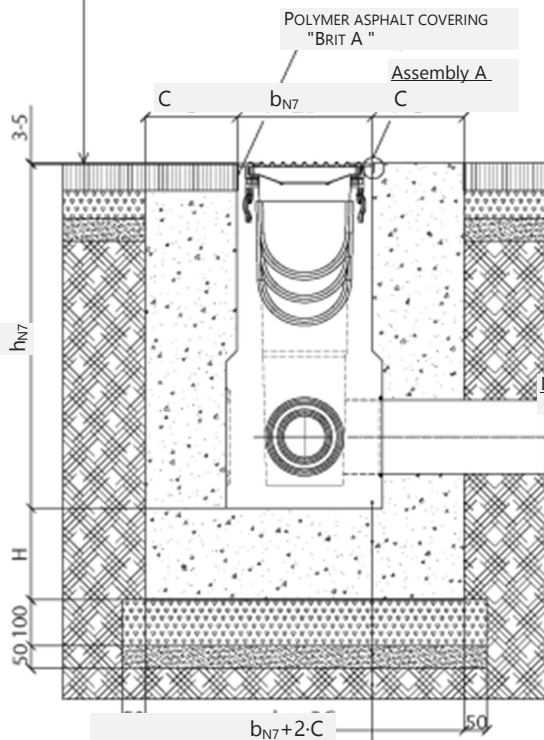
CONCRETE BLOCKS 150x150x60 (GOST 17608-91)  
CONCRETE-SAND MIXTURE  
RUBBLE MIXTURES (GOST 25607-94)  
SAND (GOST 8736-93)



DRAINAGE GUTTER  
CONCRETE CASING, B25 F200 W6 (GOST 26633-91)  
WATERPROOF MATERIALS (ASPHALTED FELT)  
CRUSHED STONE M400 (GOST 8267-93)  
SAND (TOCT 8736-93)  
COMPACTED SOIL

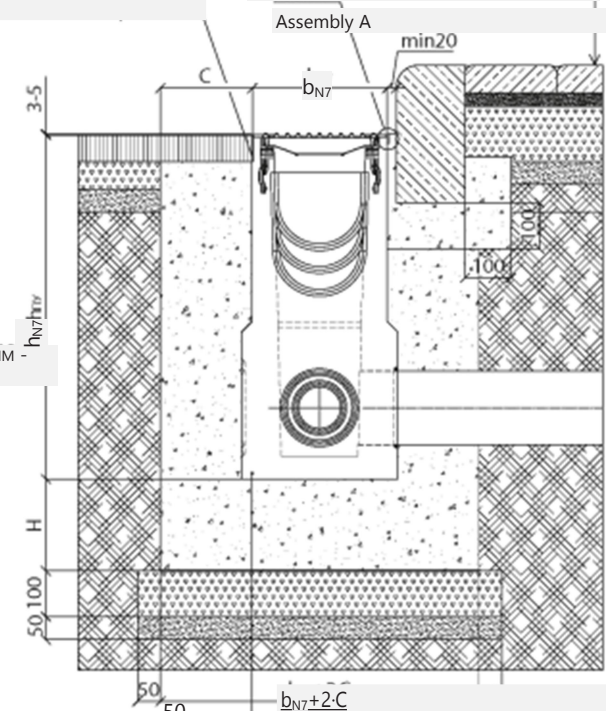
Installation diagram for concrete sand trap, class of loading D400-E600

ASPHALT COVERING (DESIGNED CONVENTIONALLY)  
STONE-SAND MIXTURE (DESIGNED CONVENTIONALLY)  
SAND (DESIGNED CONVENTIONALLY)  
COMPACTED SOIL (DESIGNED CONVENTIONALLY)



POLYMER ASPHALT  
COVERING Brit A "

CONCRETE BLOCKS 150x150x60 (GOST 17608-91)  
CONCRETE-SAND MIXTURE  
RUBBLE MIXTURES (GOST 25607-94)  
SAND (GOST 8736-93)

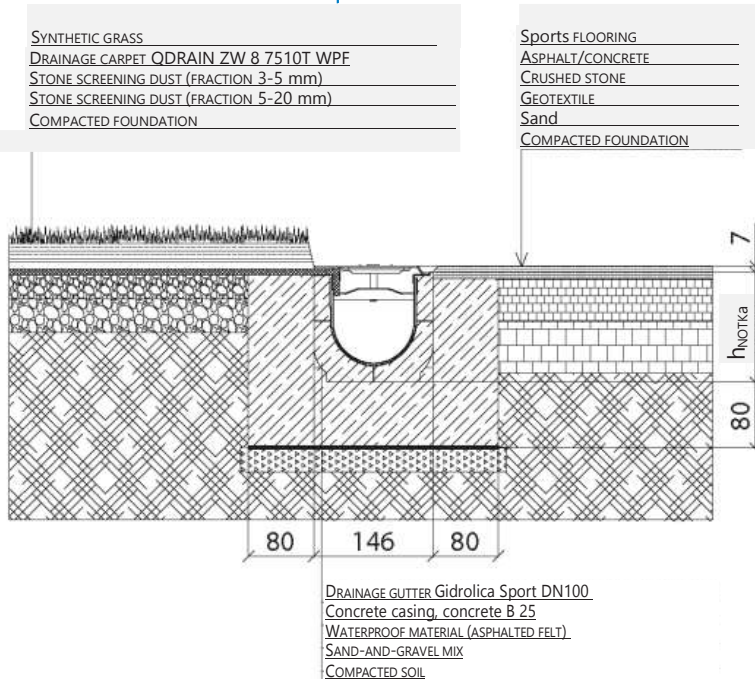


Drainage pipe 110MM -  
315 MM

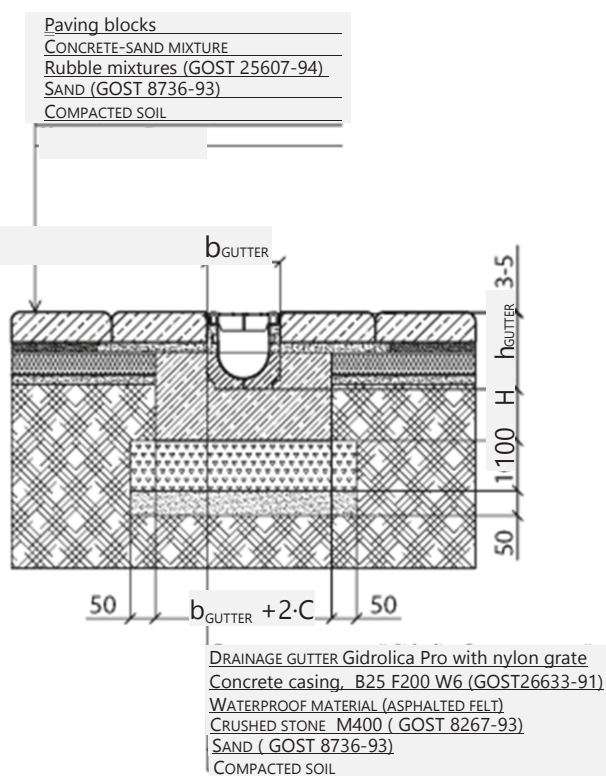
SAND TRAP  
CONCRETE CASING, B25 F200 W6 (GOST 26633-91)  
WATERPROOF MATERIAL (ASPHALTED FELT)  
CRUSHED STONE M400 (GOST 8267-93)  
SAND (TOCT 8736-93)  
COMPACTED SOIL



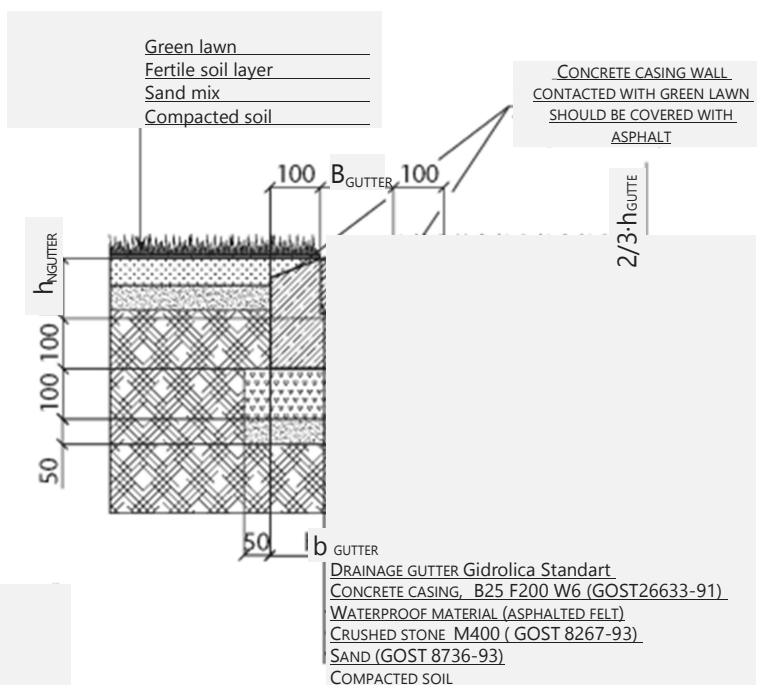
Installation diagram for plastic gutter Gidrolica Sport  
at sports facilities



Installation diagram for plastic gutter  
Gidrolica Pro  
in stacked covering



Installation diagram for plastic gutter  
Gidrolica Standart  
in lawn covering



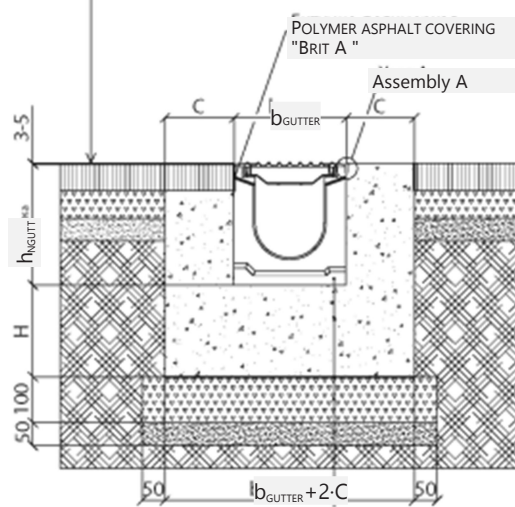
NOTE: INSTALLATION OF THE BLOCKS ADJACENT TO THE GUTTER SHOULD BE PERFORMED ON CONCRETE FOUNDATION

Dimension chart of concrete casing

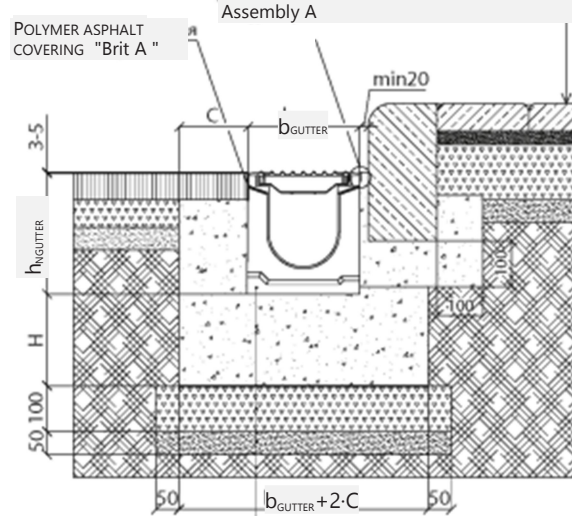
| CLASS OF LOADING                 | A15 | B125 | C250 |
|----------------------------------|-----|------|------|
| Concrete casing width, C, mm     | 80  | 100  | 100  |
| Concrete casing thickness, H, mm | 100 | 100  | 150  |
| Concrete blinding class          | B25 | B25  | B25  |

Installation diagram for concrete gutter, class of loading D400 – E600

ASPHALT COVERING (DESIGNED CONVENTIONALLY)  
STONE-SAND MIXTURE (DESIGNED CONVENTIONALLY)  
SAND (DESIGNED CONVENTIONALLY)  
COMPACTED SOIL (DESIGNED CONVENTIONALLY)



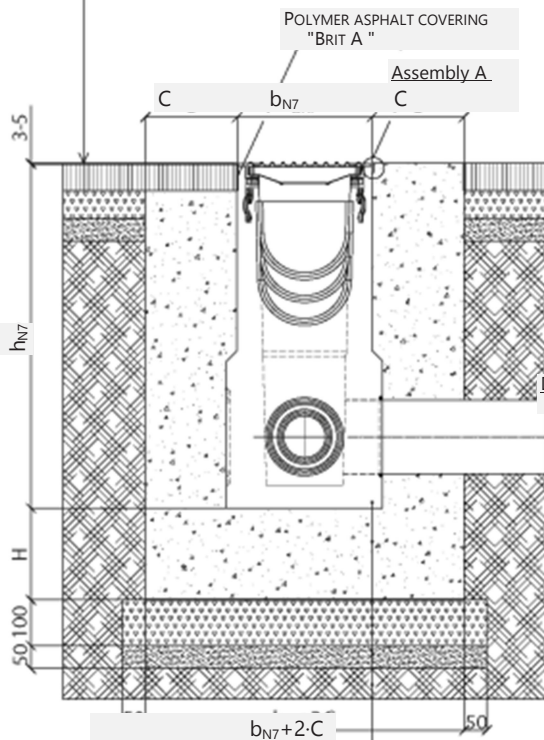
CONCRETE BLOCKS 150x150x60 (GOST 17608-91)  
CONCRETE-SAND MIXTURE  
RUBBLE MIXTURES (GOST 25607-94)  
SAND (GOST 8736-93)



DRAINAGE GUTTER  
CONCRETE CASING, B25 F200 W6 (GOST 26633-91)  
WATERPROOF MATERIALS (ASPHALTED FELT)  
CRUSHED STONE M400 (GOST 8267-93)  
SAND (TOCT 8736-93)  
COMPACTED SOIL

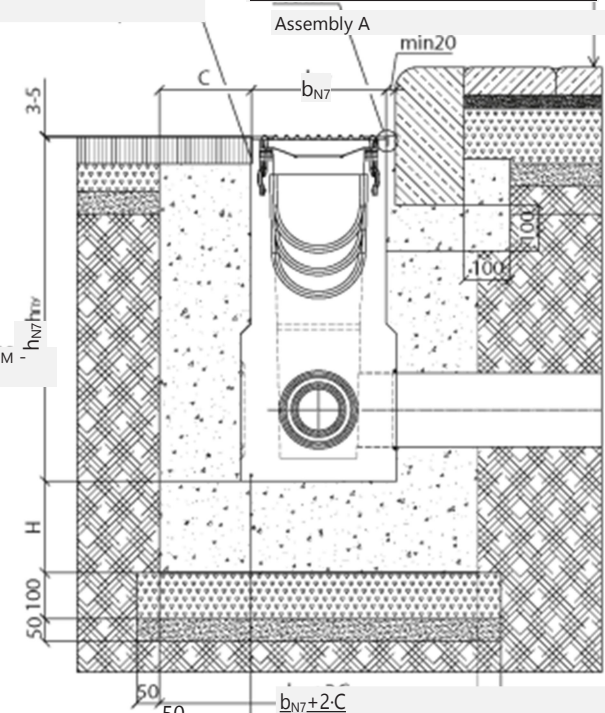
Installation diagram for concrete sand trap, class of loading D400-E600

ASPHALT COVERING (DESIGNED CONVENTIONALLY)  
STONE-SAND MIXTURE (DESIGNED CONVENTIONALLY)  
SAND (DESIGNED CONVENTIONALLY)  
COMPACTED SOIL (DESIGNED CONVENTIONALLY)



POLYMER ASPHALT  
COVERING Brit A "

CONCRETE BLOCKS 150x150x60 (GOST 17608-91)  
CONCRETE-SAND MIXTURE  
RUBBLE MIXTURES (GOST 25607-94)  
SAND (GOST 8736-93)

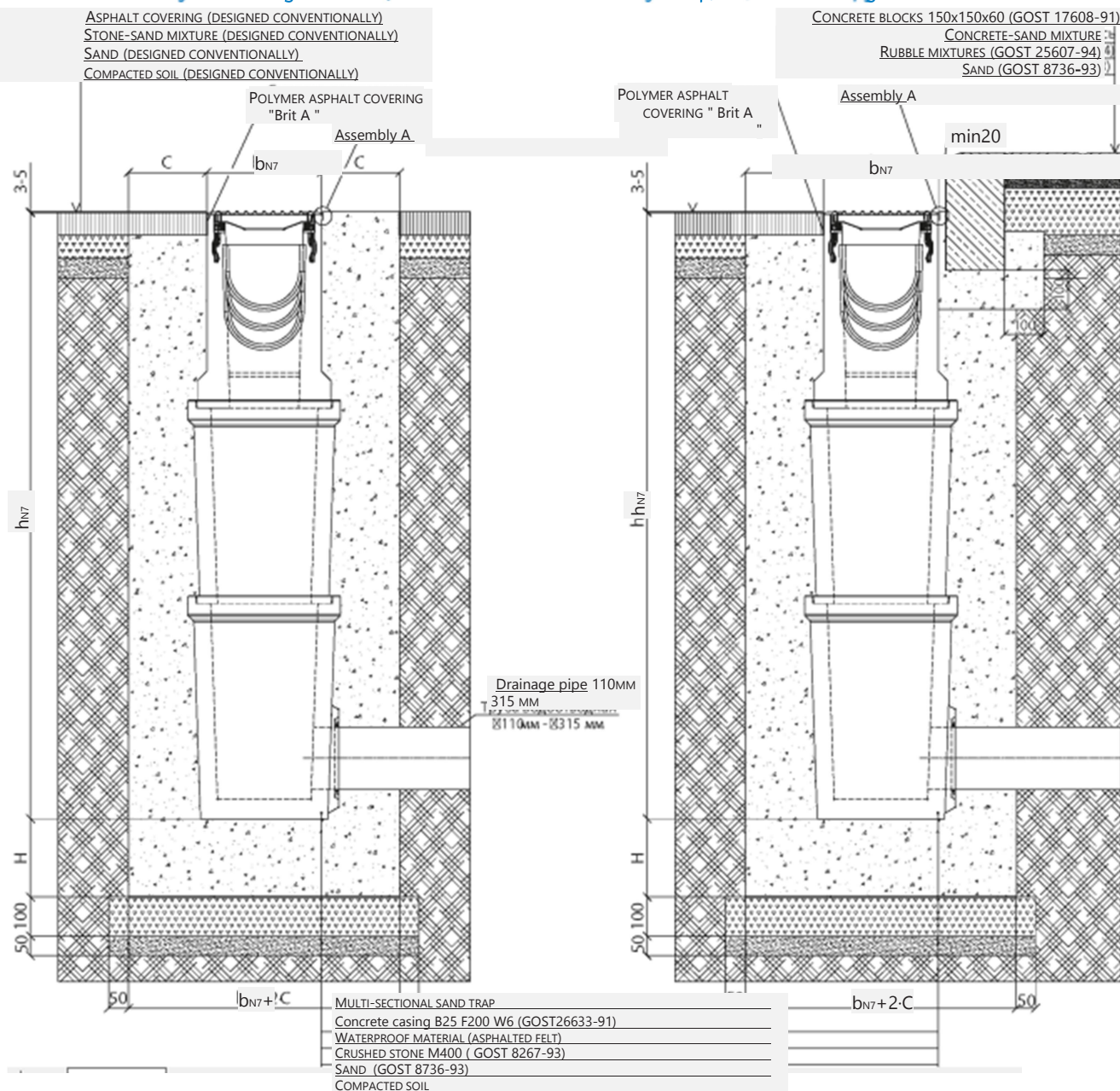


Drainage pipe 110MM -  
315 MM

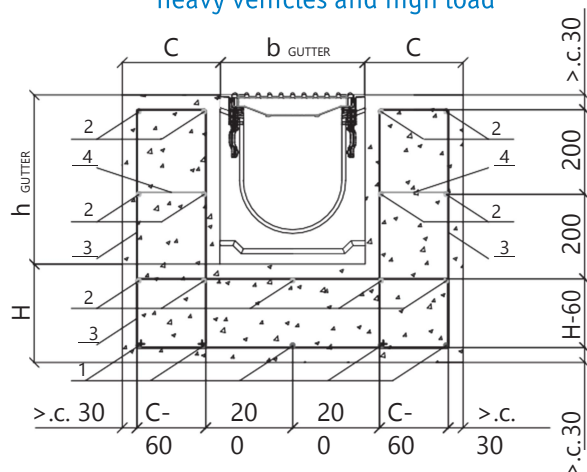
SAND TRAP  
CONCRETE CASING, B25 F200 W6 (GOST26633-91)  
WATERPROOF MATERIAL (ASPHALTED FELT)  
CRUSHED STONE M400 (GOST8267-93)  
SAND (TOCT 8736-93)  
COMPACTED SOIL



Installation diagram for multisectional concrete sand trap, class of loading D400 – E600



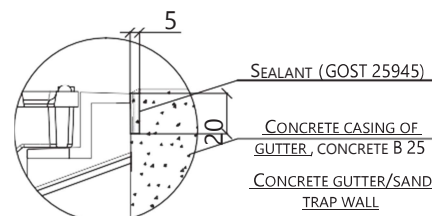
Reinforcement design of concrete casing of drainage gutter of BGZ-S series, class of loading E 600-F900, for the territories with cross-run of heavy vehicles and high load



1. REINFORCED STEEL 12-A-III ( A400) GOST 5781-82
2. REINFORCED STEEL 10-A-III ( A400) GOST 5781-82

3. REINFORCED STEEL 8- A-III ( A400) GOST 5781-82
4. REINFORCED STEEL 6- A-I ( A240) GOST 5781-82

Assembly A



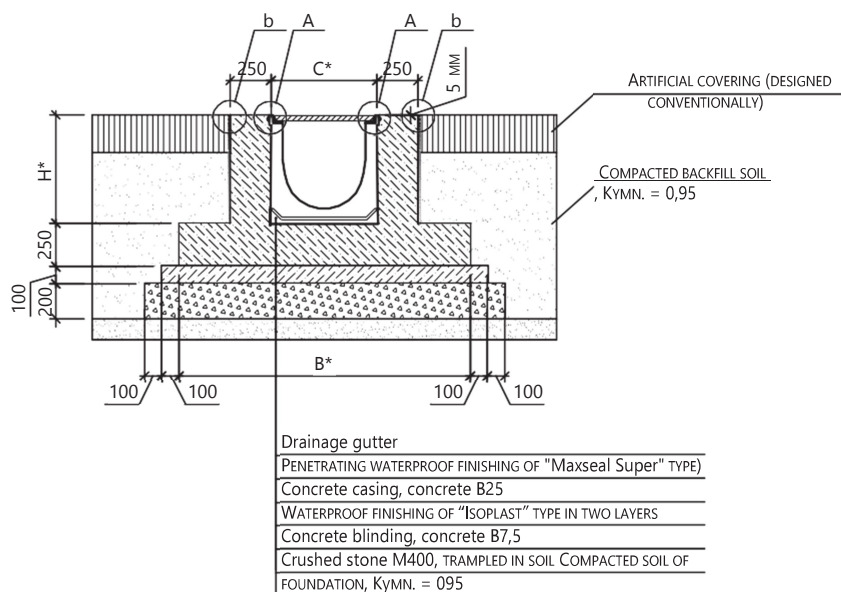
Dimension chart of concrete casing

| CLASS OF LOADING                 | D400 | E600 |
|----------------------------------|------|------|
| Concrete casing width, C, mm     | 150  | 200  |
| Concrete casing thickness, H, mm | 200  | 200  |
| Concrete blinding class          | B25  | B25  |

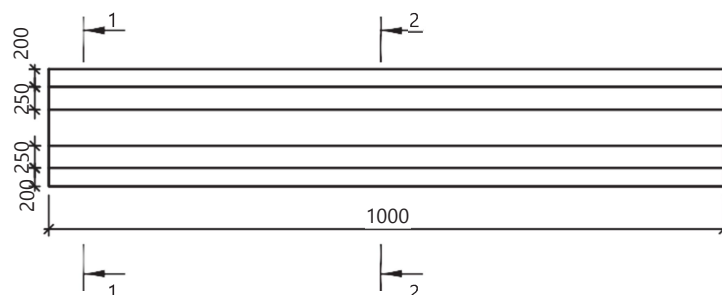
Note: when changing concrete class, concrete casing dimensions change as well



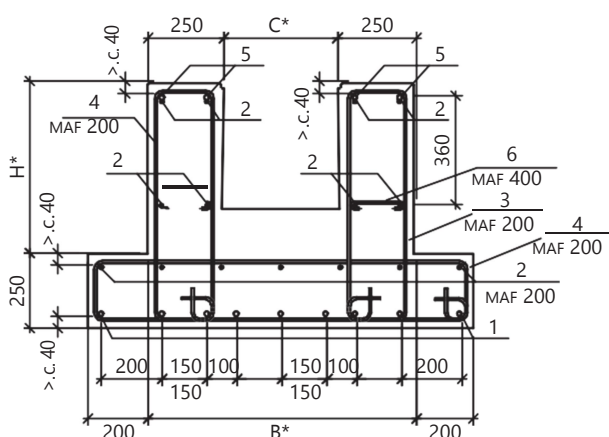
Installation diagram for drainage gutter of BGM F900 series (at ultra high aerodynamic loads)



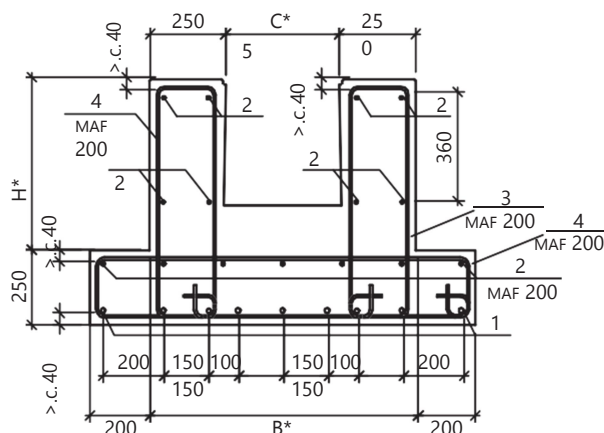
Reinforcement design of concrete casing of drainage gutter of BGM F900 series



1-1



2-2



MATERIAL SPECIFICATION

Reinforcement steel

1/5 Ø 16 A500C (GOST R 52544-2006)

2 Ø 12 A500C (GOST R 52544-2006)

3/4/6 Ø 8 A-I (GOST 5781-82)

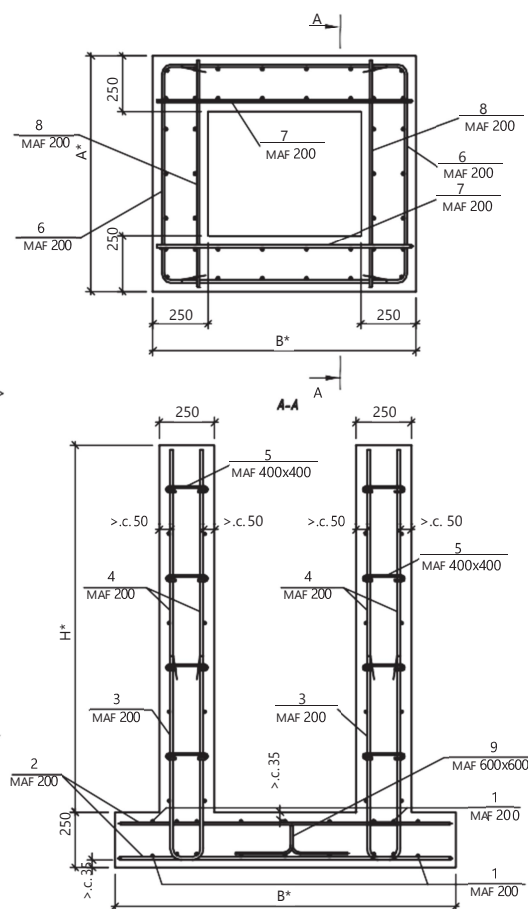
Notes:

\* – Dimension is specified depending on the gutter type

– more detailed installation diagrams are given in the album:  
Structures of concrete gutters and sand traps for construction of surface drainage systems at aerodromes.

Structures of monolithic reinforced concrete casings.

## Reinforcement design of concrete casing of sand trap of BGM F900 series



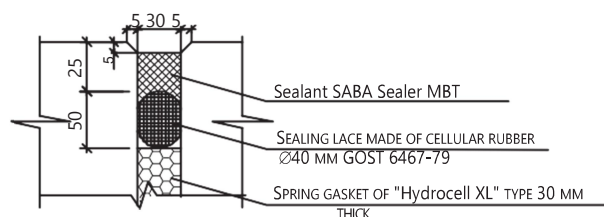
Notes:

\* – Dimension is specified depending on the gutter type

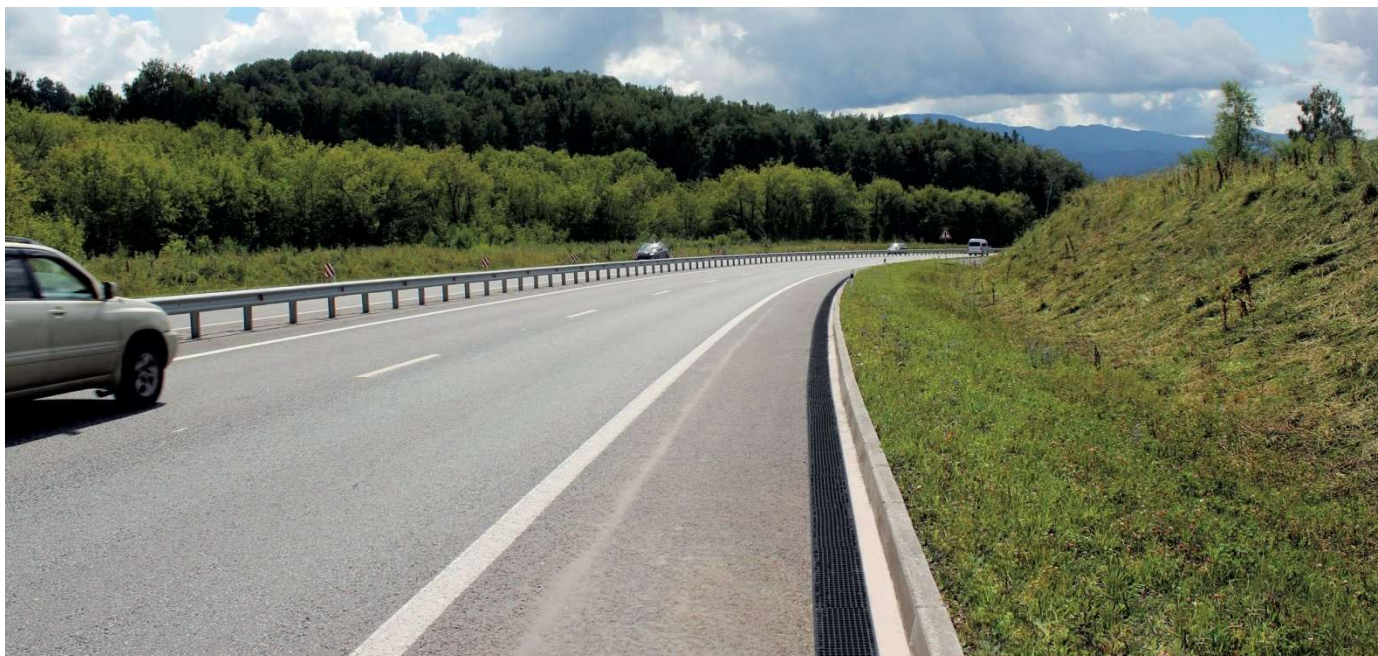
- more detailed installation diagrams are given in the album: Structures of concrete gutters and sand traps for construction of surface drainage systems at aerodromes.

Structures of monolithic reinforced concrete casings.

Construction joint  
Assembly B







Novosibirsk, road exit, drainage gutters BGZ-S with cast-iron grates



Rosneft, filling station chain, drainage gutters BGU-Z with cast-iron grates



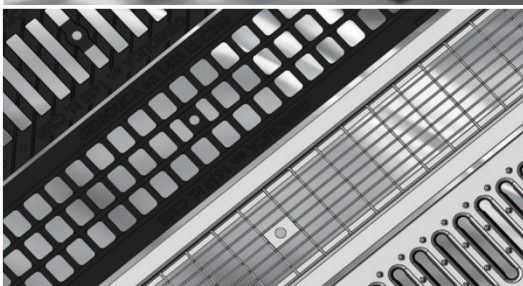
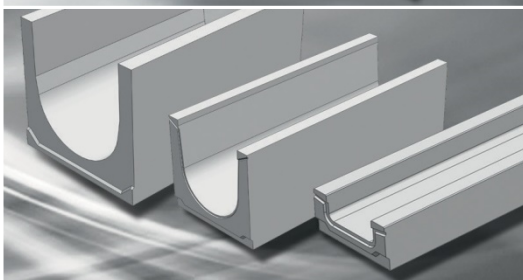
Saint Petersburg, the Mariinsky Theatre, drainage gutters Hidrolica® Standart with galvanized grates



- PLASTIC DRAINAGE SYSTEMS  
Gidrolica®Light,  
Gidrolica®Standart,  
Gidrolica®Standart Plus,  
Gidrolica®Pro Gidrolica®Sport
- CONCRETE DRAINAGE SYSTEMS  
BGF, BGU, BGU-XL
- POLYMER-CONCRETE DRAINAGE  
SYSTEMS  
Gidrolica®PolyLight,  
Gidrolica®PolyStandart



GENERAL-PURPOSE SURFACE DRAINAGE  
SYSTEMS FOR CLASS OF LOADING A15,  
B125, C250





Gidrolica® Light/PolyLight is a series of drainage gutters made of polypropylene/polymer concrete, as well as their grates made of galvanized steel or plastic, manufactured specifically for pedestrian areas. It is a perfect solution for suburbs.

## Application field:

- private house building
- country house building
- city development
- sports facilities

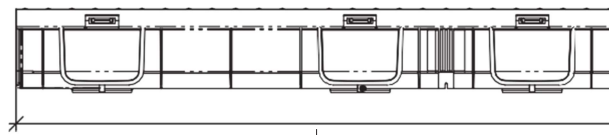
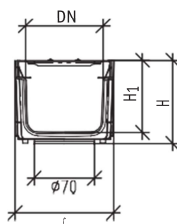
## Quality:

- made of frost-resistant polypropylene / polymer concrete
- the material is resistant to difficult environment, as well as to the effects of corrosive substances

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

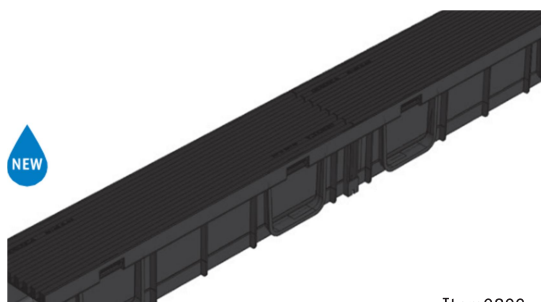


item 0806

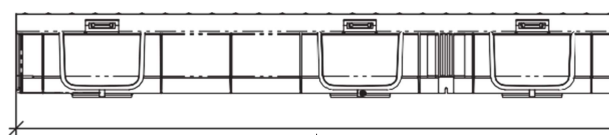
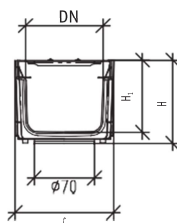


Gidrolica® Light Series: plastic drainage gutter with galvanized steel grate, class A15

|      |    |                                                     |      |      |    |       |     |
|------|----|-----------------------------------------------------|------|------|----|-------|-----|
| 0806 | A1 | ЛБ -10.11,5.9,5; PB - 10.10,8.100 -Galvanized steel | DN90 | 1000 | 11 | 96/83 | 2.1 |
|------|----|-----------------------------------------------------|------|------|----|-------|-----|



Item0809

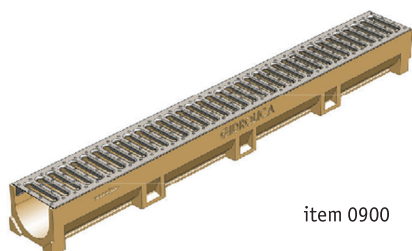


Gidrolica® Light Series: plastic drainage gutter with plastic grate, class A15

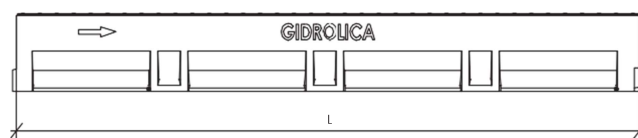
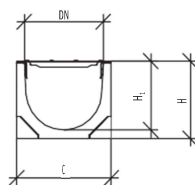
|      |     |                                         |      |      |     |       |      |
|------|-----|-----------------------------------------|------|------|-----|-------|------|
| 0807 | A15 | ЛБ -10.11,5.9,5; PB- 10.11.50 - plastic | DN90 | 1000 | 116 | 96/83 | 1.45 |
| 0809 | A15 | ЛБ -10.11,5.9,5; PB- 10.11.50 - plastic | DN90 | 1000 | 116 | 96/83 | 1.45 |



| Item | Class of loading | Type | DN | Length  | Width   | Height     | Weight |
|------|------------------|------|----|---------|---------|------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H1<br>mm | kg     |

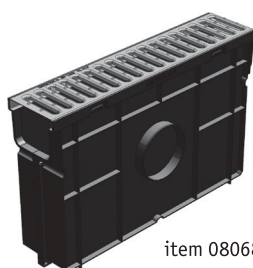


item 0900

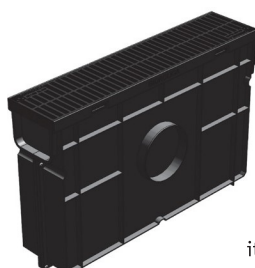


Gidrolica® PolyLight Series: polymer-concrete drainage gutter with galvanized steel grate, class A15

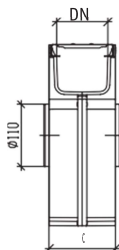
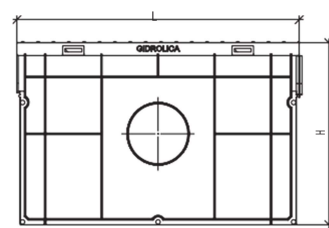
|      |     |                                               |      |      |     |       |     |
|------|-----|-----------------------------------------------|------|------|-----|-------|-----|
| 0900 | A15 | ЛВ -10.12.10; PB-10.12.100 – galvanized steel | DN90 | 1000 | 120 | 98/85 | 8.2 |
|------|-----|-----------------------------------------------|------|------|-----|-------|-----|



item 08068



item 08078

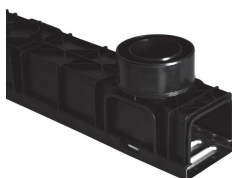


Gidrolica® Light Series: plastic sand trap for plastic gutters with galvanized steel/plastic grate, class A15

|       |     |                                                   |      |     |     |     |      |
|-------|-----|---------------------------------------------------|------|-----|-----|-----|------|
| 08068 | A15 | ПУ 10.11,5.32; PB -10.10,8.100 – galvanized steel | DN90 | 500 | 116 | 320 | 3.4  |
| 08078 | A15 | ПУ 10.11,5.32; PB- 10.11.50 - plastic             | DN90 | 500 | 116 | 320 | 3.05 |



item 18061



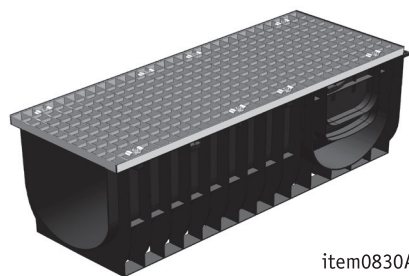
item 18062

Accessories for plastic gutters Gidrolica® Light DN90, class A15 End plug for drainage gutter Gidrolica Light

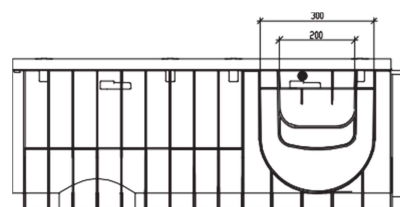
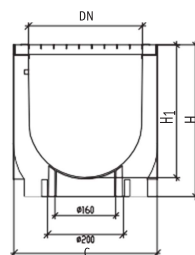
|       |         |      |     |     |    |      |
|-------|---------|------|-----|-----|----|------|
| 18061 | plastic | DN90 | 100 | 2.7 | 68 | 0.04 |
|-------|---------|------|-----|-----|----|------|

Adaptor for drainage gutter Gidrolica® Light

|       |         |     |     |      |     |
|-------|---------|-----|-----|------|-----|
| 18062 | plastic | 109 | 109 | 52.5 | 0.1 |
|-------|---------|-----|-----|------|-----|



item 0830A



Gidrolica® Light Series: plastic drainage gutter with mesh galvanized steel grate, class A15

|                                                                                     |       |   |                                                      |       |      |     |         |       |
|-------------------------------------------------------------------------------------|-------|---|------------------------------------------------------|-------|------|-----|---------|-------|
|  | 0832A | A | ЛВ-30.38.29,6; PB -30.37.100 – mesh galvanized steel | DN300 | 1000 | 380 | 280/230 | 14.43 |
|                                                                                     | 0830A | A | ЛВ-30.38.39,6; PB -30.37.100 - mesh galvanized steel | DN300 | 1000 | 380 | 400/350 | 15.8  |
|  | 0834A | A | ЛВ-30.38.49,6; PB -30.37.100 - mesh galvanized steel | DN300 | 1000 | 380 | 480/450 | 16.74 |

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring





**Gidrolica® Standart** are standard plastic gutters with a variety of application fields. Due to a wide range of products, they are an excellent solution to the problems of drainage at various facilities.

**Gidrolica® Standart Plus** are standard plastic gutters reinforced with a steel galvanized nozzle to protect the gutter edge from damage.

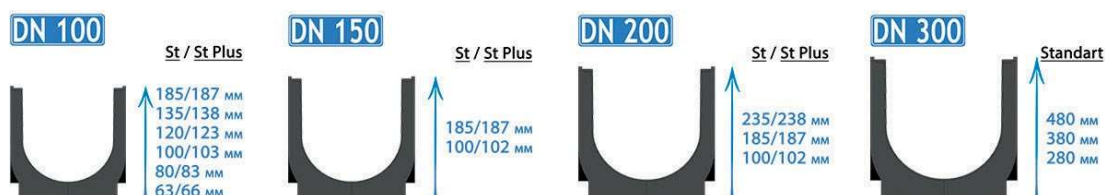
### Application field:

- private house building
- country house building
- city development
- sports facilities
- garages, parking lots, car parks

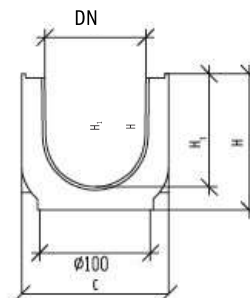
### Quality:

- made of frost-resistant polypropylene
- the material is resistant to difficult environment, as well as to the effects of corrosive substances

| Item | Class of loading | Type | DN | Length | Width | Height              | Weight |
|------|------------------|------|----|--------|-------|---------------------|--------|
|      |                  |      |    | L mm   | C mm  | H/H <sub>1</sub> mm | kg     |

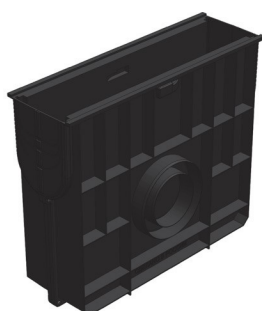


Item 800

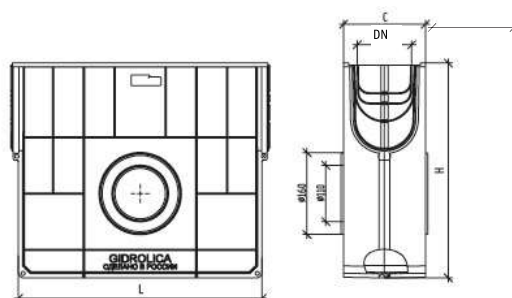


### Plastic sand traps Gidrolica® Standart DN100, class C250

|     |      |                 |       |      |     |         |      |
|-----|------|-----------------|-------|------|-----|---------|------|
| 805 | C250 | ЛВ-10.14,5.06   | DN100 | 1000 | 146 | 63/48   | 1    |
| 803 | C250 | ЛВ-10.14,5.08   | DN100 | 1000 | 146 | 80/57   | 1.2  |
| 804 | C250 | ЛВ-10.14,5.10   | DN100 | 1000 | 146 | 100/77  | 1.32 |
| 801 | C250 | ЛВ-10.14,5.12   | DN100 | 1000 | 146 | 120/105 | 1.46 |
| 800 | C250 | ЛВ-10.14,5.13,5 | DN100 | 1000 | 146 | 135/112 | 1.59 |
| 802 | C250 | ЛВ-10.14,5.18,5 | DN100 | 1000 | 146 | 185/162 | 2.07 |



item 808



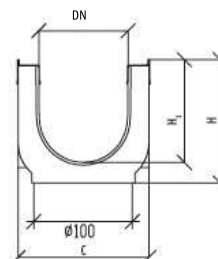
### Plastic sand traps Gidrolica® Standart DN100, class C250

|     |      |             |       |     |     |     |      |
|-----|------|-------------|-------|-----|-----|-----|------|
| 808 | C250 | ПУ-10.16.42 | DN100 | 500 | 160 | 420 | 2.75 |
|-----|------|-------------|-------|-----|-----|-----|------|

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 8004



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

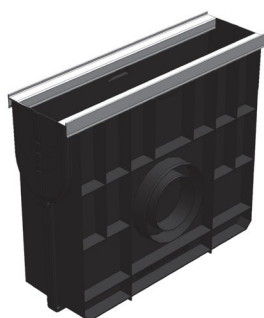
Soil conservation and stabilization system

Entrance dirt-guard systems

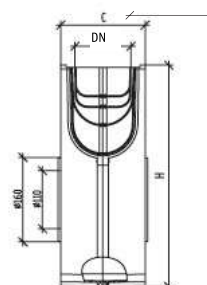
Multi-purpose grid flooring

Plastic gutters Gidrolica® Standart Plus DN100, class C250

|      |      |                 |       |      |     |         |      |
|------|------|-----------------|-------|------|-----|---------|------|
| 8054 | C250 | ЛВ-10.14,5.06   | DN100 | 1000 | 148 | 66/51   | 2    |
| 8034 | C250 | ЛВ-10.14,5.08   | DN100 | 1000 | 148 | 83/60   | 2.2  |
| 8044 | C250 | ЛВ-10.14,5.10   | DN100 | 1000 | 148 | 103/80  | 2.32 |
| 8014 | C250 | ЛВ-10.14,5.12   | DN100 | 1000 | 148 | 123/108 | 2.46 |
| 8004 | C250 | ЛВ-10.14,5.13,5 | DN100 | 1000 | 148 | 138/115 | 2.59 |
| 8024 | C250 | ЛВ-10.14,5.18,5 | DN100 | 1000 | 148 | 187/164 | 3.07 |

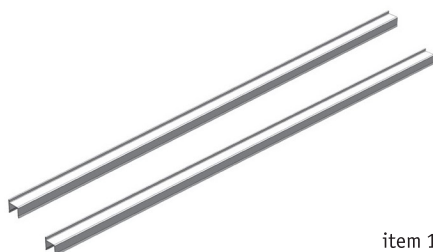


item 8084



Plastic sand traps Gidrolica® Standart Plus DN100, class C250

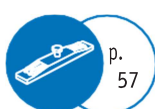
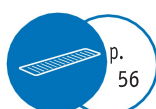
|      |      |             |       |     |     |     |      |
|------|------|-------------|-------|-----|-----|-----|------|
| 8084 | C250 | ПВ-10.16.42 | DN100 | 500 | 160 | 423 | 3.25 |
|------|------|-------------|-------|-----|-----|-----|------|



item 1400

Accessories for drainage gutters Gidrolica® Standart DN100, class C250 Reinforcing nozzle

|      |                                        |      |    |    |     |
|------|----------------------------------------|------|----|----|-----|
| 1400 | НУ-100.2,3,2,4-ОС-ЛВ, galvanized steel | 1000 | 23 | 27 | 0.5 |
|------|----------------------------------------|------|----|----|-----|





Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

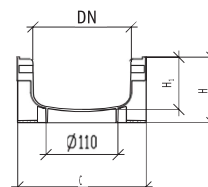
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|



item 815

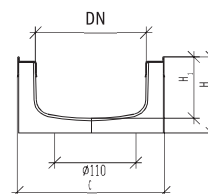


### Plastic gutters Gidrolica® Standart DN150, class C250

|     |      |                 |       |      |     |         |     |
|-----|------|-----------------|-------|------|-----|---------|-----|
| 815 | C250 | ЛВ-15.19,6.10   | DN150 | 1000 | 196 | 100/80  | 1.8 |
| 816 | C250 | ЛВ-15.19,6.18,5 | DN150 | 1000 | 196 | 185/165 | 2.5 |



item 8154

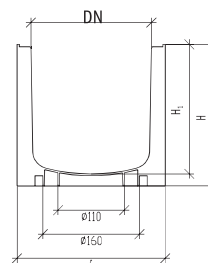


### Plastic gutters Gidrolica® Standart Plus DN150, class C250

|      |      |                      |       |      |     |         |     |
|------|------|----------------------|-------|------|-----|---------|-----|
| 8154 | C250 | Plus ЛВ-15.19,6.10   | DN150 | 1000 | 198 | 102/82  | 2.8 |
| 8164 | C250 | Plus ЛВ-15.19,6.18,5 | DN150 | 1000 | 198 | 187/167 | 3.5 |

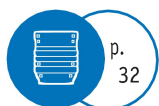
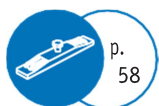
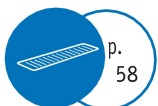
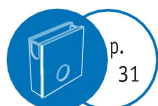


item 820



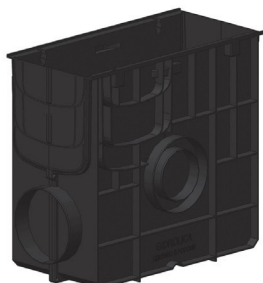
### Plastic gutters Gidrolica® Standart DN200, class C250

|     |      |                 |       |      |     |         |      |
|-----|------|-----------------|-------|------|-----|---------|------|
| 821 | C250 | ЛВ-20.24,6.10   | DN200 | 1000 | 246 | 100/80  | 1.9  |
| 820 | C250 | ЛВ-20.24,6.18,5 | DN200 | 1000 | 246 | 185/165 | 2.74 |

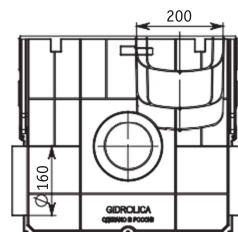




| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|



item 828

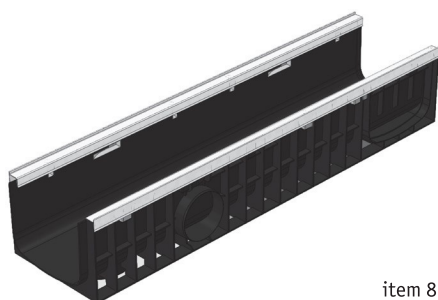


Drainage systems class of loading A15-C250

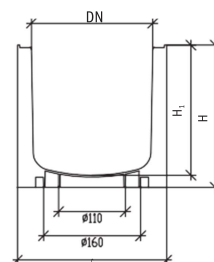
Drainage systems class of loading D400-F900

Plastic sand traps Gidrolica® Standart DN150/200, class C250

|     |      |               |           |     |     |     |      |
|-----|------|---------------|-----------|-----|-----|-----|------|
| 828 | C250 | ПУ-20.24,6.46 | DN150/200 | 500 | 260 | 460 | 2.86 |
|-----|------|---------------|-----------|-----|-----|-----|------|



item 8224



Drainage systems class of loading F900

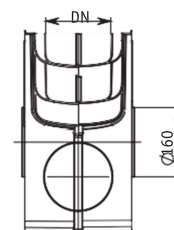
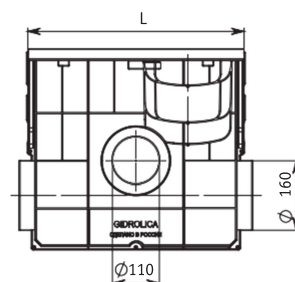
Point drainage

Plastic gutters Gidrolica® Standart Plus DN200, class C250

|      |      |                 |       |      |     |         |      |
|------|------|-----------------|-------|------|-----|---------|------|
| 8214 | C250 | ЛВ-20.24,6.10   | DN200 | 1000 | 248 | 102/83  | 2.92 |
| 8204 | C250 | ЛВ-20.24,6.18,5 | DN200 | 1000 | 248 | 188/168 | 3.74 |
| 8224 | C250 | ЛВ-20.24,6.23,5 | DN200 | 1000 | 248 | 238/218 | 4.35 |



item 8284

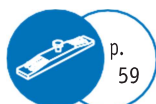
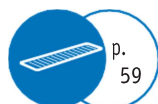


Soil conservation and stabilization system

Entrance dirt-guard systems

Plastic sand traps Gidrolica® Standart Plus DN150/200, class C250

|      |      |               |           |     |     |     |      |
|------|------|---------------|-----------|-----|-----|-----|------|
| 8284 | C250 | ПУ-20.24,6.46 | DN150/200 | 500 | 260 | 463 | 3.36 |
|------|------|---------------|-----------|-----|-----|-----|------|



Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

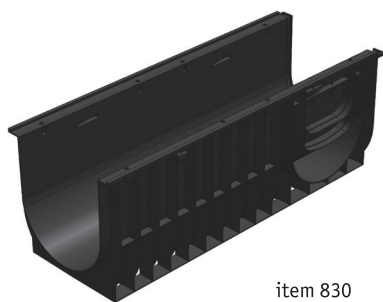
Point drainage

Soil conservation and stabilization system

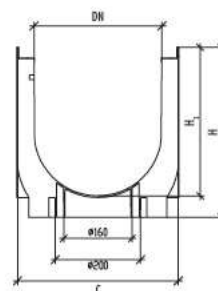
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|

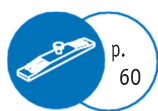
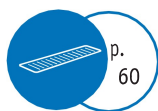


item 830



### Plastic gutters Gidrolica® Standart DN300, class C250

|         |      |             |       |      |     |         |      |
|---------|------|-------------|-------|------|-----|---------|------|
| NEW 832 | C250 | ЛБ-30.38.28 | DN300 | 1000 | 380 | 280/230 | 6.33 |
| 830     | C250 | ЛБ-30.38.38 | DN300 | 1000 | 380 | 380/330 | 7.6  |
| NEW 834 | C250 | ЛБ-30.38.48 | DN300 | 1000 | 380 | 480/430 | 8.64 |



item 18151

### Accessories for plastic gutters Gidrolica® Standart/Standart Plus DN100-200, class C250 end plug for drainage gutter DN100-200

|       |         |       |     |   |     |      |
|-------|---------|-------|-----|---|-----|------|
| 18101 | plastic | DN100 | 152 | 4 | 185 | 0.15 |
| 18151 | plastic | DN150 | 202 | 4 | 235 | 0.17 |

## ANGLE JOINT OF GUTTERS

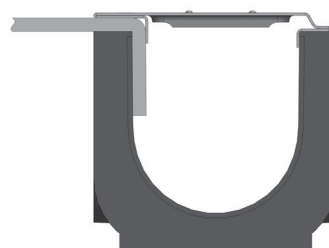
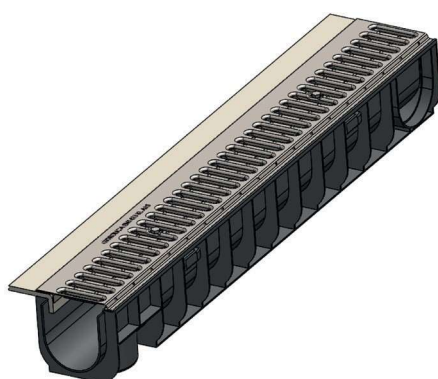


1. Cut a hole in the side wall of the gutter (specially marked joint assembly).
2. Join the gutters at an angle of 90°, treat the place of joining with sealant, if necessary.
3. Join the plug and the gutter until the locks are snapped.

Gidrolica company offers a new unique solution for a drainage system at football fields, namely surface drainage system Gidrolica® Sport.

This is a special gutter designed to collect water from playing fields, used with a waterproof geosynthetic membrane.

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



Gidrolica® Sport Series: plastic drainage gutter with galvanized steel grate, class A15

|                                                        |           |     |                                                     |       |      |     |     |      |
|--------------------------------------------------------|-----------|-----|-----------------------------------------------------|-------|------|-----|-----|------|
| NEW                                                    | 0803sport | A15 | ЛБ-10.14,5.08                                       | DN100 | 1000 | 146 | 84  | 3.85 |
| NEW                                                    | 0804sport | A15 | ЛБ-10.14,5.10                                       | DN100 | 1000 | 146 | 104 | 3.97 |
| NEW                                                    | 0801sport | A15 | ЛБ-10.14,5.12                                       | DN100 | 1000 | 146 | 124 | 4.11 |
| NEW                                                    | 0800sport | A15 | ЛБ-10.14,5.13,5                                     | DN100 | 1000 | 146 | 139 | 4.24 |
| NEW                                                    | 0802sport | A15 | ЛБ-10.14,5.18,5                                     | DN100 | 1000 | 146 | 189 | 4,2  |
| Sewer grate for gutters Gidrolica® Sport DN100         |           |     |                                                     |       |      |     |     |      |
| NEW                                                    | 0808sport | A15 | PB -10.13,6.100 – drop-forged galvanized steel      | DN100 | 1000 | 160 | 424 | 4.08 |
| Accessories for plastic gutters Gidrolica® Sport DN100 |           |     |                                                     |       |      |     |     |      |
| NEW                                                    | 107/1     | –   | Fastener for drainage gutter Gidrolica® Sport DN100 | DN100 | 110  | 30  | 10  | 0.11 |



Stadium in Novoshakhtinsk, drainage gutters Gidrolica® Standart Plus with galvanized steel grates

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



**Gidrolica® PolyStandart** are standard polymer-concrete gutters with good throughput capability, self-cleaning and increased (up to 30 years) service life.

**Gidrolica® PolySand** are drainage gutters made of polymers and sand used as a filler. Lightweight, easy-to-process material is used in areas with a class of loading A15-C250.

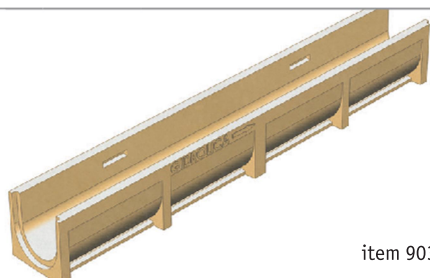
#### Application field:

- private house building
- country house building
- city development
- sports facilities

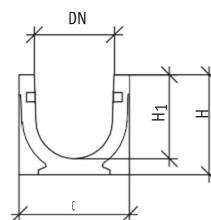
#### Качество:

- made of materials combining the advantages of both plastic and concrete
- the materials are resistant to difficult environment, as well as to the effects of corrosive substances

| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|



item 903

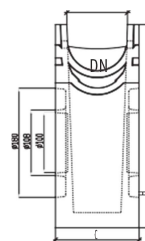
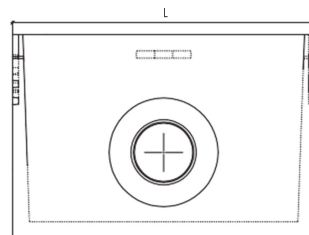


#### Polymer-concrete gutters Gidrolica® PolyStandart DN100, class C250

|     |      |             |       |      |     |         |      |
|-----|------|-------------|-------|------|-----|---------|------|
| 901 | C250 | ЛБ-10.14.06 | DN100 | 1000 | 138 | 55/40   | 8.3  |
| 902 | C250 | ЛБ-10.14.10 | DN100 | 1000 | 138 | 95/77   | 10.3 |
| 902 | C250 | ЛБ-10.14.13 | DN100 | 1000 | 138 | 125/105 | 14   |



item 908



#### Polymer-concrete sand traps Gidrolica® PolyStandart DN100, class C250

|     |      |               |       |     |     |     |       |
|-----|------|---------------|-------|-----|-----|-----|-------|
| 908 | C250 | ПУ-10.14.33,5 | DN100 | 500 | 138 | 335 | 21.65 |
|-----|------|---------------|-------|-----|-----|-----|-------|



item 700

#### Polymer-sand gutters Gidrolica® PolySand DN100, class C250, brown color

|     |      |             |       |      |     |         |      |
|-----|------|-------------|-------|------|-----|---------|------|
| 701 | C250 | ЛБ-10.14.07 | DN100 | 1000 | 140 | 68/48   | 8,2  |
| 700 | C250 | ЛБ-10.14.13 | DN100 | 1000 | 140 | 130/110 | 12,8 |



**BGF** are shallow-draught concrete gutters without nozzles. These are trays with the lowest heights in our range. They are suitable in places with a limited height of the poured floor.

**BGU** are multi-purpose concrete gutters without nozzles used in various application fields.

**Application field:**

- around residential houses, garages
- sports facilities
- pedestrian streets
- private house building

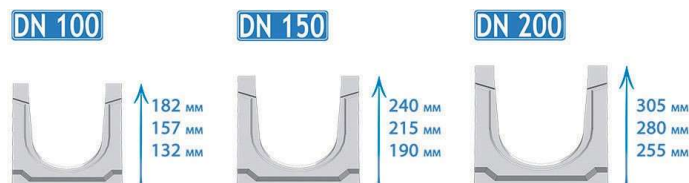
**Quality:**

- high quality concrete of class not lower than B40
- moisture absorption ratio is not more than 6%
- concrete grade according to frost resistance is not lower than F200
- resistance to corrosive substances

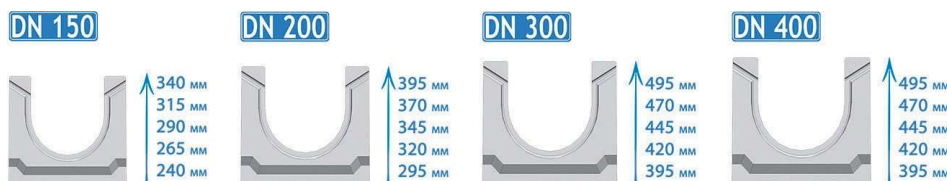
**BGF** – wall thickness is 20 mm



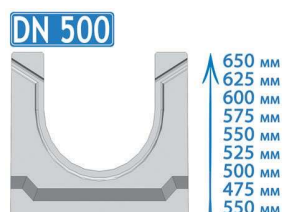
**BGU** – wall thickness is 30 mm



**BGU** – wall thickness is 47 mm



**BGU-XL** – wall thickness is 70 mm



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

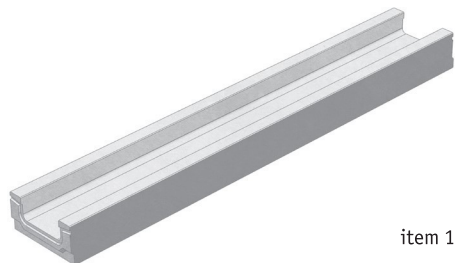
Point drainage

Soil conservation and stabilization system

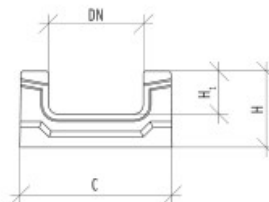
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

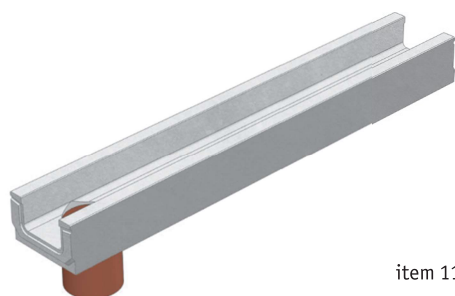


item 11000

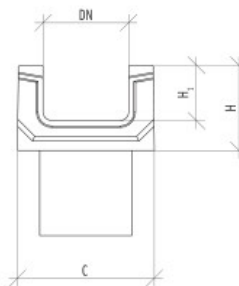


### Concrete gutters (shallow-draught) BGF DN100, class C250

|       |      |       |       |      |     |        |    |
|-------|------|-------|-------|------|-----|--------|----|
| 13800 | C250 | h 60  | DN100 | 500  | 140 | 60/30  | 7  |
| 11000 | C250 | h 80  | DN100 | 1000 | 160 | 80/45  | 19 |
| 11001 | C250 | h 100 | DN100 | 500  | 160 | 100/65 | 22 |

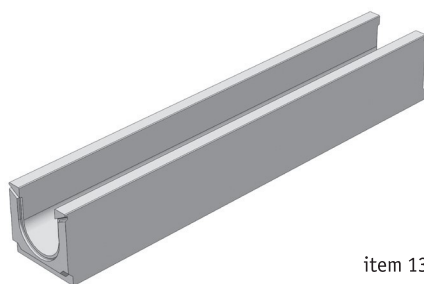


item 11003

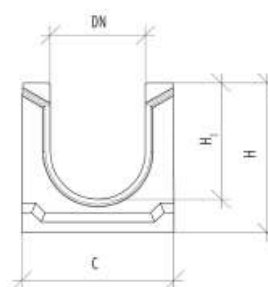


### Concrete gutters (shallow-draught) BGF DN100, class C250, with vertical spillway, without slope

|       |      |       |       |      |     |        |      |
|-------|------|-------|-------|------|-----|--------|------|
| 11002 | C250 | h 80  | DN100 | 1000 | 160 | 80/45  | 17.5 |
| 11003 | C250 | h 100 | DN100 | 1000 | 160 | 100/65 | 20.5 |

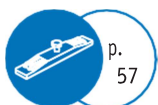
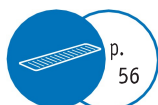


item 13001



### Concrete gutters BGU DN100, class C250

|       |      |       |       |      |     |         |      |
|-------|------|-------|-------|------|-----|---------|------|
| 13801 | C250 |       | DN100 | 1000 | 140 | 125/105 | 27.5 |
| 13000 | C250 | №0    | DN100 | 1000 | 160 | 132/97  | 32   |
| 13001 | C250 | №5-0  | DN100 | 1000 | 160 | 157/120 | 32,5 |
| 13002 | C250 | №10-0 | DN100 | 1000 | 160 | 182/147 | 36   |

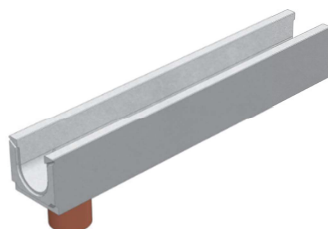


\* Diameter for pipes to the gutter with vertical spillway 110/160 mm

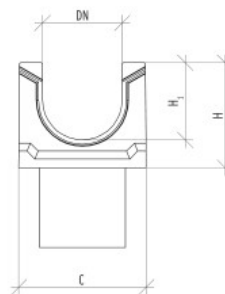




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

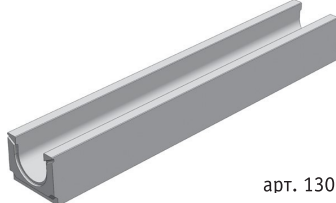


apт. 13006

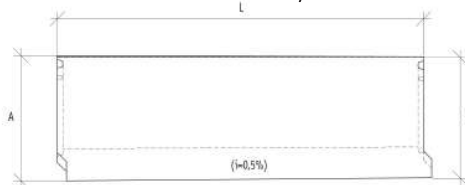
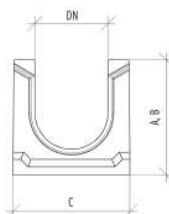


Concrete gutters BGU DN100, class C250, with vertical spillway, without slope

|       |      |       |       |      |     |         |      |
|-------|------|-------|-------|------|-----|---------|------|
| 13803 | C250 |       | DN100 | 1000 | 140 | 125/105 | 27.5 |
| 13005 | C250 | №0    | DN100 | 1000 | 160 | 132/97  | 27   |
| 13006 | C250 | №5-0  | DN100 | 1000 | 160 | 132/97  | 27   |
| 13007 | C250 | №10-0 | DN100 | 1000 | 160 | 182/147 | 34   |

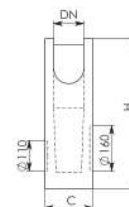
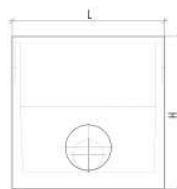


apт. 13010-



Concrete gutters BGU DN100, class C250, with slope 0,5%

|       |      |     |       |      |     |         |       |
|-------|------|-----|-------|------|-----|---------|-------|
| 13010 | C250 | №1  | DN100 | 1000 | 160 | 132/137 | 29.35 |
| 13011 | C250 | №2  | DN100 | 1000 | 160 | 137/142 | 30.05 |
| 13012 | C250 | №3  | DN100 | 1000 | 160 | 142/147 | 30.75 |
| 13013 | C250 | №4  | DN100 | 1000 | 160 | 147/152 | 31.45 |
| 13014 | C250 | №5  | DN100 | 1000 | 160 | 152/157 | 32.15 |
| 13015 | C250 | №6  | DN100 | 1000 | 160 | 157/162 | 32.85 |
| 13016 | C250 | №7  | DN100 | 1000 | 160 | 162/167 | 33.55 |
| 13017 | C250 | №8  | DN100 | 1000 | 160 | 167/172 | 34.25 |
| 13018 | C250 | №9  | DN100 | 1000 | 160 | 172/177 | 34.95 |
| 13019 | C250 | №10 | DN100 | 1000 | 160 | 177/182 | 35.65 |



Concrete sand traps BGU DN100, class C250

|       |      |             |       |     |     |     |      |
|-------|------|-------------|-------|-----|-----|-----|------|
| 13804 | C250 | 500/140/385 | DN100 | 500 | 140 | 385 | 26.5 |
| 13039 | C250 | 500/158/500 | DN100 | 500 | 160 | 500 | 45   |



item 49010900

Multi-purpose basket for sand trap BGU DN100

|          |                  |  |       |     |    |       |     |
|----------|------------------|--|-------|-----|----|-------|-----|
| 49010900 | Galvanized steel |  | DN100 | 400 | 80 | 163.5 | 2.0 |
|----------|------------------|--|-------|-----|----|-------|-----|

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

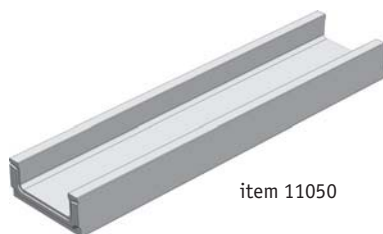
Point drainage

Soil conservation and stabilization system

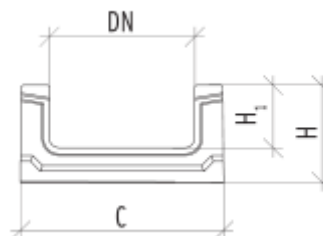
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|

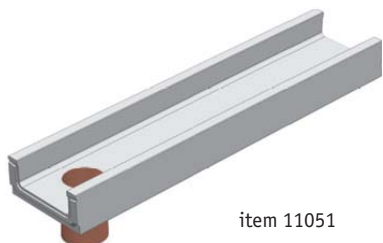


item 11050

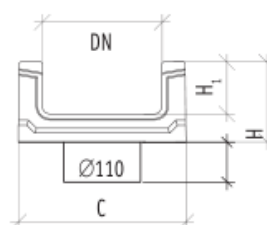


Concrete gutters (shallow-draught) BGF DN150, class C250, without slope

|       |      |  |       |      |     |        |    |
|-------|------|--|-------|------|-----|--------|----|
| 11050 | C250 |  | DN150 | 1000 | 213 | 100/65 | 28 |
|-------|------|--|-------|------|-----|--------|----|

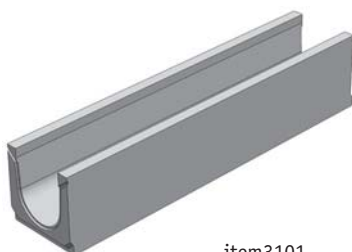


item 11051

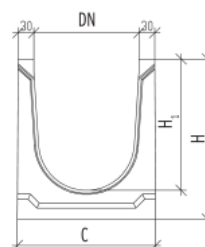


Concrete gutters (shallow-draught) BGF DN150, class C250, with vertical spillway, without slope

|       |      |  |       |      |     |        |    |
|-------|------|--|-------|------|-----|--------|----|
| 11051 | C250 |  | DN150 | 1000 | 213 | 100/65 | 26 |
|-------|------|--|-------|------|-----|--------|----|

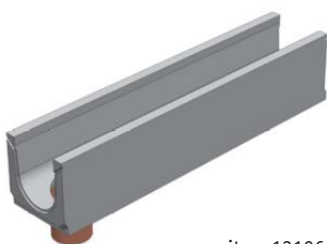


item 13101

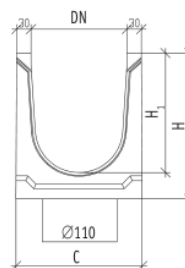


Concrete gutters BGU DN150, class C250, without slope

|       |      |       |       |      |     |         |    |
|-------|------|-------|-------|------|-----|---------|----|
| 13100 | C250 | №0    | DN150 | 1000 | 213 | 190/150 | 50 |
| 13101 | C250 | №5-0  | DN150 | 1000 | 213 | 215/175 | 54 |
| 13102 | C250 | №10-0 | DN150 | 1000 | 213 | 240/200 | 58 |



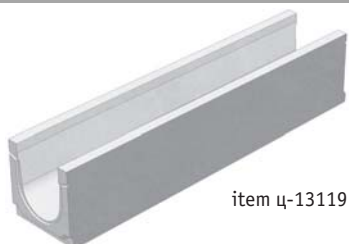
item 13106



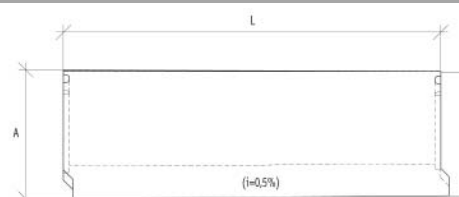
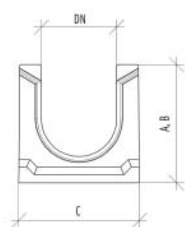
Concrete gutters BGU DN150, class C250, with vertical spillway, without slope

|       |      |       |       |      |     |         |    |
|-------|------|-------|-------|------|-----|---------|----|
| 13105 | C250 | №0    | DN150 | 1000 | 213 | 190/150 | 47 |
| 13106 | C250 | №5-0  | DN150 | 1000 | 213 | 215/175 | 51 |
| 13107 | C250 | №10-0 | DN150 | 1000 | 213 | 240/200 | 55 |

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

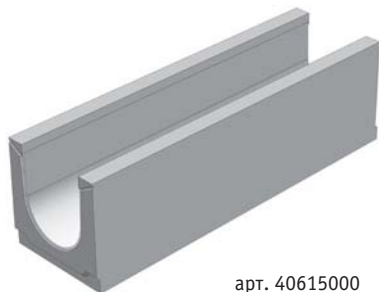


item u-13119

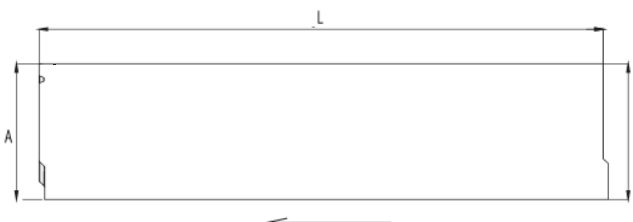
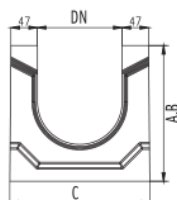


Concrete gutters BGU DN150, class C250, with slope 0,5 %

|       |      |     |       |      |     |         |       |
|-------|------|-----|-------|------|-----|---------|-------|
| 13110 | C250 | №1  | DN150 | 1000 | 213 | 190/195 | 50.04 |
| 13111 | C250 | №2  | DN150 | 1000 | 213 | 195/200 | 51.2  |
| 13112 | C250 | №3  | DN150 | 1000 | 213 | 200/205 | 52    |
| 13113 | C250 | №4  | DN150 | 1000 | 213 | 205/210 | 52.8  |
| 13114 | C250 | №5  | DN150 | 1000 | 213 | 210/215 | 53,6  |
| 13115 | C250 | №6  | DN150 | 1000 | 213 | 215/220 | 54.4  |
| 13116 | C250 | №7  | DN150 | 1000 | 213 | 220/225 | 55,2  |
| 13117 | C250 | №8  | DN150 | 1000 | 213 | 225/230 | 56    |
| 13118 | C250 | №9  | DN150 | 1000 | 213 | 230/235 | 56,8  |
| 13119 | C250 | №10 | DN150 | 1000 | 213 | 235/240 | 57.6  |

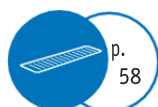


apт. 40615000



Concrete gutters BGU DN150, class C250, with wall thickness of 47 mm, without slope

|              |      |     |       |      |     |     |     |
|--------------|------|-----|-------|------|-----|-----|-----|
| 40615000     | C250 | № 0 | DN150 | 1000 | 248 | 240 | 81  |
| NEW 40615061 | C250 | №5  | DN150 | 1000 | 248 | 265 | 87  |
| 40615062     | C250 | №10 | DN150 | 1000 | 248 | 290 | 93  |
| NEW 40615063 | C250 | №15 | DN150 | 1000 | 248 | 315 | 100 |
| 40615064     | C250 | №20 | DN150 | 1000 | 248 | 340 | 106 |



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

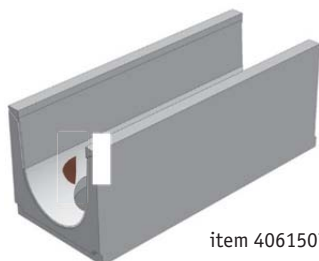
Point drainage

Soil conservation and stabilization system

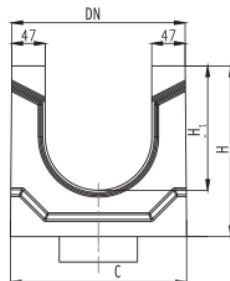
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

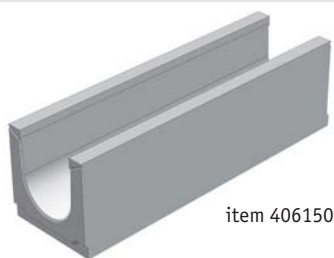


item 40615070

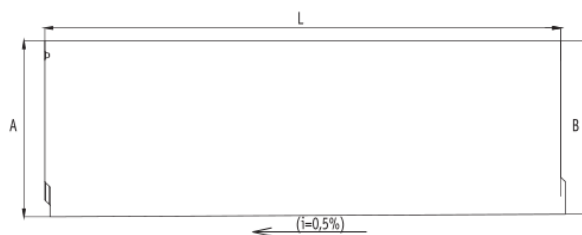
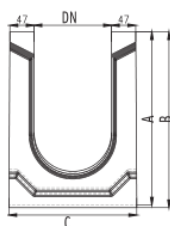


Concrete gutters BGU DN150, class C250, with wall thickness of 47 mm, with vertical spillway, without slope

|              |      |       |       |      |     |     |        |
|--------------|------|-------|-------|------|-----|-----|--------|
| NEW 40615070 | C250 | №0    | DN150 | 1000 | 248 | 240 | 83.875 |
| NEW 40615071 | C250 | №5-0  | DN150 | 1000 | 248 | 265 | 87.1   |
| NEW 40615072 | C250 | №10-0 | DN150 | 1000 | 248 | 290 | 93.4   |
| NEW 40615073 | C250 | №15-0 | DN150 | 1000 | 248 | 315 | 99.6   |
| NEW 40615074 | C250 | №20-0 | DN150 | 1000 | 248 | 340 | 105.8  |

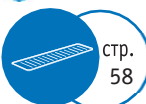


item 40615001



Concrete gutters BGU DN150, class C250, with wall thickness of 47 mm, with slope 0,5%

|              |      |      |       |      |     |         |         |
|--------------|------|------|-------|------|-----|---------|---------|
| NEW 40615001 | C250 | № 1  | DN150 | 1000 | 248 | 240/245 | 81.335  |
| NEW 40615002 | C250 | № 2  | DN150 | 1000 | 248 | 245/250 | 82.605  |
| NEW 40615003 | C250 | №3   | DN150 | 1000 | 248 |         |         |
| NEW 40615004 | C250 | № 4  | DN150 | 1000 | 248 | 255/260 | 85.145  |
| NEW 40615005 | C250 | № 5  | DN150 | 1000 | 248 |         |         |
| NEW 40615006 | C250 | № 6  | DN150 | 1000 | 248 | 265/270 | 87.685  |
| NEW 40615007 | C250 | № 7  | DN150 | 1000 | 248 |         |         |
| NEW 40615008 | C250 | № 8  | DN150 | 1000 | 248 | 275/280 | 90.225  |
| NEW 40615009 | C250 | № 9  | DN150 | 1000 | 248 |         |         |
| NEW 40615010 | C250 | № 10 | DN150 | 1000 | 248 | 285/290 | 92.765  |
| NEW 40615011 | C250 | № 11 | DN150 | 1000 | 248 |         |         |
| NEW 40615012 | C250 | № 12 | DN150 | 1000 | 248 | 295/300 | 95.245  |
| NEW 40615013 | C250 | № 13 | DN150 | 1000 | 248 |         |         |
| NEW 40615014 | C250 | № 14 | DN150 | 1000 | 248 | 305/310 | 97.725  |
| NEW 40615015 | C250 | № 15 | DN150 | 1000 | 248 |         |         |
| NEW 40615016 | C250 | № 16 | DN150 | 1000 | 248 | 315/320 | 100.205 |
| NEW 40615017 | C250 | № 17 | DN150 | 1000 | 248 |         |         |
| NEW 40615018 | C250 | № 18 | DN150 | 1000 | 248 | 325/330 | 102.685 |
| NEW 40615019 | C250 | № 19 | DN150 | 1000 | 248 |         |         |
| NEW 40615020 | C250 | № 20 | DN150 | 1000 | 248 | 335/340 | 105.165 |



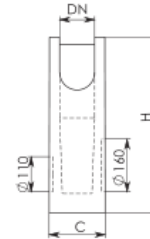
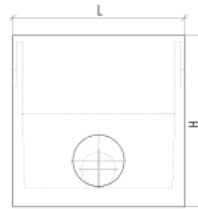
\* Diameter for pipes to the gutter with vertical spillway Ø110/160 mm



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 13139



Concrete sand traps BGU DN150, class C250

|       |      |             |       |     |     |     |    |
|-------|------|-------------|-------|-----|-----|-----|----|
| 13139 | C250 | 500/231/665 | DN150 | 500 | 231 | 665 | 78 |
|-------|------|-------------|-------|-----|-----|-----|----|



item 49015900

Multi-purpose basket for sand trap BGU DN150

|          |                  |  |       |     |     |       |   |
|----------|------------------|--|-------|-----|-----|-------|---|
| 49015900 | Galvanized steel |  | DN150 | 400 | 120 | 163.5 | 2 |
|----------|------------------|--|-------|-----|-----|-------|---|

Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

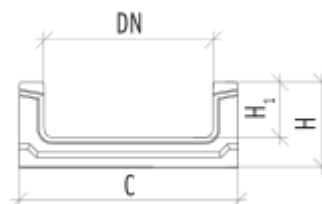
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|

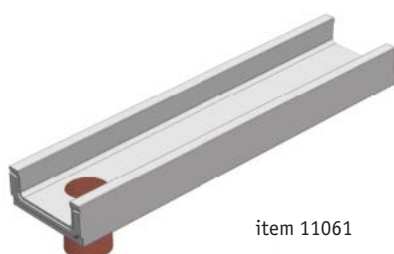


item 11060

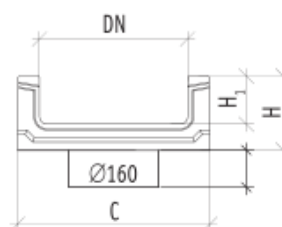


Concrete gutters (shallow-drarught) BGF DN200, class C250, without slope

|       |      |  |       |      |     |        |    |
|-------|------|--|-------|------|-----|--------|----|
| 11060 | C250 |  | DN200 | 1000 | 260 | 100/65 | 34 |
|-------|------|--|-------|------|-----|--------|----|

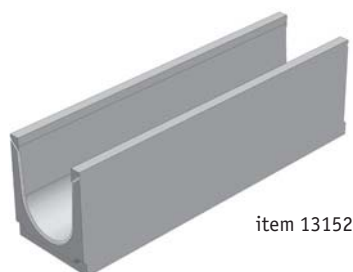


item 11061

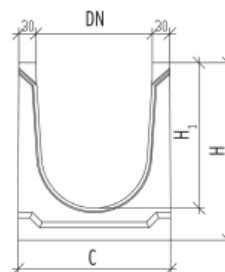


Concrete gutters (shallow-drarught) BGF DN200, class C250, with vertical spillway, without slope

|       |      |  |       |      |     |        |    |
|-------|------|--|-------|------|-----|--------|----|
| 11061 | C250 |  | DN200 | 1000 | 260 | 100/65 | 32 |
|-------|------|--|-------|------|-----|--------|----|

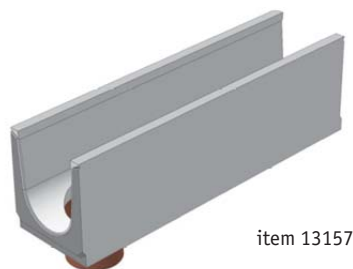


item 13152

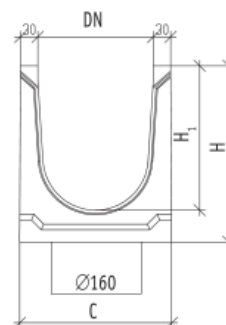


Concrete gutters BGU DN200, class C250, with wall thickness of 30mm, without slope

|       |      |     |       |      |     |         |      |
|-------|------|-----|-------|------|-----|---------|------|
| 13150 | C250 | 0   | DN200 | 1000 | 260 | 255/200 | 80   |
| 13151 | C250 | 5-0 | DN200 | 1000 | 260 | 280/225 | 82.5 |



item 13157



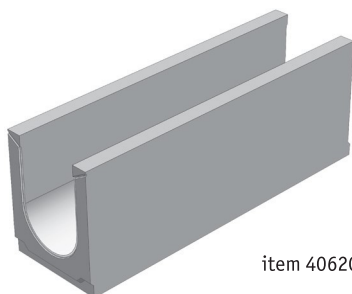
Concrete gutters BGU DN200, class C250, with wall thickness 30mm, with vertical spillway, without slope

|       |      |     |       |      |     |         |      |
|-------|------|-----|-------|------|-----|---------|------|
| 13155 | C250 | 0   | DN200 | 1000 | 260 | 255/200 | 78   |
| 13156 | C250 | 5-0 | DN200 | 1000 | 260 | 280/225 | 80.5 |

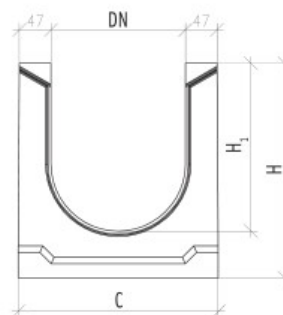




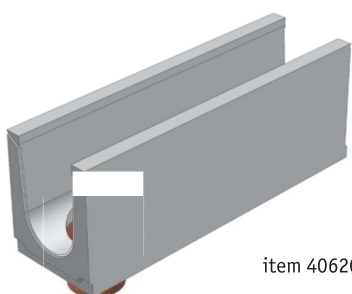
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



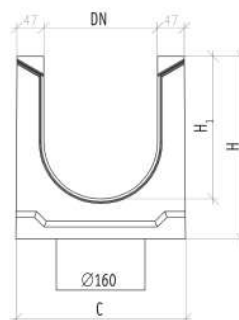
item 40620063



| Concrete gutters BGU DN200, class C250, with wall thickness of 47 mm, without slope |       |       |      |     |         |     |  |
|-------------------------------------------------------------------------------------|-------|-------|------|-----|---------|-----|--|
| 40620000 C250                                                                       | № 0   | DN200 | 1000 | 298 | 295/225 | 111 |  |
| 40620061 C250                                                                       | №5-0  | DN200 | 1000 | 298 | 320/250 | 116 |  |
| 40620062 C250                                                                       | №10-0 | DN200 | 1000 | 298 | 345/275 | 121 |  |
| 40620063 C250                                                                       | №15-0 | DN200 | 1000 | 298 | 370/300 | 126 |  |
| 40620064 C250                                                                       | №20-0 | DN200 | 1000 | 298 | 395/325 | 131 |  |



item 40620073



| Concrete gutters BGU DN200, class C250, with wall thickness of 47 mm, with vertical spillway, without slope |        |       |      |     |         |     |  |
|-------------------------------------------------------------------------------------------------------------|--------|-------|------|-----|---------|-----|--|
| 40620070 C250                                                                                               | № 0    | DN200 | 1000 | 298 | 295/225 | 111 |  |
| 40620071 C250                                                                                               | № 5-0  | DN200 | 1000 | 298 | 320/250 | 116 |  |
| 40620072 C250                                                                                               | № 10-0 | DN200 | 1000 | 298 | 345/275 | 121 |  |
| 40620073 C250                                                                                               | № 15-0 | DN200 | 1000 | 298 | 370/300 | 126 |  |
| 40620074 C250                                                                                               | № 20-0 | DN200 | 1000 | 298 | 395/325 | 131 |  |

\* Diameter for pipes to the gutter with vertical spillway Ø110/160 mm

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

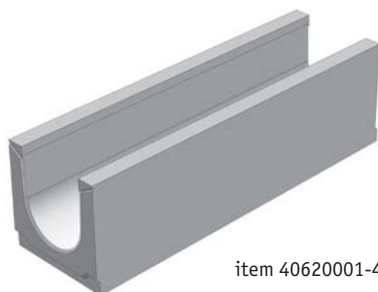
Point drainage

Soil conservation and stabilization system

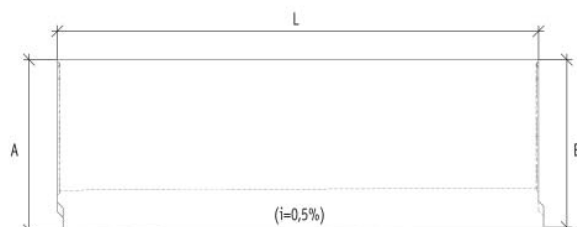
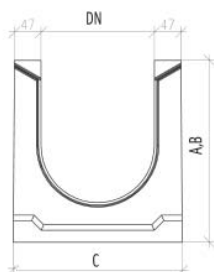
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

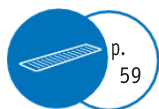


item 40620001-40620020



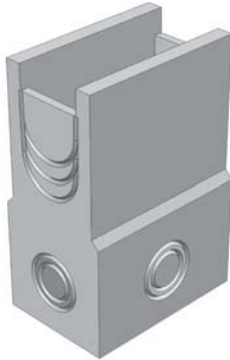
Concrete gutters BGU DN200, class C250, with wall thickness of 47 mm, with slope 0,5 %

|          |      |      |       |      |     |         |       |
|----------|------|------|-------|------|-----|---------|-------|
| 40620001 | C250 | № 1  | DN200 | 1000 | 298 | 295/300 | 111.5 |
| 40620002 | C250 | № 2  | DN200 | 1000 | 298 | 300/305 | 112.5 |
| 40620003 | C250 | № 3  | DN200 | 1000 | 298 | 305/310 | 113.5 |
| 40620004 | C250 | № 4  | DN200 | 1000 | 298 | 310/315 | 114.5 |
| 40620005 | C250 | № 5  | DN200 | 1000 | 298 | 315/320 | 115.5 |
| 40620006 | C250 | № 6  | DN200 | 1000 | 298 | 320/325 | 116.5 |
| 40620007 | C250 | № 7  | DN200 | 1000 | 298 | 325/330 | 117.5 |
| 40620008 | C250 | № 8  | DN200 | 1000 | 298 | 330/335 | 118.5 |
| 40620009 | C250 | № 9  | DN200 | 1000 | 298 | 335/340 | 119.5 |
| 40620010 | C250 | № 10 | DN200 | 1000 | 298 | 340/345 | 120.5 |
| 40620011 | C250 | № 11 | DN200 | 1000 | 298 | 345/350 | 121.5 |
| 40620012 | C250 | № 12 | DN200 | 1000 | 298 | 350/355 | 122.5 |
| 40620013 | C250 | № 13 | DN200 | 1000 | 298 | 355/360 | 123.5 |
| 40620014 | C250 | № 14 | DN200 | 1000 | 298 | 360/365 | 124.5 |
| 40620015 | C250 | № 15 | DN200 | 1000 | 298 | 365/370 | 125.5 |
| 40620016 | C250 | № 16 | DN200 | 1000 | 298 | 370/375 | 126.5 |
| 40620017 | C250 | № 17 | DN200 | 1000 | 298 | 375/380 | 127.5 |
| 40620018 | C250 | № 18 | DN200 | 1000 | 298 | 380/385 | 128.5 |
| 40620019 | C250 | № 19 | DN200 | 1000 | 298 | 385/390 | 129.5 |
| 40620020 | C250 | № 20 | DN200 | 1000 | 298 | 390/395 | 130.5 |

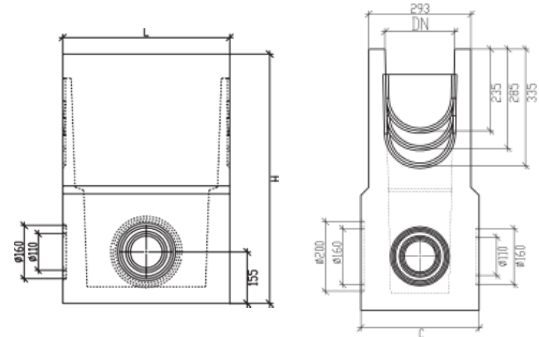




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 49020000



Concrete sand trap BGU DN200, class C250, single-section

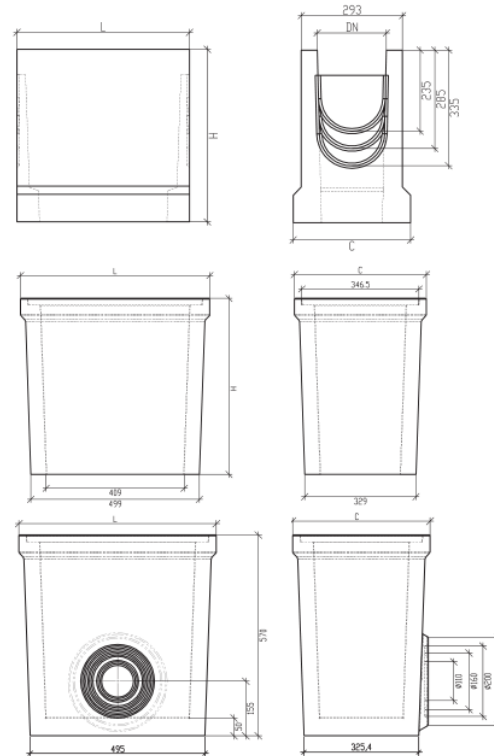
|          |      |             |       |     |     |     |     |
|----------|------|-------------|-------|-----|-----|-----|-----|
| 49020000 | C250 | 500/340/750 | DN200 | 500 | 340 | 750 | 141 |
|----------|------|-------------|-------|-----|-----|-----|-----|



item 49020010

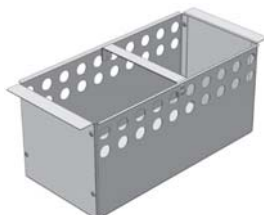
item 49001000

item 49001001



Concrete sand trap BGU DN200, class C250, multi-sectional

|          |      |                                              |       |     |     |     |     |
|----------|------|----------------------------------------------|-------|-----|-----|-----|-----|
| 49020010 | C250 | 500/340/500, upper part                      | DN200 | 500 | 340 | 500 | 79  |
| 49001000 |      | 560/390/520, multi-purpose intermediate part | DN200 | 560 | 390 | 520 | 82  |
| 49001001 |      | 560/390/570, multi-purpose lower part        | DN200 | 560 | 390 | 570 | 103 |



item 49020900

Multi-purpose basket for sand trap BGU DN200

|          |  |                  |       |     |     |       |     |
|----------|--|------------------|-------|-----|-----|-------|-----|
| 49020900 |  | Galvanized steel | DN200 | 400 | 175 | 163.5 | 2.1 |
|----------|--|------------------|-------|-----|-----|-------|-----|

Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring





Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

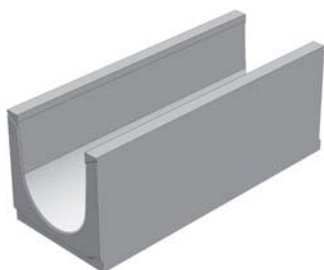
Point drainage

Soil conservation and stabilization system

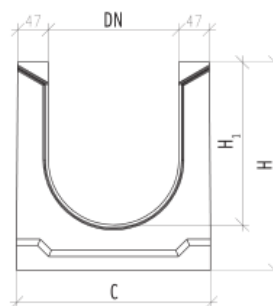
Entrance dirt-guard systems

Multi-purpose grid flooring

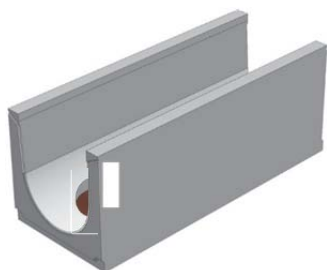
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



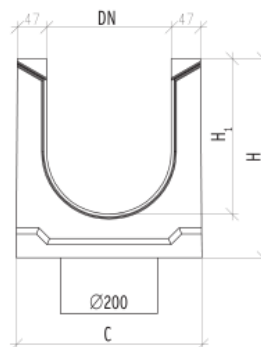
item 34014



| Concrete gutters BGU DN300, class C250, without slope |      |        |       |      |     |         |       |
|-------------------------------------------------------|------|--------|-------|------|-----|---------|-------|
| 34014                                                 | C250 | № 0    | DN300 | 1000 | 399 | 395/330 | 162   |
| 40630061                                              | C250 | № 5-0  | DN300 | 1000 | 394 | 420/355 | 170.5 |
| 40630062                                              | C250 | № 10-0 | DN300 | 1000 | 394 | 445/380 | 176   |
| 40630063                                              | C250 | № 15-0 | DN300 | 1000 | 394 | 470/405 | 181.5 |
| 40630064                                              | C250 | № 20-0 | DN300 | 1000 | 394 | 495/430 | 187   |



item 34057

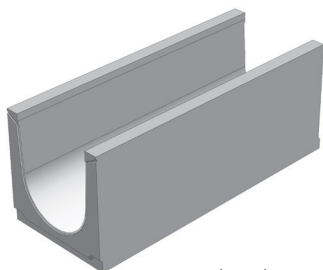


| Concrete gutters BGU DN300, class C250, with vertical spillway, without slope |      |        |       |      |     |         |       |
|-------------------------------------------------------------------------------|------|--------|-------|------|-----|---------|-------|
| 34057                                                                         | C250 | № 0    | DN300 | 1000 | 399 | 395/330 | 162   |
| 40630071                                                                      | C250 | № 5-0  | DN300 | 1000 | 394 | 420/355 | 170.5 |
| 40630072                                                                      | C250 | № 10-0 | DN300 | 1000 | 394 | 445/380 | 176   |
| 40630073                                                                      | C250 | № 15-0 | DN300 | 1000 | 394 | 470/405 | 181.5 |
| 40630074                                                                      | C250 | № 20-0 | DN300 | 1000 | 394 | 495/430 | 187   |

\* Diameter for pipes to the gutter with vertical spillway Ø200/315 mm



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item item. 40630001-40630020

| Concrete gutters BGU DN300, class C250, with slope 0,5 % |      |  |       |      |     |         |       |
|----------------------------------------------------------|------|--|-------|------|-----|---------|-------|
| 40630001 C250                                            | № 1  |  | DN300 | 1000 | 394 | 395/400 | 165.5 |
| 40630002 C250                                            | № 2  |  | DN300 | 1000 | 394 | 400/405 | 166.6 |
| 40630003 C250                                            | № 3  |  | DN300 | 1000 | 394 | 405/410 | 167.7 |
| 40630004 C250                                            | № 4  |  | DN300 | 1000 | 394 | 410/415 | 168.8 |
| 40630005 C250                                            | № 5  |  | DN300 | 1000 | 394 | 415/420 | 169.9 |
| 40630006 C250                                            | № 6  |  | DN300 | 1000 | 394 | 420/425 | 171   |
| 40630007 C250                                            | № 7  |  | DN300 | 1000 | 394 | 425/430 | 172.1 |
| 40630008 C250                                            | № 8  |  | DN300 | 1000 | 394 | 430/435 | 173.2 |
| 40630009 C250                                            | № 9  |  | DN300 | 1000 | 394 | 435/440 | 174.3 |
| 40630010 C250                                            | № 10 |  | DN300 | 1000 | 394 | 440/445 | 175.4 |
| 40630011 C250                                            | № 11 |  | DN300 | 1000 | 394 | 445/450 | 176.5 |
| 40630012 C250                                            | № 12 |  | DN300 | 1000 | 394 | 450/455 | 177.6 |
| 40630013 C250                                            | № 13 |  | DN300 | 1000 | 394 | 455/460 | 178.7 |
| 40630014 C250                                            | № 14 |  | DN300 | 1000 | 394 | 460/465 | 179.8 |
| 40630015 C250                                            | № 15 |  | DN300 | 1000 | 394 | 465/470 | 180.9 |
| 40630016 C250                                            | № 16 |  | DN300 | 1000 | 394 | 470/475 | 182   |
| 40630017 C250                                            | № 17 |  | DN300 | 1000 | 394 | 475/480 | 183.1 |
| 40630018 C250                                            | № 18 |  | DN300 | 1000 | 394 | 480/485 | 184.2 |
| 40630019 C250                                            | № 19 |  | DN300 | 1000 | 394 | 485/490 | 185.3 |
| 40630020 C250                                            | № 20 |  | DN300 | 1000 | 394 | 490/495 | 186.5 |



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

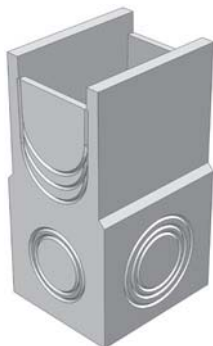
Point drainage

Soil conservation and stabilization system

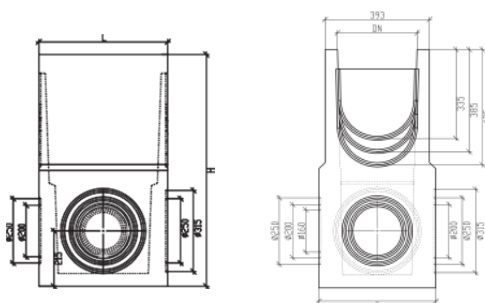
Entrance dirt-guard systems

Multi-purpose grid flooring

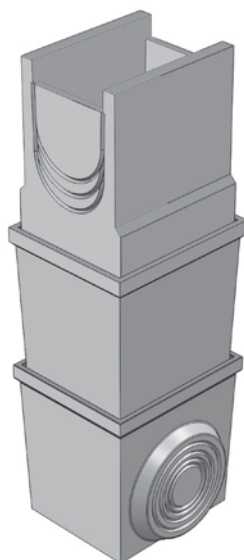
| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|



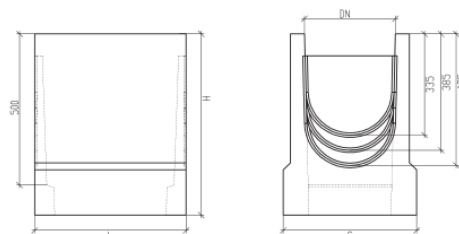
item 49030000



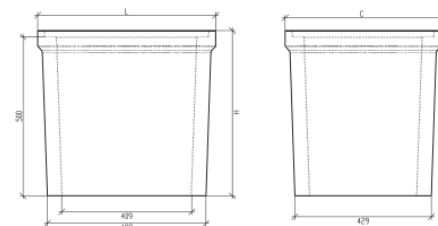
|                                                          |      |             |       |     |     |     |     |
|----------------------------------------------------------|------|-------------|-------|-----|-----|-----|-----|
| Concrete sand trap BGU DN300, class C250, single-section |      |             |       |     |     |     |     |
| 49030000                                                 | C250 | 500/440/900 | DN300 | 500 | 440 | 900 | 202 |



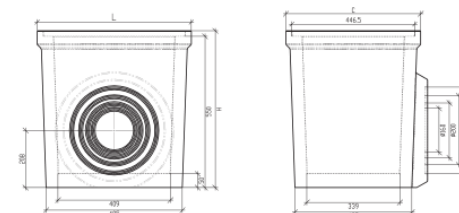
item 49030010



item 49001005



item 49001006



|                                                           |      |                                              |       |     |     |     |     |
|-----------------------------------------------------------|------|----------------------------------------------|-------|-----|-----|-----|-----|
| Concrete sand trap BGU DN300, class C250, multi-sectional |      |                                              |       |     |     |     |     |
| 49030010                                                  | C250 | 500/440/600, upper part                      | DN300 | 500 | 440 | 600 | 111 |
| 49001005                                                  |      | 560/490/520, multi-purpose intermediate part | DN300 | 560 | 490 | 520 | 93  |
| 49001006                                                  |      | 560/490/570, lower intermediate part         | DN300 | 560 | 490 | 570 | 130 |



item 49030900

|                                              |  |                  |       |     |     |       |     |
|----------------------------------------------|--|------------------|-------|-----|-----|-------|-----|
| Multi-purpose basket for sand trap BGU DN300 |  |                  |       |     |     |       |     |
| 49030900                                     |  | Galvanized steel | DN300 | 400 | 265 | 163.5 | 2.1 |

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

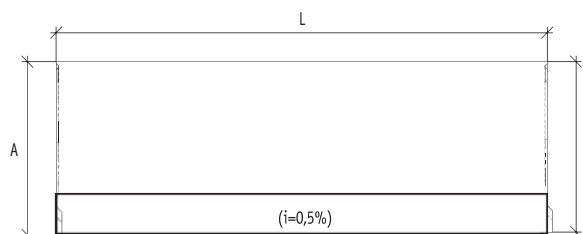
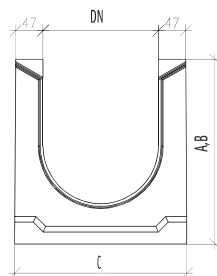
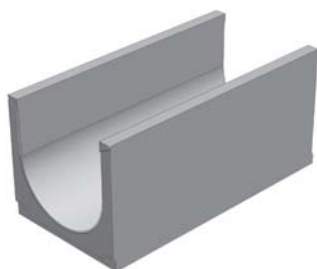
Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 4064001-40640020

| Concrete gutters BGU DN400 class C250 with slope 0,5% |      |    |       |      |     |         |     |
|-------------------------------------------------------|------|----|-------|------|-----|---------|-----|
| 40640001                                              | C250 | 1  | DN400 | 1000 | 499 | 395/400 | 198 |
| 40640002                                              | C250 | 2  | DN400 | 1000 | 499 | 400/405 | 199 |
| 40640003                                              | C250 | 3  | DN400 | 1000 | 499 | 405/410 | 200 |
| 40640004                                              | C250 | 4  | DN400 | 1000 | 499 | 410/415 | 201 |
| 40640005                                              | C250 | 5  | DN400 | 1000 | 499 | 415/420 | 202 |
| 40640006                                              | C250 | 6  | DN400 | 1000 | 499 | 420/425 | 203 |
| 40640007                                              | C250 | 7  | DN400 | 1000 | 499 | 425/430 | 204 |
| 40640008                                              | C250 | 8  | DN400 | 1000 | 499 | 430/435 | 205 |
| 40640009                                              | C250 | 9  | DN400 | 1000 | 499 | 435/440 | 206 |
| 40640010                                              | C250 | 10 | DN400 | 1000 | 499 | 440/445 | 207 |
| 40640011                                              | C250 | 11 | DN400 | 1000 | 499 | 445/450 | 208 |
| 40640012                                              | C250 | 12 | DN400 | 1000 | 499 | 450/455 | 209 |
| 40640013                                              | C250 | 13 | DN400 | 1000 | 499 | 455/460 | 210 |
| 40640014                                              | C250 | 14 | DN400 | 1000 | 499 | 460/465 | 211 |
| 40640015                                              | C250 | 15 | DN400 | 1000 | 499 | 465/470 | 212 |
| 40640016                                              | C250 | 16 | DN400 | 1000 | 499 | 470/475 | 213 |
| 40640017                                              | C250 | 17 | DN400 | 1000 | 499 | 475/480 | 214 |
| 40640018                                              | C250 | 18 | DN400 | 1000 | 499 | 480/485 | 215 |
| 40640019                                              | C250 | 19 | DN400 | 1000 | 499 | 485/490 | 216 |
| 40640020                                              | C250 | 20 | DN400 | 1000 | 499 | 490/495 | 217 |


 p.  
110





Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

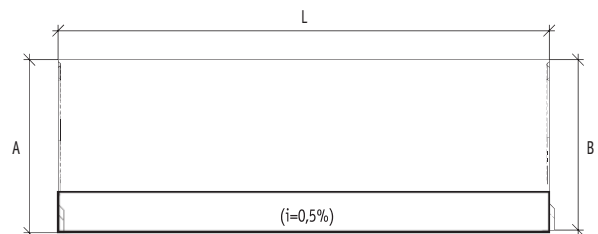
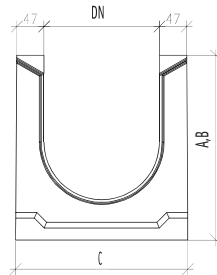
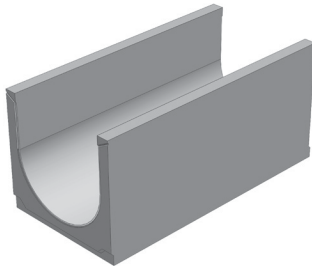
Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

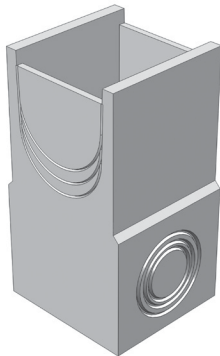


item 4064001-40640020

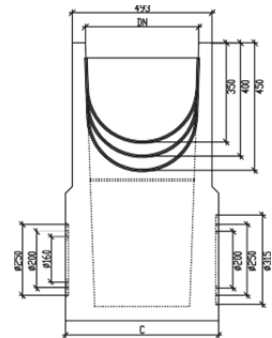
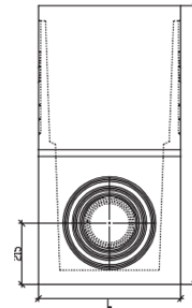
| Concrete gutters BGU DN400 class C250 with slope 0,5% |      |    |       |      |     |         |     |
|-------------------------------------------------------|------|----|-------|------|-----|---------|-----|
| 40640001                                              | C250 | 1  | DN400 | 1000 | 499 | 395/400 | 198 |
| 40640002                                              | C250 | 2  | DN400 | 1000 | 499 | 400/405 | 199 |
| 40640003                                              | C250 | 3  | DN400 | 1000 | 499 | 405/410 | 200 |
| 40640004                                              | C250 | 4  | DN400 | 1000 | 499 | 410/415 | 201 |
| 40640005                                              | C250 | 5  | DN400 | 1000 | 499 | 415/420 | 202 |
| 40640006                                              | C250 | 6  | DN400 | 1000 | 499 | 420/425 | 203 |
| 40640007                                              | C250 | 7  | DN400 | 1000 | 499 | 425/430 | 204 |
| 40640008                                              | C250 | 8  | DN400 | 1000 | 499 | 430/435 | 205 |
| 40640009                                              | C250 | 9  | DN400 | 1000 | 499 | 435/440 | 206 |
| 40640010                                              | C250 | 10 | DN400 | 1000 | 499 | 440/445 | 207 |
| 40640011                                              | C250 | 11 | DN400 | 1000 | 499 | 445/450 | 208 |
| 40640012                                              | C250 | 12 | DN400 | 1000 | 499 | 450/455 | 209 |
| 40640013                                              | C250 | 13 | DN400 | 1000 | 499 | 455/460 | 210 |
| 40640014                                              | C250 | 14 | DN400 | 1000 | 499 | 460/465 | 211 |
| 40640015                                              | C250 | 15 | DN400 | 1000 | 499 | 465/470 | 212 |
| 40640016                                              | C250 | 16 | DN400 | 1000 | 499 | 470/475 | 213 |
| 40640017                                              | C250 | 17 | DN400 | 1000 | 499 | 475/480 | 214 |
| 40640018                                              | C250 | 18 | DN400 | 1000 | 499 | 480/485 | 215 |
| 40640019                                              | C250 | 19 | DN400 | 1000 | 499 | 485/490 | 216 |
| 40640020                                              | C250 | 20 | DN400 | 1000 | 499 | 490/495 | 217 |



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

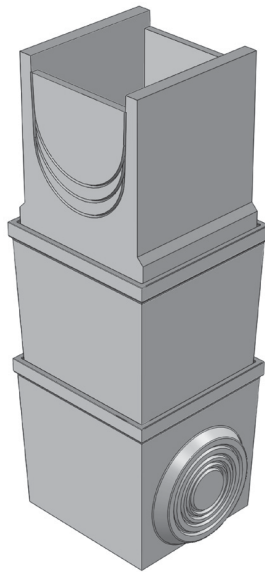


item 49040000

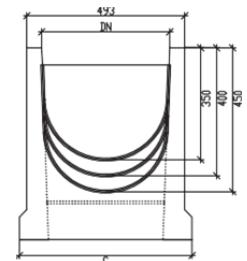
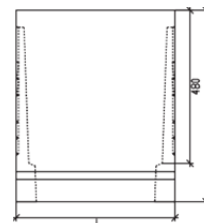


Concrete sand trap BGU DN400, class C250, single-section

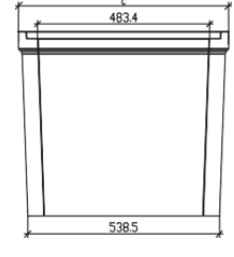
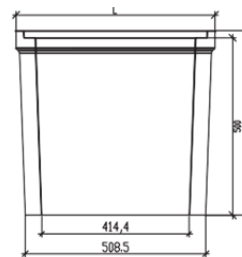
|          |      |              |       |     |     |      |     |
|----------|------|--------------|-------|-----|-----|------|-----|
| 49040000 | C250 | 500/540/1000 | DN400 | 500 | 540 | 1000 | 252 |
|----------|------|--------------|-------|-----|-----|------|-----|



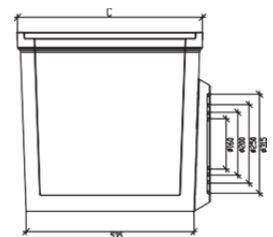
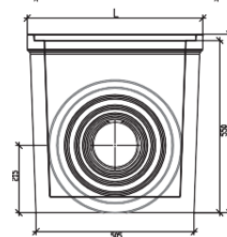
item 49040010



item 49001010

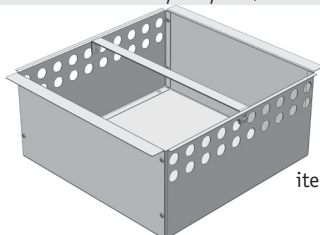


item 49001011



Concrete sand trap BGU DN400, class C250, multi-sectional

|          |      |                                              |       |     |     |     |     |
|----------|------|----------------------------------------------|-------|-----|-----|-----|-----|
| 49040010 | C250 | 500/540/600, upper part                      | DN400 | 500 | 540 | 600 | 115 |
| 49001010 |      | 560/590/520, multi-purpose intermediate part | DN400 | 560 | 590 | 520 | 104 |
| 49001011 |      | 560/590/570, multi-purpose lower part        | DN400 | 560 | 590 | 570 | 147 |



item 49040900

Multi-purpose basket for sand trap BGU DN400

|          |  |                  |       |     |     |       |      |
|----------|--|------------------|-------|-----|-----|-------|------|
| 49040900 |  | Galvanized steel | DN400 | 400 | 365 | 163.5 | 3.24 |
|----------|--|------------------|-------|-----|-----|-------|------|

Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

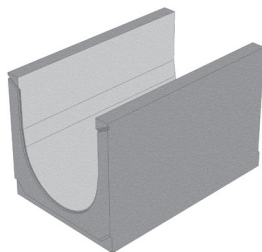
Soil conservation and  
stabilization system

Entrance dirt-guard systems

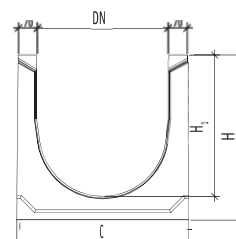
Multi-purpose grid flooring



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

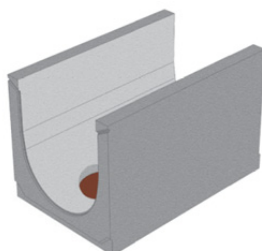


Item 40750068

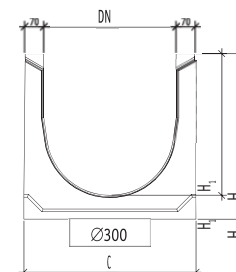


#### Concrete gutters BGU-XL DN500, class C250 without slope

|          |      |        |       |      |     |         |        |
|----------|------|--------|-------|------|-----|---------|--------|
| 40750000 | C250 | № 0    | DN500 | 1000 | 650 | 450/360 | 316.67 |
| 40750061 | C250 | № 5-0  | DN500 | 1000 | 650 | 475/385 | 327.83 |
| 40750062 | C250 | № 10-0 | DN500 | 1000 | 650 | 500/410 | 339    |
| 40750063 | C250 | № 15-0 | DN500 | 1000 | 650 | 525/435 | 350.17 |
| 40750064 | C250 | № 20-0 | DN500 | 1000 | 650 | 550/460 | 361.34 |
| 40750065 | C250 | № 25-0 | DN500 | 1000 | 650 | 575/485 | 372.5  |
| 40750066 | C250 | № 30-0 | DN500 | 1000 | 650 | 600/510 | 394.83 |
| 40750067 | C250 | № 35-0 | DN500 | 1000 | 650 | 625/535 | 372    |
| 40750068 | C250 | № 40-0 | DN500 | 1000 | 650 | 650/560 | 380.2  |



item 40750078



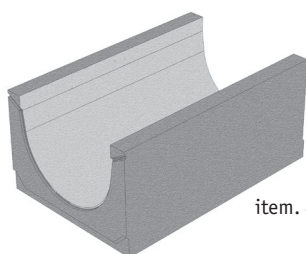
#### Concrete gutters BGU-XL DN500, class C250, with vertical spillway, without slope

|          |      |        |       |      |     |         |       |
|----------|------|--------|-------|------|-----|---------|-------|
| 40750070 | C250 | № 0    | DN500 | 1000 | 650 | 450/360 | 314.5 |
| 40750071 | C250 | № 5-0  | DN500 | 1000 | 650 | 475/385 | 322.7 |
| 40750072 | C250 | № 10-0 | DN500 | 1000 | 650 | 500/410 | 332.5 |
| 40750073 | C250 | № 15-0 | DN500 | 1000 | 650 | 525/435 | 340   |
| 40750074 | C250 | № 20-0 | DN500 | 1000 | 650 | 550/460 | 347.3 |
| 40750075 | C250 | № 25-0 | DN500 | 1000 | 650 | 575/485 | 355.6 |
| 40750076 | C250 | № 30-0 | DN500 | 1000 | 650 | 600/510 | 363.8 |
| 40750077 | C250 | № 35-0 | DN500 | 1000 | 650 | 625/535 | 372   |
| 40750078 | C250 | № 40-0 | DN500 | 1000 | 650 | 650/560 | 380.2 |

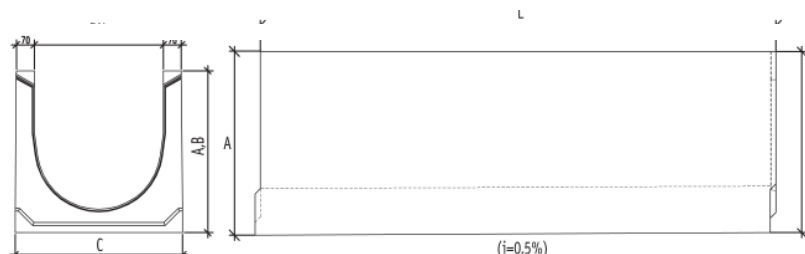




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item. 40750001-40750040



| Concrete gutters BGU-XL DN500, class C250, with slope 0,5 % |      |    |       |      |     |         |        |
|-------------------------------------------------------------|------|----|-------|------|-----|---------|--------|
| 40750001                                                    | C250 | 1  | DN500 | 1000 | 650 | 450/455 | 316.67 |
| 40750002                                                    | C250 | 2  | DN500 | 1000 | 650 | 455/460 | 318.96 |
| 40750004                                                    | C250 | 4  | DN500 | 1000 | 650 | 465/470 | 323.54 |
| 40750006                                                    | C250 | 6  | DN500 | 1000 | 650 | 475/480 | 328.12 |
| 40750008                                                    | C250 | 8  | DN500 | 1000 | 650 | 485/490 | 332.7  |
| 40750010                                                    | C250 | 10 | DN500 | 1000 | 650 | 495/500 | 337.28 |
| 40750012                                                    | C250 | 12 | DN500 | 1000 | 650 | 505/510 | 341.86 |
| 40750014                                                    | C250 | 14 | DN500 | 1000 | 650 | 515/520 | 346.44 |
| 40750016                                                    | C250 | 16 | DN500 | 1000 | 650 | 525/530 | 351.02 |
| 40750018                                                    | C250 | 18 | DN500 | 1000 | 650 | 535/540 | 344.3  |
| 40750020                                                    | C250 | 20 | DN500 | 1000 | 650 | 545/550 | 360.18 |
| 40750022                                                    | C250 | 22 | DN500 | 1000 | 650 | 555/560 | 364.76 |
| 40750024                                                    | C250 | 24 | DN500 | 1000 | 650 | 565/570 | 369.34 |
| 40750026                                                    | C250 | 26 | DN500 | 1000 | 650 | 575/580 | 373.92 |
| 40750028                                                    | C250 | 28 | DN500 | 1000 | 650 | 585/590 | 378.5  |
| 40750030                                                    | C250 | 30 | DN500 | 1000 | 650 | 595/600 | 383.08 |
| 40750032                                                    | C250 | 32 | DN500 | 1000 | 650 | 605/610 | 387.66 |
| 40750034                                                    | C250 | 34 | DN500 | 1000 | 650 | 615/620 | 392.24 |
| 40750036                                                    | C250 | 36 | DN500 | 1000 | 650 | 625/630 | 396.82 |
| 40750038                                                    | C250 | 38 | DN500 | 1000 | 650 | 635/640 | 401.4  |
| 40750040                                                    | C250 | 40 | DN500 | 1000 | 650 | 645/650 | 406    |

Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring





Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

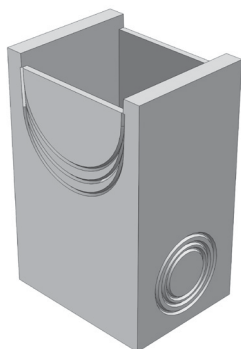
Point drainage

Soil conservation and stabilization system

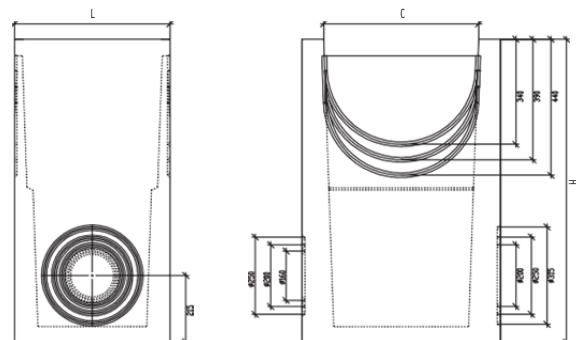
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|

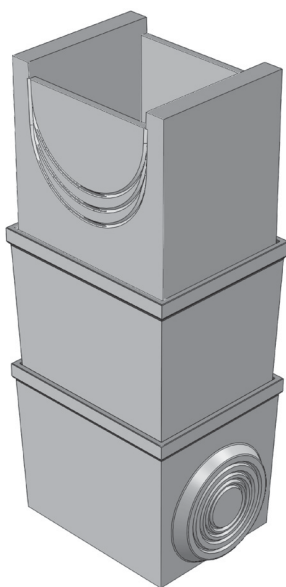


item 49050050



Concrete sand trap BGU-XL DN500, class C250, single-section

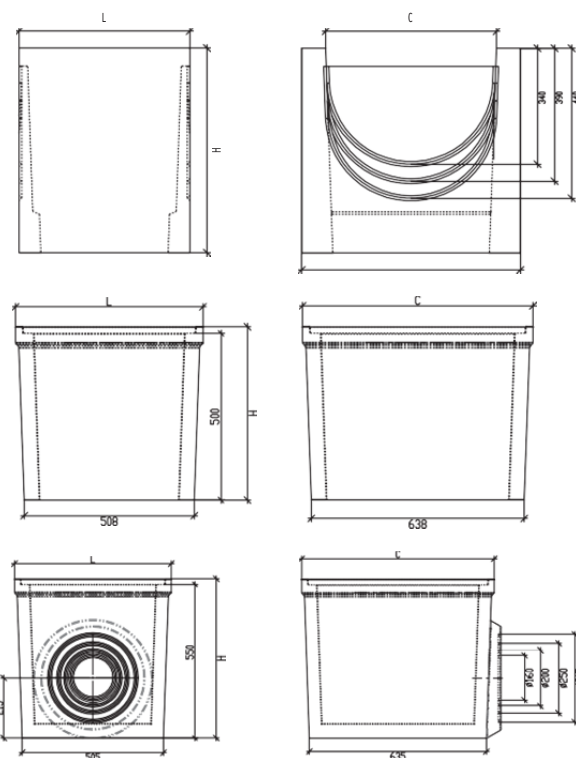
|          |      |              |       |     |     |      |     |
|----------|------|--------------|-------|-----|-----|------|-----|
| 49050050 | C250 | 500/640/1000 | DN500 | 500 | 640 | 1000 | 304 |
|----------|------|--------------|-------|-----|-----|------|-----|



item 49050060

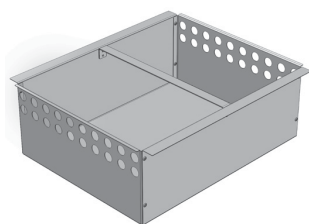
item 49001015

item 49001016



Concrete sand trap BGU-XL DN500, class C250, multi-sectional

|          |      |                                              |       |     |     |     |     |
|----------|------|----------------------------------------------|-------|-----|-----|-----|-----|
| 49050060 | C250 | 500/640/600, upper part                      | DN500 | 500 | 640 | 600 | 152 |
| 49001015 |      | 560/690/520, multi-purpose intermediate part | DN500 | 560 | 690 | 520 | 115 |
| 49001016 |      | 560/690/570, multi-purpose lower part        | DN500 | 560 | 690 | 570 | 163 |



item 49050900

Multi-purpose basket for sand trap BGU-XL DN500

|          |  |  |       |     |     |       |      |
|----------|--|--|-------|-----|-----|-------|------|
| 49050900 |  |  | DN500 | 400 | 447 | 163.5 | 3.76 |
|----------|--|--|-------|-----|-----|-------|------|





Novosibirsk, Car dealer "Avtomir"



Novosibirsk, stlmnt. Evropeisky



On the city streets, drainage gutters BGU with cast-iron grates

|                                                   |                                                    |                                          |                |                                        |                                |                             |
|---------------------------------------------------|----------------------------------------------------|------------------------------------------|----------------|----------------------------------------|--------------------------------|-----------------------------|
| Drainage systems<br>Class of loading A15-<br>C250 | Drainage systems<br>Class of loading D400-<br>F900 | Drainage systems<br>Classof loading F900 | Point drainage | Soil conservation and<br>stabilization | Entrance dirt-guard<br>systems | Multi-purpose grid flooring |
|---------------------------------------------------|----------------------------------------------------|------------------------------------------|----------------|----------------------------------------|--------------------------------|-----------------------------|



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

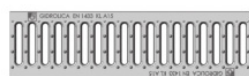
Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

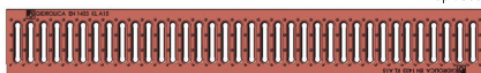
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



apt. 500



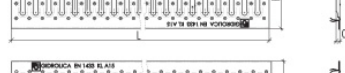
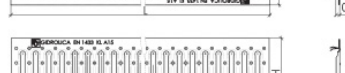
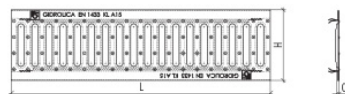
apt. 508



apt. 502



apt. 503



Sewer grates for gutters DN100 Gidrolica® Standart/StandartPlus/PolyStandart/BGF/BGU

|     |     |                                               |       |      |     |    |     |
|-----|-----|-----------------------------------------------|-------|------|-----|----|-----|
| 500 | A15 | PB-10.13,6.50 – drop-forged galvanized steel  | DN100 | 1000 | 136 | 20 | 0.8 |
| 508 | A15 | PB-10.13,6.100 – drop-forged galvanized steel | DN100 | 1000 | 136 | 20 | 1.6 |
| 502 | A15 | PB -10.13,6.100 – drop-forged copper          | DN100 | 1000 | 136 | 20 | 1.6 |
| 503 | A15 | PB -10.13,6.100 – drop-forged stainless steel | DN100 | 1000 | 136 | 20 | 1.6 |



item 508/1



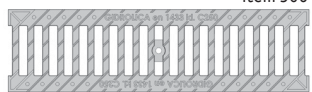
item 504



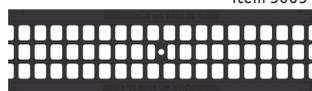
item 501



item 506



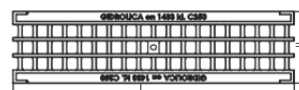
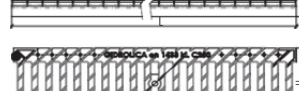
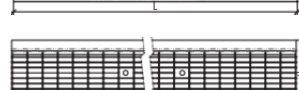
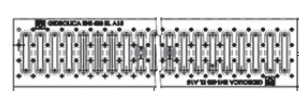
item 5065



item 507



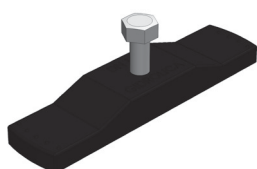
item 5075



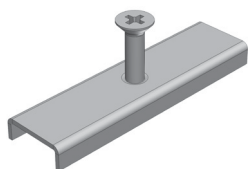
Sewer grates for gutters DN100 Gidrolica® Standart/StandartPlus/PolyStandart/BGF/BGU (with fasteners)

|       |      |                                                                        |       |      |       |      |      |
|-------|------|------------------------------------------------------------------------|-------|------|-------|------|------|
| 508/1 | A15  | PB-10.13,6.100 – drop-forged galvanized steel with holes for fastening | DN100 | 1000 | 136   | 20   | 1.6  |
| 504   | A15  | PB -10.13,6.50 – mesh plastic                                          | DN100 | 500  | 137.8 | 16.5 | 0.42 |
| 501   | B125 | PB -10.13,6.100 – mesh galvanized steel                                | DN100 | 1000 | 136   | 20   | 3.3  |
| 506   | C250 | PB -10.13,6.50 – slotted high-strength cast-iron                       | DN100 | 500  | 136   | 13   | 2.1  |
| 5065  | C250 | PB -10.13,6.50 – slotted high-strength cast-iron galvanized            | DN100 | 500  | 136   | 13   | 2.2  |
| 507   | C250 | PB -10.13,6.50 mesh high-strength cast-iron                            | DN100 | 500  | 136   | 13.5 | 2.7  |
| 5075  | C250 | PB -10.13,6.50 mesh high-strength cast-iron galvanized                 | DN100 | 500  | 136   | 13.5 | 2.8  |

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



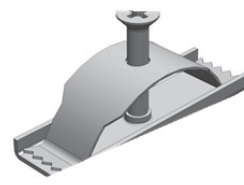
item 108



item 107



item 103



item 104

Accessories for sewer grates DN100 Fastener Gidrolica® to fasten grates to plastic drainage gutters DN100

|       |                                          |       |     |    |    |      |
|-------|------------------------------------------|-------|-----|----|----|------|
| 108   | for items 504, 501, 506, 5065, 507, 5075 | DN100 | 119 | 28 | 14 | 0.05 |
| 108/1 | for items 508/1                          | DN100 | 119 | 28 | 14 | 0.05 |

Fastener Gidrolica® to fasten grates to polymer-concrete drainage gutters DN100

|     |                                                         |       |     |    |    |     |
|-----|---------------------------------------------------------|-------|-----|----|----|-----|
| 107 | for items 504, 501, 506, 5065, 507, 5075, 901, 902, 903 | DN100 | 110 | 30 | 10 | 0.1 |
|-----|---------------------------------------------------------|-------|-----|----|----|-----|

Fastener Gidrolica® for cast-iron grates DN100

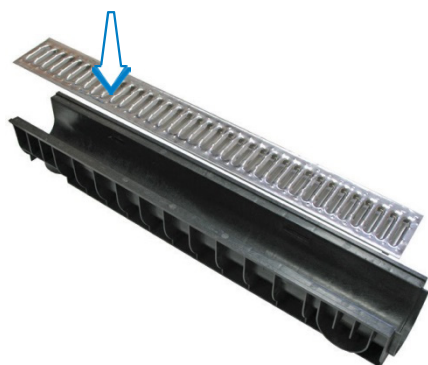
|     |                                |       |    |    |    |     |
|-----|--------------------------------|-------|----|----|----|-----|
| 103 | for items 506, 5065, 507, 5075 | DN100 | 54 | 20 | 25 | 0.1 |
|-----|--------------------------------|-------|----|----|----|-----|

Accessories for concrete gutters BGF/BGU DN100, class C250 Fastener Gidrolica for concrete drainage gutter DN100

|     |                                                    |       |    |    |    |      |
|-----|----------------------------------------------------|-------|----|----|----|------|
| 104 | for items 504, 501, 506, 5065, 507, 5075, 700, 701 | DN100 | 95 | 30 | 27 | 0.15 |
|-----|----------------------------------------------------|-------|----|----|----|------|

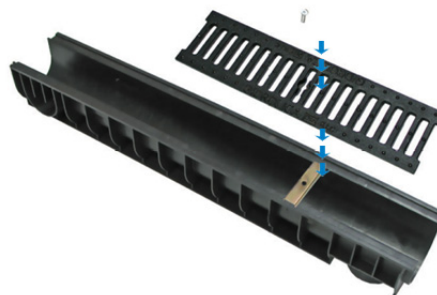
## GRATE FASTENING

1.



1. Bend the locks, located on the inside edges of the grate slightly.
2. Insert the grate into the gutter by force.

2.



1. Unscrew the bolt and install the main body of the fastener (without the bolt) in the gutter.
2. Insert the bolt in the hole dedicated for bolts on the grate.
3. Connect the fastener in the gutter, so that the bolt head is on top of the grate and the main body of the fastener is in the gutter.
4. Tighten the bolt up to the stop, checking the main body of the fastener to ensure the reliable fastening of the grate and gutter.

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

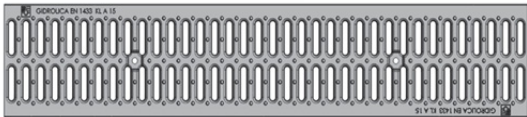
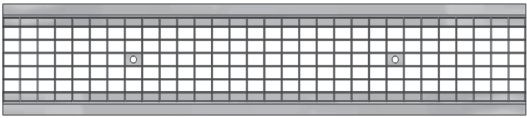
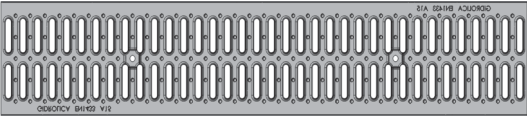
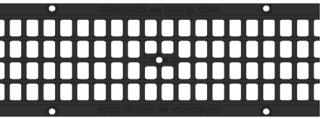
Drainage systems class of loading F900

Point drainage

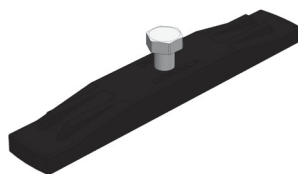
Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

| Item                                                                                | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|-------------------------------------------------------------------------------------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|    |                  |      |    |                   |                  |                                  |              |
| item 518                                                                            |                  |      |    |                   |                  |                                  |              |
|    |                  |      |    |                   |                  |                                  |              |
| item 511                                                                            |                  |      |    |                   |                  |                                  |              |
|    |                  |      |    |                   |                  |                                  |              |
| item 513                                                                            |                  |      |    |                   |                  |                                  |              |
|   |                  |      |    |                   |                  |                                  |              |
| item 516                                                                            |                  |      |    |                   |                  |                                  |              |
|  |                  |      |    |                   |                  |                                  |              |
| item 517                                                                            |                  |      |    |                   |                  |                                  |              |

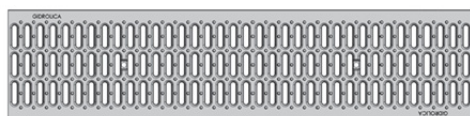
| Sewer grates for gutters DN150 Gidrolica® Standart/Standart Plus/BGF/BGU |      |                                                  |       |      |     |    |      |
|--------------------------------------------------------------------------|------|--------------------------------------------------|-------|------|-----|----|------|
| 518                                                                      | A15  | PB -15.18,6.100 – drop-forged galvanized steel   | DN150 | 1000 | 186 | 15 | 2,9  |
| 511                                                                      | B125 | PB -15.18,7.100 – mesh galvanized steel          | DN150 | 1000 | 187 | 22 | 4.8  |
| 512                                                                      | A15  | PB -15.18,6.100 – drop-forged galvanized steel   | DN150 | 1000 | 187 | 15 | 3    |
| 516                                                                      | C250 | PB -15.18,6.50 - slotted high-strength cast-iron | DN150 | 500  | 186 | 23 | 3.54 |
| 517                                                                      | C250 | PB -15.18,6.50 - slotted high-strength cast-iron | DN150 | 500  | 186 | 23 | 3.9  |



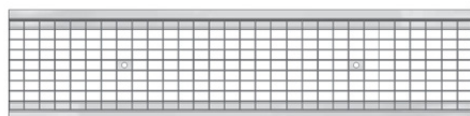
apr. 118

| Accessories for plastic gutters DN150, class C250 Fastener Gidrolica® to fasten grates to plastic drainage gutter DN150 |  |  |       |     |    |    |      |
|-------------------------------------------------------------------------------------------------------------------------|--|--|-------|-----|----|----|------|
| 118                                                                                                                     |  |  | DN150 | 176 | 28 | 15 | 0.06 |

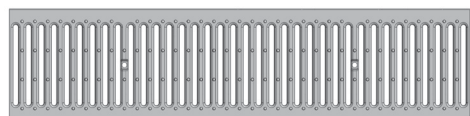
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 528



item 522



item 523



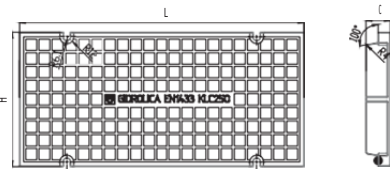
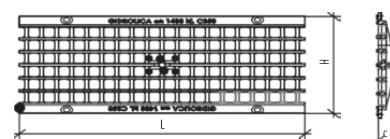
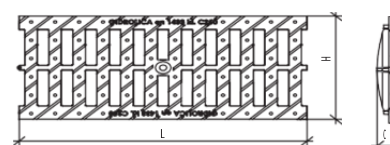
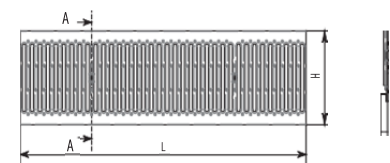
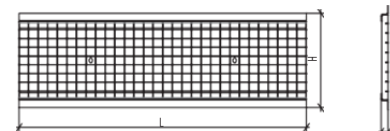
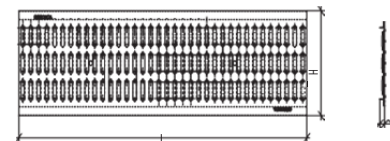
item 524



item 527



item 526



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

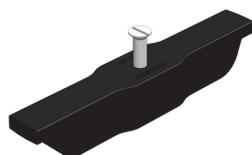
Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

Sewer grates for gutters DN200 Gidrolica® Standart/Standart Plus/PolyStandart/BGF/BGU

|     |      |                                                |       |      |     |    |      |
|-----|------|------------------------------------------------|-------|------|-----|----|------|
| 528 | A15  | PB -20.24.100 - drop-forged galvanized steel   | DN200 | 1000 | 236 | 20 | 3.4  |
| 522 | B125 | PB -20.24.100 - mesh galvanized steel          | DN200 | 1000 | 237 | 22 | 5.7  |
| 523 | A15  | PB -20.24.100 - drop-forged galvanized steel   | DN200 | 1000 | 236 | 15 | 3.54 |
| 524 | C250 | PB -20.24.50 - slotted high-strength cast-iron | DN200 | 500  | 237 | 24 | 5    |
| 525 | C250 | PB -20.24.50 - slotted high-strength cast-iron | DN200 | 500  | 237 | 24 | 6.1  |
| 526 | C250 | КЛ-20.23,8.50 - plastic                        | DN200 | 500  | 238 | 42 | 2.64 |



item 128

Accessories for plastic/polymer-concrete gutters DN200, class C250 Fatener Gidrolica® to fasten grates to polymer-concrete drainage gutters DN200

|     |  |  |       |     |    |    |      |
|-----|--|--|-------|-----|----|----|------|
| 128 |  |  | DN200 | 226 | 40 | 36 | 0.25 |
|-----|--|--|-------|-----|----|----|------|

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

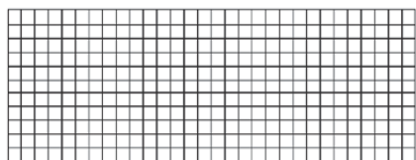
Soil conservation and stabilization system

Entrance dirt-guard systems

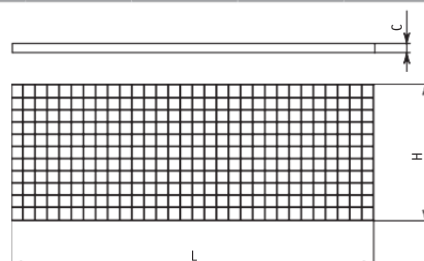
Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------------|

|                                                                                   |     |      |                                    |       |      |     |    |     |
|-----------------------------------------------------------------------------------|-----|------|------------------------------------|-------|------|-----|----|-----|
|  | 531 | C250 | PB-30.37.100 mesh galvanized steel | DN300 | 1000 | 375 | 25 | 7,9 |
|                                                                                   |     |      |                                    |       |      |     |    |     |



item 531

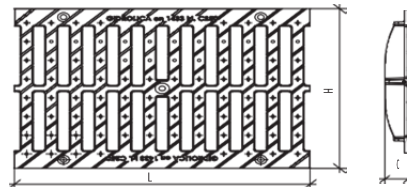


#### Sewer grates for gutters Gidrolica® Standart/BGU DN300

|                                                                                   |     |      |                                               |       |     |     |    |      |
|-----------------------------------------------------------------------------------|-----|------|-----------------------------------------------|-------|-----|-----|----|------|
|  | 534 | C250 | PB-30.37.50 – slotted high-strength cast-iron | DN300 | 500 | 358 | 10 | 14,3 |
|                                                                                   |     |      |                                               |       |     |     |    |      |



ap. 534



#### Sewer grates for gutters Gidrolica® Standart/BGU DN300

|                                                                                                                                      |      |                                               |       |     |     |         |
|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------|-------|-----|-----|---------|
| 534                                                                                                                                  | C250 | PB-30.37.50 – slotted high-strength cast-iron | DN300 | 500 | 358 | 10 14,3 |
| Accessories for plastic gutters DN300, class A15-C250 Fastener Gidrolica® to fasten grates to polymer-concrete drainage gutter DN300 |      |                                               |       |     |     |         |
| 138/1                                                                                                                                |      | to item 531                                   | DN300 |     |     |         |
| 138/4                                                                                                                                |      | to item 534                                   | DN300 |     |     |         |



Urban park, drainage gutters Gidrolica® Standart with galvanized grates



Detached house, drainage gutters Gidrolica® Standart with cast-iron grates





**Gidrolica® Pro** – plastic gutter with increased flange for nylon grate with class of loading C250.

**Application field:**

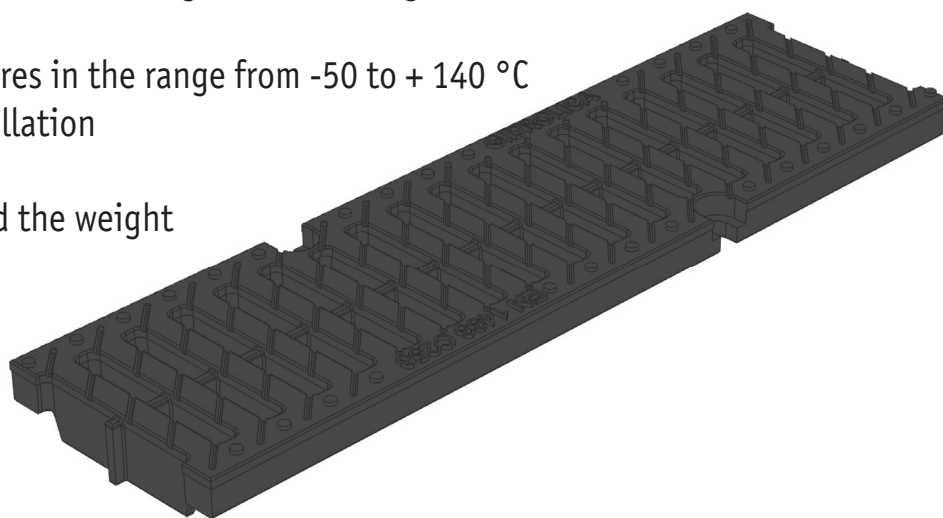
- private house building, country house building
- city development
- sports facilities

**Quality:**

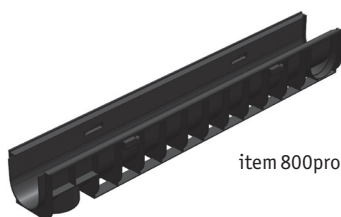
- gutters are made of frost-resistant polypropylene
- the material is resistant to difficult environment, as well as to the effect of corrosive substances

### ADVANTAGES OF PLASTIC (NYLON) GRATES:

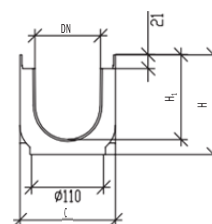
- High strength of the material
- Resistance to mechanical wear, oils, organic solvents, gasoline, reagents
- They withstand temperatures in the range from -50 to + 140 °C
- Light weight, ease of installation
- Extended stiffener plates
- They are able to withstand the weight of passenger cars



| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|

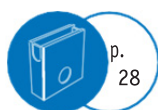


item 800pro

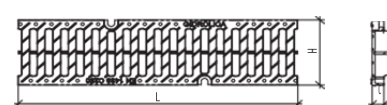


#### Plastic gutters Gidrolica® Pro DN100, class C250

|        |      |                           |       |      |     |         |     |
|--------|------|---------------------------|-------|------|-----|---------|-----|
| 800pro | C250 | ЛБ-10.14,5.15,2 - plastic | DN100 | 1000 | 146 | 152/129 | 1.7 |
|--------|------|---------------------------|-------|------|-----|---------|-----|



item 509



#### Sewer grate for gutter Gidrolica® Pro DN100, class C250

|     |      |                                 |       |     |     |    |      |
|-----|------|---------------------------------|-------|-----|-----|----|------|
| 509 | C250 | PB-10.13,5.50 – slotted plastic | DN100 | 500 | 138 | 21 | 1.24 |
|-----|------|---------------------------------|-------|-----|-----|----|------|

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

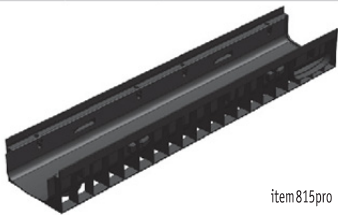
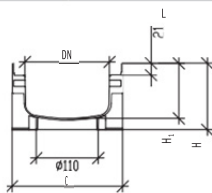
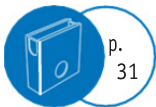
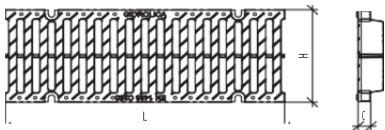
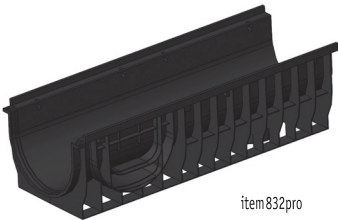
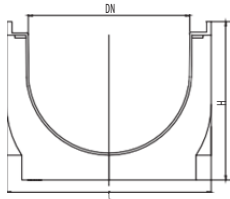
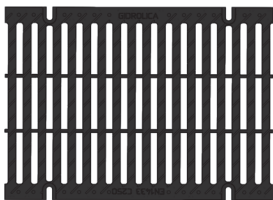
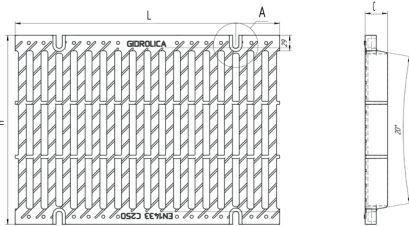
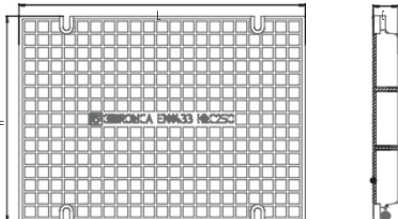
Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

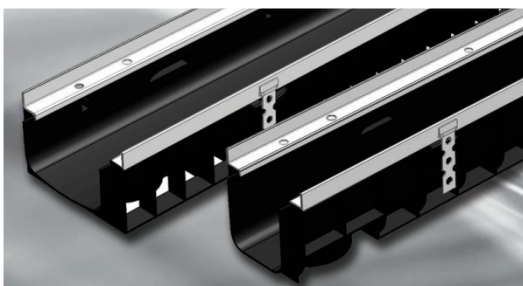




| Item                                                                                                                                                                                                                                                                      | Class of loading | Type                            | DN        | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------|-----------|-------------------|------------------|----------------------------------|--------------|
| <div>   </div>                                                                                         |                  |                                 |           |                   |                  |                                  |              |
| Plastic gutters Gidrolica® Pro DN150, class C250                                                                                                                                                                                                                          |                  |                                 |           |                   |                  |                                  |              |
| 815pro                                                                                                                                                                                                                                                                    | C250             | ЛБ-15.19,6.11,7 - plastic       | DN150     | 1000              | 196              | 117/97                           | 1.86         |
| <div>    </div>        |                  |                                 |           |                   |                  |                                  |              |
| Sewer grates for gutters Gidrolica® Pro DN150, high-strength cast-iron, class C250                                                                                                                                                                                        |                  |                                 |           |                   |                  |                                  |              |
| 512                                                                                                                                                                                                                                                                       | C250             | PB-15.18,8.50 – slotted plastic | DN150     | 500               | 188              | 21                               | 2.07         |
| Fastener for plastic drainage gutter Gidrolica® Pro                                                                                                                                                                                                                       |                  |                                 |           |                   |                  |                                  |              |
| 106                                                                                                                                                                                                                                                                       |                  |                                 |           |                   |                  |                                  |              |
| <div>    </div> |                  |                                 |           |                   |                  |                                  |              |
| Plastic gutters Gidrolica® Pro DN300, class C250                                                                                                                                                                                                                          |                  |                                 |           |                   |                  |                                  |              |
| 832pro                                                                                                                                                                                                                                                                    | C250             | ЛБ-30.38.29,4                   | DN300     | 1000              | 380              | 294/244                          | 6.29         |
|  834pro                                                                                                                                                                                | C250             | ЛБ-30.38.49,4                   | DN300     | 1000              | 380              | 494/444                          | 8.9          |
| <div>    </div> |                  |                                 |           |                   |                  |                                  |              |
| Sewer grate for gutter Gidrolica® Pro DN300, class C250                                                                                                                                                                                                                   |                  |                                 |           |                   |                  |                                  |              |
|  535                                                                                                                                                                                   | C250             | PB-30.35,8.50 – mesh plastic    |           | 500               | 358              | 42                               | 3.52         |
| <div>    </div> |                  |                                 |           |                   |                  |                                  |              |
| Blank cover for drainage gutter Gidrolica® Pro DN300, class C250                                                                                                                                                                                                          |                  |                                 |           |                   |                  |                                  |              |
|  536                                                                                                                                                                                   | C250             | КЛ-30.35,8.50 - plastic         | DN300     | 500               | 358              | 42                               | 3.98         |
| Fastener for plastic drainage gutter Gidrolica® Pro                                                                                                                                                                                                                       |                  |                                 |           |                   |                  |                                  |              |
| 106                                                                                                                                                                                                                                                                       |                  |                                 | DN100-300 |                   |                  |                                  |              |

## CONCRETE DRAINAGE SYSTEMS BGF-Z/BGU-Z DN100

- PLASTIC  
DRAINAGE  
SYSTEMS  
Gidrolica®Super
- CONCRETE  
DRAINAGE  
SYSTEMS BGF-  
Z,  
BGU-Z,  
BGZ-S



SURFACE DRAINAGE SYSTEMS FOR CLASS OF LOADING  
D400, E600

**Gidrolica® Super** – plastic gutters, reinforced with galvanized steel nozzle and inserts for additional holding in concrete. They are used with grates with classes of loading D400-E600.

**Application field:**

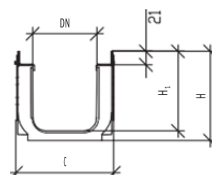
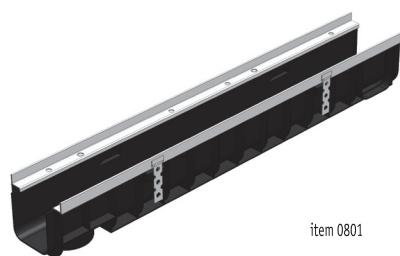
- fuel stations
- carwashes
- logistic centers
- transport terminals
- manufacturing facilities
- storage compounds

**Quality:**

- made of frost-resistant polypropylene
- the material is resistant to difficult environment, as well as to the effects of corrosive substances
- reinforced galvanized steel nozzle that protects the gutter flange



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

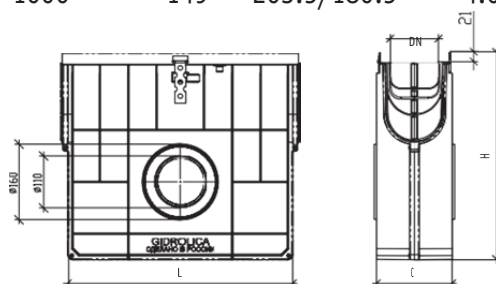


Plastic gutters Gidrolica® Super DN100 class D400/E600

|      |      |                  |       |      |     |             |      |
|------|------|------------------|-------|------|-----|-------------|------|
| 0805 | E600 | ЛВ -10.14,5.08   | DN100 | 1000 | 149 | 81.5/66.5   | 3    |
| 0803 | E600 | ЛВ -10.14,5.10   | DN100 | 1000 | 149 | 98.5/75.5   | 3.2  |
| 0804 | E600 | ЛВ -10.14,5.12   | DN100 | 1000 | 149 | 118.5/95.5  | 3.32 |
| 0801 | E600 | ЛВ -10.14,5.14   | DN100 | 1000 | 149 | 138.5/115.5 | 3.46 |
| 0800 | E600 | ЛВ -10.14,5.15,5 | DN100 | 1000 | 149 | 153.5/130.5 | 3.59 |
| 0802 | E600 | ЛВ -10.14,5.20,5 | DN100 | 1000 | 149 | 203.5/180.5 | 4.07 |



apt. 0808



Plastic sand traps Gidrolica® Super DN100, class D400/E600

|      |      |              |       |     |     |     |      |
|------|------|--------------|-------|-----|-----|-----|------|
| 0808 | E600 | ПУ -10.16.44 | DN100 | 500 | 160 | 478 | 3.75 |
|------|------|--------------|-------|-----|-----|-----|------|



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



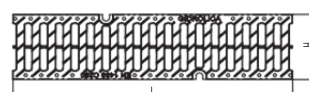
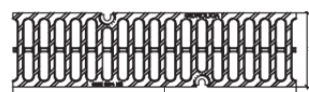
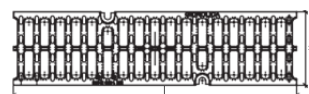
item 50109D



item 50109E

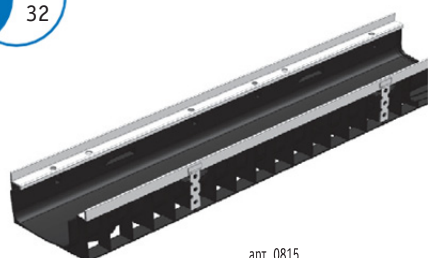


item 509

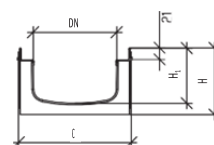


#### Sewer grates for gutters Gidrolica® Super DN100, class C250/E600

|        |      |                                               |       |     |     |    |      |
|--------|------|-----------------------------------------------|-------|-----|-----|----|------|
| 50109D | D400 | PB-10.14.50 – slotted high-strength cast-iron | DN100 | 500 | 140 | 21 | 4.45 |
| 50109E | E600 | PB-10.14.50 – slotted high-strength cast-iron | DN100 | 500 | 140 | 21 | 4.4  |
| 509    | C250 | PB-10.13,5.50 – slotted plastic               | DN100 | 500 | 138 | 21 | 1.24 |



ap. 0815



#### Plastic gutters Gidrolica® Super DN150 class D400/E600

|      |      |                 |       |      |     |           |     |
|------|------|-----------------|-------|------|-----|-----------|-----|
| 0815 | E600 | ЛБ-15.19,6.11,8 | DN15  | 1000 | 199 | 118.5/98  | 3.8 |
| 0816 | E600 | ЛБ-15.19,6.20,3 | DN150 | 1000 | 199 | 203.5/183 | 4.5 |



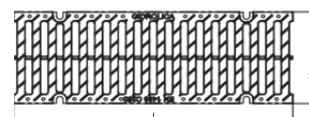
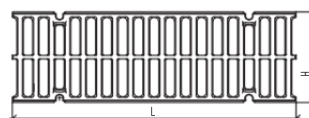
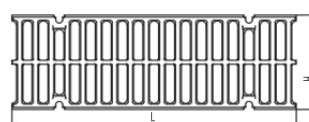
item 50159D



item 50159E

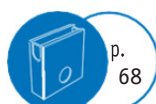


item 512



#### Sewer grates for gutters Gidrolica® Super DN150, high-strength cast-iron, class D400/E600

|        |      |                                               |       |     |     |    |      |
|--------|------|-----------------------------------------------|-------|-----|-----|----|------|
| 50159D | D400 | PB-15.19.50 – slotted high-strength cast-iron | DN150 | 500 | 190 | 21 | 6.4  |
| 50159E | E600 | PB-15.19.50 – slotted high-strength cast-iron | DN150 | 500 | 190 | 21 | 7.2  |
| 512    | C250 | PB-15.18,8.50 – slotted plastic               | DN150 | 500 | 188 | 21 | 2.07 |



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

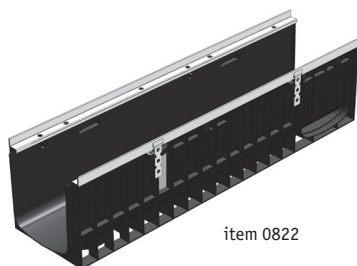
Entrance dirt-guard systems

Multi-purpose grid flooring

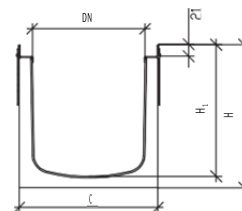




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

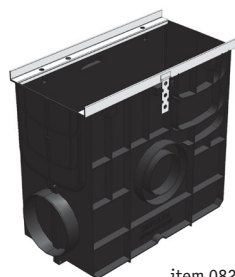


item 0822

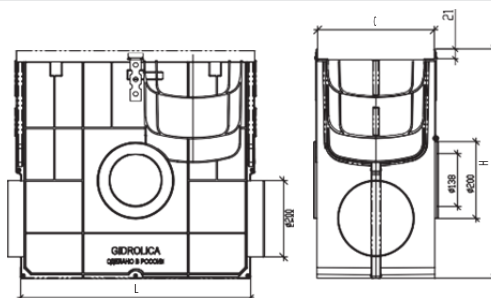


## Plastic gutters Gidrolica® Super DN200 class D400/E600

|      |      |                |       |      |     |             |      |
|------|------|----------------|-------|------|-----|-------------|------|
| 0821 | E600 | ЛБ -20.24,6.12 | DN200 | 1000 | 249 | 118.5/98.5  | 2,92 |
| 0820 | E600 | ЛБ -20.24,6.20 | DN200 | 1000 | 249 | 203.5/183.5 | 4,74 |
| 0822 | E600 | ЛБ -20.24,6.25 | DN200 | 1000 | 249 | 253/233     | 5,35 |



item 0828

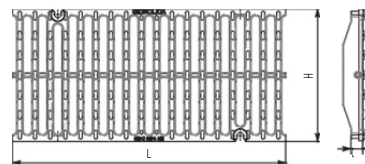


## Multi-purpose plastic sand traps Gidrolica® Super DN150/200 class D400/E600

|      |      |                |           |     |     |     |      |
|------|------|----------------|-----------|-----|-----|-----|------|
| 0828 | E600 | ПТ -20.25,47,8 | DN150/200 | 540 | 260 | 478 | 3,86 |
|------|------|----------------|-----------|-----|-----|-----|------|

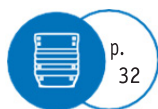


item 50209D

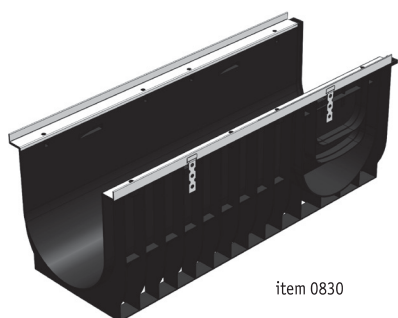


## Sewer grates for gutters Gidrolica® Super DN200, class C250/E600

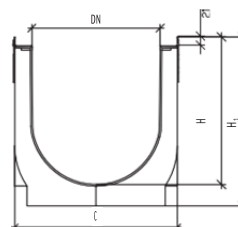
|         |      |                                             |       |     |     |    |      |
|---------|------|---------------------------------------------|-------|-----|-----|----|------|
| NEW 525 | C250 | PB-20.23,8.50-mesh plastic                  | DN200 | 500 | 238 | 42 | 2.4  |
| 50209D  | D400 | PB-20.24,50-slotted high-strength cast-iron | DN200 | 500 | 240 | 21 | 8,5  |
| 50209E  | E600 | PB-20.24,50-slotted high-strength cast-iron | DN200 | 500 | 240 | 21 | 9,52 |



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 0830



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

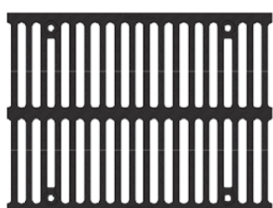
Soil conservation and stabilization system

Entrance dirt-guard systems

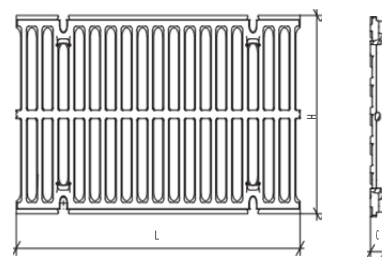
Multi-purpose grid flooring

#### Plastic gutters Gidrolica® Super DN300 class D400/E600

|                 |      |               |       |      |     |             |       |
|-----------------|------|---------------|-------|------|-----|-------------|-------|
| 0832            | C250 | ЛВ-30.38.29,6 | DN300 | 1000 | 383 | 295,5/245,5 | 8.43  |
| 0830            | C250 | ЛВ-30.38.39,6 | DN300 | 1000 | 383 | 295,5/245,5 | 9.6   |
| <b>NEW</b> 0834 | C250 | ЛВ-30.38.49,6 | DN300 | 1000 | 383 | 495,5/445,5 | 10.74 |



item 50309E

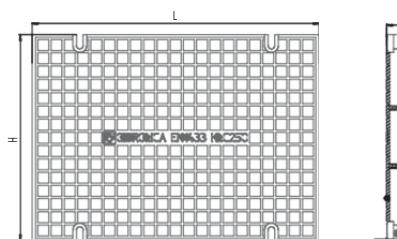


#### Sewer grates for gutters Gidrolica® Super DN300, high-strength cast-iron, class C250/E600

|                |      |                                                 |       |     |     |    |      |
|----------------|------|-------------------------------------------------|-------|-----|-----|----|------|
| 50309E         | E600 | PB-30.37,5.50 – slotted high-strength cast-iron | DN300 | 500 | 375 | 21 | 19,1 |
| <b>NEW</b> 535 | C250 | PB-30.35,8.50 – mesh plastic                    | DN300 | 500 | 358 | 42 | 3.52 |



apt. 536



#### Blank cover for drainage gutter Gidrolica® Super DN300, class C250

|                |      |                         |       |     |     |    |      |
|----------------|------|-------------------------|-------|-----|-----|----|------|
| <b>NEW</b> 536 | C250 | КЛ-30.35,8.50 - plastic | DN300 | 500 | 358 | 42 | 3.98 |
|----------------|------|-------------------------|-------|-----|-----|----|------|

#### Fastener to fasten grates to plastic drainage gutters Gidrolica® Super, class D400/E600

|     |     |  |  |  |  |  |  |
|-----|-----|--|--|--|--|--|--|
| 106 | pc. |  |  |  |  |  |  |
|-----|-----|--|--|--|--|--|--|

#### End plugs for drainage gutters Gidrolica® Super

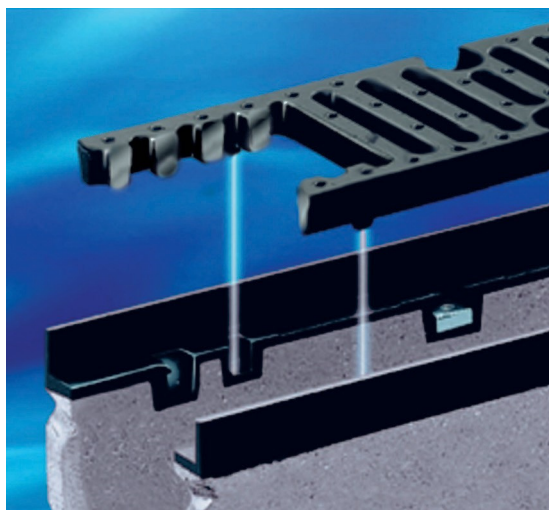
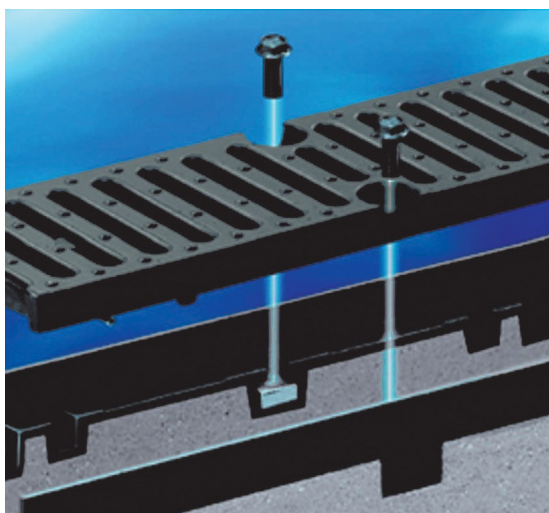
|       |         |       |     |   |     |      |
|-------|---------|-------|-----|---|-----|------|
| 18101 | plastic | DN100 | 152 | 4 | 185 | 0.15 |
| 18151 | plastic | DN100 | 202 | 4 | 235 | 0.17 |
| 18201 | plastic | DN200 | 252 | 4 | 235 | 0.21 |



## CONCRETE GUTTERS OF CLASS D400, E600 AND F900 – RIGHT CHOICE FOR HIGH LOADS



Concrete gutters of class D400, E600 and F900 are specially designed for use in areas with heavy traffic and high loads.



1. Gutters are produced by the method of vibrocompression, allowing to achieve the most compact structure of the gutter, which has the lowest moisture absorption value, making them more frost-resistant.
2. Gutters are made of concrete B40, it is a robust construction, designed for operation under heavy loads.
3. Grates are made of high-strength high-strength cast iron Vch40; these are reliable constructions for heavy loads.
4. The edge of the gutter is protected by a special nozzle (steel or cast iron Vch40 / Vch50), which is concreted into the body of the gutter.
5. Bolts are used to fasten the grate (up to 8 bolts per a linear meter). A special bolt joint has been specially developed allowing you to replace a failed bolt or nut quickly. Grates always remain fixed.
6. Nozzles on the gutters are equipped with a special tenon, and the grates have a mortise that prevent longitudinal displacement of the grate, when combined. The use of the mortise-and-tenon system contributes to the uniform distribution of dynamic loads over the entire surface of the reinforcing nozzle.



## REINFORCING NOZZLES OF CONCRETE GUTTERS OF CLASS D400, E600 AND F900

Concrete gutters of class D400, E600 and F900 are specially designed for use in areas with heavy traffic and high loads.

1. **Reinforcing steel nozzle** It is an optimal and balanced solution for areas with loads D400, DN100, DN150, DN200.

### Advantages of galvanized steel nozzles:

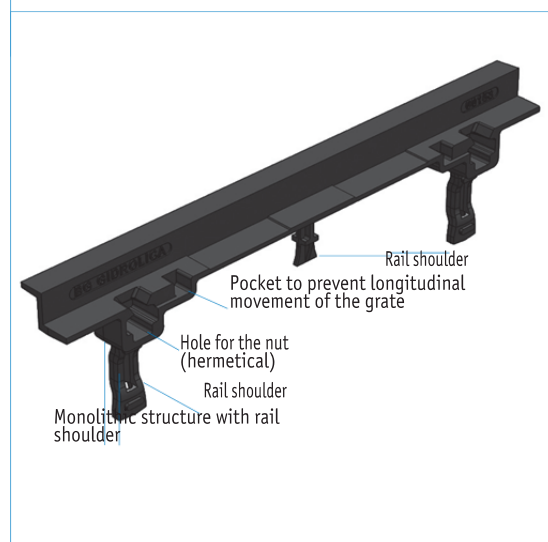
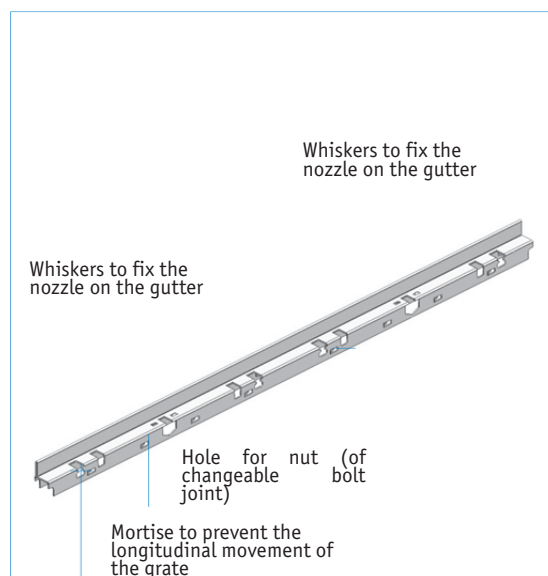
- It is made of galvanized steel with a thickness of 4 mm. This is a reliable and durable protection of the gutter edge.
- The nozzle has whiskers for fixing in the concrete structure of the tray, it is fully pressed and non-removable.
- The nozzle provides holes for the nut of the changeable bolt joint between the gutter and the grate.
- The nozzle provides a mortise for tenon of the grate to prevent the longitudinal movement of the grate and to take some of the load from the bolt joint.

### 2. Reinforcing cast-iron nozzle

Concrete gutters with cast-iron nozzles are the most robust solution for heavy traffic areas with loads from class E600 to F900. These nozzles improve gutter characteristics under intensive static and dynamic loads.

### Advantages of the cast-iron nozzle:

- The nozzle is made of high-strength cast iron Vch40/Vch50.
- The monolithic structure of the nozzle and rail shoulder provides a unique strength to the system of "tray, nozzle, grate, bolt joint".
- Holes for the changeable nut close the gutter concrete hermetically, moisture does not affect the bolt joint.







**BGF-Z** are shallow-draught concrete gutters with h-shaped galvanized nozzle.

**BGU-Z** are multi-purpose concrete gutters with h-shaped galvanized nozzle.

#### Application field:

- fuel stations
- shipping facilities
- storage areas
- industrial construction

#### Quality:

- high quality concrete with class not lower than B40
- moisture absorption ratio is not more than 6%
- concrete grade according to frost resistance is not lower than F200
- resistance to corrosive substances
- h-shaped nozzle from galvanized steel

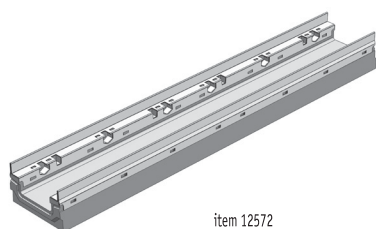
#### BGF-Z



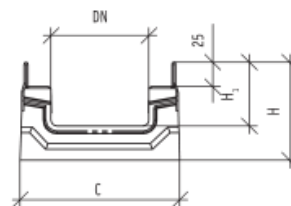
#### BGU-Z



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

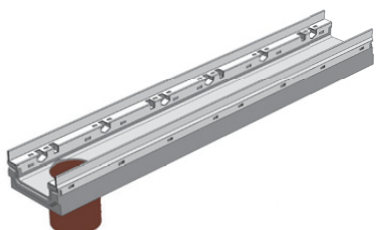


item 12572

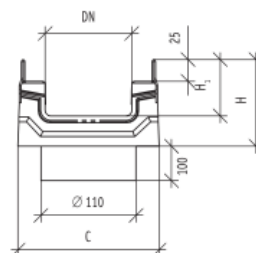


Shallow-draught concrete gutters BGF-Z DN100, class D400/E600, with galvanized nozzle, without slope

|       |      |      |       |      |     |        |    |
|-------|------|------|-------|------|-----|--------|----|
| 12572 | E600 | h100 | DN100 | 1000 | 163 | 100/65 | 22 |
|-------|------|------|-------|------|-----|--------|----|



apr. 12573

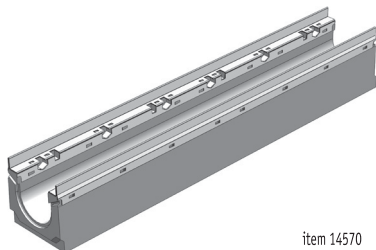


Shallow-draught concrete gutters BGF-Z DN100, class D400/E600, with galvanized nozzle, with vertical spillway, without slope

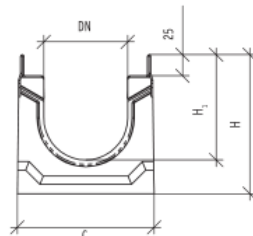
|       |      |       |       |      |     |        |    |
|-------|------|-------|-------|------|-----|--------|----|
| 12573 | E600 | h 100 | DN100 | 1000 | 163 | 100/65 | 18 |
|-------|------|-------|-------|------|-----|--------|----|



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

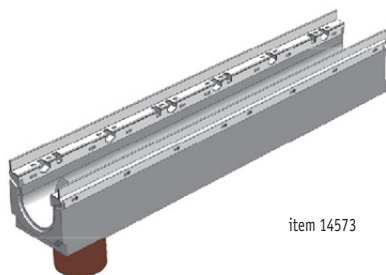


item 14570

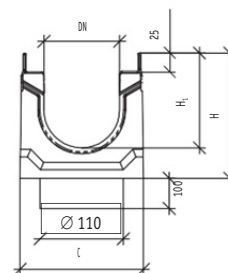


Multi-purpose concrete gutters BGU-Z DN100, class D400/E600, with galvanized nozzle, without slope

|       |      |      |       |      |     |         |       |
|-------|------|------|-------|------|-----|---------|-------|
| 14570 | E600 | 0    | DN100 | 1000 | 163 | 165/125 | 35.7  |
| 14571 | E600 | 5-0  | DN100 | 1000 | 163 | 190/150 | 39.45 |
| 14572 | E600 | 10-0 | DN100 | 1000 | 163 | 215/175 | 43.2  |

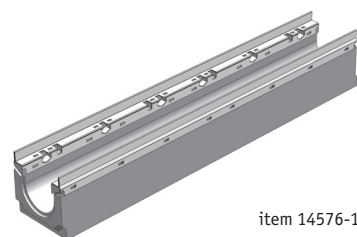


item 14573

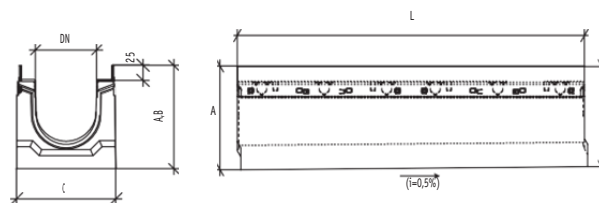


Multi-purpose concrete gutters BGU-Z DN100, class D400/E600, with galvanized nozzle, with vertical spillway, without slope

|       |      |     |       |      |     |         |       |
|-------|------|-----|-------|------|-----|---------|-------|
| 14573 | E600 | 0   | DN100 | 1000 | 163 | 165/125 | 33.7  |
| 14574 | E600 | 5-0 | DN100 | 1000 | 163 | 190/150 | 37.45 |



item 14576-14585



Multi-purpose concrete gutters BGU-Z DN100, class D400/E600, with galvanized nozzle, with slope 0,5 %

|       |      |      |       |      |     |         |       |
|-------|------|------|-------|------|-----|---------|-------|
| 14576 | E600 | № 1  | DN100 | 1000 | 163 | 165/170 | 36.08 |
| 14577 | E600 | № 2  | DN100 | 1000 | 163 | 170/175 | 36.83 |
| 14578 | E600 | № 3  | DN100 | 1000 | 163 | 175/180 | 37.58 |
| 14579 | E600 | № 4  | DN100 | 1000 | 163 | 180/185 | 38.33 |
| 14580 | E600 | № 5  | DN100 | 1000 | 163 | 185/190 | 39.08 |
| 14581 | E600 | № 6  | DN100 | 1000 | 163 | 190/195 | 39.83 |
| 14582 | E600 | № 7  | DN100 | 1000 | 163 | 195/200 | 40.58 |
| 14583 | E600 | № 8  | DN100 | 1000 | 163 | 200/205 | 41.33 |
| 14584 | E600 | № 9  | DN100 | 1000 | 163 | 205/210 | 42.08 |
| 14585 | E600 | № 10 | DN100 | 1000 | 163 | 210/215 | 42.83 |

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

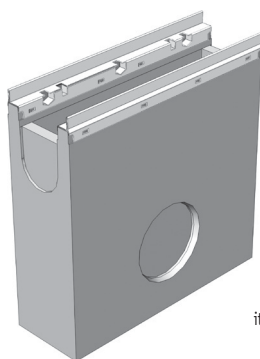
Point drainage

Soil conservation and stabilization system

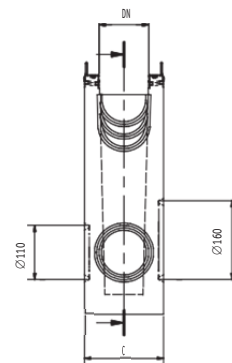
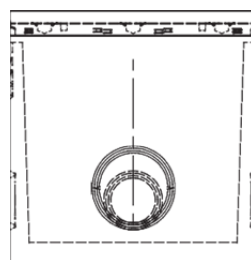
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

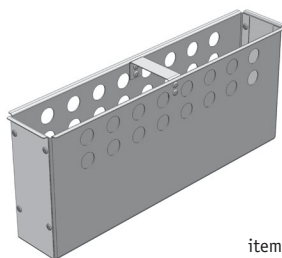


item 22195



Multi-purpose concrete sand traps BGU-Z DN100, class D400/E600 with galvanized nozzle,

|       |      |  |       |     |     |         |      |
|-------|------|--|-------|-----|-----|---------|------|
| 22195 | E600 |  | DN100 | 500 | 201 | 510/125 | 47.7 |
|-------|------|--|-------|-----|-----|---------|------|



item 49010900

Multi-purpose basket for sand trap BGU-Z DN100

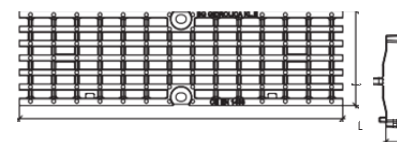
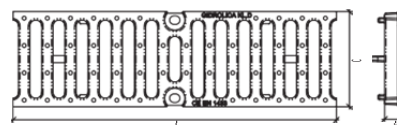
|          |                  |  |       |     |    |       |     |
|----------|------------------|--|-------|-----|----|-------|-----|
| 49010900 | galvanized steel |  | DN100 | 400 | 80 | 163.5 | 2.0 |
|----------|------------------|--|-------|-----|----|-------|-----|



item RU23002



item 23820



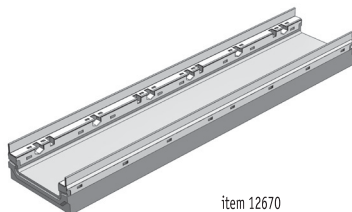
Sewer grates for gutters BGF-Z/BGU-Z DN100, class D400/E600

|         |      |                                        |       |     |     |    |     |
|---------|------|----------------------------------------|-------|-----|-----|----|-----|
| RU23002 | D400 | 500/147/25, 18/120 – slotted cast-iron | DN100 | 500 | 147 | 25 | 4   |
| 23820   | E600 | 500/147/25, 27/13 – mesh cast-iron     | DN100 | 500 | 147 | 25 | 4.3 |

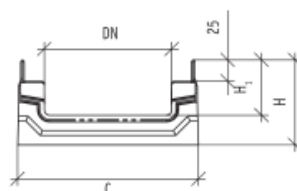




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

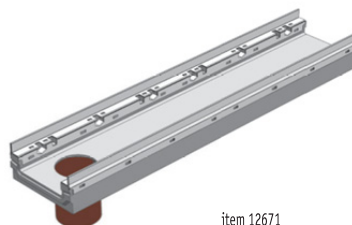


item 12670

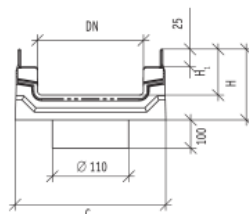


Shallow-draught concrete gutters BGF-ZDN150, class D400/E600, with galvanized nozzle, without slope

|       |      |      |       |      |     |        |    |
|-------|------|------|-------|------|-----|--------|----|
| 12670 | E600 | h100 | DN150 | 1000 | 213 | 100/65 | 28 |
|-------|------|------|-------|------|-----|--------|----|

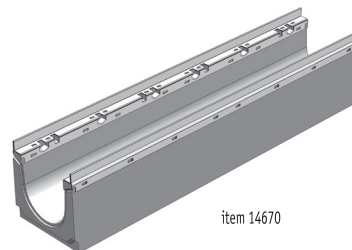


item 12671

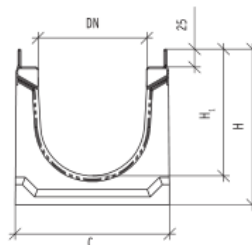


Shallow-draught concrete gutters BGF-ZDN150, class D400/E600, with galvanized nozzle, with vertical spillway, without slope

|       |      |      |       |      |     |        |      |
|-------|------|------|-------|------|-----|--------|------|
| 12671 | E600 | h100 | DN150 | 1000 | 213 | 100/65 | 24.3 |
|-------|------|------|-------|------|-----|--------|------|

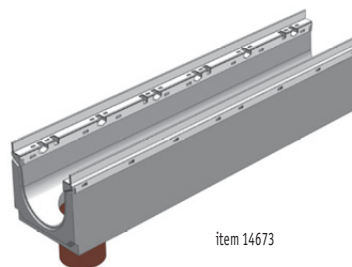


item 14670

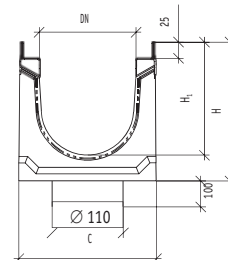


Multi-purpose concrete gutters BGU-Z DN150, class D400/E600, with galvanized nozzle, without slope

|       |      |        |       |      |     |         |      |
|-------|------|--------|-------|------|-----|---------|------|
| 14670 | E600 | № 0    | DN150 | 1000 | 213 | 215/175 | 53.7 |
| 14671 | E600 | № 5-0  | DN150 | 1000 | 213 | 240/200 | 57.2 |
| 14672 | E600 | № 10-0 | DN150 | 1000 | 213 | 265/225 | 60.7 |



item 14673



Multi-purpose concrete gutters BGU-Z DN150, class D400/E600, with galvanized nozzle, with vertical spillway, without slope

|       |      |        |       |      |     |         |      |
|-------|------|--------|-------|------|-----|---------|------|
| 14673 | E600 | № 0    | DN150 | 1000 | 213 | 215/175 | 50.7 |
| 14674 | E600 | № 5-0  | DN150 | 1000 | 213 | 240/200 | 54.2 |
| 14675 | E600 | № 10-0 | DN150 | 1000 | 213 | 265/225 | 57.7 |

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

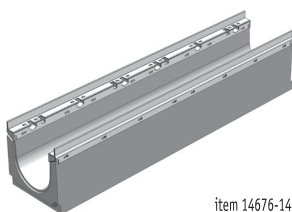
Soil conservation and stabilization system

Entrance dirt-guard systems

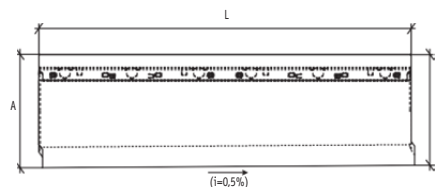
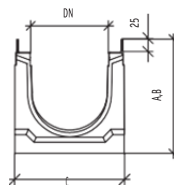
Multi-purpose grid flooring



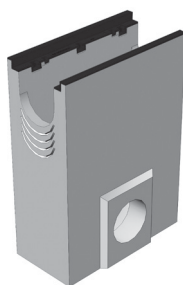
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



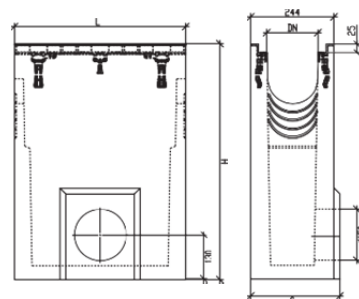
item 14676-14685


**Multi-purpose concrete gutters BGU-Z DN150, class D400/E600, with galvanized nozzle, with slope 0,5 %**

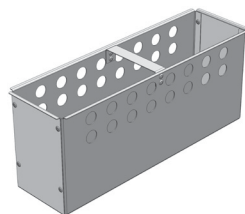
|       |      |      |       |      |     |         |       |
|-------|------|------|-------|------|-----|---------|-------|
| 14676 | E600 | № 1  | DN150 | 1000 | 213 | 215/220 | 54.05 |
| 14677 | E600 | № 2  | DN150 | 1000 | 213 | 220/225 | 54.75 |
| 14678 | E600 | № 3  | DN150 | 1000 | 213 | 225/230 | 55.45 |
| 14679 | E600 | № 4  | DN150 | 1000 | 213 | 230/235 | 56.15 |
| 14680 | E600 | № 5  | DN150 | 1000 | 213 | 235/240 | 56.85 |
| 14681 | E600 | № 6  | DN150 | 1000 | 213 | 240/245 | 57.55 |
| 14682 | E600 | № 7  | DN150 | 1000 | 213 | 245/250 | 58.25 |
| 14683 | E600 | № 8  | DN150 | 1000 | 213 | 250/255 | 58.95 |
| 14684 | E600 | № 9  | DN150 | 1000 | 213 | 255/260 | 59.65 |
| 14685 | E600 | № 10 | DN150 | 1000 | 213 | 260/265 | 60.35 |



item 22201


**Concrete sand trap BGZ-S DN150, class E600/F900, with cast-iron nozzle**

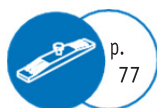
|       |      |  |       |     |     |     |    |
|-------|------|--|-------|-----|-----|-----|----|
| 22201 | F900 |  | DN150 | 500 | 261 | 690 | 95 |
|-------|------|--|-------|-----|-----|-----|----|



item 49015900

**Multi-purpose basket for sand trap BGU-Z DN150**

|          |  |                  |       |     |     |       |     |
|----------|--|------------------|-------|-----|-----|-------|-----|
| 49015900 |  | Galvanized steel | DN150 | 400 | 120 | 163.5 | 2.0 |
|----------|--|------------------|-------|-----|-----|-------|-----|





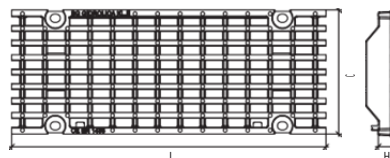
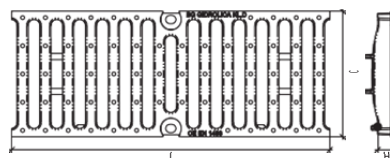
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item RU22038

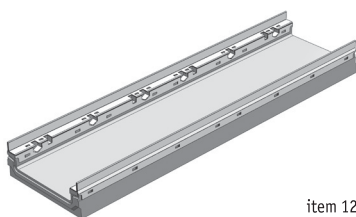


item RU22712

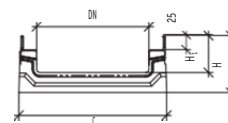


Sewer grates for gutters BGF-Z/BGU-Z DN150, class D400/E600

|         |      |                                        |       |     |     |    |      |
|---------|------|----------------------------------------|-------|-----|-----|----|------|
| RU22038 | D400 | 500/197/25, 18/170 – slotted cast-iron | DN150 | 500 | 197 | 25 | 7    |
| RU22712 | E600 | 500/197/25, 27/13 – mesh cast-iron     | DN150 | 500 | 197 | 25 | 7.33 |

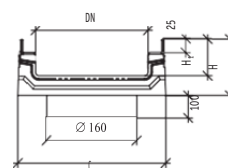
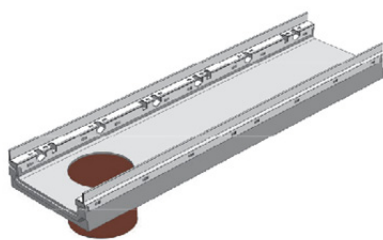


item 12770



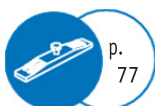
Shallow-draught concrete gutters BGF-Z DN200, class D400/E600, with galvanized nozzle, without slope

|       |      |       |       |      |     |        |    |
|-------|------|-------|-------|------|-----|--------|----|
| 12770 | E600 | h 100 | DN200 | 1000 | 263 | 100/65 | 34 |
|-------|------|-------|-------|------|-----|--------|----|



Shallow-draught concrete gutters BGF-Z DN200, class D400/E600, with galvanized nozzle, with vertical spillway, without slope

|       |      |       |       |      |     |        |      |
|-------|------|-------|-------|------|-----|--------|------|
| 12771 | E600 | h 100 | DN200 | 1000 | 263 | 100/65 | 27.3 |
|-------|------|-------|-------|------|-----|--------|------|



\* Diameter for pipes to the gutter with vertical spillway Ø160/200 mm

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

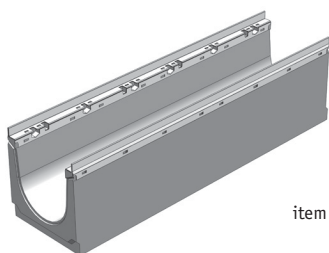
Point drainage

Soil conservation and stabilization system

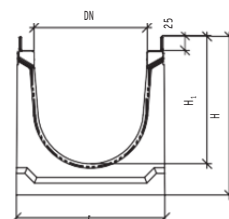
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

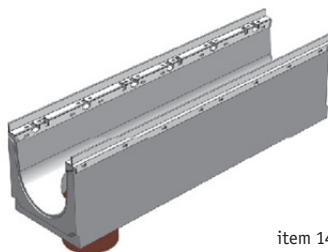


item 14770

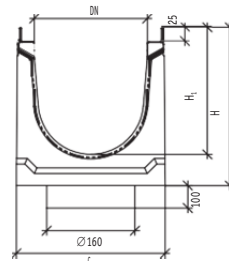


Multi-purpose concrete gutters BGU-Z DN200, class D400/E600, with galvanized nozzle, without slope

|       |      |        |       |      |     |         |      |
|-------|------|--------|-------|------|-----|---------|------|
| 14770 | E600 | № 0    | DN200 | 1000 | 263 | 280/225 | 82.7 |
| 14771 | E600 | № 5-0  | DN200 | 1000 | 263 | 305/250 | 86.7 |
| 14772 | E600 | № 10-0 | DN200 | 1000 | 263 | 330/275 | 90.7 |

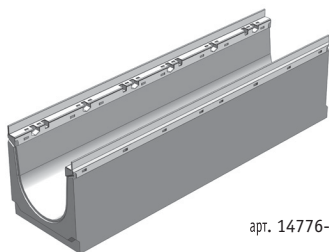


item 14773



Multi-purpose concrete gutters BGU-Z DN200, class D400/E600, with galvanized nozzle, with vertical spillway, without slope

|       |      |       |       |      |     |         |      |
|-------|------|-------|-------|------|-----|---------|------|
| 14773 | E600 | № 0   | DN200 | 1000 | 263 | 280/225 | 76.7 |
| 14774 | E600 | № 5-0 | DN200 | 1000 | 263 | 305/250 | 80.7 |



ap. 14776-14785



Multi-purpose concrete gutters BGU-Z DN200, class D400/E600, with galvanized nozzle, with slope 0,5 %

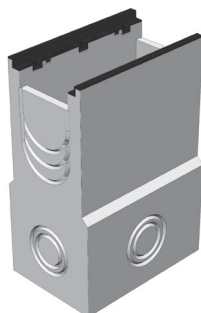
|       |      |      |       |      |     |         |      |
|-------|------|------|-------|------|-----|---------|------|
| 14776 | E600 | № 1  | DN200 | 1000 | 263 | 280/285 | 83.1 |
| 14777 | E600 | № 2  | DN200 | 1000 | 263 | 285/290 | 83.9 |
| 14778 | E600 | № 3  | DN200 | 1000 | 263 | 290/295 | 84.7 |
| 14779 | E600 | № 4  | DN200 | 1000 | 263 | 295/300 | 85.5 |
| 14780 | E600 | № 5  | DN200 | 1000 | 263 | 300/305 | 86.3 |
| 14781 | E600 | № 6  | DN200 | 1000 | 263 | 305/310 | 87.1 |
| 14782 | E600 | № 7  | DN200 | 1000 | 263 | 310/315 | 87.9 |
| 14783 | E600 | № 8  | DN200 | 1000 | 263 | 315/320 | 88.7 |
| 14784 | E600 | № 9  | DN200 | 1000 | 263 | 320/325 | 89.5 |
| 14785 | E600 | № 10 | DN200 | 1000 | 263 | 325/330 | 90.3 |



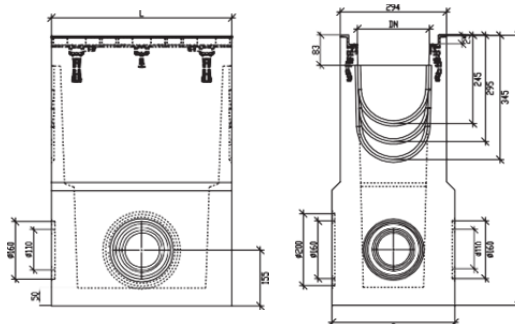
\* Diameter for pipes to the gutter with vertical spillway Ø160/200 mm



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

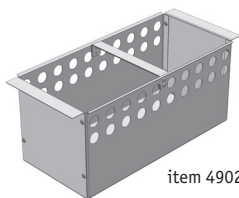


item 49020100



Sand traps BGZ-S DN200, class E600/F900, with cast-iron nozzle

|          |      |                             |       |     |     |     |     |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|
| 49020100 | F900 | 500/340/750, single-section | DN200 | 500 | 340 | 750 | 138 |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|



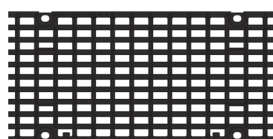
item 49020900

Multi-purpose basket for sand traps BGU-Z DN200

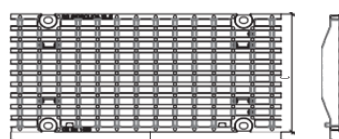
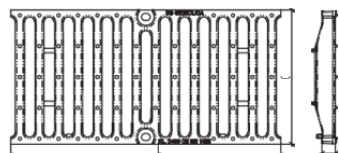
|          |  |                  |       |     |     |       |     |
|----------|--|------------------|-------|-----|-----|-------|-----|
| 49020900 |  | Galvanized steel | DN200 | 400 | 175 | 163.5 | 2.1 |
|----------|--|------------------|-------|-----|-----|-------|-----|



item RU22039



item RU22722



Sewer grates for gutters BGF-Z/ BGU-Z DN200, class D400/E600

|         |      |                                        |       |     |     |    |     |
|---------|------|----------------------------------------|-------|-----|-----|----|-----|
| RU22039 | D400 | 500/247/25, 18/220 – slotted cast-iron | DN200 | 500 | 247 | 25 | 7.7 |
| RU22722 | E600 | 500/247/25, 27/13 – mesh cast-iron     | DN200 | 500 | 247 | 25 | 9.1 |

Fastener for cast-iron grates

|       |  |                  |           |
|-------|--|------------------|-----------|
| 22281 |  | для BGF-Z, BGU-Z | DN100-200 |
|-------|--|------------------|-----------|

Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



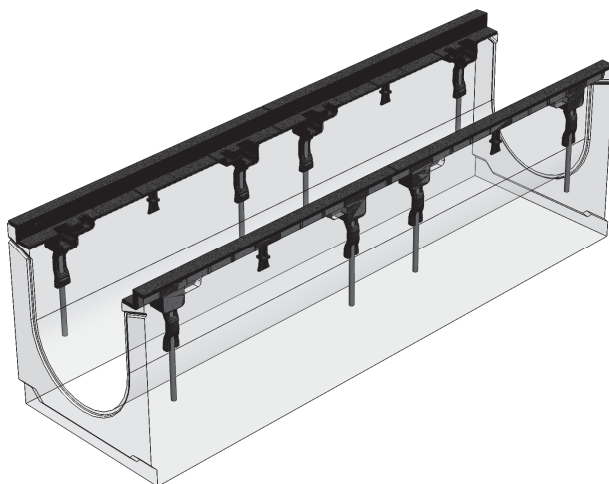
BGZ-S is a series of concrete drainage gutters with a Z-shaped cast-iron nozzle pressed into the body of the gutter for use in areas of high and ultrahigh loads.

### Application field:

- fuel stations
- highways
- shipping facilities
- storage areas
- ports
- industrial construction

### Quality:

- high-quality concrete with class B60
- moisture absorption ratio is 2,2%
- concrete grade according to frost resistance is F<sub>2300</sub>
- concrete grade according to water resistance is W10
- gutter wall thickness is 47mm
- additional reinforcement of the gutter walls with reinforcing rail shoulders to prevent its destruction
- supporting structure is made of high-strength cast iron Vch40
- monolithic structure of the supporting structure and rail shoulder to enhance connection with the gutter body and prevent its destruction



The installation of drainage gutters BGZ-S is recommended in areas of high mechanical loads (E600/F900). As an additional reinforcement of the structure, wall reinforcement with galvanized steel rods is used.

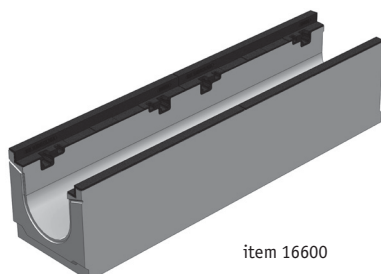
Pins for reinforcement are installed in a monolithic structure of the nozzle with the rail shoulder. They are securely hidden in concrete and protected from moisture and air, thus, not subject to corrosion.

Reinforcement of the gutter walls with steel pins strengthens them additionally and prevents destruction of the entire system.

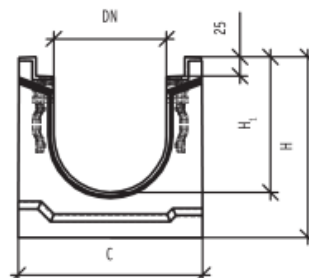




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

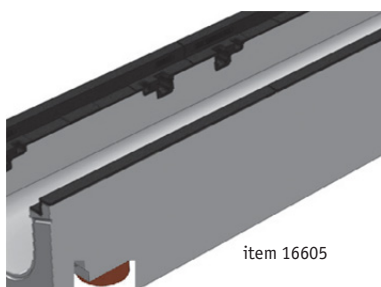


item 16600

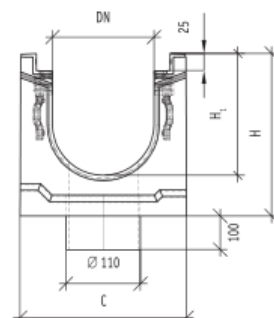


Concrete gutters BGZ-S DN150, class E600/F900, with cast-iron nozzle, without slope

|       |      |        |       |      |     |         |        |
|-------|------|--------|-------|------|-----|---------|--------|
| 16600 | F900 | № 0    | DN150 | 1000 | 246 | 240/180 | 86     |
| 16601 | F900 | № 5-0  | DN150 | 1000 | 246 | 265/205 | 90,75  |
| 16602 | F900 | № 10-0 | DN150 | 1000 | 246 | 290/320 | 91,5   |
| 16603 | F900 | № 15-0 | DN150 | 1000 | 246 | 315/255 | 100.25 |
| 16604 | F900 | № 20-0 | DN150 | 1000 | 246 | 340/280 | 105    |



item 16605



Concrete gutters BGZ-S DN150, class E600/F900, with cast-iron nozzle, with vertical spillway, without slope

|       |      |        |       |      |     |         |       |
|-------|------|--------|-------|------|-----|---------|-------|
| 16605 | F900 | № 0    | DN150 | 1000 | 246 | 240/180 | 82    |
| 16606 | F900 | № 5-0  | DN150 | 1000 | 246 | 265/205 | 86.75 |
| 16607 | F900 | № 10-0 | DN150 | 1000 | 246 | 290/320 | 91,5  |
| 16608 | F900 | № 15-0 | DN150 | 1000 | 246 | 315/255 | 96.25 |
| 16609 | F900 | № 20-0 | DN150 | 1000 | 246 | 340/280 | 101   |

\* Diameter for pipes to the gutter with vertical spillway Ø110/160 mm

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

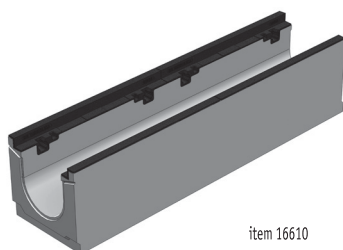
Point drainage

Soil conservation and stabilization system

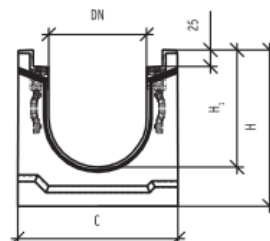
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight   |
|------|------------------|------|----|---------|---------|------------------------|----------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg<br>kg |



item 16610

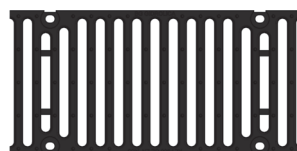


#### Concrete gutters BGZ-S DN150, class E600/F900, with cast-iron nozzle, with slope 0,5%

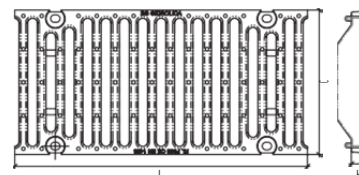
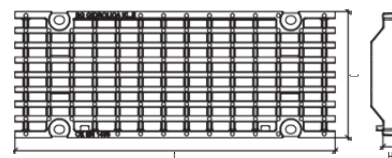
|       |      |      |       |      |     |         |        |
|-------|------|------|-------|------|-----|---------|--------|
| 16610 | F900 | № 1  | DN150 | 1000 | 246 | 240/245 | 86.48  |
| 16611 | F900 | № 2  | DN150 | 1000 | 246 | 245/250 | 87.43  |
| 16612 | F900 | № 3  | DN150 | 1000 | 246 | 250/255 | 88,38  |
| 16613 | F900 | № 4  | DN150 | 1000 | 246 | 255/260 | 89.33  |
| 16614 | F900 | № 5  | DN150 | 1000 | 246 | 260/265 | 90,28  |
| 16615 | F900 | № 6  | DN150 | 1000 | 246 | 265/270 | 91.23  |
| 16616 | F900 | № 7  | DN150 | 1000 | 246 | 270/275 | 92,18  |
| 16617 | F900 | № 8  | DN150 | 1000 | 246 | 275/280 | 93.13  |
| 16618 | F900 | № 9  | DN150 | 1000 | 246 | 280/285 | 94,08  |
| 16619 | F900 | № 10 | DN150 | 1000 | 246 | 285/290 | 95.03  |
| 16620 | F900 | № 11 | DN150 | 1000 | 246 | 290/295 | 95.58  |
| 16621 | F900 | № 12 | DN150 | 1000 | 246 | 295/300 | 96.93  |
| 16622 | F900 | № 13 | DN150 | 1000 | 246 | 300/305 | 97,88  |
| 16623 | F900 | № 14 | DN150 | 1000 | 246 | 305/310 | 98.83  |
| 16624 | F900 | № 15 | DN150 | 1000 | 246 | 310/315 | 99,78  |
| 16625 | F900 | № 16 | DN150 | 1000 | 246 | 315/320 | 100.73 |
| 16626 | F900 | № 17 | DN150 | 1000 | 246 | 315/320 | 101,68 |
| 16627 | F900 | № 18 | DN150 | 1000 | 246 | 325/330 | 102.63 |
| 16628 | F900 | № 19 | DN150 | 1000 | 246 | 330/335 | 103.58 |
| 16629 | F900 | № 20 | DN150 | 1000 | 246 | 335/340 | 104.53 |



apt.RU22712



apt.RU22005



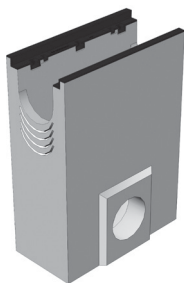
#### Sewer grates for gutters BGZ-S DN150, class E600/F900

|         |      |                                        |       |     |     |    |      |
|---------|------|----------------------------------------|-------|-----|-----|----|------|
| RU22712 | E600 | 500/197/25, 27/13, mesh cast-iron      | DN150 | 500 | 197 | 25 | 7.3  |
| RU22005 | F900 | 500/197/25, SW18/170 slotted cast-iron | DN150 | 500 | 197 | 25 | 8,87 |

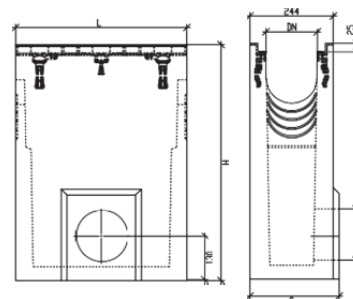




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

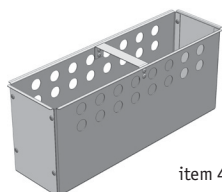


item 22201



Concrete sand trap BGZ-S DN150, class E600/F900, with cast-iron nozzle

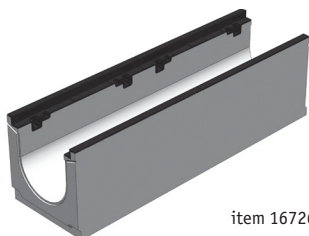
|       |      |  |       |     |     |     |    |
|-------|------|--|-------|-----|-----|-----|----|
| 22201 | F900 |  | DN150 | 500 | 261 | 690 | 95 |
|-------|------|--|-------|-----|-----|-----|----|



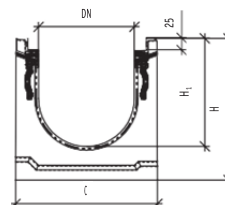
item 49015900

Multi-purpose basket for sand trap BGZ-S DN150

|          |                  |  |       |     |     |       |     |
|----------|------------------|--|-------|-----|-----|-------|-----|
| 49015900 | galvanized steel |  | DN150 | 400 | 120 | 163.5 | 2.0 |
|----------|------------------|--|-------|-----|-----|-------|-----|

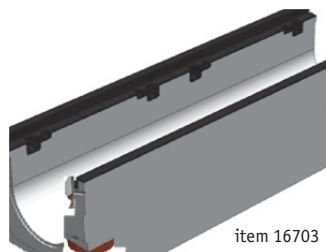


item 16726

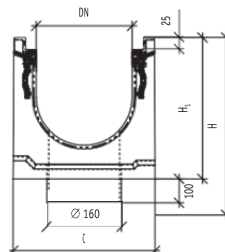


Concrete gutters BGZ-S DN200, class E600/F900, with cast-iron nozzle, without slope

|       |      |                    |       |      |     |         |     |
|-------|------|--------------------|-------|------|-----|---------|-----|
| 16700 | F900 | 0                  | DN200 | 1000 | 298 | 295/225 | 114 |
| 16701 | F900 | N <sub>5</sub> -0  | DN200 | 1000 | 298 | 320/250 | 119 |
| 16702 | F900 | N <sub>10</sub> -0 | DN200 | 1000 | 298 | 345/275 | 124 |
| 16726 | F900 | N <sub>15</sub> -0 | DN200 | 1000 | 298 | 370/300 | 129 |
| 16727 | F900 | N <sub>20</sub> -0 | DN200 | 1000 | 298 | 395/325 | 134 |



item 16703



Concrete gutters BGZ-S DN200, class E600/F900, with cast-iron nozzle, with vertical spillway, without slope

|       |      |                    |       |      |     |         |     |
|-------|------|--------------------|-------|------|-----|---------|-----|
| 16703 | F900 | N <sub>0</sub>     | DN200 | 1000 | 298 | 295/225 | 107 |
| 16704 | F900 | N <sub>5</sub> -0  | DN200 | 1000 | 298 | 320/250 | 112 |
| 16705 | F900 | N <sub>10</sub> -0 | DN200 | 1000 | 298 | 345/275 | 117 |
| 16728 | F900 | N <sub>15</sub> -0 | DN200 | 1000 | 298 | 370/300 | 122 |
| 16729 | F900 | N <sub>20</sub> -0 | DN200 | 1000 | 298 | 395/325 | 127 |

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring





Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

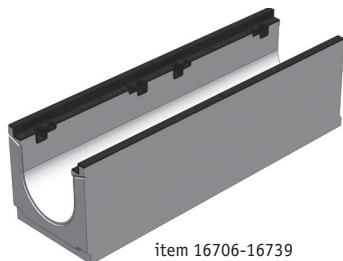
Point drainage

Soil conservation and stabilization system

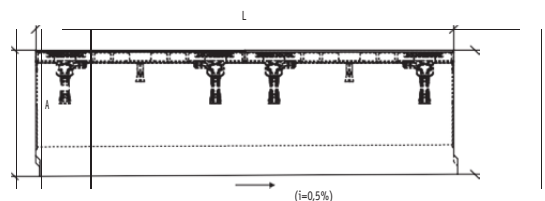
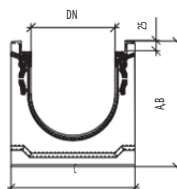
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

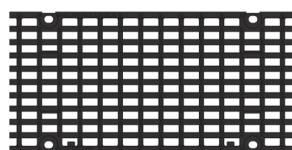


item 16706-16739



### Concrete gutters BGZ-S DN200, class E600/F900, with cast-iron nozzle, , with slope 0,5%

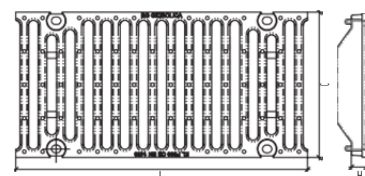
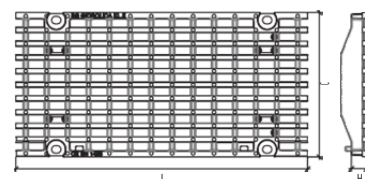
|       |      |    |       |      |     |         |       |     |
|-------|------|----|-------|------|-----|---------|-------|-----|
| 16706 | F900 | 1  | DN200 | 1000 | 298 | 295/300 | 114.5 | 298 |
| 16707 | F900 | 2  | DN200 | 1000 | 298 | 300/305 | 115.5 | 298 |
| 16708 | F900 | 3  | DN200 | 1000 | 298 | 305/310 | 116.5 | 298 |
| 16709 | F900 | 4  | DN200 | 1000 | 298 | 310/315 | 117.5 | 298 |
| 16710 | F900 | 5  | DN200 | 1000 | 298 | 315/320 | 118.5 | 298 |
| 16711 | F900 | 6  | DN200 | 1000 | 298 | 320/325 | 119.5 | 298 |
| 16712 | F900 | 7  | DN200 | 1000 | 298 | 325/330 | 120.5 | 298 |
| 16713 | F900 | 8  | DN200 | 1000 | 298 | 330/335 | 121.5 | 298 |
| 16714 | F900 | 9  | DN200 | 1000 | 298 | 335/340 | 122.5 | 298 |
| 16715 | F900 | 10 | DN200 | 1000 | 298 | 340/345 | 123.5 | 298 |
| 16730 | F900 | 11 | DN200 | 1000 | 298 | 345/350 | 124.5 | 298 |
| 16731 | F900 | 12 | DN200 | 1000 | 298 | 350/355 | 125.5 | 298 |
| 16732 | F900 | 13 | DN200 | 1000 | 298 | 355/360 | 126.5 | 298 |
| 16733 | F900 | 14 | DN200 | 1000 | 298 | 360/365 | 127.5 | 298 |
| 16734 | F900 | 15 | DN200 | 1000 | 298 | 365/370 | 128.5 | 298 |
| 16735 | F900 | 16 | DN200 | 1000 | 298 | 370/375 | 129.5 | 298 |
| 16736 | F900 | 17 | DN200 | 1000 | 298 | 375/380 | 130.5 | 298 |
| 16737 | F900 | 18 | DN200 | 1000 | 298 | 380/385 | 131.5 | 298 |
| 16738 | F900 | 19 | DN200 | 1000 | 298 | 385/390 | 132.5 | 298 |
| 16739 | F900 | 20 | DN200 | 1000 | 298 | 390/395 | 133.5 | 298 |



item RU22722



item RU22008



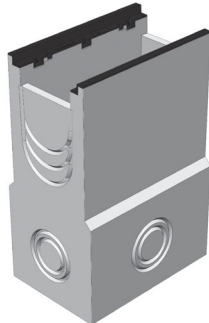
### Sewer grates for gutters BGZ-S DN200, class E600/F900

|         |      |                                        |       |     |     |    |     |
|---------|------|----------------------------------------|-------|-----|-----|----|-----|
| RU22722 | E600 | 500/247/25, 27/13 – mesh cast-iron     | DN200 | 500 | 247 | 25 | 9.1 |
| RU22008 | F900 | 500/247/25, 16/220 – slotted cast-iron | DN200 | 500 | 247 | 25 | 12  |

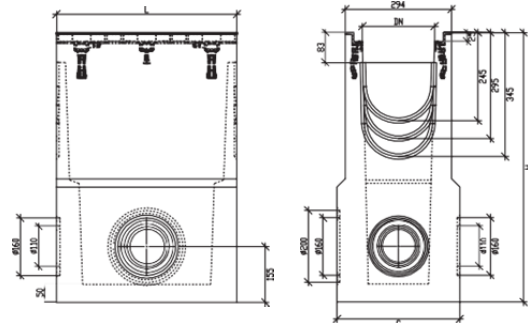




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 49020100



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

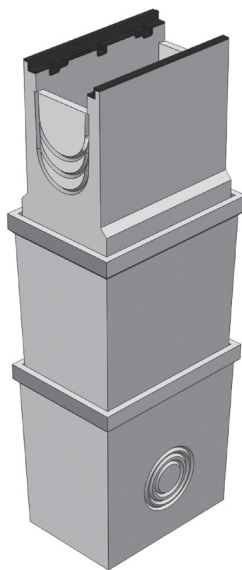
Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

Sand traps BGZ-S DN200, class E600/F900, with cast-iron nozzle

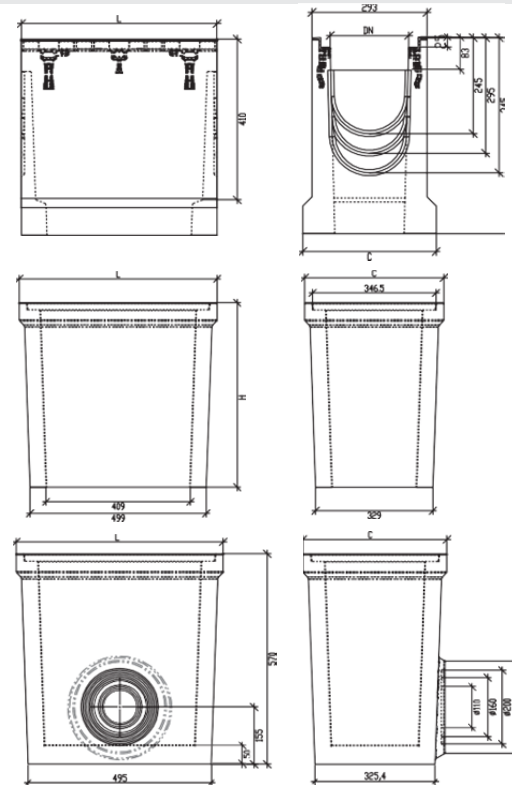
|          |      |                             |       |     |     |     |     |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|
| 49020100 | F900 | 500/340/750, single-section | DN200 | 500 | 340 | 750 | 138 |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|



item 49020110

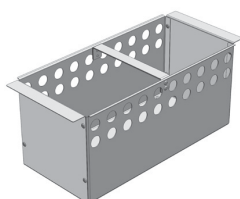
item 49001000

item 49001001



Accessories for sand traps BGZ-S DN200

|          |      |                                              |       |     |     |     |     |
|----------|------|----------------------------------------------|-------|-----|-----|-----|-----|
| 49020110 | F900 | 500/340/500, upper part                      | DN200 | 500 | 340 | 500 | 77  |
| 49001000 |      | 560/390/520, multi-purpose intermediate part | DN200 | 560 | 390 | 520 | 82  |
| 49001001 |      | 560/390/570, multi-purpose lower part        | DN200 | 560 | 390 | 570 | 103 |



item 49020900

Multi-purpose basket for sand trap BGZ-S DN200

|          |  |                  |       |     |     |       |     |
|----------|--|------------------|-------|-----|-----|-------|-----|
| 49020900 |  | galvanized steel | DN200 | 400 | 175 | 163.5 | 2.1 |
|----------|--|------------------|-------|-----|-----|-------|-----|



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

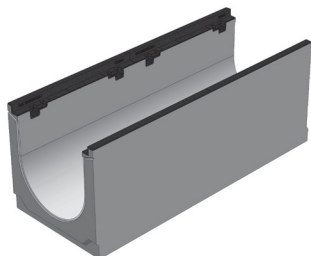
Point drainage

Soil conservation and stabilization system

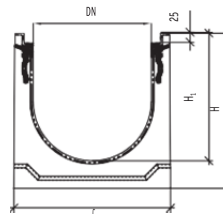
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

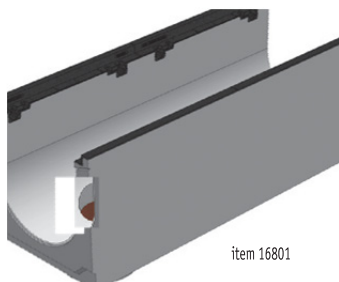


item 16800

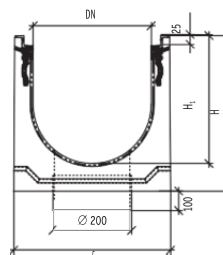


#### Concrete gutters BGZ-S DN300, class E600/F900, with cast-iron nozzle, without slope

|          |      |                    |       |      |     |         |     |
|----------|------|--------------------|-------|------|-----|---------|-----|
| 16800    | F900 | 0                  | DN300 | 1000 | 399 | 395/325 | 169 |
| 40630161 | F900 | N <sub>5</sub> -0  | DN300 | 1000 | 399 | 420/350 | 166 |
| 40630162 | F900 | N <sub>10</sub> -0 | DN300 | 1000 | 399 | 445/375 | 172 |
| 40630163 | F900 | N <sub>15</sub> -0 | DN300 | 1000 | 399 | 470/400 | 178 |
| 40630164 | F900 | N <sub>20</sub> -0 | DN300 | 1000 | 399 | 495/425 | 184 |



item 16801



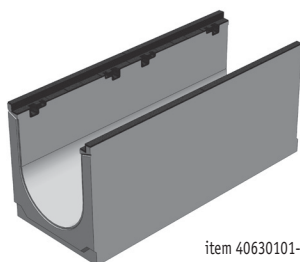
#### Concrete gutters BGZ-S DN300, class E600/F900, with cast-iron nozzle, with vertical spillway, without slope

|          |      |                    |       |      |     |         |     |
|----------|------|--------------------|-------|------|-----|---------|-----|
| 16801    | F900 | N <sub>0</sub> 0   | DN300 | 1000 | 399 | 395/325 | 162 |
| 40630171 | F900 | N <sub>5</sub> -0  | DN300 | 1000 | 399 | 420/350 | 159 |
| 40630172 | F900 | N <sub>10</sub> -0 | DN300 | 1000 | 399 | 445/375 | 165 |
| 40630173 | F900 | N <sub>15</sub> -0 | DN300 | 1000 | 399 | 470/400 | 171 |
| 40630174 | F900 | N <sub>20</sub> -0 | DN300 | 1000 | 399 | 495/425 | 177 |

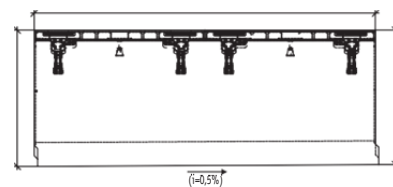
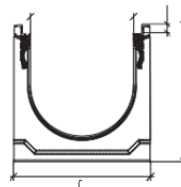
\* Diameter for pipes to the gutter with vertical spillway Ø200/315 mm



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

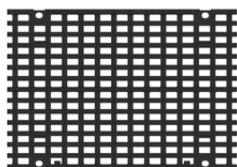


item 40630101-40630120



Concrete gutters BGZ-S DN300, class E600/F900, with cast-iron nozzle, with slope 0,5%

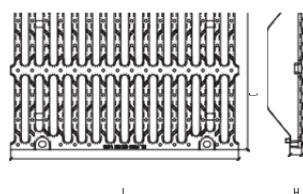
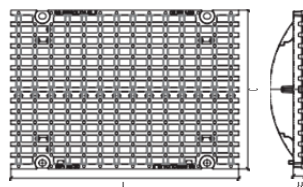
|          |      |    |       |      |     |         |       |
|----------|------|----|-------|------|-----|---------|-------|
| 40630101 | F900 | 1  | DN300 | 1000 | 399 | 395/400 | 162.5 |
| 40630102 | F900 | 2  | DN300 | 1000 | 399 | 400/405 | 163.1 |
| 40630103 | F900 | 3  | DN300 | 1000 | 399 | 405/410 | 163.7 |
| 40630104 | F900 | 4  | DN300 | 1000 | 399 | 410/415 | 164.9 |
| 40630105 | F900 | 5  | DN300 | 1000 | 399 | 415/420 | 166.1 |
| 40630106 | F900 | 6  | DN300 | 1000 | 399 | 420/425 | 167.3 |
| 40630107 | F900 | 7  | DN300 | 1000 | 399 | 425/430 | 168.5 |
| 40630108 | F900 | 8  | DN300 | 1000 | 399 | 430/435 | 169.7 |
| 40630109 | F900 | 9  | DN300 | 1000 | 399 | 435/440 | 170.9 |
| 40630110 | F900 | 10 | DN300 | 1000 | 399 | 440/445 | 172.1 |
| 40630111 | F900 | 11 | DN300 | 1000 | 399 | 445/450 | 173.3 |
| 40630112 | F900 | 12 | DN300 | 1000 | 399 | 450/455 | 174.5 |
| 40630113 | F900 | 13 | DN300 | 1000 | 399 | 455/460 | 175.7 |
| 40630114 | F900 | 14 | DN300 | 1000 | 399 | 460/465 | 176.9 |
| 40630115 | F900 | 15 | DN300 | 1000 | 399 | 465/470 | 178.1 |
| 40630116 | F900 | 16 | DN300 | 1000 | 399 | 470/475 | 179.3 |
| 40630117 | F900 | 17 | DN300 | 1000 | 399 | 475/480 | 180.5 |
| 40630118 | F900 | 18 | DN300 | 1000 | 399 | 480/485 | 181.7 |
| 40630119 | F900 | 19 | DN300 | 1000 | 399 | 485/490 | 182.9 |
| 40630120 | F900 | 20 | DN300 | 1000 | 399 | 490/495 | 184   |



item RU22732



item RU22016



Sewer grates for gutters BGZ-S DN300, class E600/F900,

|         |      |                                        |       |     |     |    |      |
|---------|------|----------------------------------------|-------|-----|-----|----|------|
| RU22732 | E600 | 500/347/25, 25/14 – mesh cast-iron     | DN300 | 500 | 347 | 25 | 16.5 |
| RU22016 | F900 | 500/347/25, 16/148 – slotted cast-iron | DN300 | 500 | 347 | 25 | 30.9 |



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring





Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

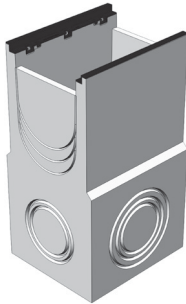
Point drainage

Soil conservation and stabilization system

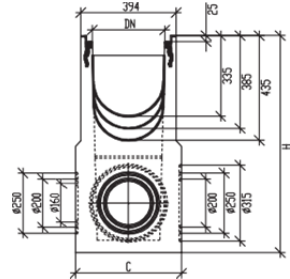
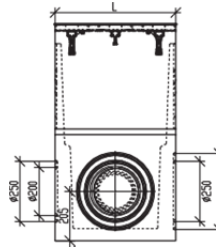
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|

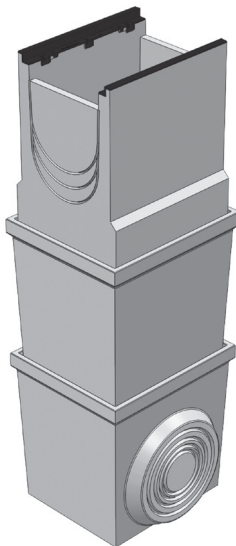


item 49030100



Sand traps BGZ-S DN300, class E600/F900, with cast-iron nozzle

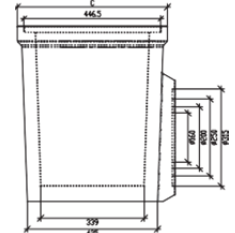
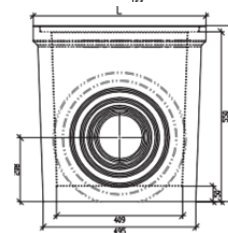
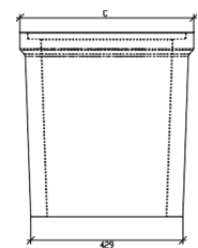
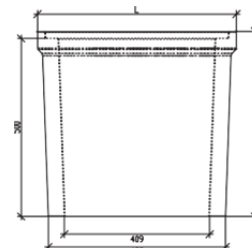
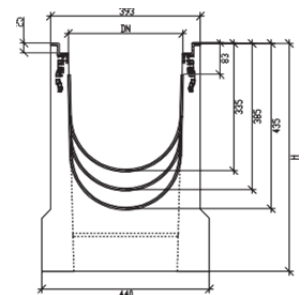
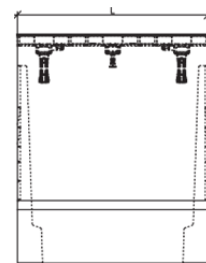
|          |      |                             |       |     |     |     |     |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|
| 49030100 | F900 | 500/440/900, single-section | DN300 | 500 | 440 | 900 | 200 |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|



item 49030110

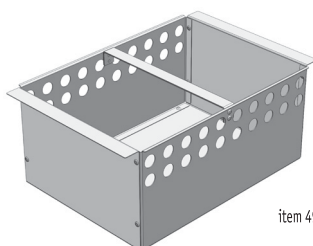
item 49001005

item 49001006



Accessories for sand traps BGZ-S DN300

|          |      |                                              |       |     |     |     |     |
|----------|------|----------------------------------------------|-------|-----|-----|-----|-----|
| 49030110 | F900 | 500/440/600, upper part                      | DN300 | 500 | 440 | 600 | 109 |
| 49001005 |      | 560/490/520, multi-purpose intermediate part | DN300 | 560 | 490 | 520 | 93  |
| 49001006 |      | 560/490/570, multi-purpose lower part        | DN300 | 560 | 490 | 570 | 130 |



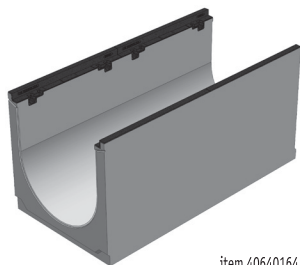
item 49030900

Multi-purpose basket for sand trap BGZ-S DN300

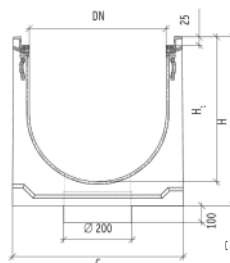
|          |  |                  |       |     |     |       |     |
|----------|--|------------------|-------|-----|-----|-------|-----|
| 49030900 |  | Galvanized steel | DN300 | 400 | 265 | 163.5 | 2.1 |
|----------|--|------------------|-------|-----|-----|-------|-----|



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

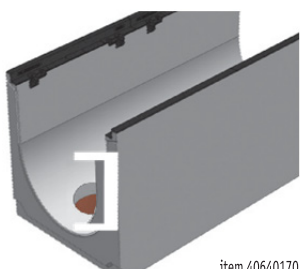


item 40640164

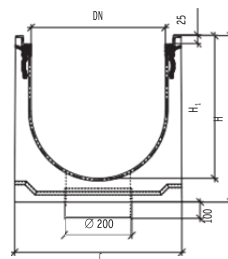


Concrete gutters BGZ-S DN400 class E600/F900, with cast-iron nozzle, without slope

|     |          |      |    |       |      |     |         |     |
|-----|----------|------|----|-------|------|-----|---------|-----|
| NEW | 40640100 | F900 | 0  | DN400 | 1000 | 499 | 395/325 | 203 |
| NEW | 40640161 | F900 | 5  | DN400 | 1000 | 499 | 420/350 | 208 |
| NEW | 40640162 | F900 | 10 | DN400 | 1000 | 499 | 445/375 | 214 |
| NEW | 40640163 | F900 | 15 | DN400 | 1000 | 499 | 470/400 | 219 |
| NEW | 40640164 | F900 | 20 | DN400 | 1000 | 499 | 495/425 | 225 |



item 40640170



Concrete gutters BGZ-S DN400 class E600/F900, with cast-iron nozzle, with vertical spillway, without slope

|     |          |      |     |       |      |     |         |     |
|-----|----------|------|-----|-------|------|-----|---------|-----|
|     | 40640170 | F900 | № 0 | DN400 | 1000 | 499 | 395/325 | 203 |
| NEW | 40640171 | F900 | №5  | DN400 | 1000 | 499 | 420/350 | 208 |
|     | 40640172 | F900 | №10 | DN400 | 1000 | 499 | 445/375 | 214 |
| NEW | 40640173 | F900 | №15 | DN400 | 1000 | 499 | 470/400 | 219 |
|     | 40640174 | F900 | №20 | DN400 | 1000 | 499 | 495/425 | 225 |

\* Diameter for pipes to the gutter with vertical spillway Ø315/400 mm

Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

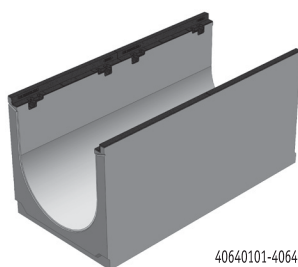
| Item | Class of loading | Type | DN | Length | Width | Height | Weight |
|------|------------------|------|----|--------|-------|--------|--------|
|------|------------------|------|----|--------|-------|--------|--------|

L  
mm

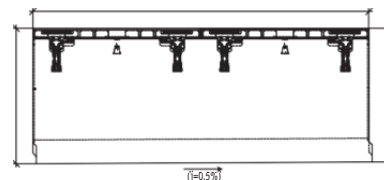
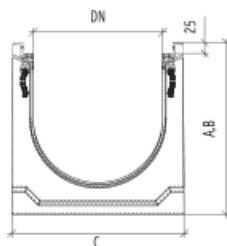
C  
mm

H/H<sub>1</sub>  
mm

kg

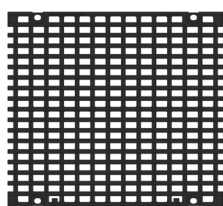


40640101-40640120

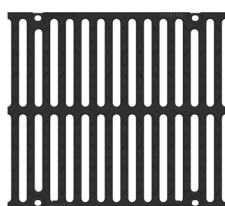


#### Concrete gutters BGZ-S DN400 class E600/F900, with cast-iron nozzle, with slope 0,5%

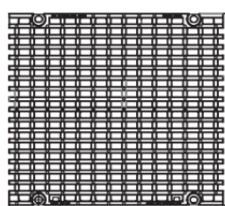
|          |      |     |       |      |     |         |     |
|----------|------|-----|-------|------|-----|---------|-----|
| 40640101 | F900 | №1  | DN400 | 1000 | 499 | 395/400 | 203 |
| 40640102 | F900 | №2  | DN400 | 1000 | 499 | 400/405 | 204 |
| 40640103 | F900 | №3  | DN400 | 1000 | 499 | 405/410 | 205 |
| 40640104 | F900 | №4  | DN400 | 1000 | 499 | 410/415 | 207 |
| 40640105 | F900 | №5  | DN400 | 1000 | 499 | 415/420 | 208 |
| 40640106 | F900 | №6  | DN400 | 1000 | 499 | 420/425 | 209 |
| 40640107 | F900 | №7  | DN400 | 1000 | 499 | 425/430 | 210 |
| 40640108 | F900 | №8  | DN400 | 1000 | 499 | 430/435 | 211 |
| 40640109 | F900 | №9  | DN400 | 1000 | 499 | 435/440 | 212 |
| 40640110 | F900 | №10 | DN400 | 1000 | 499 | 440/445 | 213 |
| 40640111 | F900 | №11 | DN400 | 1000 | 499 | 445/450 | 214 |
| 40640112 | F900 | №12 | DN400 | 1000 | 499 | 450/455 | 215 |
| 40640113 | F900 | №13 | DN400 | 1000 | 499 | 455/460 | 216 |
| 40640114 | F900 | №14 | DN400 | 1000 | 499 | 460/465 | 218 |
| 40640115 | F900 | №15 | DN400 | 1000 | 499 | 465/470 | 219 |
| 40640116 | F900 | №16 | DN400 | 1000 | 499 | 470/475 | 220 |
| 40640117 | F900 | №17 | DN400 | 1000 | 499 | 475/480 | 221 |
| 40640118 | F900 | №18 | DN400 | 1000 | 499 | 480/485 | 222 |
| 40640119 | F900 | №19 | DN400 | 1000 | 499 | 485/490 | 223 |
| 40640120 | F900 | №20 | DN400 | 1000 | 499 | 490/495 | 224 |



item RU22045



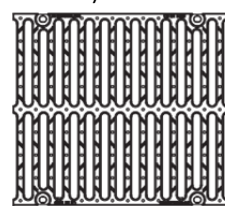
item RU22046



L



H



L



H

#### Sewer grates for gutters BGZ-S DN400, class E600/F900

|         |      |                                        |       |     |     |    |       |
|---------|------|----------------------------------------|-------|-----|-----|----|-------|
| RU22045 | E600 | 500/447/25, MW 25/14 – mesh cast-iron  | DN400 | 500 | 447 | 25 | 26.87 |
| RU22046 | F900 | 500/447/25, 18/200 – slotted cast-iron | DN400 | 500 | 447 | 25 | 31.70 |

#### Fastener for cast-iron grates

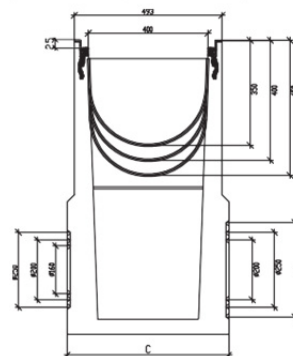
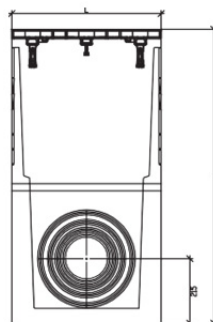
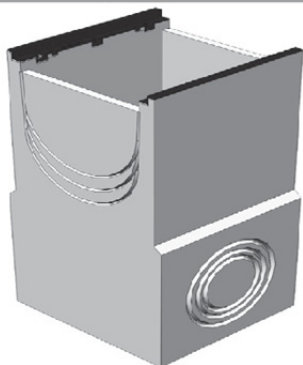
|       |           |             |
|-------|-----------|-------------|
| 22281 | для BGZ-S | DN150-DN400 |
|-------|-----------|-------------|



р.  
110

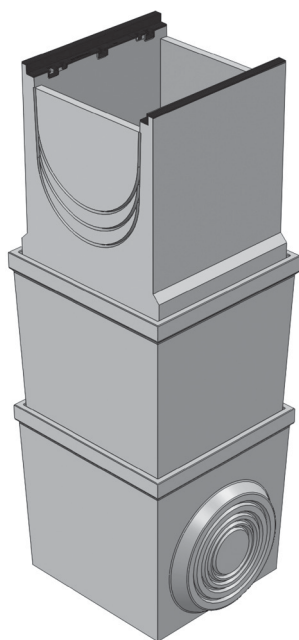


| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



Sand traps BGZ-S DN400, class E600/F900, with cast-iron nozzle

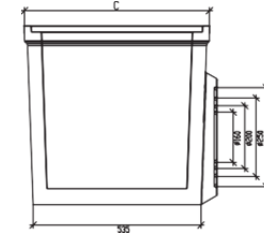
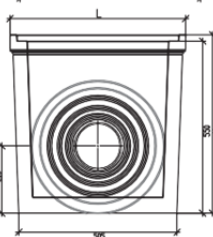
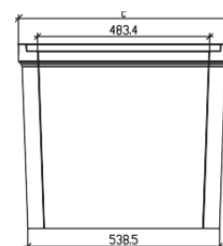
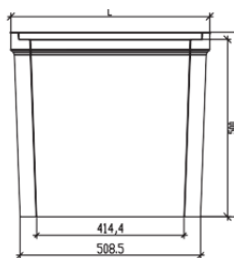
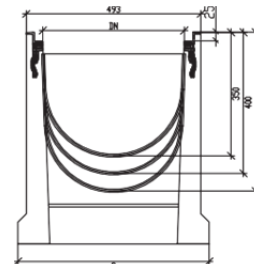
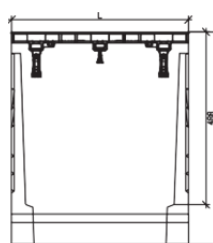
|          |      |                              |       |     |     |      |     |
|----------|------|------------------------------|-------|-----|-----|------|-----|
| 49040100 | F900 | 500/540/1000, single-section | DN400 | 500 | 540 | 1000 | 249 |
|----------|------|------------------------------|-------|-----|-----|------|-----|



item 49040110

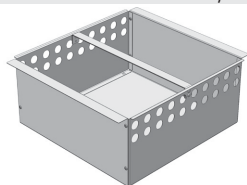
item 49001010

item 49001011



Accessories for sand traps BGZ-S DN400

|          |      |                                              |       |     |     |     |     |
|----------|------|----------------------------------------------|-------|-----|-----|-----|-----|
| 49040110 | F900 | 500/540/600, upper part                      | DN400 | 500 | 540 | 600 | 113 |
| 49001010 |      | 560/590/520, multi-purpose intermediate part | DN400 | 560 | 590 | 520 | 104 |
| 49001011 |      | 560/590/570, multi-purpose lower part        | DN400 | 560 | 590 | 570 | 147 |



item 49040900

Multi-purpose basket for sand trap BGZ-S DN400

|          |  |                  |       |     |     |       |      |
|----------|--|------------------|-------|-----|-----|-------|------|
| 49040900 |  | galvanized steel | DN400 | 400 | 365 | 163.5 | 3.24 |
|----------|--|------------------|-------|-----|-----|-------|------|

Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

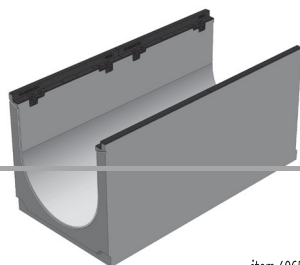
Point drainage

Soil conservation and stabilization system

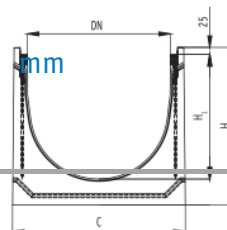
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length<br>L | Width<br>C | Height<br>H/H <sub>1</sub> | Weight<br>kg |
|------|------------------|------|----|-------------|------------|----------------------------|--------------|
|------|------------------|------|----|-------------|------------|----------------------------|--------------|

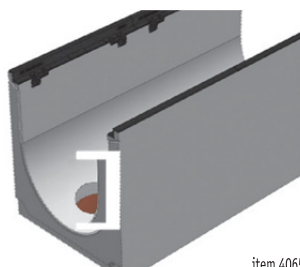


item 40650164

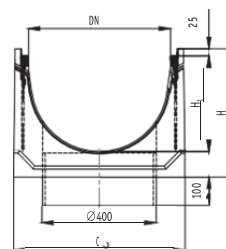


Concrete gutters BGZ-S DN500 class E600/F900, with cast-iron nozzle, without slope

|  |          |      |      |       |      |     |     |        |
|--|----------|------|------|-------|------|-----|-----|--------|
|  | 40650100 | F900 | № 0  | DN500 | 1000 | 603 | 450 | 273.25 |
|  | 40650161 | F900 | № 5  | DN500 | 1000 | 594 | 475 | 278.55 |
|  |          |      |      |       |      |     |     |        |
|  | 40650163 | F900 | № 15 | DN500 | 1000 | 594 | 525 | 289.15 |
|  |          |      |      |       |      |     |     |        |



item 40650170



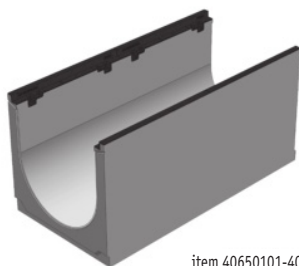
Concrete gutters BGZ-S DN500 class E600/F900, with cast-iron nozzle, with vertical spillway, without slope

|  |          |      |      |       |      |     |     |        |
|--|----------|------|------|-------|------|-----|-----|--------|
|  | 40650170 | F900 | 0    | DN500 | 1000 | 594 | 450 | 266.25 |
|  | 40650171 | F900 | № 5  | DN500 | 1000 | 594 | 475 | 271.55 |
|  | 40650172 | F900 | № 10 | DN500 | 1000 | 594 | 500 | 276.85 |
|  | 40650173 | F900 | № 15 | DN500 | 1000 | 594 | 525 | 282.15 |
|  | 40650174 | F900 | № 20 | DN500 | 1000 | 594 | 550 | 287.5  |

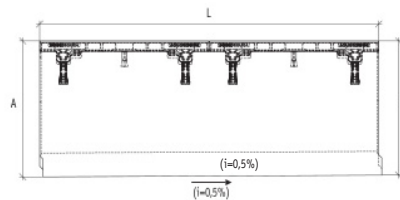
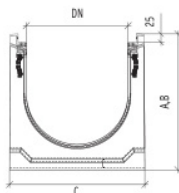
\* Diameter for pipes to the gutter with vertical spillway Ø315/400 mm



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 40650101-40650120

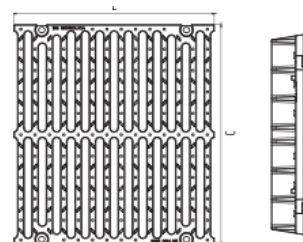


Concrete gutters BGZ-S DN500 class E600/F900, with cast-iron nozzle, with slope 0,5%

|          |      |      |       |      |     |         |        |
|----------|------|------|-------|------|-----|---------|--------|
| 40650101 | F900 | № 1  | DN500 | 1000 | 603 | 450/455 | 274.31 |
| 40650102 | F900 | № 2  | DN500 | 1000 | 603 | 455/460 | 275.37 |
| 40650103 | F900 | № 3  | DN500 | 1000 | 603 | 460/465 | 276.43 |
| 40650104 | F900 | № 4  | DN500 | 1000 | 603 | 465/470 | 277.49 |
| 40650105 | F900 | № 5  | DN500 | 1000 | 603 | 470/475 | 278.55 |
| 40650106 | F900 | № 6  | DN500 | 1000 | 603 | 475/480 | 279.61 |
| 40650107 | F900 | № 7  | DN500 | 1000 | 603 | 480/485 | 280.67 |
| 40650108 | F900 | № 8  | DN500 | 1000 | 603 | 485/490 | 281.73 |
| 40650109 | F900 | № 9  | DN500 | 1000 | 603 | 490/495 | 282.79 |
| 40650110 | F900 | № 10 | DN500 | 1000 | 603 | 495/500 | 283.85 |
| 40650111 | F900 | № 11 | DN500 | 1000 | 603 | 500/505 | 284.91 |
| 40650112 | F900 | № 12 | DN500 | 1000 | 603 | 505/510 | 285.97 |
| 40650113 | F900 | № 13 | DN500 | 1000 | 603 | 510/515 | 287.03 |
| 40650114 | F900 | № 14 | DN500 | 1000 | 603 | 515/520 | 288.09 |
| 40650115 | F900 | № 15 | DN500 | 1000 | 603 | 520/525 | 289.15 |
| 40650116 | F900 | № 16 | DN500 | 1000 | 603 | 525/530 | 290.21 |
| 40650117 | F900 | № 17 | DN500 | 1000 | 603 | 530/535 | 291.27 |
| 40650118 | F900 | № 18 | DN500 | 1000 | 603 | 535/540 | 292.33 |
| 40650119 | F900 | № 19 | DN500 | 1000 | 603 | 540/545 | 293.39 |
| 40650120 | F900 | № 20 | DN500 | 1000 | 603 | 545/550 | 294.45 |



item RU22015



Sewer grates for gutters BGZ-S DN500, class E600/F900

|         |      |                                       |       |     |     |    |      |
|---------|------|---------------------------------------|-------|-----|-----|----|------|
| RU22015 | E600 | 500/547/25,MW18/248-slotted cast-iron | DN500 | 500 | 547 | 25 | 35.2 |
|---------|------|---------------------------------------|-------|-----|-----|----|------|

Fastener for cast-iron grates

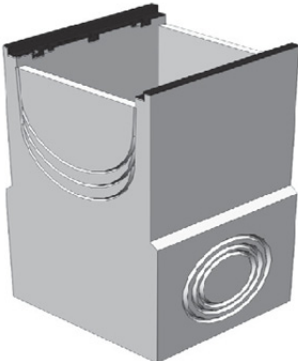
22284

forBGZ-S

DN500p. 110

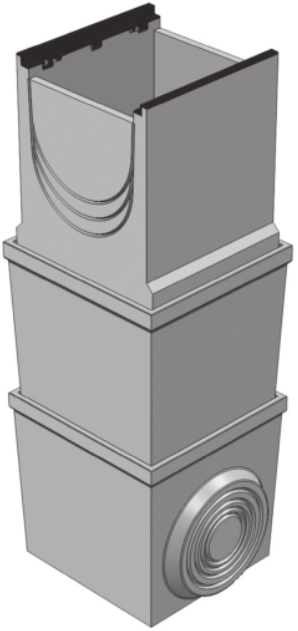




| Item                                                                                                                                                                | Class of loading | Type          | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|----|-------------------|------------------|----------------------------------|--------------|
|   |                  |               |    |                   |                  |                                  |              |
|                                                                                                                                                                     |                  | item 49050100 |    |                   |                  |                                  |              |
|                                                                                                                                                                     |                  |               |    |                   |                  |                                  |              |

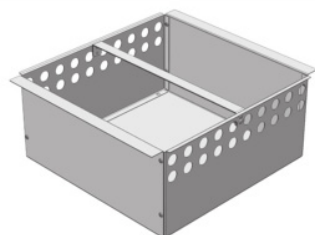
### Sand traps BGZ-S DN500, class E600/F900, with cast-iron nozzle

|                                                                                                 |                             |       |     |     |     |     |
|-------------------------------------------------------------------------------------------------|-----------------------------|-------|-----|-----|-----|-----|
|  49050100 F900 | 500/640/980, single-section | DN500 | 500 | 640 | 980 | 277 |
|-------------------------------------------------------------------------------------------------|-----------------------------|-------|-----|-----|-----|-----|

|                                                                                    |               |  |  |  |  |  |  |
|------------------------------------------------------------------------------------|---------------|--|--|--|--|--|--|
|  | item 49050110 |  |  |  |  |  |  |
|                                                                                    | apr. 49050110 |  |  |  |  |  |  |
|                                                                                    | item 49001015 |  |  |  |  |  |  |
|                                                                                    | apr. 49001015 |  |  |  |  |  |  |
|                                                                                    | item 49001016 |  |  |  |  |  |  |
|                                                                                    | apr. 49001016 |  |  |  |  |  |  |

### Accessories for sand traps BGZ-S DN500

|               |                                              |       |     |     |     |     |
|---------------|----------------------------------------------|-------|-----|-----|-----|-----|
| 49050110 F900 | 500/640/600, upper part                      | DN500 | 500 | 640 | 600 | 133 |
| 49001015      | 560/690/520, multi-purpose intermediate part | DN500 | 560 | 690 | 520 | 115 |



item 49050900

### Multi-purpose basket for sand trap BGZ-S DN500

|                                                                                              |                  |       |     |     |       |     |
|----------------------------------------------------------------------------------------------|------------------|-------|-----|-----|-------|-----|
|  49050900 | galvanized steel | DN500 | 400 | 465 | 163.5 | 3.7 |
|----------------------------------------------------------------------------------------------|------------------|-------|-----|-----|-------|-----|





Voronezh, Central Park of Culture and Leisure "Dinamo"

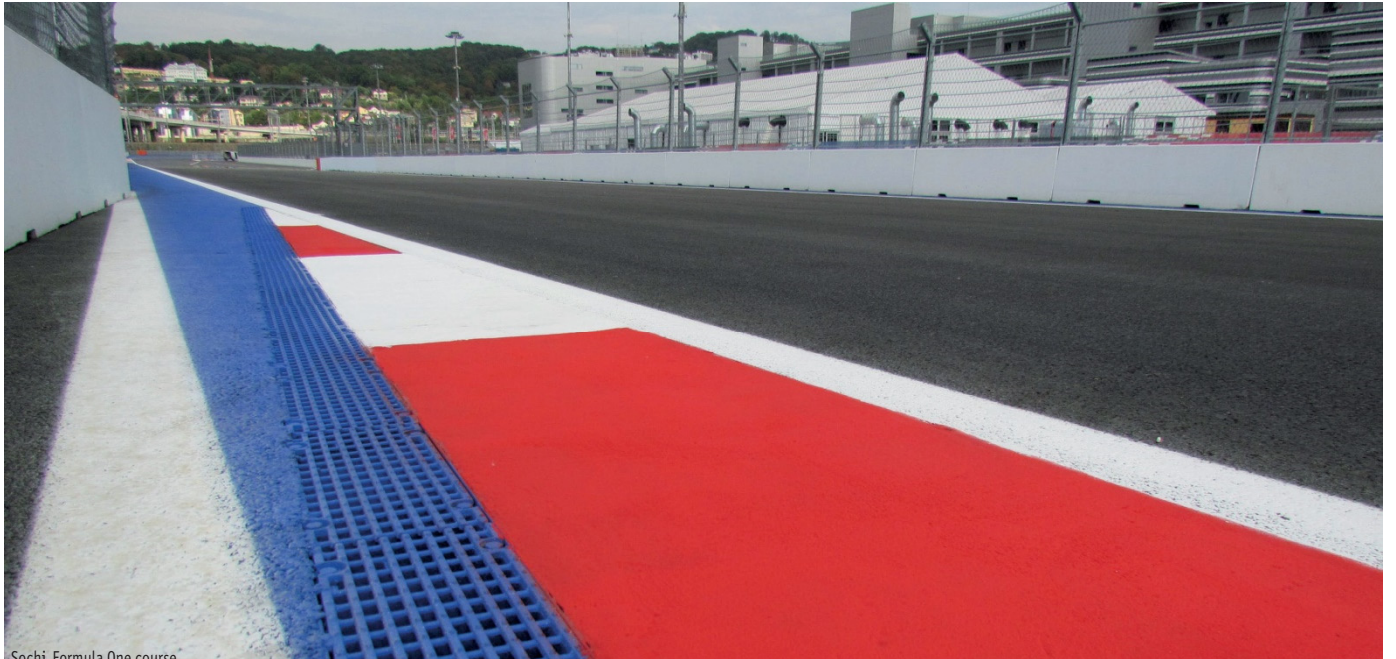


Krasnodarsky Krai, Derways plant, drainage gutters BGZ-S with cast-iron grates

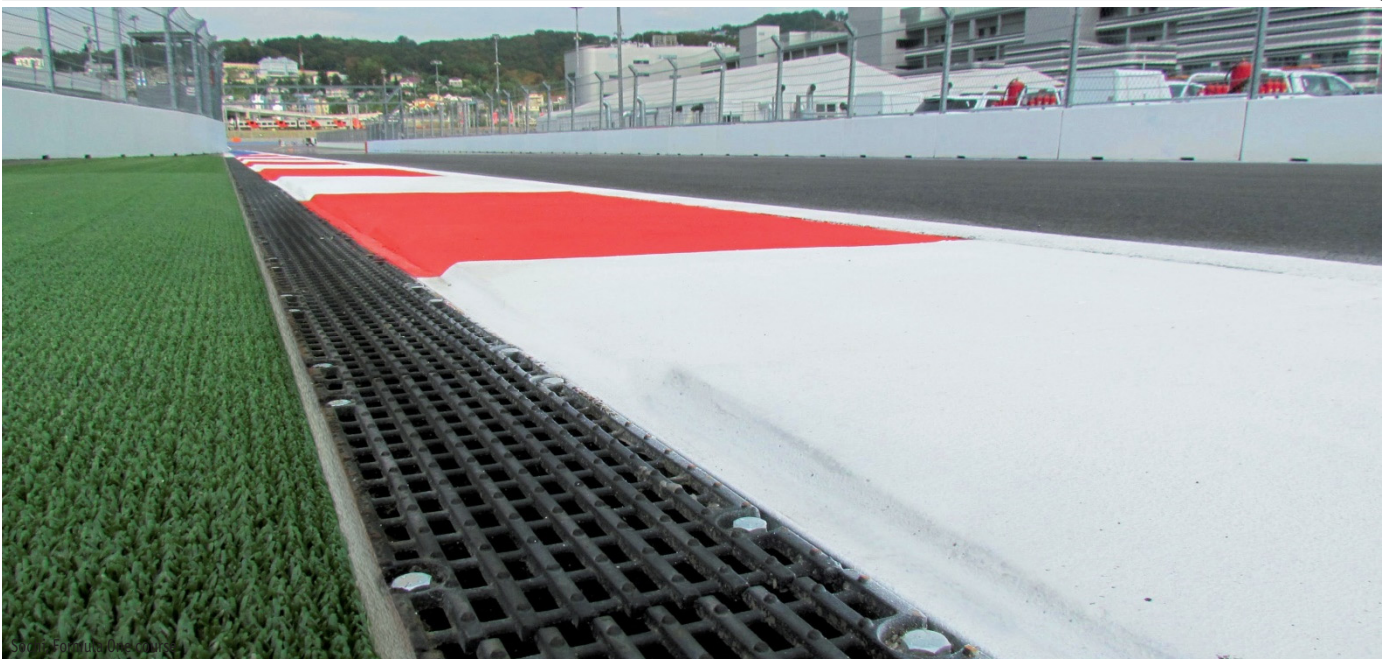




Moscow region, Kubinka, Patriot Park



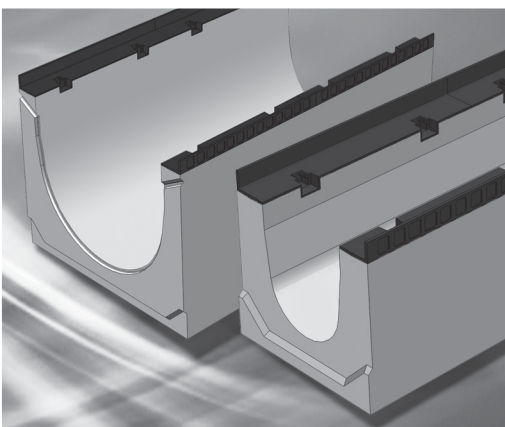
Sochi, Formula One course



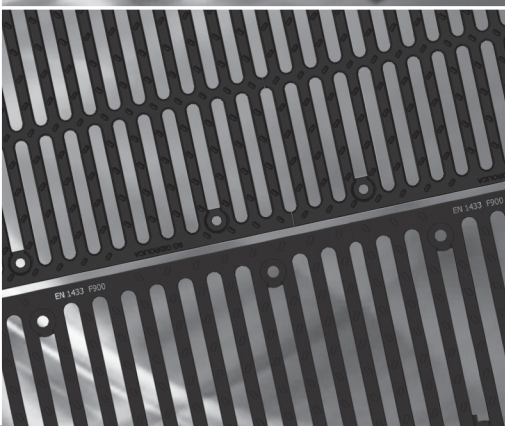
Sochi, Formula One course



– CONCRETE DRAINAGE SYSTEMS  
BGM



SURFACE DRAINAGE SYSTEMS FOR AREAS OF ULTRAHIGH  
LOADS CLASS F900



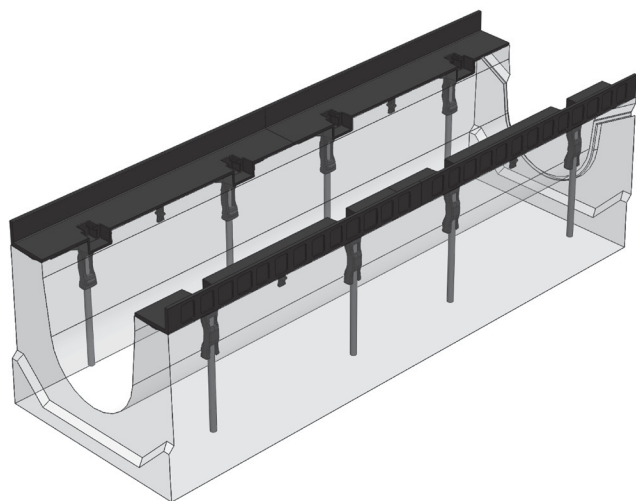
**BGM** are concrete drainage gutters designed specifically for use in areas with high and ultrahigh load levels. Drainage gutters BGM are suitable for runways and taxiways of airports, transport terminals and highways with heavy traffic.

### Application field:

- airports
- ports
- roads
- industrial construction
- chemical industry and petroleum refinery
- transport terminals

### Quality:

- high-quality concrete with class B60
- moisture absorption ratio is 2,2%
- concrete grade according to frost resistance is F2300
- concrete grade according to water resistance is W10
- gutter wall thickness is 70mm
- additional reinforcement of the gutter walls with reinforcing rail shoulders to prevent its destruction
- supporting structure is made of high-strength cast iron Vch40
- monolithic structure of the supporting structure and rail shoulder to enhance connection with the gutter body and prevent its destruction
- resistance to ultrahigh loads of class F900

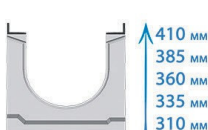


The installation of drainage gutters BGM is recommended in areas of ultrahigh loads. As an additional reinforcement of the structure, wall reinforcement with galvanized steel rods is used.

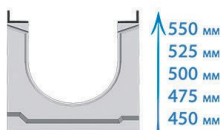
Pins for reinforcement are installed in a monolithic structure of the nozzle with the rail shoulder. They are securely hidden in concrete and protected from moisture and air, thus, not subject to corrosion.

Reinforcement of the gutter walls with steel pins strengthens them additionally and prevents destruction of the entire system.

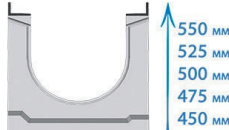
**DN 200**



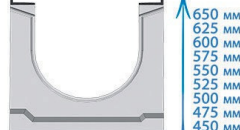
**DN 300**



**DN 400**

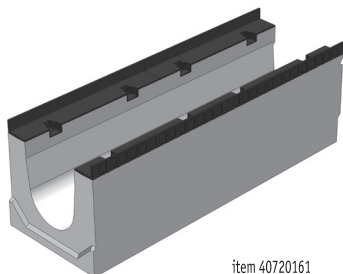


**DN 500**

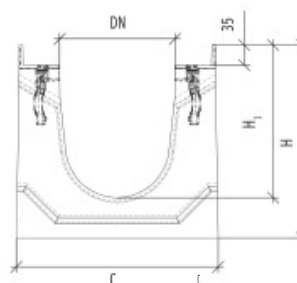




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

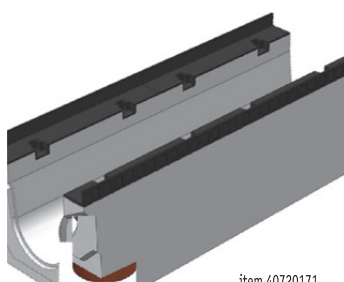


item 40720161

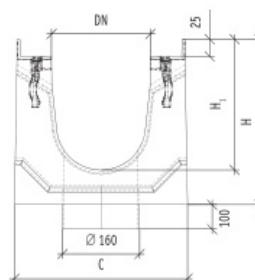


Concrete gutters BGM DN200, class F900, without slope

|          |      |        |       |      |     |         |        |
|----------|------|--------|-------|------|-----|---------|--------|
| 40720100 | F900 | № 0    | DN200 | 1000 | 350 | 310/240 | 147    |
| 40720161 | F900 | № 5-0  | DN200 | 1000 | 350 | 335/265 | 156.75 |
| 40720162 | F900 | № 10-0 | DN200 | 1000 | 350 | 360/290 | 166.5  |
| 40720163 | F900 | № 15-0 | DN200 | 1000 | 350 | 385/315 | 176.25 |
| 40720164 | F900 | № 20-0 | DN200 | 1000 | 350 | 410/340 | 186    |



item 40720171



Concrete gutters BGM DN200, class F900, with vertical spillway, without slope

|          |      |        |       |      |     |         |        |
|----------|------|--------|-------|------|-----|---------|--------|
| 40720170 | F900 | № 0    | DN200 | 1000 | 350 | 310/340 | 146    |
| 40720171 | F900 | № 5-0  | DN200 | 1000 | 350 | 335/265 | 155.75 |
| 40720172 | F900 | № 10-0 | DN200 | 1000 | 350 | 360/290 | 165.5  |
| 40720173 | F900 | № 15-0 | DN200 | 1000 | 350 | 385/315 | 175.25 |
| 40720174 | F900 | № 20-0 | DN200 | 1000 | 350 | 385/315 | 185    |

\* Diameter for pipes to the gutter with vertical spillway Ø160/200 mm

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring





Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

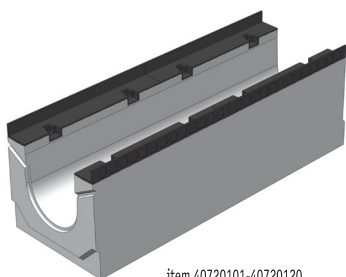
Point drainage

Soil conservation and stabilization system

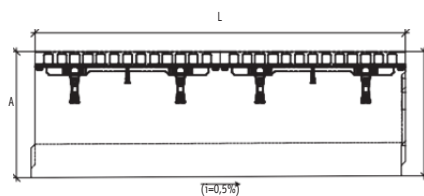
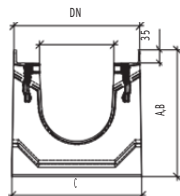
Entrance dirt-guard systems

Multi-purpose grid flooring

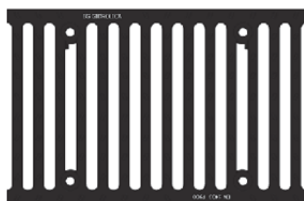
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



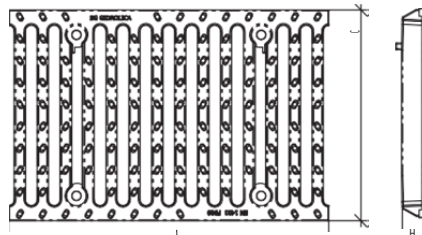
item 40720101-40720120



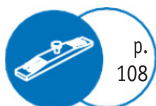
| Concrete gutters BGM DN200, class F900, with slope 0,5% |      |    |       |      |     |         |        |
|---------------------------------------------------------|------|----|-------|------|-----|---------|--------|
| 40720101                                                | F900 | 1  | DN200 | 1000 | 350 | 310/315 | 147    |
| 40720102                                                | F900 | 2  | DN200 | 1000 | 350 | 315/320 | 149.05 |
| 40720103                                                | F900 | 3  | DN200 | 1000 | 350 | 320/325 | 151.1  |
| 40720104                                                | F900 | 4  | DN200 | 1000 | 350 | 325/330 | 153.15 |
| 40720105                                                | F900 | 5  | DN200 | 1000 | 350 | 330/335 | 155.2  |
| 40720106                                                | F900 | 6  | DN200 | 1000 | 350 | 335/340 | 157.25 |
| 40720107                                                | F900 | 7  | DN200 | 1000 | 350 | 340/345 | 159.3  |
| 40720108                                                | F900 | 8  | DN200 | 1000 | 350 | 345/350 | 161.35 |
| 40720109                                                | F900 | 9  | DN200 | 1000 | 350 | 350/355 | 163.4  |
| 40720110                                                | F900 | 10 | DN200 | 1000 | 350 | 355/360 | 165.45 |
| 40720111                                                | F900 | 11 | DN200 | 1000 | 350 | 360/365 | 167.5  |
| 40720112                                                | F900 | 12 | DN200 | 1000 | 350 | 365/370 | 169.55 |
| 40720113                                                | F900 | 13 | DN200 | 1000 | 350 | 370/375 | 171.6  |
| 40720114                                                | F900 | 14 | DN200 | 1000 | 350 | 375/380 | 173.65 |
| 40720115                                                | F900 | 15 | DN200 | 1000 | 350 | 380/385 | 175.7  |
| 40720116                                                | F900 | 16 | DN200 | 1000 | 350 | 385/390 | 177.75 |
| 40720117                                                | F900 | 17 | DN200 | 1000 | 350 | 390/395 | 179.8  |
| 40720118                                                | F900 | 18 | DN200 | 1000 | 350 | 395/400 | 181.85 |
| 40720119                                                | F900 | 19 | DN200 | 1000 | 350 | 400/405 | 183.9  |
| 40720120                                                | F900 | 20 | DN200 | 1000 | 350 | 405/410 | 186    |



item 47020100

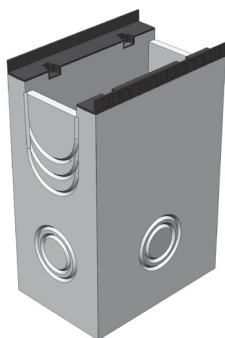


| Sewer grates for gutters BGM DN200, class F900 |      |                                        |       |     |     |    |       |
|------------------------------------------------|------|----------------------------------------|-------|-----|-----|----|-------|
| 47020100                                       | F900 | 500/375/35, SW18-280-slotted cast-iron | DN200 | 500 | 327 | 35 | 13.82 |

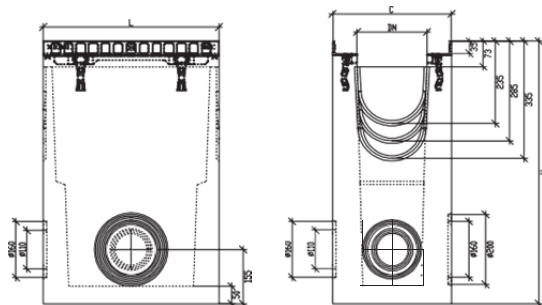




| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

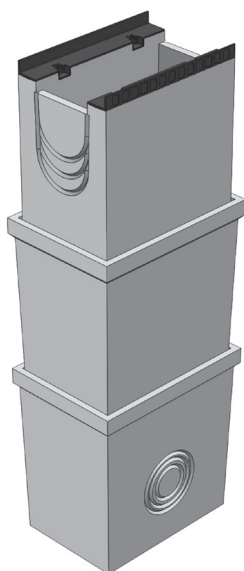


item 49020150



Sand traps BGM DN200, class F900

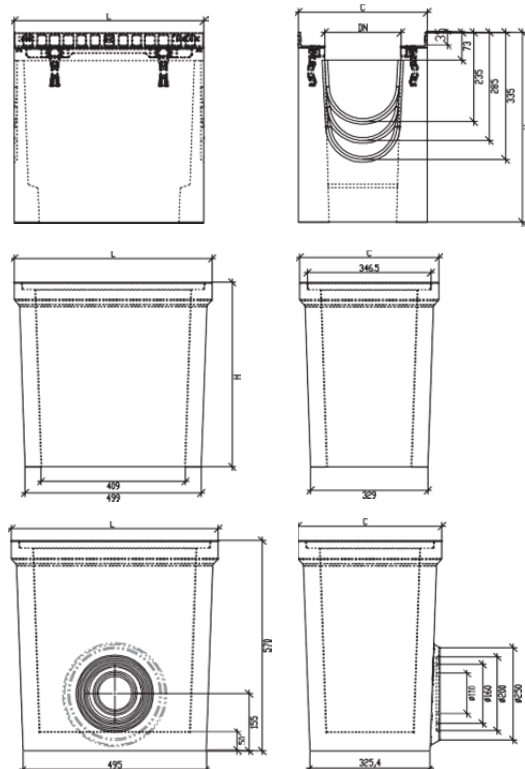
|          |      |                             |       |     |     |     |     |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|
| 49020150 | F900 | 500/340/750, single-section | DN200 | 500 | 340 | 750 | 160 |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|



item 49020160

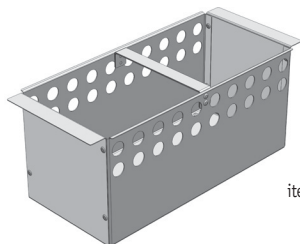
item 49001000

item 49001001



Accessories for sand traps BGM DN200

|          |      |                                              |       |     |     |     |     |
|----------|------|----------------------------------------------|-------|-----|-----|-----|-----|
| 49020160 | F900 | 500/340/500, upper part                      | DN200 | 500 | 340 | 500 | 93  |
| 49001000 |      | 560/390/520, multi-purpose intermediate part | DN200 | 560 | 390 | 520 | 82  |
| 49001001 |      | 560/390/570, multi-purpose lower part        | DN200 | 560 | 390 | 570 | 103 |



item 49020900

Multi-purpose basket for sand trap BGM DN200

|          |  |                  |       |     |     |       |     |
|----------|--|------------------|-------|-----|-----|-------|-----|
| 49020900 |  | Galvanized steel | DN200 | 400 | 175 | 163.5 | 2.1 |
|----------|--|------------------|-------|-----|-----|-------|-----|

Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class  
of loading F900

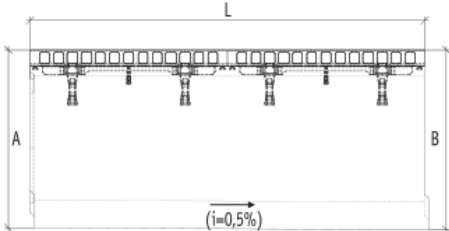
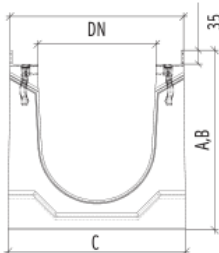
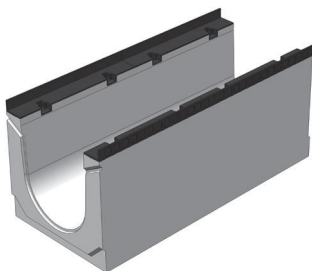
Point  
drainage

Soil conservation and  
stabilization system

Entrance dirt-guard systems

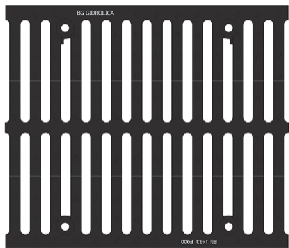
Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

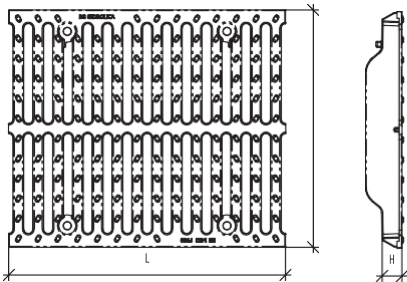


Concrete gutters BGM DN300, class F900, with slope 0,5%

|          |      |    |       |      |     |         |        |
|----------|------|----|-------|------|-----|---------|--------|
| 40730101 | F900 | 1  | DN300 | 1000 | 450 | 450/455 | 227.16 |
| 40730102 | F900 | 2  | DN300 | 1000 | 450 | 455/460 | 229.15 |
| 40730103 | F900 | 3  | DN300 | 1000 | 450 | 460/465 | 231.14 |
| 40730104 | F900 | 4  | DN300 | 1000 | 450 | 465/470 | 233.13 |
| 40730105 | F900 | 5  | DN300 | 1000 | 450 | 470/475 | 235.12 |
| 40730106 | F900 | 6  | DN300 | 1000 | 450 | 475/480 | 237.11 |
| 40730107 | F900 | 7  | DN300 | 1000 | 450 | 480/485 | 239.1  |
| 40730108 | F900 | 8  | DN300 | 1000 | 450 | 485/490 | 241.09 |
| 40730109 | F900 | 9  | DN300 | 1000 | 450 | 490/495 | 243.08 |
| 40730110 | F900 | 10 | DN300 | 1000 | 450 | 495/500 | 245.07 |
| 40730111 | F900 | 11 | DN300 | 1000 | 450 | 500/505 | 247.06 |
| 40730112 | F900 | 12 | DN300 | 1000 | 450 | 505/510 | 249.05 |
| 40730113 | F900 | 13 | DN300 | 1000 | 450 | 510/515 | 251.04 |
| 40730114 | F900 | 14 | DN300 | 1000 | 450 | 515/520 | 253.03 |
| 40730115 | F900 | 15 | DN300 | 1000 | 450 | 520/525 | 255.02 |
| 40730116 | F900 | 16 | DN300 | 1000 | 450 | 525/530 | 257.01 |
| 40730117 | F900 | 17 | DN300 | 1000 | 450 | 530/535 | 259    |
| 40730118 | F900 | 18 | DN300 | 1000 | 450 | 535/540 | 260.99 |
| 40730119 | F900 | 19 | DN300 | 1000 | 450 | 540/545 | 262.98 |
| 40730120 | F900 | 20 | DN300 | 1000 | 450 | 545/550 | 265    |



item 47030100



| Sewer grates for gutters BGM DN300, class F900 |      |                                             |       |     |     |    |       |
|------------------------------------------------|------|---------------------------------------------|-------|-----|-----|----|-------|
| 47030100                                       | F900 | 500/427/35, SW2x18/230<br>Slotted cast-iron | DN300 | 500 | 427 | 35 | 28.68 |



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

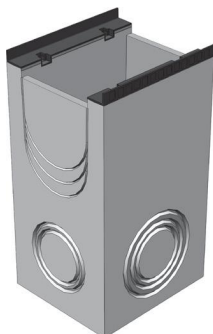
Point drainage

Soil conservation and stabilization system

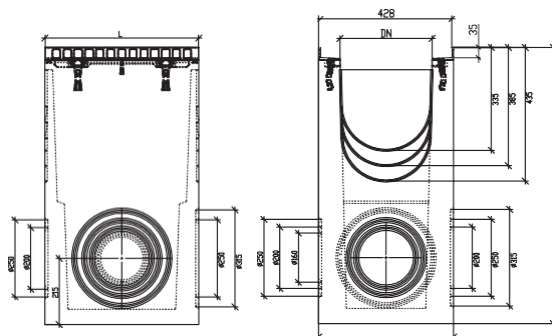
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length<br>L<br>mm | Width<br>C<br>mm | Height<br>H/H <sub>1</sub><br>mm | Weight<br>kg |
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|
|------|------------------|------|----|-------------------|------------------|----------------------------------|--------------|

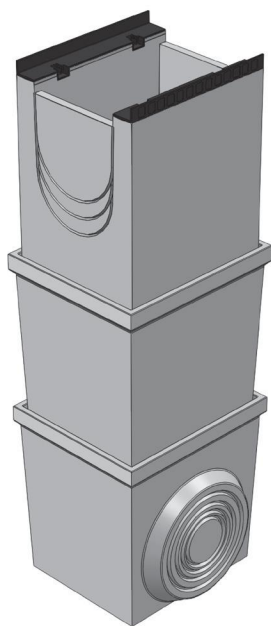


item 49030150



### Sand traps BGM DN300, class F900

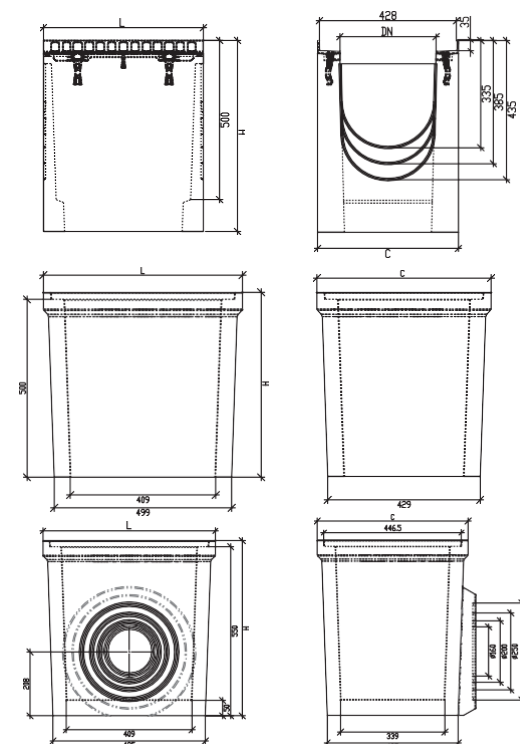
|          |      |                             |       |     |     |     |     |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|
| 49030150 | F900 | 500/440/900, single-section | DN300 | 500 | 440 | 900 | 222 |
|----------|------|-----------------------------|-------|-----|-----|-----|-----|



item 49030160

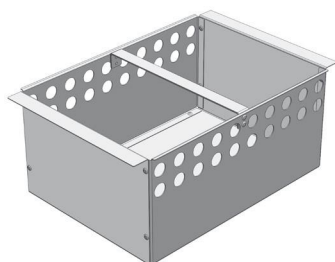
item 49001005

item 49001006



### Accessories for sand traps BGM DN300

|          |      |                                              |       |     |     |     |     |
|----------|------|----------------------------------------------|-------|-----|-----|-----|-----|
| 49030160 | F900 | 500/440/600, upper part                      | DN300 | 500 | 440 | 600 | 126 |
| 49001005 |      | 560/490/520, multi-purpose intermediate part | DN300 | 560 | 490 | 520 | 93  |
| 49001006 |      | 560/490/570, multi-purpose lower part        | DN300 | 560 | 490 | 570 | 130 |



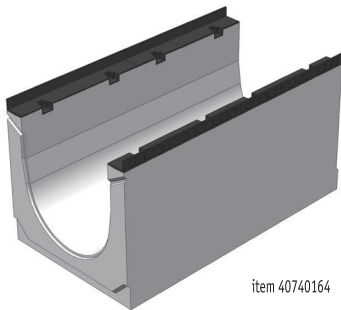
item 49030900

### Multi-purpose basket for sand trap BGM DN300

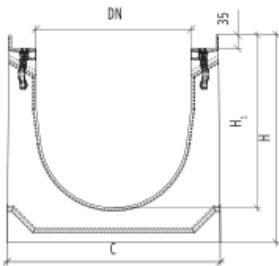
|          |  |                  |       |     |     |       |     |
|----------|--|------------------|-------|-----|-----|-------|-----|
| 49030900 |  | Galvanized steel | DN300 | 400 | 265 | 163.5 | 2.1 |
|----------|--|------------------|-------|-----|-----|-------|-----|



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

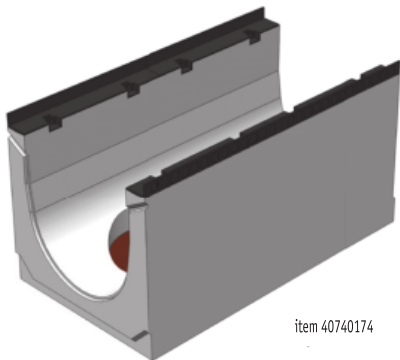


item 40740164

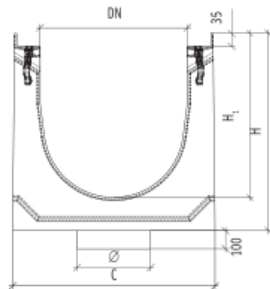


Concrete gutters BGM DN400, class F900, without slope

|          |      |      |       |      |     |         |     |
|----------|------|------|-------|------|-----|---------|-----|
| 40740100 | F900 | No   | DN400 | 1000 | 550 | 450/335 | 252 |
| 40740161 | F900 | No   | DN400 | 1000 | 550 | 475/360 | 270 |
| 40740162 | F900 | No-0 | DN400 | 1000 | 550 | 500/385 | 288 |
| 40740163 | F900 | No-0 | DN400 | 1000 | 550 | 525/410 | 306 |
| 40740164 | F900 | No-0 | DN400 | 1000 | 550 | 550/435 | 322 |



item 40740174



Concrete gutters BGM DN400, class F900, with vertical spillway, without slope

|          |      |         |       |      |     |         |     |
|----------|------|---------|-------|------|-----|---------|-----|
| 40740170 | F900 | No      | DN400 | 1000 | 550 | 450/335 | 252 |
| 40740171 | F900 | No-0    | DN400 | 1000 | 550 | 475/360 | 270 |
| 40740172 | F900 | No 10-0 | DN400 | 1000 | 550 | 475/360 | 270 |
| 40740173 | F900 | No 15-0 | DN400 | 1000 | 550 | 525/410 | 306 |
| 40740174 | F900 | No 20-0 | DN400 | 1000 | 550 | 550/435 | 322 |

\* Diameter for pipes to the gutter with vertical spillway Ø315/400

Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

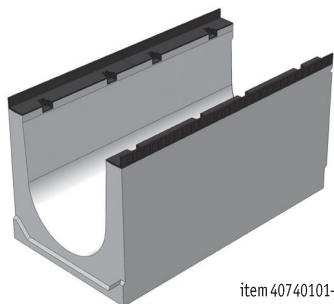
Point drainage

Soil conservation and stabilization system

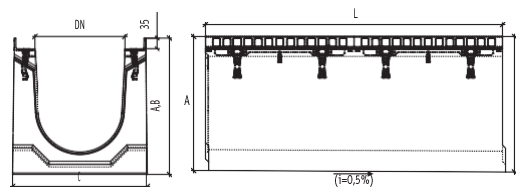
Entrance dirt-guard systems

Multi-purpose grid flooring

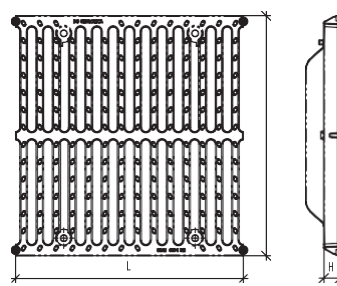
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 40740101-40740120



| Concrete gutters BGM DN400, class F900, with slope 0,5% |      |    |       |      |     |         |       |
|---------------------------------------------------------|------|----|-------|------|-----|---------|-------|
| 40740101                                                | F900 | 1  | DN400 | 1000 | 550 | 450/455 | 253.8 |
| 40740102                                                | F900 | 2  | DN400 | 1000 | 550 | 455/460 | 257.4 |
| 40740103                                                | F900 | 3  | DN400 | 1000 | 550 | 460/465 | 261   |
| 40740104                                                | F900 | 4  | DN400 | 1000 | 550 | 465/470 | 264.6 |
| 40740105                                                | F900 | 5  | DN400 | 1000 | 550 | 470/475 | 268.2 |
| 40740106                                                | F900 | 6  | DN400 | 1000 | 550 | 475/480 | 271.8 |
| 40740107                                                | F900 | 7  | DN400 | 1000 | 550 | 480/485 | 275.4 |
| 40740108                                                | F900 | 8  | DN400 | 1000 | 550 | 485/490 | 279   |
| 40740109                                                | F900 | 9  | DN400 | 1000 | 550 | 490/495 | 282.6 |
| 40740110                                                | F900 | 10 | DN400 | 1000 | 550 | 495/500 | 286.2 |
| 40740111                                                | F900 | 11 | DN400 | 1000 | 550 | 500/505 | 289.8 |
| 40740112                                                | F900 | 12 | DN400 | 1000 | 550 | 505/510 | 293.4 |
| 40740113                                                | F900 | 13 | DN400 | 1000 | 550 | 510/515 | 297   |
| 40740114                                                | F900 | 14 | DN400 | 1000 | 550 | 515/520 | 300.6 |
| 40740115                                                | F900 | 15 | DN400 | 1000 | 550 | 520/525 | 304.2 |
| 40740116                                                | F900 | 16 | DN400 | 1000 | 550 | 525/530 | 307.6 |
| 40740117                                                | F900 | 17 | DN400 | 1000 | 550 | 530/535 | 310.8 |
| 40740118                                                | F900 | 18 | DN400 | 1000 | 550 | 535/540 | 314   |
| 40740119                                                | F900 | 19 | DN400 | 1000 | 550 | 540/545 | 317.2 |
| 40740120                                                | F900 | 20 | DN400 | 1000 | 550 | 545/550 | 320.4 |



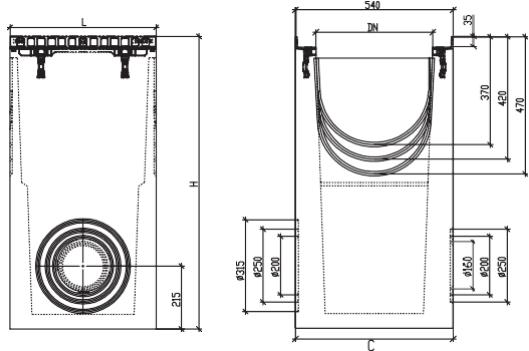
| Sewer grates for gutters BGM DN400, class F900 |      |                                                                               |       |     |     |    |      |
|------------------------------------------------|------|-------------------------------------------------------------------------------|-------|-----|-----|----|------|
| 47040100                                       | F900 | 500/527/35, SW2x18/230<br>Slotted cast-iron<br><small>apl. 47 040 100</small> | DN400 | 500 | 527 | 35 | 33.2 |



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 49040150



Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

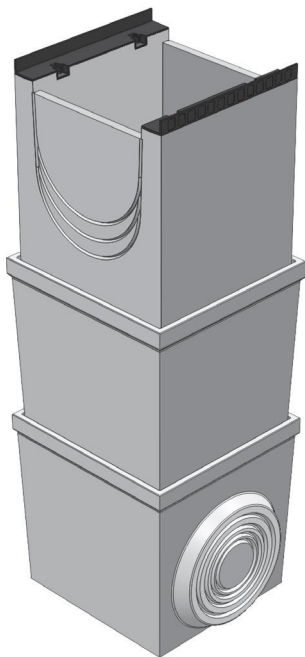
Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

Sand traps BGM DN400, class F900

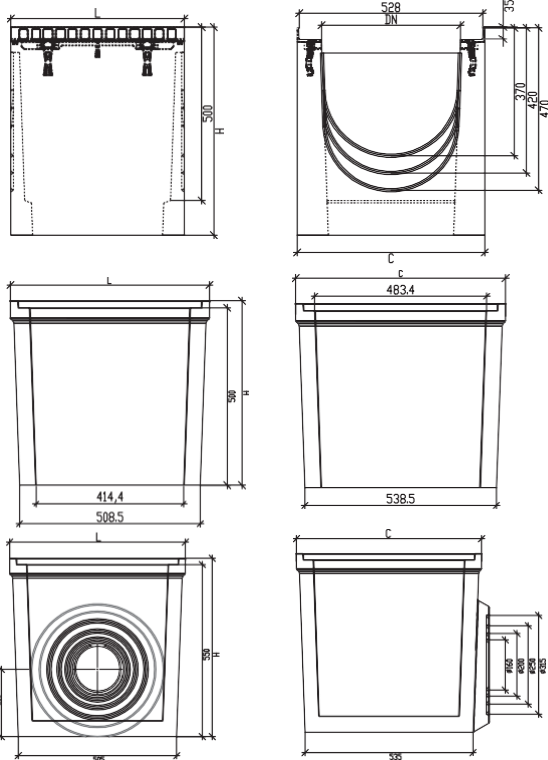
|          |      |                              |       |     |     |      |     |
|----------|------|------------------------------|-------|-----|-----|------|-----|
| 49040150 | F900 | 500/540/1000, single-section | DN400 | 500 | 540 | 1000 | 277 |
|----------|------|------------------------------|-------|-----|-----|------|-----|



item 49040160

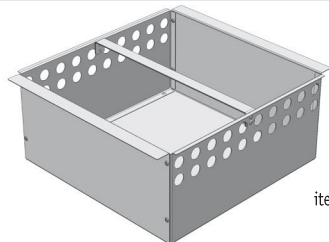
item 49001010

item 49001011



Accessories for sand traps BGM DN400

|          |      |                                               |       |     |     |     |     |
|----------|------|-----------------------------------------------|-------|-----|-----|-----|-----|
| 49040160 | F900 | 500/540/600, upper part                       | DN400 | 500 | 540 | 600 | 134 |
| 49001010 |      | 560/590/520 – multi-purpose intermediate part | DN400 | 560 | 590 | 520 | 104 |
| 49001011 |      | 560/590/570 – multi-purpose lower part        | DN400 | 560 | 590 | 570 | 147 |



item 49040900

Multi-purpose basket for sand trap BGM DN400

|          |  |                  |       |     |     |       |      |
|----------|--|------------------|-------|-----|-----|-------|------|
| 49040900 |  | Galvanized steel | DN400 | 400 | 365 | 163,5 | 3,24 |
|----------|--|------------------|-------|-----|-----|-------|------|



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

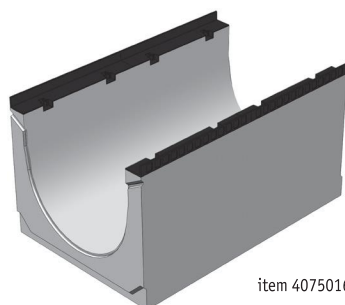
Point drainage

Soil conservation and stabilization system

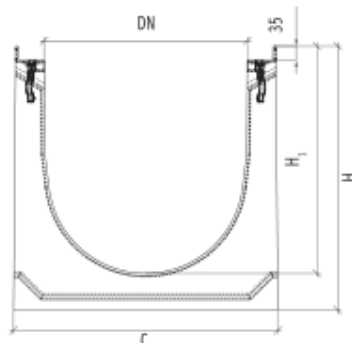
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

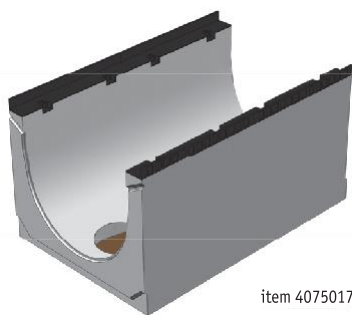


item 40750168

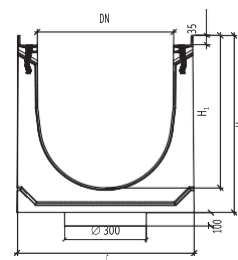


### Concrete gutters BGM DN500, class E600/F900, without slope

|          |      |      |       |      |     |         |        |
|----------|------|------|-------|------|-----|---------|--------|
| 40750100 | F900 | 0    | DN500 | 1000 | 650 | 450/360 | 326    |
| 40750161 | F900 | 5-0  | DN500 | 1000 | 650 | 475/385 | 334.66 |
| 40750162 | F900 | 10-0 | DN500 | 1000 | 650 | 500/410 | 343.32 |
| 40750163 | F900 | 15-0 | DN500 | 1000 | 650 | 525/435 | 351.98 |
| 40750164 | F900 | 20-0 | DN500 | 1000 | 650 | 550/460 | 360.64 |
| 40750165 | F900 | 25-0 | DN500 | 1000 | 650 | 575/485 | 369.3  |
| 40750166 | F900 | 30-0 | DN500 | 1000 | 650 | 600/510 | 377.96 |
| 40750167 | F900 | 35-0 | DN500 | 1000 | 650 | 625/535 | 386.62 |
| 40750168 | F900 | 40-0 | DN500 | 1000 | 650 | 650/560 | 395.28 |

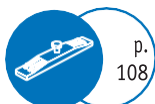


item 40750178



### Concrete gutters BGM DN500, class E600/F900, with vertical spillway, without slope

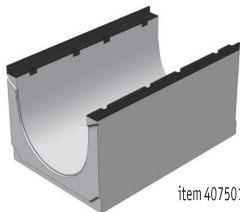
|          |      |      |       |      |     |         |     |
|----------|------|------|-------|------|-----|---------|-----|
| 40750170 | F900 | 0    | DN500 | 1000 | 650 | 450/360 | 312 |
| 40750171 | F900 | 5-0  | DN500 | 1000 | 650 | 475/385 | 320 |
| 40750172 | F900 | 10-0 | DN500 | 1000 | 650 | 500/410 | 328 |
| 40750173 | F900 | 15-0 | DN500 | 1000 | 650 | 525/435 | 336 |
| 40750174 | F900 | 20-0 | DN500 | 1000 | 650 | 550/460 | 344 |
| 40750175 | F900 | 25-0 | DN500 | 1000 | 650 | 575/485 | 352 |
| 40750176 | F900 | 30-0 | DN500 | 1000 | 650 | 600/510 | 360 |
| 40750177 | F900 | 35-0 | DN500 | 1000 | 650 | 625/535 | 368 |
| 40750178 | F900 | 40-0 | DN500 | 1000 | 650 | 650/560 | 376 |



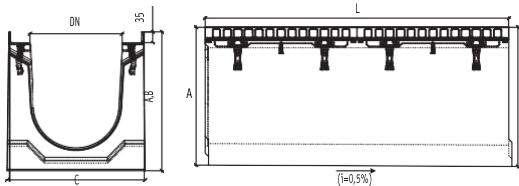
\* Diameter for pipes to the gutter with vertical spillway Ø315/400 mm



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 40750101-40750140



| Concrete gutters BGM DN500, class E600/F900, with slope 0,5% |      |    |       |      |     |         |        |
|--------------------------------------------------------------|------|----|-------|------|-----|---------|--------|
| 40750101                                                     | F900 | 1  | DN500 | 1000 | 650 | 450/455 | 326.9  |
| 40750102                                                     | F900 | 2  | DN500 | 1000 | 650 | 455/460 | 328.63 |
| 40750103                                                     | F900 | 3  | DN500 | 1000 | 650 | 460/465 | 330.36 |
| 40750104                                                     | F900 | 4  | DN500 | 1000 | 650 | 465/470 | 332.09 |
| 40750105                                                     | F900 | 5  | DN500 | 1000 | 650 | 470/475 | 333.82 |
| 40750106                                                     | F900 | 6  | DN500 | 1000 | 650 | 475/480 | 335.55 |
| 40750107                                                     | F900 | 7  | DN500 | 1000 | 650 | 480/485 | 337.28 |
| 40750108                                                     | F900 | 8  | DN500 | 1000 | 650 | 485/490 | 339.01 |
| 40750109                                                     | F900 | 9  | DN500 | 1000 | 650 | 490/495 | 340.74 |
| 40750110                                                     | F900 | 10 | DN500 | 1000 | 650 | 495/500 | 342.47 |
| 40750111                                                     | F900 | 11 | DN500 | 1000 | 650 | 500/505 | 344.2  |
| 40750112                                                     | F900 | 12 | DN500 | 1000 | 650 | 505/510 | 345.93 |
| 40750113                                                     | F900 | 13 | DN500 | 1000 | 650 | 510/515 | 347.66 |
| 40750114                                                     | F900 | 14 | DN500 | 1000 | 650 | 515/520 | 349.39 |
| 40750115                                                     | F900 | 15 | DN500 | 1000 | 650 | 520/525 | 351.12 |
| 40750116                                                     | F900 | 16 | DN500 | 1000 | 650 | 525/530 | 352.85 |
| 40750117                                                     | F900 | 17 | DN500 | 1000 | 650 | 530/535 | 354.58 |
| 40750118                                                     | F900 | 18 | DN500 | 1000 | 650 | 535/540 | 356.31 |
| 40750119                                                     | F900 | 19 | DN500 | 1000 | 650 | 540/545 | 358.04 |
| 40750120                                                     | F900 | 20 | DN500 | 1000 | 650 | 545/550 | 359.77 |
| 40750121                                                     | F900 | 21 | DN500 | 1000 | 650 | 550/555 | 361.5  |
| 40750122                                                     | F900 | 22 | DN500 | 1000 | 650 | 555/560 | 363.23 |
| 40750123                                                     | F900 | 23 | DN500 | 1000 | 650 | 560/565 | 364.96 |
| 40750124                                                     | F900 | 24 | DN500 | 1000 | 650 | 565/570 | 366.69 |
| 40750125                                                     | F900 | 25 | DN500 | 1000 | 650 | 570/575 | 368.42 |
| 40750126                                                     | F900 | 26 | DN500 | 1000 | 650 | 575/580 | 370.15 |
| 40750127                                                     | F900 | 27 | DN500 | 1000 | 650 | 580/585 | 371.88 |
| 40750128                                                     | F900 | 28 | DN500 | 1000 | 650 | 585/590 | 373.61 |
| 40750129                                                     | F900 | 29 | DN500 | 1000 | 650 | 590/595 | 375.34 |
| 40750130                                                     | F900 | 30 | DN500 | 1000 | 650 | 595/600 | 377.07 |
| 40750131                                                     | F900 | 31 | DN500 | 1000 | 650 | 600/605 | 378.8  |
| 40750132                                                     | F900 | 32 | DN500 | 1000 | 650 | 605/610 | 380.53 |
| 40750133                                                     | F900 | 33 | DN500 | 1000 | 650 | 610/615 | 382.26 |
| 40750134                                                     | F900 | 34 | DN500 | 1000 | 650 | 615/620 | 383.99 |
| 40750135                                                     | F900 | 35 | DN500 | 1000 | 650 | 620/625 | 385.72 |
| 40750136                                                     | F900 | 36 | DN500 | 1000 | 650 | 625/630 | 387.45 |
| 40750137                                                     | F900 | 37 | DN500 | 1000 | 650 | 630/635 | 389.18 |
| 40750138                                                     | F900 | 38 | DN500 | 1000 | 650 | 635/640 | 390.91 |
| 40750139                                                     | F900 | 39 | DN500 | 1000 | 650 | 640/645 | 392.64 |
| 40750140                                                     | F900 | 40 | DN500 | 1000 | 650 | 645/650 | 394.37 |

|                                            |                                             |                                        |                |                                            |                             |                             |
|--------------------------------------------|---------------------------------------------|----------------------------------------|----------------|--------------------------------------------|-----------------------------|-----------------------------|
| Drainage systems class of loading A15-C250 | Drainage systems class of loading D400-F900 | Drainage systems class of loading F900 | Point drainage | Soil conservation and stabilization system | Entrance dirt-guard systems | Multi-purpose grid flooring |
|--------------------------------------------|---------------------------------------------|----------------------------------------|----------------|--------------------------------------------|-----------------------------|-----------------------------|



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

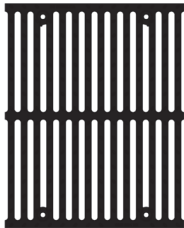
Point drainage

Soil conservation and stabilization system

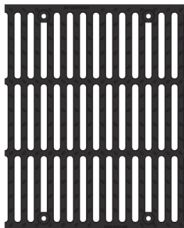
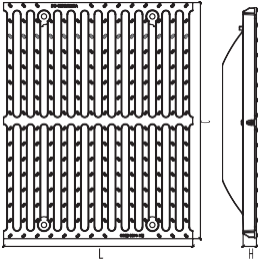
Entrance dirt-guard systems

Multi-purpose grid flooring

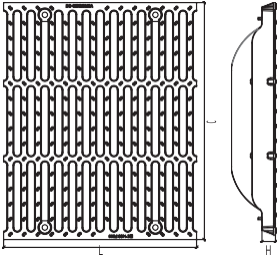
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 22047

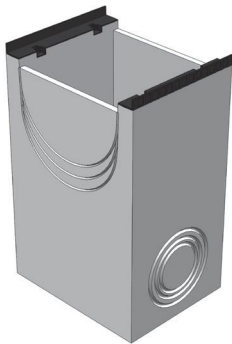


item 22048

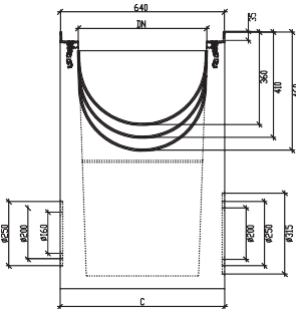
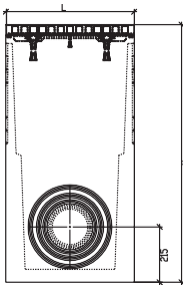


| Sewer grates for gutters BGM DN500, class E600/F900                                      |      |                                           |             |     |     |    |      |
|------------------------------------------------------------------------------------------|------|-------------------------------------------|-------------|-----|-----|----|------|
| 22047                                                                                    | E600 | 500/623/35, MW 28/15 – slotted cast-iron  | DN500       | 500 | 623 | 35 | 38.6 |
| 22048                                                                                    | F900 | 500/623/35, 18/180 – slotted cast-iron    | DN500       | 500 | 613 | 35 | 56   |
|  22049 | E600 | DN500, 500/623/35 – cast-iron blank cover | DN500       | 500 | 623 | 35 | 43.5 |
| Fastener for cast-iron grates                                                            |      |                                           |             |     |     |    |      |
| 22284                                                                                    |      | forBGM                                    | DN200-DN500 |     |     |    |      |

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm |        |



item 49050150



Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

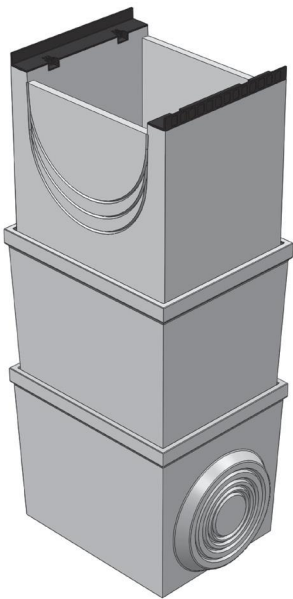
Point drainage

Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

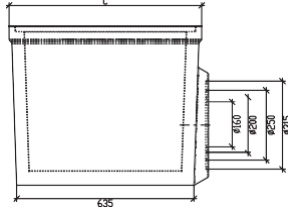
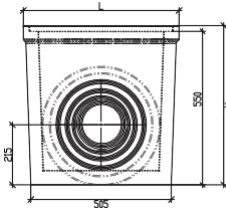
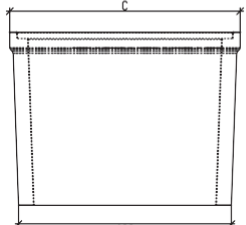
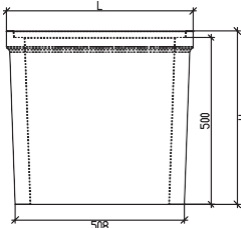
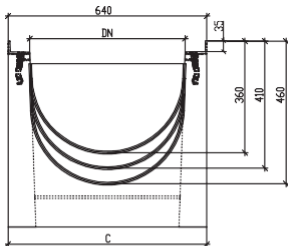
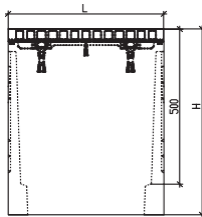
| Sand traps BGM DN500, class F900 |      |                                                   |  |  |       |     |     |      |     |
|----------------------------------|------|---------------------------------------------------|--|--|-------|-----|-----|------|-----|
| 49050150                         | F900 | 500/640/1000,single-section,with cast-iron nozzle |  |  | DN500 | 500 | 640 | 1000 | 302 |



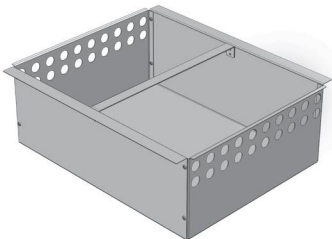
item 49050160

item 49001015

item 49001016



| Accessories for sand traps BGM DN500 |      |                                                |       |     |     |     |     |
|--------------------------------------|------|------------------------------------------------|-------|-----|-----|-----|-----|
| 49050160                             | F900 | 500/640/600, upper part, with cast-iron nozzle | DN500 | 500 | 640 | 600 | 143 |
| 49001015                             |      | 560/690/520 multi-purpose intermediate part    | DN500 | 560 | 690 | 520 | 115 |
| 49001016                             |      | 560/690/570 multi-purpose lower part           | DN500 | 560 | 690 | 570 | 163 |

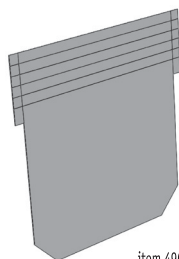


item 49050900

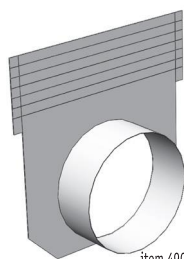
| Multi-purpose basket for sand trap BGM DN500 |                  |       |     |     |       |      |
|----------------------------------------------|------------------|-------|-----|-----|-------|------|
| 49050900                                     | Galvanized steel | DN500 | 400 | 447 | 163.5 | 3.76 |



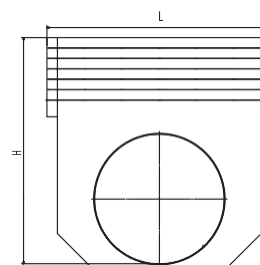
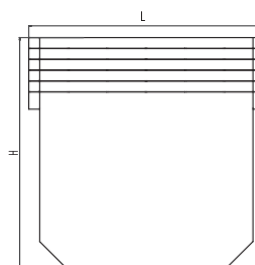
| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 49040200



item 49040201



### Multi-purpose end plugs for drainage gutters

|          |                                                                         |       |     |       |     |      |       |
|----------|-------------------------------------------------------------------------|-------|-----|-------|-----|------|-------|
| 22220    | стальная оцинкованная (BGU, BGU-Z, BGZ-S)                               | DN100 | 156 | 1.3   | 243 | 0.4  |       |
| 22221    | с водосливом, стальная оцинкованная (BGU, BGU-Z, BGZ-S)                 | DN100 | 156 | 45.3  | 250 | 0.5  | DN110 |
| 22222    | стальная оцинкованная (BGF, BGF-Z)                                      | DN100 | 156 | 1.3   | 80  | 0.2  |       |
| 22230    | стальная оцинкованная (BGU-Z, BGZ-S)                                    | DN150 | 206 | 1.3   | 293 | 0.6  |       |
| 22231    | с водосливом, оцинкованная (BGU, BGU-Z, BGZ-S)                          | DN150 | 206 | 46.3  | 300 | 0.7  | DN160 |
| 22232    | стальная оцинкованная (BGF, BGF-Z)                                      | DN150 | 206 | 1.3   | 80  | 0.24 |       |
| 22240    | стальная оцинкованная (BGU, BGU-Z, BGZ-S)                               | DN200 | 255 | 1.3   | 350 | 0.7  |       |
| 22241    | с водосливом, оцинкованная (BGU, BGU-Z, BGZ-S)                          | DN200 | 255 | 47.3  | 360 | 0.9  | DN200 |
| 22242    | стальная оцинкованная (BGF, BGF-Z)                                      | DN200 | 256 | 1.3   | 80  | 0.3  |       |
| 49020200 | стальная оцинкованная (200: BGM, BGU-XL, 300: BGU, BGZ-S)               | DN300 | 390 | 2.0   | 445 | 2.39 |       |
| 49020201 | стальная оцинкованная, с водосливом (200: BGM, BGU-XL, 300: BGU, BGZ-S) | DN300 | 440 | 82    | 370 | 2.42 | DN315 |
| 49030200 | стальная оцинкованная (BGU-XL, BGF-XL, BGM, BGM-F)                      | DN300 | 440 | 2     | 510 | 3.44 |       |
| 49030201 | с водосливом, оцинкованная                                              | DN300 | 440 | 122.0 | 495 | 3.86 |       |
| 49040200 | стальная оцинкованная                                                   | DN400 | 540 | 2.0   | 535 | 4.17 |       |
| 49040201 | с водосливом, оцинкованная                                              | DN400 | 540 | 122.0 | 555 | 4.95 | DN315 |
| 49050200 | стальная оцинкованная                                                   | DN500 | 640 | 2.0   | 610 | 6.03 |       |
| 49050201 | с водосливом, оцинкованная                                              | DN500 | 640 | 122.0 | 610 | 6.81 | DN315 |



### Sealing system

sealant, 600 мл

Road polymer asphaltic coating, 50x5 cm



- PLASTIC STORM  
WATER INLET  
Gidrolica® Point
- OUTDOOR FLOOR GULLY  
Gidrolica® Rain
- MANHOLES  
Gidrolica® Street  
Gidrolica® Garden



POINT DRAINAGE SYSTEM GIDROLICA®

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

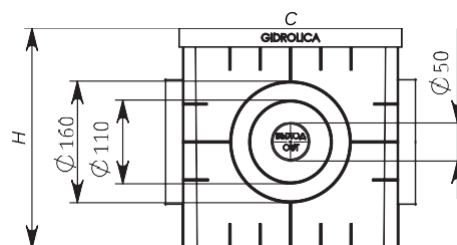
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

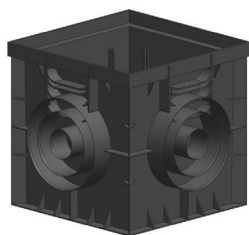


item 229

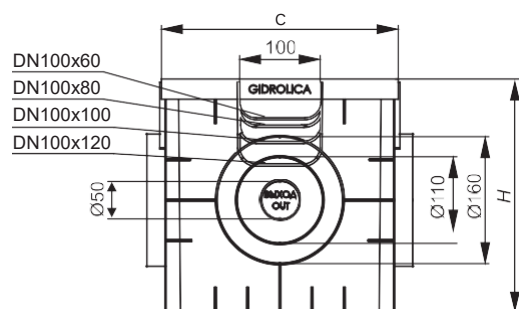


Storm water inlet Gidrolica® Point plastic 300x300

|     |      |          |     |     |     |     |
|-----|------|----------|-----|-----|-----|-----|
| 229 | B125 | ДП 30.30 | 300 | 300 | 300 | 1,5 |
|-----|------|----------|-----|-----|-----|-----|

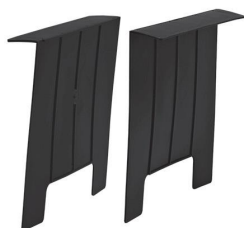


item 229u

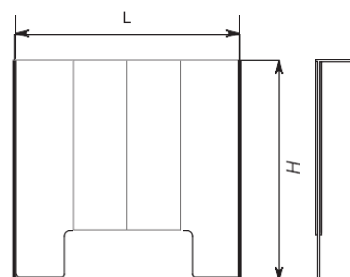


Storm water inlet Gidrolica® Point multi-purpose plastic 300x300

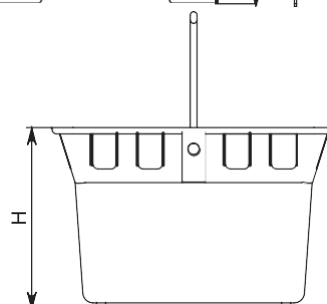
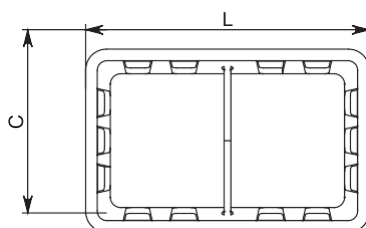
|      |      |          |     |     |     |     |
|------|------|----------|-----|-----|-----|-----|
| 229u | B125 | ДП 30.30 | 300 | 300 | 300 | 1,5 |
|------|------|----------|-----|-----|-----|-----|



item 210



item 215



Accessories for storm water inlet Gidrolica® Point plastic 300x300 Intercepting trap for storm water inlet Gidrolica® Point plastic

|     |          |     |     |      |
|-----|----------|-----|-----|------|
| 210 | ДП 30.30 | 250 | 242 | 0,16 |
|-----|----------|-----|-----|------|

Basket for storm water inlet Gidrolica® Point plastic 300x300

|     |          |     |     |      |
|-----|----------|-----|-----|------|
| 215 | ДП 30.30 | 245 | 155 | 0,26 |
|-----|----------|-----|-----|------|

POINT DRAINAGE

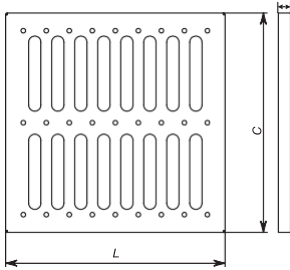
Grates forStorm water inlet

Gidrolica Point 300X300

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



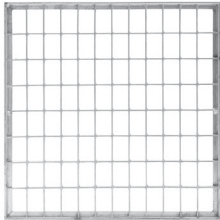
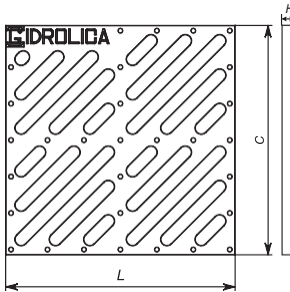
item 200



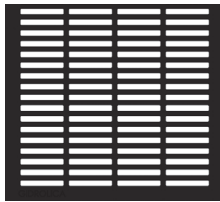
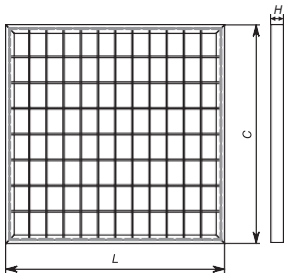
| Sewer grate for storm water inlet Gidrolica® Point plastic 300x300 |     |              |     |     |    |      |                              |
|--------------------------------------------------------------------|-----|--------------|-----|-----|----|------|------------------------------|
| 200                                                                | A15 | PB-28.5.28.5 | 285 | 285 | 22 | 0,75 | Drop-forged galvanized steel |



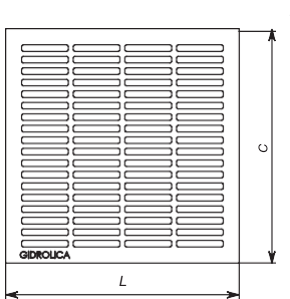
item 205



item 206



item 208



| Sewer grate for storm water inlet Gidrolica® Point plastic 300x300 |     |              |     |     |    |     |         |
|--------------------------------------------------------------------|-----|--------------|-----|-----|----|-----|---------|
| 208                                                                | A15 | PB-28.5.28.5 | 285 | 285 | 22 | 0,5 | plastic |

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring





Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

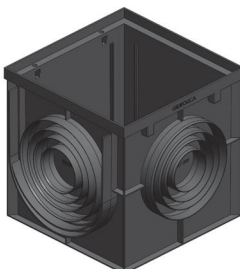
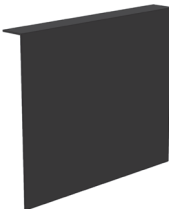
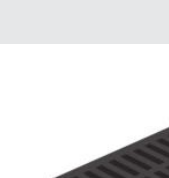
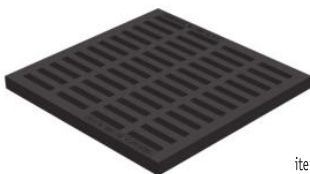
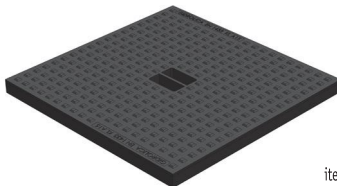
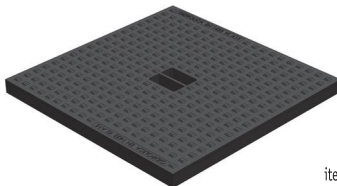
Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

| Item                                                                                                                                                                                 | Class of loading | Type     | DN    | Length  | Width   | Height                 | Weight  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------|-------|---------|---------|------------------------|---------|
|                                                                                                                                                                                      |                  |          |       | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg      |
|  <br>item 239      |                  |          |       |         |         |                        |         |
| Storm water inlet Gidrolica® Point plastic 400x400                                                                                                                                   |                  |          |       |         |         |                        |         |
|  <br>item 211      | C250             | ДП-40.40 | 400   | 400     | 400     | 4,21                   |         |
|  <br>item 214     |                  |          |       |         |         |                        |         |
| Accessories for storm water inlet Gidrolica® Point plastic 400x400 Intercepting trap for storm water inlet Gidrolica® Point plastic                                                  |                  |          |       |         |         |                        |         |
|  <br>item 211  |                  | ДП 40.40 | 353,5 | 2,5     | 289,5   | 0,29                   |         |
| Basket for storm water inlet Gidrolica® Point plastic 400x400                                                                                                                        |                  |          |       |         |         |                        |         |
|  <br>item 214  |                  | ДП 40.40 | 350   | 262     | 150     | 0,48                   |         |
|  <br>item 2207 |                  |          |       |         |         |                        |         |
| Sewer grate for storm water inlet Gidrolica® Point plastic 400x400                                                                                                                   |                  |          |       |         |         |                        |         |
|  <br>item 209  | A15              | PB-40.40 | 390   | 390     | 35      | 1,41                   | plastic |
|  <br>item 209  |                  | ДП-40.40 | 390   | 390     | 35      | 1,48                   | plastic |



**Outdoor floor gully **Gidrolica® Rain**** is designed to drain storm water into the sewer system. Roof gullies are attached vertically to the floor gully, which protects the building pedestal from storm water splashes and the foundation from subsidence.

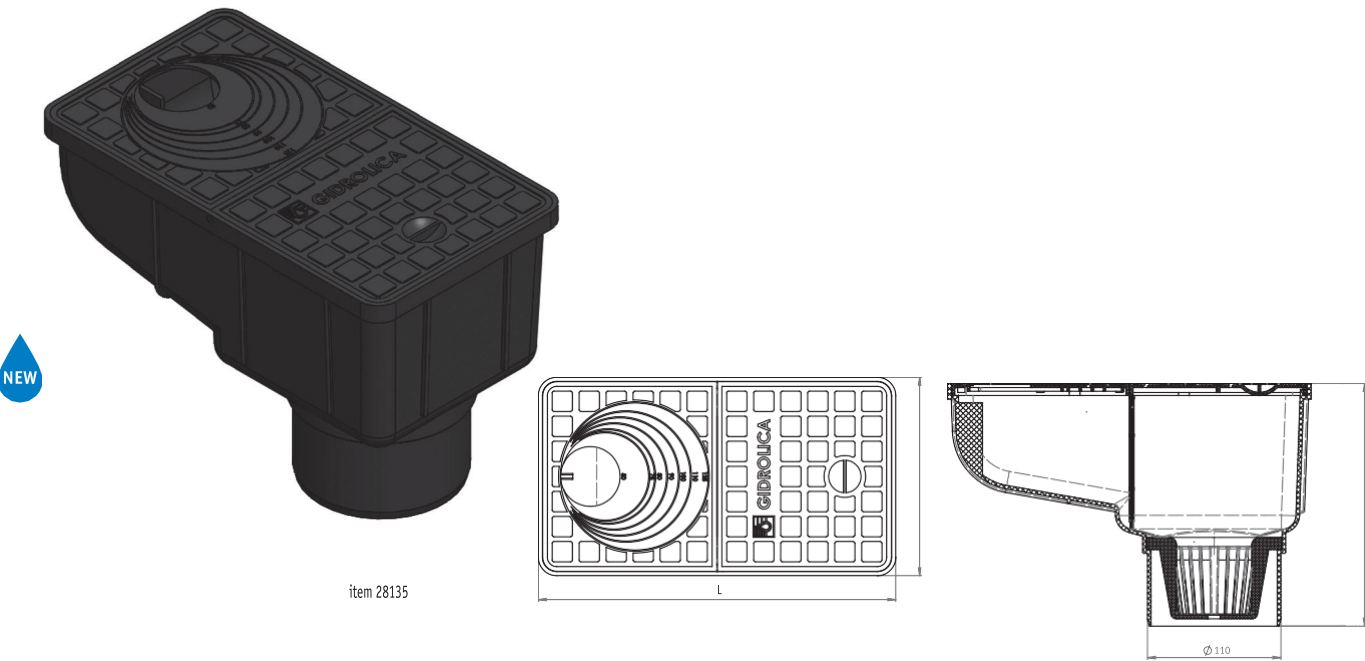
**ADVANTAGES OF OUTDOOR FLOOR GULLY GIDROLICA®RAIN**

- It is made of high-quality raw materials
- High frost resistance,
- Resistance to ultraviolet radiation and various chemical corrosive substances.

**PACKAGE CONTENTS OF GIDROLICA® RAIN:**

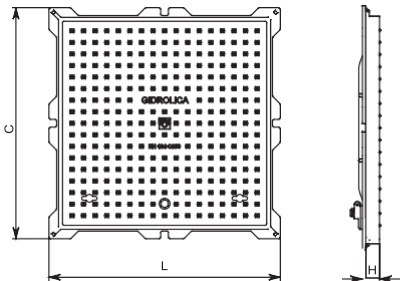
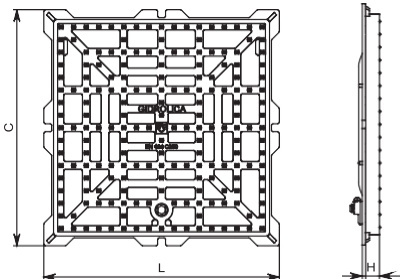
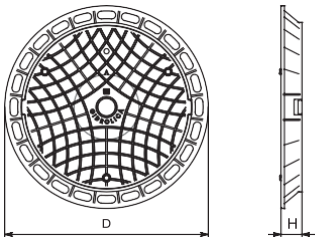
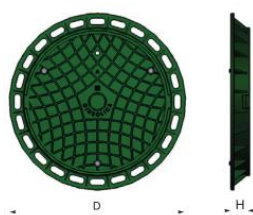
- Plastic housing, sloping surface of which prevents the water stagnation
- Smell-blocking plate
- Cover with holes to connect pipes with a diameter of 50 - 125 mm
- Leaf trap prevents various garbage from entering the drainage system
- Plastic blankhandhole cap to clean the leaf trap

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

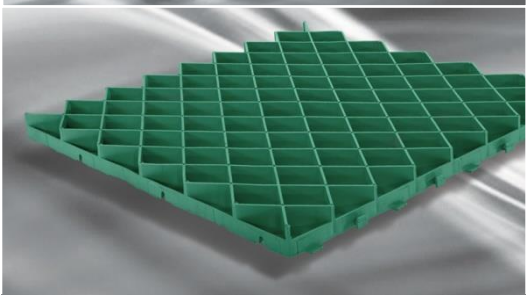
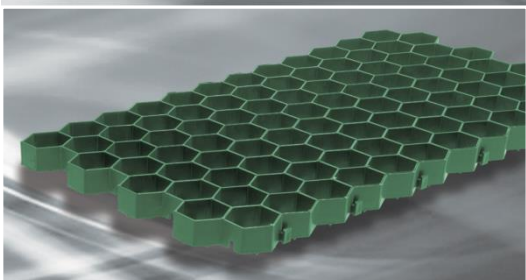
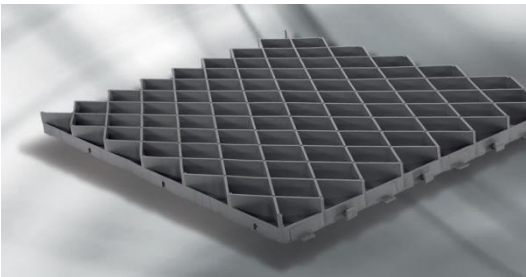
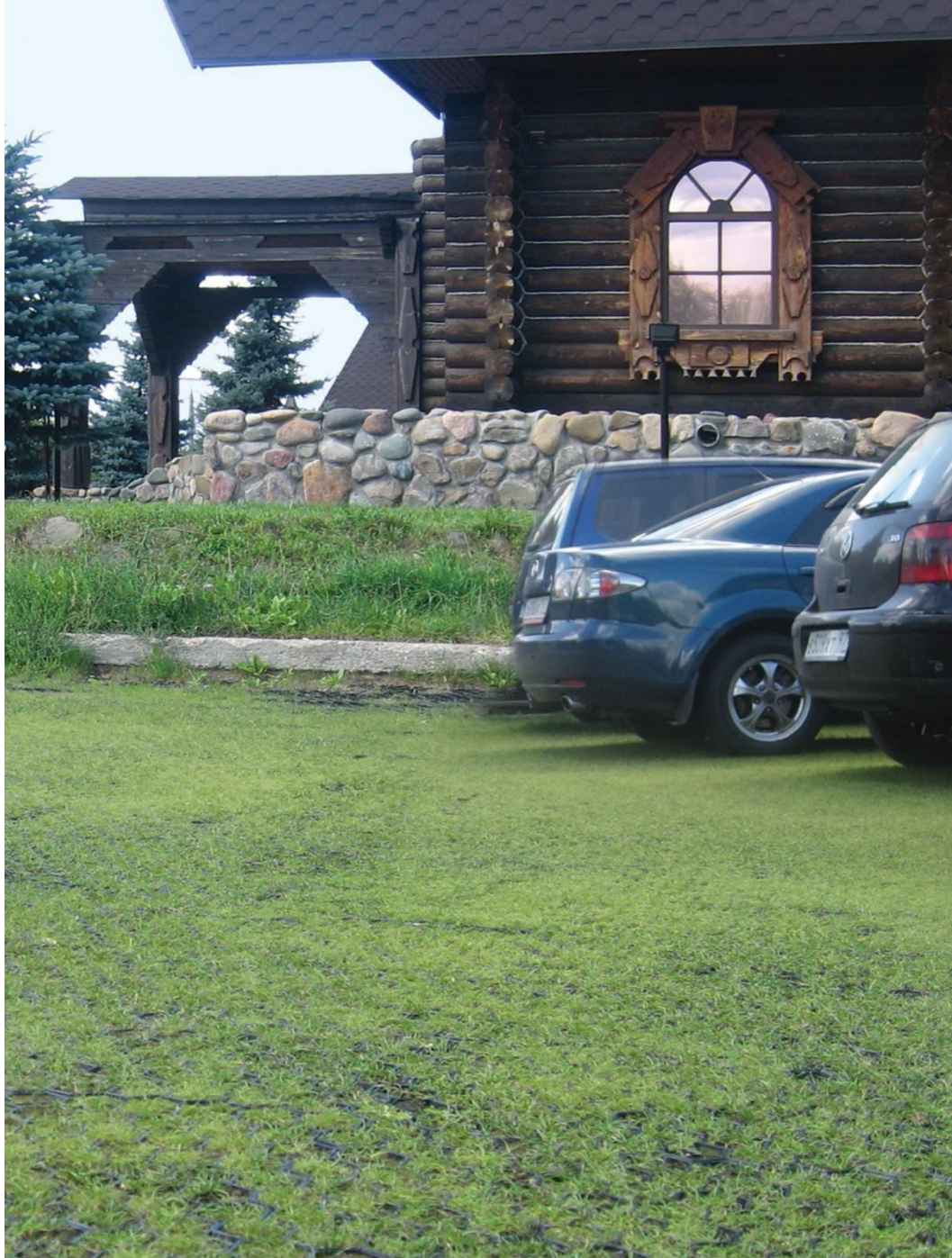


|                                                                                           |               |     |     |     |     |                                   |   |
|-------------------------------------------------------------------------------------------|---------------|-----|-----|-----|-----|-----------------------------------|---|
| Plastic outdoor floor gully <b>Gidrolica® Rain</b> with plastic blank cover               |               |     |     |     |     |                                   |   |
|  28135 | TY-30.16,6.20 | 300 | 166 | 200 | 0,9 | -Plastic with plastic blank cover | = |

|                                             |
|---------------------------------------------|
| Drainage systems class of loading A15-C250  |
| Drainage systems class of loading D400-F900 |
| Drainage systems class of loading F900      |
| Point drainage                              |
| Soil conservation and stabilization system  |
| Entrance dirt-guard systems                 |
| Multi-purpose grid flooring                 |

| Item                                                                                | Class of loading | Type  | DN  | Length     | Width                                                                                 | Height                 | Weight |
|-------------------------------------------------------------------------------------|------------------|-------|-----|------------|---------------------------------------------------------------------------------------|------------------------|--------|
|                                                                                     |                  |       |     | L<br>mm    | C<br>mm                                                                               | H/H <sub>1</sub><br>mm | kg     |
| Drainage systems class of loading A15-C250                                          |                  |       |     |            |                                                                                       |                        |        |
| Drainage systems class of loading D400-F900                                         |                  |       |     |            |                                                                                       |                        |        |
|    |                  |       |     | item 201   |     |                        |        |
| Blank access manhole Gidrolica® Street                                              |                  |       |     |            |                                                                                       |                        |        |
| 201                                                                                 | A15              | 600   | 600 | 42         | 29,95                                                                                 | Cast-iron              |        |
| Drainage systems class of loading F900                                              |                  |       |     |            |                                                                                       |                        |        |
|   |                  |       |     | item 202   |    |                        |        |
| Storm access manhole Gidrolica® Street                                              |                  |       |     |            |                                                                                       |                        |        |
| 202                                                                                 | A15              | 600   | 600 | 42         | 26,47                                                                                 | Cast-iron              |        |
| Point drainage                                                                      |                  |       |     |            |                                                                                       |                        |        |
| Item                                                                                | Class of loading | Type  | DN  | Length     | Width                                                                                 | Height                 | Weight |
|                                                                                     |                  |       |     | L<br>mm    | C<br>mm                                                                               | H/H <sub>1</sub><br>mm | kg     |
| Soil conservation and stabilization system                                          |                  |       |     |            |                                                                                       |                        |        |
|  |                  |       |     | item 218/4 |   |                        |        |
| Manhole Gidrolica® Garden                                                           |                  |       |     |            |                                                                                       |                        |        |
| 218/4                                                                               | A15              | ТИП Л | 745 | 80         | 9,2                                                                                   | Black plastic          |        |
| Entrance dirt-guard systems                                                         |                  |       |     |            |                                                                                       |                        |        |
|  |                  |       |     | item 218/3 |  |                        |        |
| Multi-purpose grid flooring                                                         |                  |       |     |            |                                                                                       |                        |        |
| Manhole Gidrolica® Garden                                                           |                  |       |     |            |                                                                                       |                        |        |
| 218/3                                                                               | A15              | ТИП Л | 745 | 80         | 9,2                                                                                   | Green plastic          |        |

- GRASS PAVERS  
Gidrolica®Eco Standart  
Gidrolica®Eco Pro Gidrolica®Eco  
Super
- GARDEN CURB  
Gidrolica® Line



## SOIL CONSERVATION AND STABILIZATION SYSTEMS GIDROLICA®





## SOIL CONSERVATION AND STABILIZATION SYSTEMS

Gidrolica company has been manufacturing and selling grass pavers on the territory of the Russian Federation for more than six years and has proven itself as a reliable supplier of high-quality grass pavers for green parking on a green lawn at reasonable price. Due to the use of the grass pavers Gidrolica® at public parking lots, private garden space of urban and suburban housing construction, the crucial task of increasing parking space in fast-developing megalopolises and suburban residential estates is solved while keeping green resources of cities.

Gidrolica company offers an ecological and practical solution for creating additional parking space at a low cost.

### Grass paver Gidrolica® for green parking

Ecoparking is a special lawn for parking, environmentally-sealed by a grate. The grass paver Gidrolica® is suitable for construction of parking lots on a green lawn, as it has a specially developed mesh structure allowing to protect the root structure of the lawn from the loads imposed by moving or parked cars.

### Operating principle of grass paver Gidrolica®

The operating principle the grass paver Gidrolica® is to reinforce the soil surface with grates that have a solid mesh structure, in which root system of the grass cover is protected from trampling and remains protected even with heavy traffic on the lawn. Grass paver modules redistribute the load over their entire area. Reinforcement of the soil, redistribution of the load and preservation of the grass cover root system avoid the possibility of tracing rut creation.

Grass paver protects the soil from erosion effectively and ensures a flat surface of the lawn. The lower part of the paver is made in the form of a mesh, which is then woven over by the plant roots and holds the paver additionally. Due to a specially developed fastening system, the paver is easy to assemble, is securely fixed to the surface and does not require special maintenance. Therefore, it is used not only to build an ecoparking, but also to reinforce slopes (no more than 5%) and pedestrian lawns.

### Grass paver Gidrolica® is a robust solution for constructing parking spaces on the lawn

Grass paver Gidrolica® is made of frost-resistant plastic, resistant to load impact and temperature drops from minus 40° C to plus 70° C, which ensures structural integrity at a wide temperature range under the load up to class D400 (40 tons of distributed load). Therefore, it is successfully used to build ecoparking throughout Russia.

### Grass paver Gidrolica® helps to save the environment

Grass paver is an environmentally friendly solution that ensures optimal circulation of moisture and the exchange of nutrient elements, it preserves the vital soil biosystems. The use of grass paver allows not to cover the soil with asphalt and concrete pavements. Preservation of green resources is vitally important for saving the ecology of cities and suburban housing facilities.





## Advantages of grass paver **Gidrolica®**

- ◆ Parking space arrangement on the lawn.
- ◆ Stiffener plates of the grass paver provide better adherence with the car wheel protector not damaging the grass cover.
- ◆ Easy and quick to lay.
- ◆ Easy to carry, lightweight.
- ◆ The low cost of the grass paver and its installation.
- ◆ Soil protection against erosion.
- ◆ Weather resistance.
- ◆ Resistance to UV light.
- ◆ Water permeability, excellent drainage properties.
- ◆ Optimal conditions for the development of plants, grass coating by 90%.
- ◆ Absence of toxic impurities in the material from which the grass paver is made.

## Objects with grass paver **Gidrolica®**

- ◆ Ecoparkings in Moscow, Mitino, Moscow – 9000 m<sub>2</sub>
- ◆ Ecoparkings in Tagansky district, Moscow – 15 000 m<sub>2</sub>
- ◆ Ecoparkings in front of the shopping center «Kapitoly» in Butovo, Moscow– 6000 m<sub>2</sub>
- ◆ Ecoparkings intercepting at the service drive of Altufyevskoe highway, Moscow – 2000 m<sub>2</sub>
- ◆ Ecoparkings in front of the shopping centers «Aura», Novosibirsk – 2000 m<sub>2</sub>
- ◆ Housing community «Goluboe», Zelenograd – 500 m<sub>2</sub>
- ◆ Housing community «Gorki 10» – 800 m<sub>2</sub>
- ◆ Housing community «Barvikha Hills» Housing community «Angelovo»
- ◆ City park, Krasnogorsk– 1200 m<sub>2</sub> Tsaritsynsky Park, Moscow Khovanskoe cemetery, Moscow – 1500 m<sub>2</sub>
- ◆ Auto service centers Rolf, Toyota Ecopark of the restaurant “Ermak” – 1000 m<sub>2</sub>
- ◆ Konakovskaya NPP – 1000 m<sub>2</sub>
- ◆ All-Russian Exhibition Center, Moscow, the territory of the monument “Rabochy I Kolkhoznitsa”



Drainage systems class of  
loading A15-C250

Drainage systems class of  
loading D400-F900

Drainage systems class of  
loading F900

Point drainage

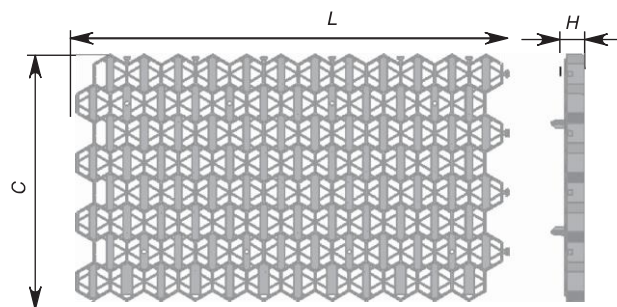
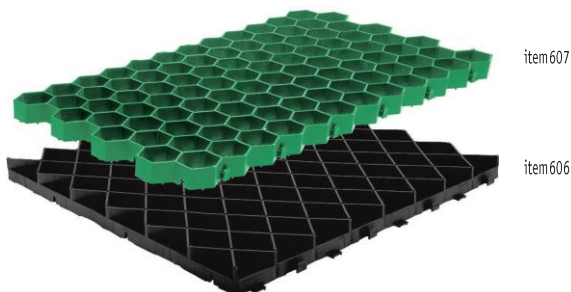
Soil conservation and  
stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

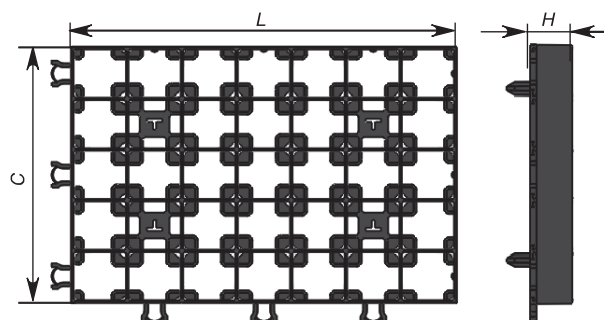
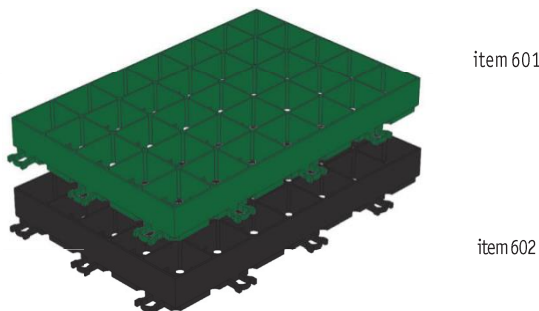


### Grass pavers Gidrolica® Eco Standart plastic

|     |      |              |       |     |    |      |       |
|-----|------|--------------|-------|-----|----|------|-------|
| 607 | C250 | ПГ-70.40.3,2 | 691.5 | 400 | 32 | 1.14 | green |
| 608 | C250 | ПГ-70.40.3,2 | 691.5 | 400 | 32 | 1.14 | black |

### Grass pavers Gidrolica® Eco Pro plastic

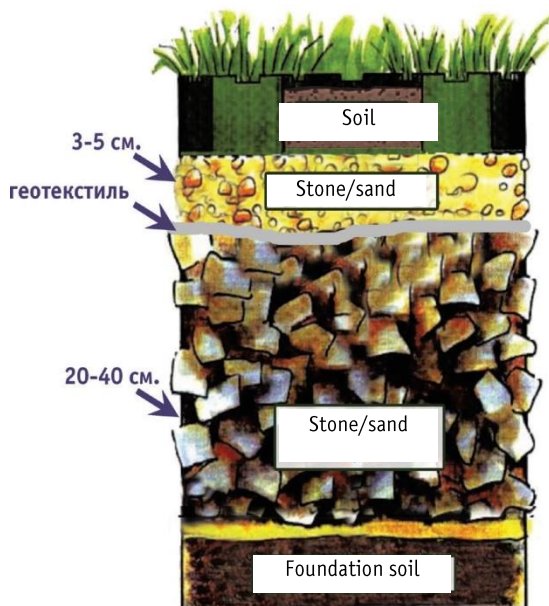
|     |      |            |     |     |    |      |       |
|-----|------|------------|-----|-----|----|------|-------|
| 605 | C250 | ПГ-60.60.4 | 595 | 595 | 40 | 1.71 | green |
| 606 | C250 | ПГ-60.60.4 | 595 | 595 | 40 | 1.71 | black |



### Grass pavers Gidrolica® Eco Super plastic

|     |      |              |     |     |    |     |       |
|-----|------|--------------|-----|-----|----|-----|-------|
| 601 | D400 | ПГ-60.40.6,4 | 600 | 400 | 64 | 2.3 | green |
| 602 | D400 | ПГ-60.40.6,4 | 600 | 400 | 64 | 2.3 | black |

## Installation recommendations on grass paver Gidrolica®



1. Remove the fertile layer of about 40 cm.
2. Set broken stones of 5-20 mm with a layer: of 20-25 cm in height for load class C250, 30-35 cm in height for load class D400.
3. Lay geotextile.
4. Set sand and gravel mix (3-5 cm), tamp down, level the surface.
5. Install grass paver modules.
6. Fill the paver meshes with fertile soil, sow with grass seeds.
7. Water abundantly. If necessary, add soil to the top edge of the mesh.
8. Let the grass to grow for 3 weeks, then cut it and start using the lawn.

While in use, it is necessary to water the lawn regularly, avoiding direct sunlight when watering, taking into account the recommendations of the lawn grass manufacturers and the characteristics of the sort. It is also necessary to fertilize and sow the seeds.





| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |



item 7310

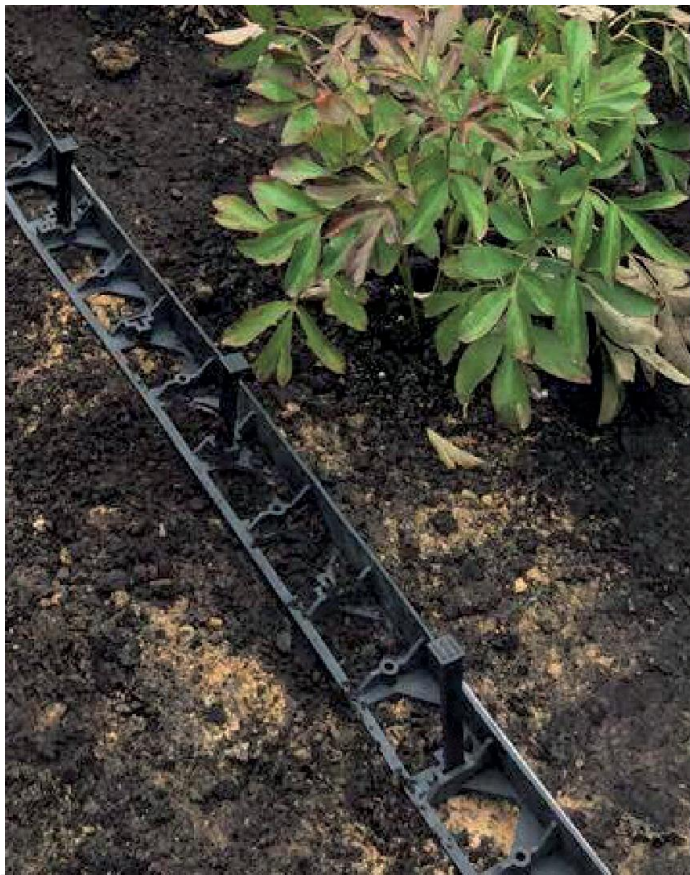


item 7315

|                                                                                         |             |       |    |     |      |                 |
|-----------------------------------------------------------------------------------------|-------------|-------|----|-----|------|-----------------|
| Garden curb Hidrolica® Line, plastic                                                    |             |       |    |     |      |                 |
|  7310  | Á100.8.4.5  | 1000  | 80 | 45  | 0,47 | black, 1m long  |
| Securing anchor for curb                                                                |             |       |    |     |      |                 |
| 7315                                                                                    | Ê3-Á        |       |    | 260 | 0,03 |                 |
| Garden curb Hidrolica® Country, plastic                                                 |             |       |    |     |      |                 |
|  7305 | Á10000.2.11 | 10000 | 20 | 110 | 2    | black, 10m long |

Installation recommendations on plastic curb Hidrolica® Line

1. The soil should provide the possibility of using plastic securing anchors for curbs. In case of stony soil steel nails are used.
2. The marking of the curb lines is performed using a leveling gauge.
3. The curb is fastened with plastic anchors or steel nails along the marked line.
4. Components of the curb are easily cut to the desired length at the installation site.



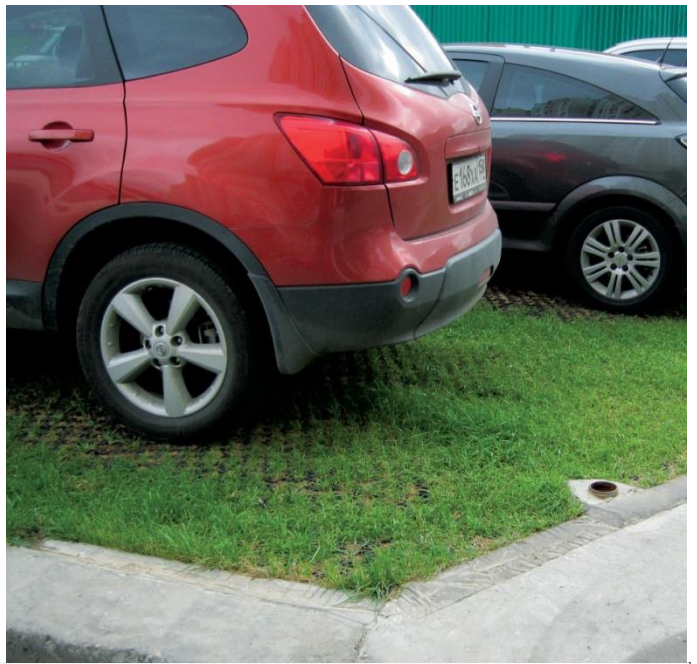
Moscow Region, a detached house

|                                             |
|---------------------------------------------|
| Drainage systems class of loading A15-C250  |
| Drainage systems class of loading D400-F900 |
| Drainage systems class of loading F900      |
| Point drainage                              |
| Soil conservation and stabilization system  |
| Entrance dirt-guard systems                 |
| Multi-purpose grid flooring                 |





Moscow, Mitino, Ecoparking



Moscow, Altufyevo, Ecoparking



Novosibirsk, shopping center "Malaya Medveditsa", grass paver



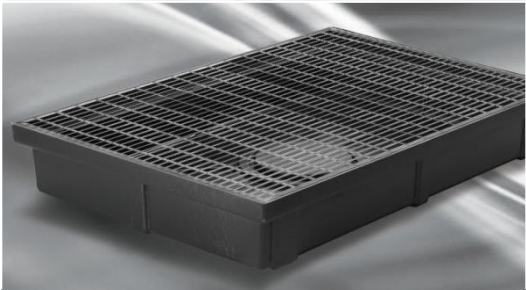
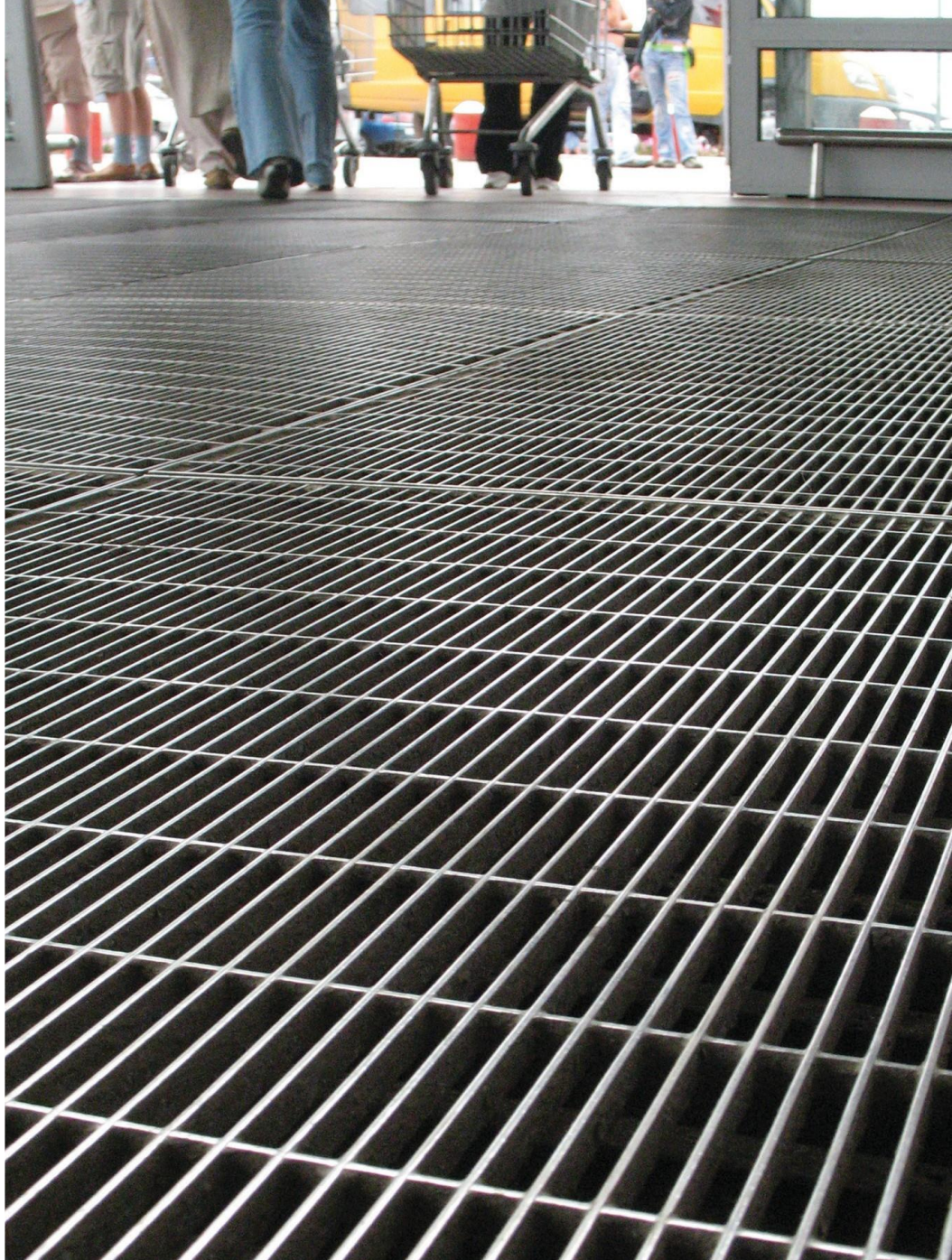
Moscow, restaurant "Ermak", Ecoparking



Novosibirsk, a detached house, Ecoparking



- ENTRANCE  
DRAIN PANS  
Gidrolica®StepPro
- ENTRANCE FOOT  
GRILLS EURO  
Gidrolica®Step



ENTRANCE DIRT-GUARD SYSTEMS  
GIDROLICA®



## ENTRANCE DIRT-GUARD SYSTEMS

Entrance dirt-guard systems are an effective, modern and easy-to-use solution for protecting a room from dirt. This is especially relevant for buildings with high foot traffic: office blocks, large shopping and entertainment centers with a lot of visitors. A properly built dirt-guard system will effectively collect moisture and dirt from visitors' shoes and help to keep these buildings clean.

### 1 area of dirt-guard system

This is the first stage of cleaning shoes from large debris and snow. It is installed on the street before entry of the building. Mesh steel galvanized grates Gidrolica®StepPro or aluminum grates GidrolicaStep with rubber inserts are eminently suitable for this purpose. In addition to Euro aluminum grates with rubber inserts, it is possible to add a scraper or brushes.

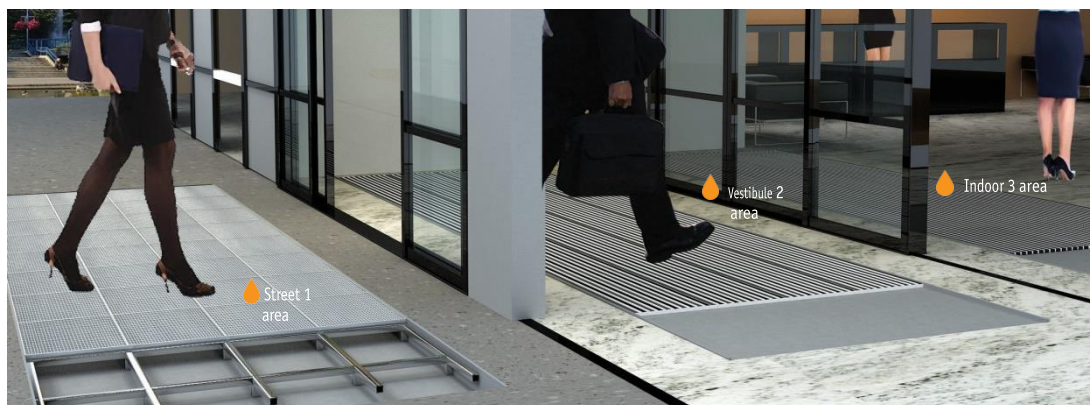
### 2 area of dirt-guard system

This is the second stage of cleaning shoes at the entry of the building. The second stage dirt-guard system is usually installed in the vestibule, between the street and the main building, and provides more thorough cleaning with dislodging dirt from the cleats of the shoes. In this area, aluminum grate system Gidrolica®Step with rubber inserts, brushes and textiles has proven itself in the best way.

They effectively remove the remaining dirt and moisture from the shoes.

### 3 area of dirt-guard system

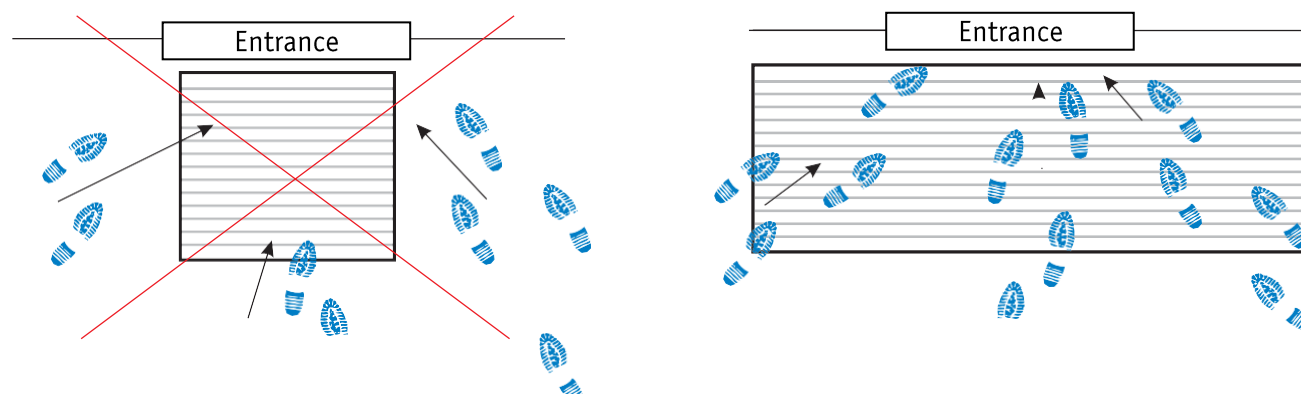
This is the third stage of cleaning shoes. It is usually installed indoors. At this stage, moisture is collected from the shoes. Aluminum grates Gidrolica®Step with napped textile inserts or napped absorbent carpets are suitable for this purpose. They finish the shoe cleaning and protect the floor covering from damage.



The three-level dirt-guard system forms a barrier against street dirt and moisture at the entrance to the buildings, providing cleanliness of public premises and reducing the time and cost of cleaning significantly.

## MAIN RULES OF EFFECTIVE DIRT-GUARD SYSTEM DESIGN AND INSTALLATION

💧 **The first rule.** According to the “six steps” rule, a visitor should walk at least 6 steps on dirt-guard cover (based on all three steps together, but the larger the dirt-guard area, the more thoroughly the shoes are cleaned at the entrance). It is important that the dirt-guard covering occupies all the space (for the passage of people) into the building, so that the visitor takes at least 2–6 steps along the dirt-guard grills. It should be installed in such a way that there are no places where visitors can enter the building without going through the dirt-guard system.

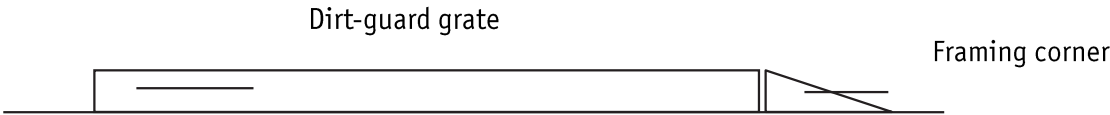


- ❖ The **second rule** is the selection of dirt-guard system components in strict accordance with the cleaning steps. It is important to understand that mistakes result in a loss of effectiveness of the dirt-guard systems. For example, grates with napped textile inserts are not recommended to be laid on the street in front of the entrance, because they will absorb precipitation and be as a “puddle in front of the entrance”. Also, grates with brushes are not used, since in case of snowfall the snow will not fall down, but will be trampled into the brushes and they will no longer be effective. They should be laid in vestibule. And at the entrance, mesh steel grates Gidrolica® StepPro are perfectly suitable, because they pass snow, slush, and large particles of dirt effectively. It is also possible to lay aluminum grates Gidrolica® Step with rubber inserts and a scraper.
- ❖ The **third rule** is the rule of proper installation of grates in accordance with the installation recommendation.

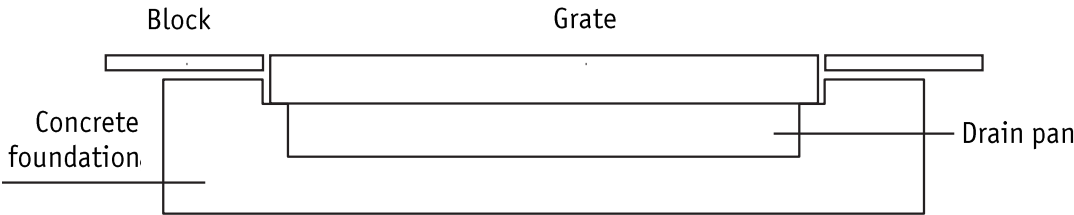
## INSTALLATION RECOMMENDATION

Dirt-guard grates can be installed in three main ways:

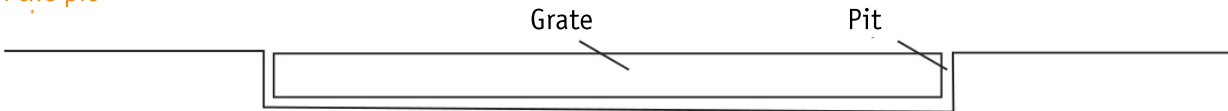
On the surface of the floor covering



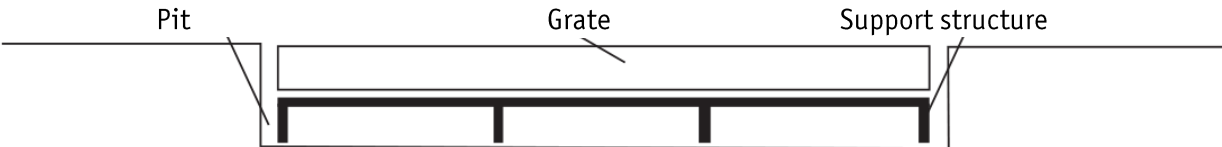
With drain pan in the pit



In the pit



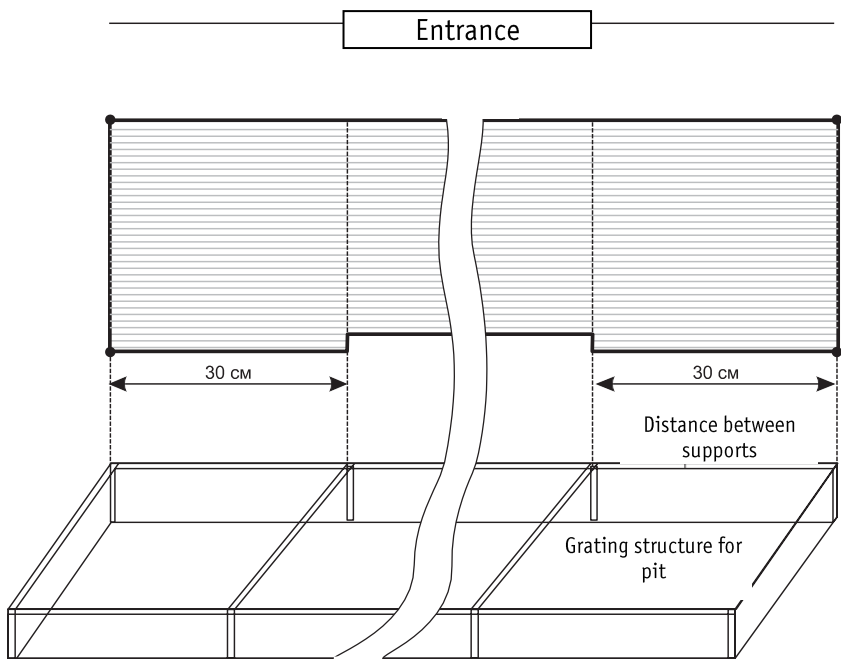
In the pit on support structure



|                                             |
|---------------------------------------------|
| Drainage systems class of loading A15-C250  |
| Drainage systems class of loading D400-F900 |
| Drainage systems class of loading F900      |
| Point drainage                              |
| Soil conservation and stabilization system  |
| Entrance dirt-guard systems                 |
| Multi-purpose grid flooring                 |

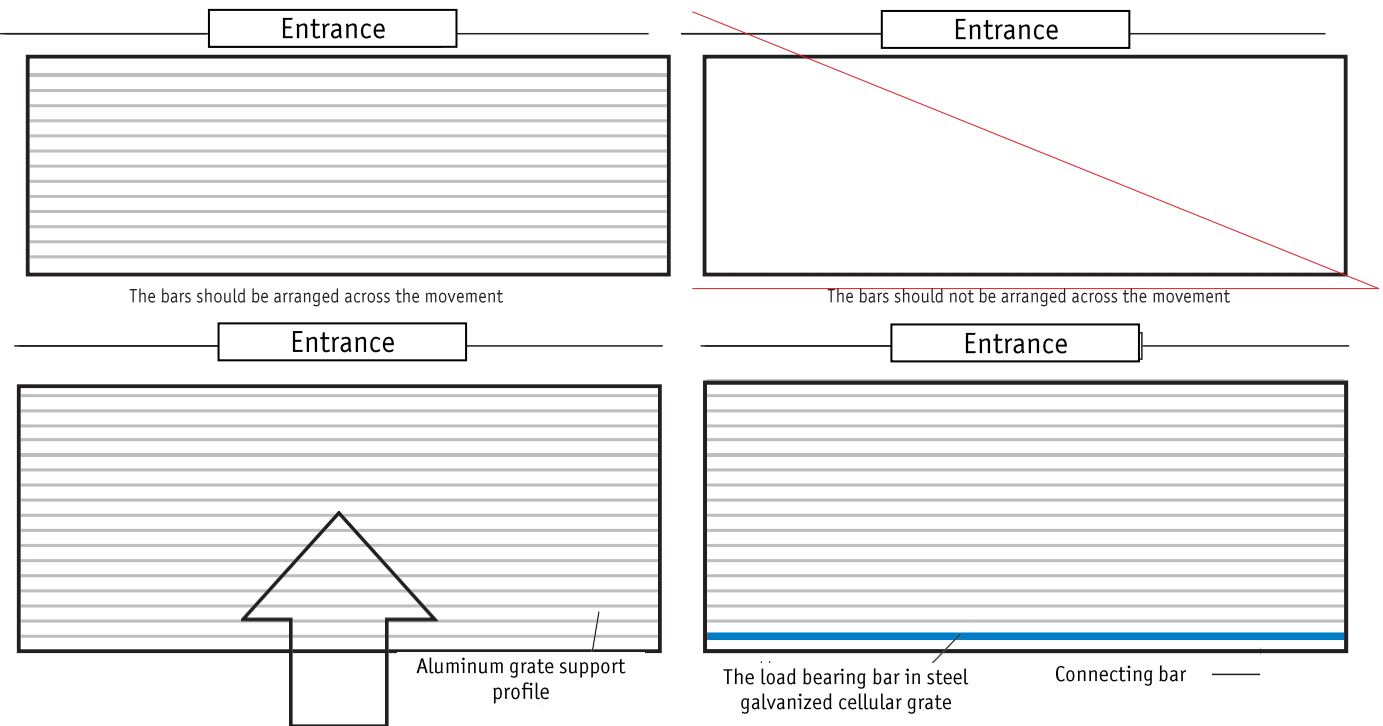
Recommended distance between supports when designing dirt-guard systems

Dirt-guard grates have a bearing capacity, and if they do not lay down on a level floor covering or pit base completely, but are installed in the pit on support structures, then additional support spacers should be provided so that the grates do not bend during intensive foot traffic. The recommended distance between the support structures is 30 cm at average.



Arrangement of load bearing bars

It is important to arrange the load bearing bars of mesh steel grates Gidrolica® StepPro and Gidrolica® Step grate profiles with inserts correctly, relative to the direction of movement. They should lay across the movement.



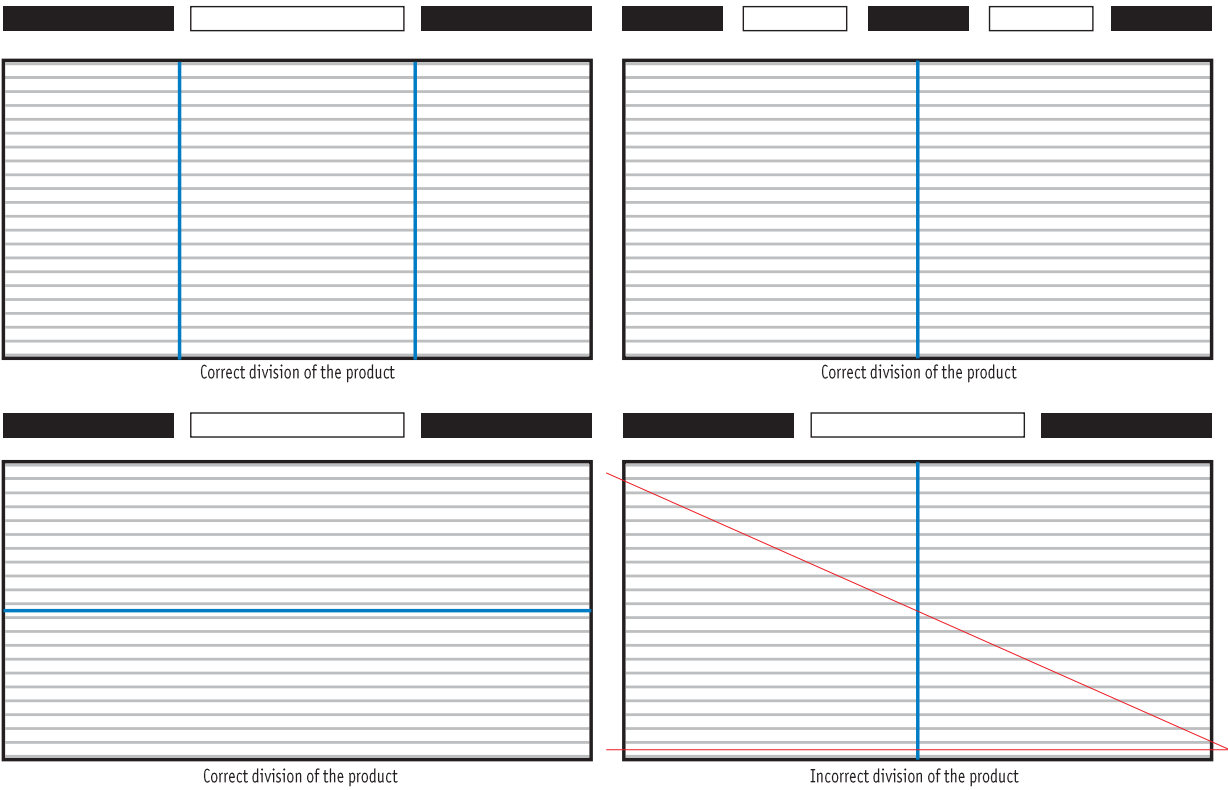
Arrangement diagram of the load bearing bars relative to the entrance: The arrangement of the grates on the support structures

The correct arrangement of the grates on the support structures. The load bearing bars of the steel grates and profiles of aluminum grates with inserts should be laid from the support to the support, across the movement, according to the recommended distance between the supports.



### Division of large grates

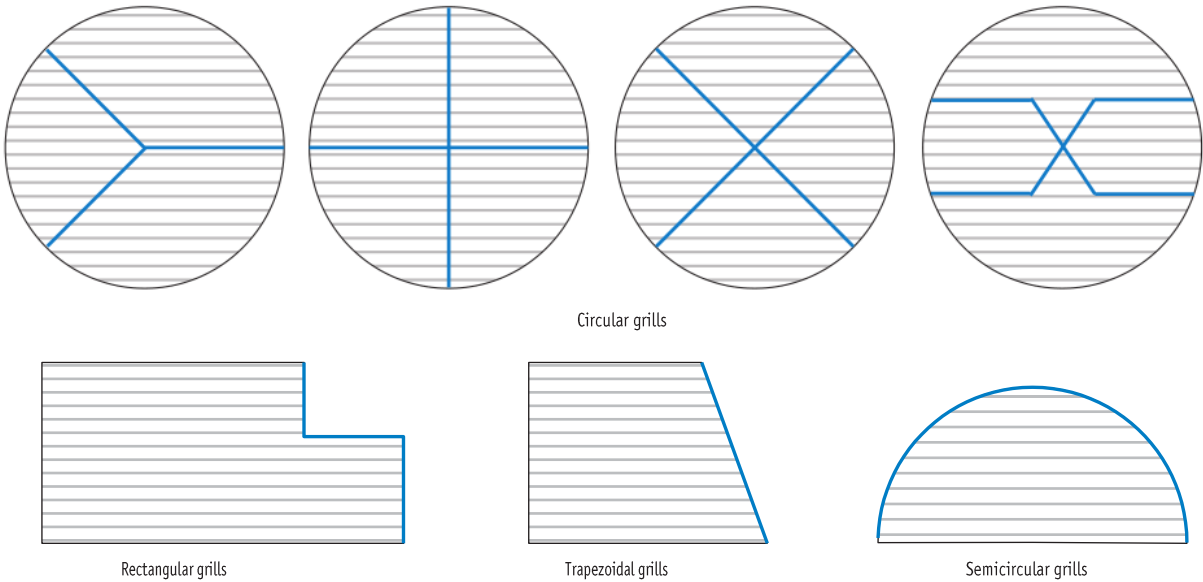
When designing the entrance area with dirt-guard coating, it is necessary to consider the weight and length of the grate. If the length of the grate profile is more than 3 meters or the weight of one grate is more than 60 kg, the product should be divided into parts so that it can be lifted to clean the surface under it, whether it is a pit or a floor covering surface.



### Geometrical shapes of grates

Gidrolica company offers the standard square and rectangular shapes of various entrance foot grills. But we can also offer non-standard forms of grills in accordance with your request. Examples of grill shapes:

- Rectangular grills;
- Square grills;
- Trapezoidal grills;
- Circular grills;
- Semicircular grills.



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

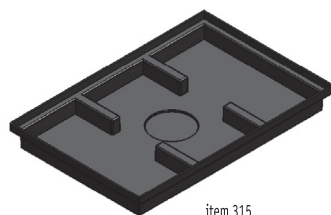
Point drainage

Soil conservation and stabilization system

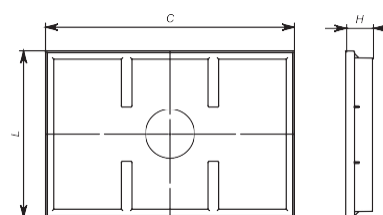
Entrance dirt-guard systems

Multi-purpose grid flooring

| Item | Class of loading | Type | DN | Length  | Width   | Height                 | Weight |
|------|------------------|------|----|---------|---------|------------------------|--------|
|      |                  |      |    | L<br>mm | C<br>mm | H/H <sub>1</sub><br>mm | kg     |

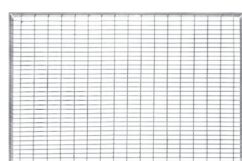


item 315

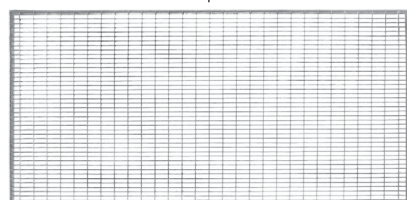


### Plastic entrance drain pan Gidrolica®StepPro

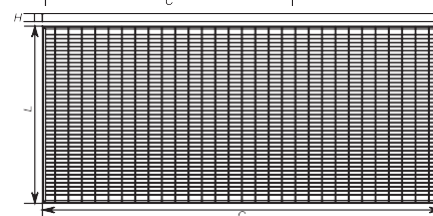
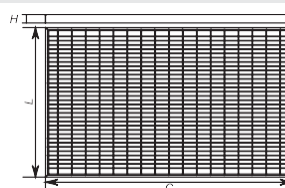
|     |     |  |     |     |    |  |     |
|-----|-----|--|-----|-----|----|--|-----|
| 315 | A15 |  | 400 | 600 | 65 |  | 1,2 |
|-----|-----|--|-----|-----|----|--|-----|



aprt. 301

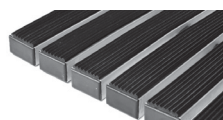


aprt. 302

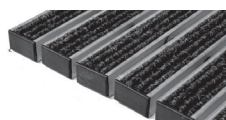


### Entrance foot grills Gidrolica®StepPro mesh galvanised steel

|     |     |  |     |     |    |  |    |
|-----|-----|--|-----|-----|----|--|----|
| 301 | A15 |  | 390 | 590 | 20 |  | 5  |
| 302 | A15 |  | 490 | 990 | 20 |  | 15 |



item 3001



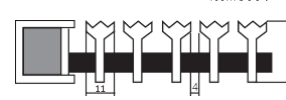
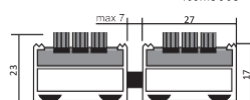
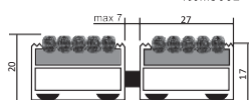
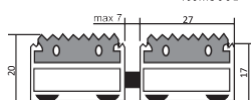
item 3002



item 3003



item 3004

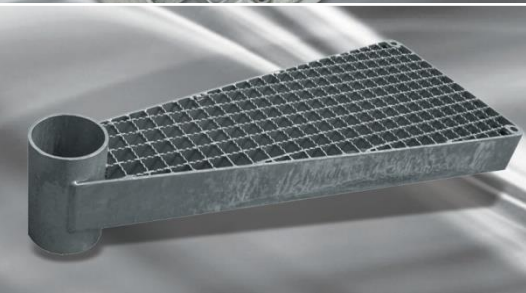
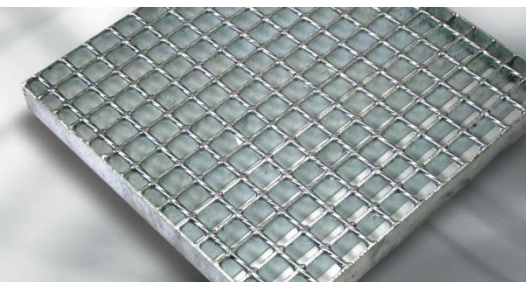


### Entrance foot grills Gidrolica®Step aluminium with inserts

|        |     |                                         |     |     |     |    |      |
|--------|-----|-----------------------------------------|-----|-----|-----|----|------|
| 30001  | A15 | rubber 390x590mm                        | pc. | 390 | 590 | 20 | 3.5  |
| 30002  | A15 | textile 390x590mm                       | pc. | 390 | 590 | 20 | 2.3  |
| 30003  | A15 | brush 390x590mm                         | pc. | 390 | 590 | 23 | 3.2  |
| 30004  | A15 | scraper 390x590mm                       | pc. | 390 | 590 | 22 | 6.33 |
| 30012  | A15 | rubber+ textile 390x590mm               | pc. | 390 | 590 | 20 | 2.85 |
| 30013  | A15 | rubber+ brush 390x590mm                 | pc. | 390 | 590 | 23 | 3.39 |
| 30023  | A15 | textile+ brush 390x590mm                | pc. | 390 | 590 | 23 | 2.89 |
| 30123  | A15 | rubber+ textile+brush 390x590mm         | pc. | 390 | 590 | 23 | 3.12 |
| 30014  | A15 | rubber+scraper 390x590mm                | pc. | 390 | 590 | 22 | 4.24 |
| 30024  | A15 | textile+scraper 390x590mm               | pc. | 390 | 590 | 22 | 3.47 |
| 30034  | A15 | brush+scraper 390x590mm                 | pc. | 390 | 590 | 23 | 3.94 |
| 30124  | A15 | rubber+ textile+scraper 390x590mm       | pc. | 390 | 590 | 22 | 3.85 |
| 30134  | A15 | rubber+brush+scraper 390x590mm          | pc. | 390 | 590 | 23 | 4.09 |
| 30234  | A15 | textile+brush+scraper 390x590mm         | pc. | 390 | 590 | 23 | 3.7  |
| 301234 | A15 | rubber+ textile+brush+scraper 390x590mm | pc. | 390 | 590 | 23 | 3.88 |

We can also manufacture products of any size and shape according to your drawings.

- PRESSED FLOORING
- WELDED FLOORING
- STAIRS



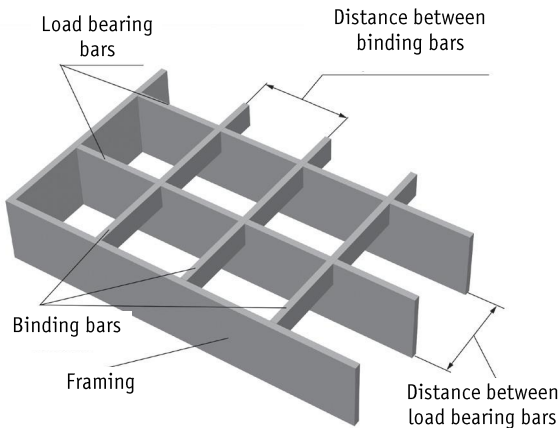
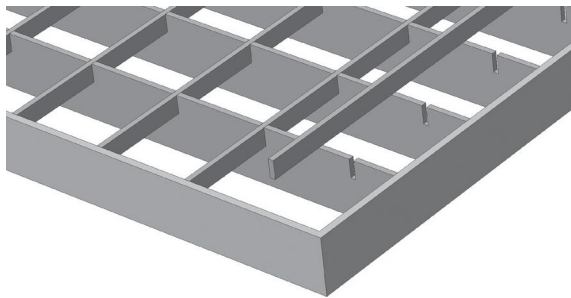
## MULTI-PURPOSE GRID FLOORING





PRESSED GRID FLOORING

Molded flooring is manufactured according to DIN 24537 by cold pressing of binding bars into load bearing bars made of mild steel St 35-7 (similar to St3 GOST 380-94) with or without hot zinc coating according to DIN 50976 (EN ISO 1461). A 70 micron zinc shell with a zinc purity of 99.9% ensures that the zinc does not peel off under normal mechanical load. Also, the flooring can be made of stainless steel 1.4301 (similar to 08X18H10), 1.4571 (similar to 10X17H- 13M2T), 1.4404 and aluminum. The pressing process is carried out on special equipment at a pressure of 500 tons.



The load bearing component of the pressed flooring is the bar, which determines the length of the whole structure. The binding bar fixes the load bearing bar in position and is not under any load.

Standard dimensions of load bearing bars

| Thickness, mm | 2  |    |    | 3  |    |    | 4  |    |    |    |    |    |    | 5  |    |    |    |    |  |  |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| Height, mm    | 20 | 30 | 40 | 20 | 30 | 40 | 20 | 30 | 40 | 50 | 60 | 70 | 20 | 30 | 40 | 50 | 60 | 70 |  |  |

Parameters of pressed flooring

|                                           |                                                  |
|-------------------------------------------|--------------------------------------------------|
| Thickness range of load bearing bar       | 2–8 mm                                           |
| Height range of load bearing bar          | 20–100 mm                                        |
| Pitch of load bearing bar and binding bar | Multiple of 11 mm (meshes of 33x11 mm, 33x33 mm) |

Common mesh division

|                      |      |      |      |      |       |      |      |      |  |
|----------------------|------|------|------|------|-------|------|------|------|--|
| Load bearing bar, mm | 21   |      |      | 25   | 33,3  |      |      |      |  |
| Covering bar, mm     | 22,2 | 33,3 | 44,4 | 33,3 | 16,65 | 22,2 | 33,3 | 66,6 |  |

Application field: building façade sections; ceiling panels (vents in office and industrial buildings); industrial flooring; rack shelves; platforms in the industry and energy sectors; hoisting crane platforms; pavements–metal bridges, etc.; buildings–warehouses, stationary racks; bridges in industrial areas; platforms, ramps, pitches; different staircases; drainage systems in chemical and food-processing industry (stainless steel).



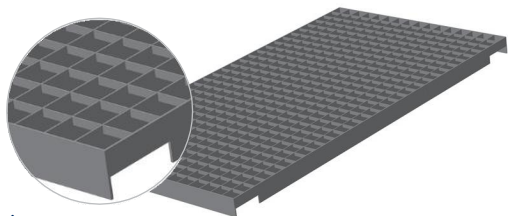
RACK GRATES

The advantages of pressed mesh grates in the construction of racks

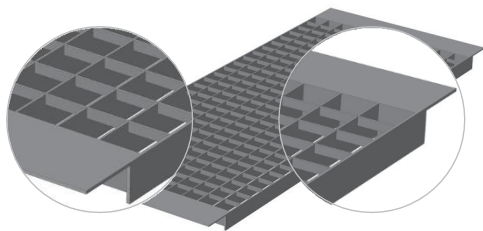
- high static values of mesh grates relative to the amount of the material used;
- you can see the content of the rack from below;
- water penetration through the base of the racks is also very important in case of fire when using sprinklers.

A corner border or special cuttings with an elevated frame along the edges at the place of laying on the supporting surface for fixing are especially suitable for rack construction.

**Corner border**  
Welded on one or more sides to the mesh grate. The height of the vertical wall of the corner should at least correspond to the height of the load bearing bar.

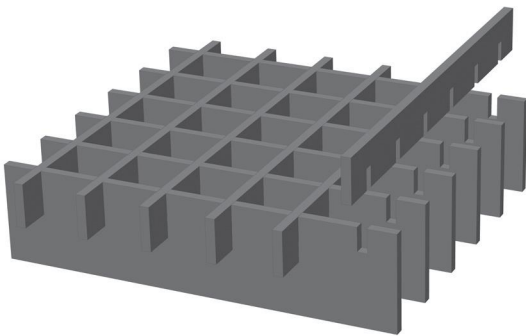


**Cutting**  
Special cuttings with an elevated frame along the edges in the area of joining with the supporting surface.



GRATES FOR HEAVY LOADS

Grates for heavy loads are pressed grates that withstand heavy loads, the load bearing and covering bars of which have opposite splines and are pressed under the pressure of 1,200 tons.



Basic specifications

|                                               |                                            |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------------------|--------------------------------------------|--|--|--|--|--|--|--|--|--|--|
| Thickness range of load bearing bar, mm       | 2-8                                        |  |  |  |  |  |  |  |  |  |  |
| Height range of load bearing bar, mm          | 80-180                                     |  |  |  |  |  |  |  |  |  |  |
| Pitch of load bearing bar and binding bar, mm | Multiple of 25 (meshes 25450, 50450, etc.) |  |  |  |  |  |  |  |  |  |  |

Common mesh division:

|                      |    |     |    |     |    |    |     |    |    |     |  |
|----------------------|----|-----|----|-----|----|----|-----|----|----|-----|--|
| Load bearing bar, mm | 25 |     | 50 |     | 75 |    | 100 |    |    |     |  |
| Covering bar, mm     | 50 | 100 | 50 | 100 | 50 | 75 | 100 | 50 | 75 | 100 |  |

|                                            |                                             |                                        |                |                                            |                             |                             |
|--------------------------------------------|---------------------------------------------|----------------------------------------|----------------|--------------------------------------------|-----------------------------|-----------------------------|
| Drainage systems class of loading A15-C250 | Drainage systems class of loading D400-F900 | Drainage systems class of loading F900 | Point drainage | Soil conservation and stabilization system | Entrance dirt-guard systems | Multi-purpose grid flooring |
|--------------------------------------------|---------------------------------------------|----------------------------------------|----------------|--------------------------------------------|-----------------------------|-----------------------------|



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

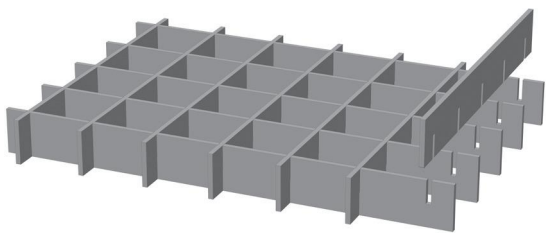
Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring



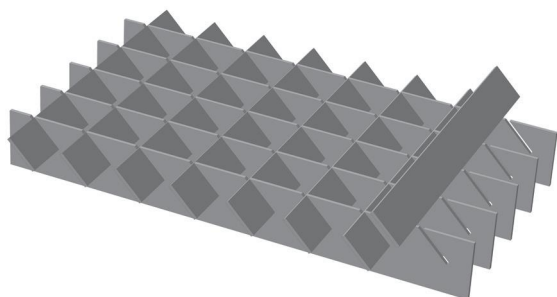
## SINGLE-PIECE GRATES

Single-piece grates are pressed grates with identical in height load bearing bars and covering bars, cut to half of the bar. The load-bearing bar of single-piece grate is the one that is placed on the support with both ends and the bottom side of which has no splines.

Single-piece grates are used on the balconies for evacuation and glass cleaning with simultaneous solar radiation protection, as facade facing, covering modular grid, and railing filler. Single-piece grates are made of steel, stainless steel and aluminum.

### Basic specifications

|                                               |                                            |
|-----------------------------------------------|--------------------------------------------|
| Thickness range of load bearing bar, mm       | 2-5                                        |
| Height range of load bearing bar, mm          | 25-100                                     |
| Pitch of load bearing bar and binding bar, mm | Multiple of 11 (meshes 33411, 33433, etc.) |



## LOUVERED GRATES

Louvered grates are common mesh grates with a small change in the design, i.e. covering bars are pressed into the slots of load bearing bars not at a right angle, but at a slope of 30 or 45 degrees, and then welded. The use of grid flooring, namely both types of louvered grates in the construction of a shed, makes it easy to achieve the desired distribution of shadow. Louvered grates are used where transparency is undesirable, for example, on bridges, walkways, underpasses, vents, balcony coverings, parking lots exposed to light, and facade facing.

Louvered grates are made of steel, stainless steel or aluminum. It is possible to order non-standard grates of any sizes. The height of the louvered grates is up to 100mm, the thickness range of the load bearing bar is 2-3mm, the height range of the load bearing bar is 25-100mm.

### Basic specifications

|                                               |                                            |
|-----------------------------------------------|--------------------------------------------|
| Thickness range of load bearing bar, mm       | 2-3                                        |
| Height range of load bearing bar, mm          | 25-100                                     |
| Pitch of load bearing bar and binding bar, mm | Multiple of 33 (meshes 33433, 66433, etc.) |

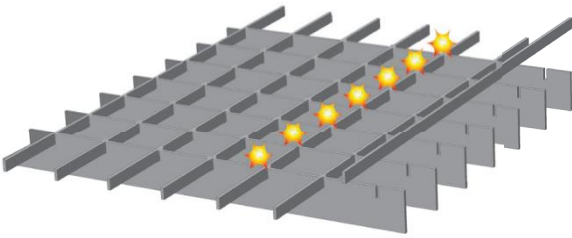
### Common mesh division:

|                      |      |      |      |
|----------------------|------|------|------|
| Load bearing bar, mm | 33,3 | 66,6 | 99,9 |
| Covering bar, mm     | 33,3 | 66,6 | 33,3 |

It is possible to manufacture louvered grates with a different mesh division on request.

ULTRA GRATES

Ultra grates are welded and pressed grates. The manufacturing technology is as follows: first, the covering bars are pressed with the load bearing bars, and then welded. This technology provides additional stability, even if there is no borders along the edges. In fact, ultra grates are welded and pressed simultaneously, having advantages of both types. The lack of borders in some cases is due to the possibility of further processing for various needs.



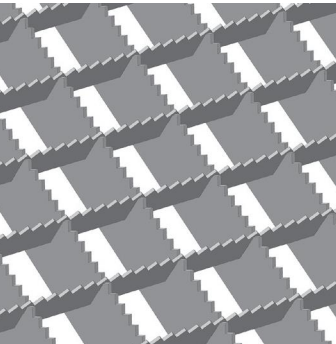
Basic specifications

|                              |            |
|------------------------------|------------|
| Common mesh division, mm     | 34,3-33,3  |
| Use of load bearing bars, mm | 25x2, 50x3 |

ANTISKID COMPONENTS OF PRESSED FLOORING

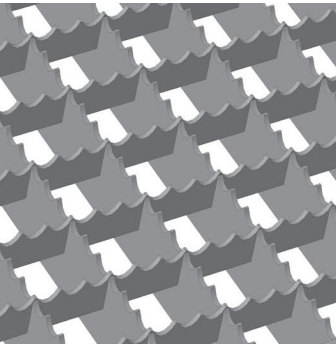
It is possible to increase the safety of the grid flooring in particularly slippery places (when contaminated with various fats and oils, in case of frost formation) by applying antiskid teeth either on the load bearing bars, or on the binding bars, or on both bars.

Antiskid protection R11



R11 is antiskid on the load bearing and covering bars of pressed flooring. It is characterized by a semicircular mark of the load bearing and covering bars.

Antiskid protection R12



R12 is antiskid of “saw tooth” type on the load bearing and covering bars of the pressed flooring. It is characterized by saw tooth mark of the load bearing and covering bars.



|                                            |                                             |                                        |                |                                            |                             |                             |
|--------------------------------------------|---------------------------------------------|----------------------------------------|----------------|--------------------------------------------|-----------------------------|-----------------------------|
| Drainage systems class of loading A15-C250 | Drainage systems class of loading D400-F900 | Drainage systems class of loading F900 | Point drainage | Soil conservation and stabilization system | Entrance dirt-guard systems | Multi-purpose grid flooring |
|--------------------------------------------|---------------------------------------------|----------------------------------------|----------------|--------------------------------------------|-----------------------------|-----------------------------|





PRESSED GRATE. MESH DIVISION 33,3×33,3mm, DIN EN 1991

|                                             |      | Load bearing bars, mm | Distance between supports, mm | 200     | 300     | 400    | 500    | 600    | 700    | 800    | 900    | 1000   | 1100   |
|---------------------------------------------|------|-----------------------|-------------------------------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| Drainage systems class of loading A15-C250  | 20/2 | FP                    |                               | 6,38    | 3,19    | 2,13   | 1,60   | 1,28   | 1,06   | 0,91   | 0,63   | 0,46   | 0,34   |
|                                             |      | FV                    |                               | 106,05  | 47,13   | 26,51  | 16,97  | 11,78  | 8,66   | 5,86   | 3,66   | 2,40   | 1,64   |
|                                             | 20/3 | FP                    |                               | 9,57    | 4,79    | 3,19   | 2,39   | 1,91   | 1,60   | 1,36   | 0,95   | 0,69   | 0,52   |
|                                             |      | FV                    |                               | 159,07  | 70,70   | 39,77  | 25,45  | 17,67  | 12,99  | 8,80   | 5,49   | 3,60   | 2,46   |
| Drainage systems class of loading D400-F900 | 25/2 | FP                    |                               | 9,89    | 4,94    | 3,30   | 2,47   | 1,98   | 1,65   | 1,41   | 1,23   | 0,89   | 0,67   |
|                                             |      | FV                    |                               | 165,70  | 73,64   | 41,43  | 26,51  | 18,41  | 13,53  | 10,36  | 7,15   | 4,69   | 3,20   |
|                                             | 25/3 | FP                    |                               | 14,83   | 7,41    | 4,94   | 3,71   | 2,97   | 2,47   | 2,12   | 1,84   | 1,34   | 1,00   |
|                                             |      | FV                    |                               | 248,55  | 110,47  | 62,14  | 39,77  | 27,62  | 20,29  | 15,53  | 10,73  | 7,04   | 4,81   |
| Drainage systems class of loading F900      | 30/2 | FP                    |                               | 14,11   | 7,06    | 4,70   | 3,53   | 2,82   | 2,35   | 2,02   | 1,76   | 1,53   | 1,14   |
|                                             |      | FV                    |                               | 238,61  | 106,05  | 59,65  | 38,18  | 26,51  | 19,48  | 14,91  | 11,78  | 8,11   | 5,54   |
|                                             | 30/3 | FP                    |                               | 21,17   | 10,58   | 7,06   | 5,29   | 4,23   | 3,53   | 3,02   | 2,65   | 2,29   | 1,72   |
|                                             |      | FV                    |                               | 357,91  | 159,07  | 89,48  | 57,27  | 39,77  | 29,22  | 22,37  | 17,67  | 12,16  | 8,31   |
| Point drainage                              | 30/4 | FP                    |                               | 28,22   | 14,11   | 9,41   | 7,06   | 5,64   | 4,70   | 4,03   | 3,53   | 3,05   | 2,29   |
|                                             |      | FV                    |                               | 477,22  | 212,10  | 119,30 | 76,35  | 53,02  | 38,96  | 29,83  | 23,57  | 16,21  | 11,07  |
|                                             | 30/5 | FP                    |                               | 35,28   | 17,64   | 11,76  | 8,82   | 7,06   | 5,88   | 5,04   | 4,41   | 3,82   | 2,86   |
|                                             |      | FV                    |                               | 596,52  | 265,12  | 149,13 | 95,44  | 66,28  | 48,70  | 37,28  | 29,46  | 20,27  | 13,84  |
| Soil conservation and stabilization system  | 35/2 | FP                    |                               | 19,02   | 9,51    | 6,34   | 4,75   | 3,80   | 3,17   | 2,72   | 2,38   | 2,11   | 1,80   |
|                                             |      | FV                    |                               | 324,77  | 144,34  | 81,19  | 51,96  | 36,09  | 26,51  | 20,30  | 16,04  | 12,87  | 8,79   |
|                                             | 35/3 | FP                    |                               | 28,53   | 14,26   | 9,51   | 7,13   | 5,71   | 4,75   | 4,08   | 3,57   | 3,17   | 2,70   |
|                                             |      | FV                    |                               | 487,16  | 216,52  | 121,79 | 77,95  | 54,13  | 39,77  | 30,45  | 24,06  | 19,31  | 13,19  |
| Entrance dirt-guard systems                 | 35/4 | FP                    |                               | 38,04   | 19,02   | 12,68  | 9,51   | 7,61   | 6,34   | 5,43   | 4,75   | 4,23   | 3,60   |
|                                             |      | FV                    |                               | 649,55  | 288,69  | 162,39 | 103,93 | 72,17  | 53,02  | 40,60  | 32,08  | 25,75  | 17,59  |
|                                             | 35/5 | FP                    |                               | 47,55   | 23,77   | 15,85  | 11,89  | 9,51   | 7,92   | 6,79   | 5,94   | 5,28   | 4,50   |
|                                             |      | FV                    |                               | 811,93  | 360,86  | 202,98 | 129,91 | 90,21  | 66,28  | 50,75  | 40,10  | 32,19  | 21,98  |
| Multi-purpose grid flooring                 | 40/2 | FP                    |                               | 24,62   | 12,31   | 8,21   | 6,16   | 4,92   | 4,10   | 3,52   | 3,08   | 2,74   | 2,46   |
|                                             |      | FV                    |                               | 424,19  | 188,53  | 106,05 | 67,87  | 47,13  | 34,63  | 26,51  | 20,95  | 16,97  | 13,13  |
|                                             | 40/3 | FP                    |                               | 36,93   | 18,47   | 12,31  | 9,23   | 7,39   | 6,16   | 5,28   | 4,62   | 4,10   | 3,69   |
|                                             |      | FV                    |                               | 636,29  | 282,80  | 159,07 | 101,81 | 70,70  | 51,94  | 39,77  | 31,42  | 25,45  | 19,69  |
|                                             | 40/4 | FP                    |                               | 49,25   | 24,62   | 16,42  | 12,31  | 9,85   | 8,21   | 7,04   | 6,16   | 5,47   | 4,92   |
|                                             |      | FV                    |                               | 848,39  | 377,06  | 212,10 | 135,74 | 94,27  | 69,26  | 53,02  | 41,90  | 33,94  | 26,25  |
|                                             | 40/5 | FP                    |                               | 61,56   | 30,78   | 20,52  | 15,39  | 12,31  | 10,26  | 8,79   | 7,69   | 6,84   | 6,16   |
|                                             |      | FV                    |                               | 1060,48 | 471,33  | 265,12 | 169,68 | 117,83 | 86,57  | 66,28  | 52,37  | 42,42  | 32,81  |
|                                             | 45/4 | FP                    |                               | 61,77   | 30,89   | 20,59  | 15,44  | 12,35  | 10,30  | 8,82   | 7,72   | 6,86   | 6,18   |
|                                             |      | FV                    |                               | 1073,74 | 477,22  | 268,43 | 171,80 | 119,30 | 87,65  | 67,11  | 53,02  | 42,95  | 35,50  |
|                                             | 50/2 | FP                    |                               | 37,75   | 18,87   | 12,58  | 9,44   | 7,55   | 6,29   | 5,39   | 4,72   | 4,19   | 3,77   |
|                                             |      | FV                    |                               | 662,80  | 294,58  | 165,70 | 106,05 | 73,64  | 54,11  | 41,43  | 32,73  | 26,51  | 21,91  |
|                                             | 50/3 | FP                    |                               | 56,62   | 28,31   | 18,87  | 14,16  | 11,32  | 9,44   | 8,09   | 7,08   | 6,29   | 5,66   |
|                                             |      | FV                    |                               | 994,20  | 441,87  | 248,55 | 159,07 | 110,47 | 81,16  | 62,14  | 49,10  | 39,77  | 32,87  |
|                                             | 50/4 | FP                    |                               | 75,49   | 37,75   | 25,16  | 18,87  | 15,10  | 12,58  | 10,78  | 9,44   | 8,39   | 7,55   |
|                                             |      | FV                    |                               | 1325,60 | 589,16  | 331,40 | 212,10 | 147,29 | 108,21 | 82,85  | 65,46  | 53,02  | 43,82  |
|                                             | 50/5 | FP                    |                               | 94,37   | 47,18   | 31,46  | 23,59  | 18,87  | 15,73  | 13,48  | 11,80  | 10,49  | 9,44   |
|                                             |      | FV                    |                               | 1657,00 | 736,45  | 414,25 | 265,12 | 184,11 | 135,27 | 103,56 | 81,83  | 66,28  | 54,78  |
|                                             | 60/3 | FP                    |                               | 80,06   | 40,03   | 26,69  | 20,01  | 16,01  | 13,34  | 11,44  | 10,01  | 8,90   | 8,01   |
|                                             |      | FV                    |                               | 1431,65 | 636,29  | 357,91 | 229,06 | 159,07 | 116,87 | 89,48  | 70,70  | 57,27  | 47,33  |
|                                             | 60/4 | FP                    |                               | 106,74  | 53,37   | 35,58  | 26,69  | 21,35  | 17,79  | 15,25  | 13,34  | 11,86  | 10,67  |
|                                             |      | FV                    |                               | 1908,87 | 848,39  | 477,22 | 305,42 | 212,10 | 155,83 | 119,30 | 94,27  | 76,35  | 63,10  |
|                                             | 60/5 | FP                    |                               | 133,43  | 66,72   | 44,48  | 33,36  | 26,69  | 22,24  | 19,06  | 16,68  | 14,83  | 13,34  |
|                                             |      | FV                    |                               | 2386,09 | 1060,48 | 596,52 | 381,77 | 265,12 | 194,78 | 149,13 | 117,83 | 95,44  | 78,88  |
|                                             | 70/3 | FP                    |                               | 106,83  | 53,42   | 35,61  | 26,71  | 21,37  | 17,81  | 15,26  | 13,35  | 11,87  | 10,68  |
|                                             |      | FV                    |                               | 1948,64 | 866,06  | 487,16 | 311,78 | 216,52 | 159,07 | 121,79 | 96,23  | 77,95  | 64,42  |
|                                             | 70/4 | FP                    |                               | 142,44  | 71,22   | 47,48  | 35,61  | 28,49  | 23,74  | 20,35  | 17,81  | 15,83  | 14,24  |
|                                             |      | FV                    |                               | 2598,18 | 1154,75 | 649,55 | 415,71 | 288,69 | 212,10 | 162,39 | 128,31 | 103,93 | 85,89  |
|                                             | 70/5 | FP                    |                               | 178,05  | 89,03   | 59,35  | 44,51  | 35,61  | 29,68  | 25,44  | 22,26  | 19,78  | 17,81  |
|                                             |      |                       |                               | 3247,73 | 1443,43 | 811,93 | 519,64 | 360,86 | 265,12 | 202,98 | 160,38 | 129,91 | 107,36 |





| PRESSED GRATE. MESH DIVISION 33,3×33,3mm, DIN EN 1991 |                               |       |       |       |       |       |       |       |       |       |
|-------------------------------------------------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Load bearing bars, mm                                 | Distance between supports, mm | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000  |
| 20/2                                                  | FP                            | 0,26  | 0,21  | 0,17  | 0,14  | 0,11  | 0,09  | 0,08  | 0,07  | 0,06  |
|                                                       | FV                            | 1,16  | 0,84  | 0,63  | 0,47  | 0,37  | 0,29  | 0,23  | 0,18  | 0,15  |
| 20/3                                                  | FP                            | 0,40  | 0,31  | 0,25  | 0,20  | 0,17  | 0,14  | 0,12  | 0,10  | 0,09  |
|                                                       | FV                            | 1,74  | 1,26  | 0,94  | 0,71  | 0,55  | 0,43  | 0,34  | 0,28  | 0,23  |
| 25/2                                                  | FP                            | 0,51  | 0,40  | 0,32  | 0,26  | 0,22  | 0,18  | 0,15  | 0,13  | 0,11  |
|                                                       | FV                            | 2,26  | 1,64  | 1,22  | 0,93  | 0,72  | 0,56  | 0,45  | 0,36  | 0,29  |
| 25/3                                                  | FP                            | 0,77  | 0,60  | 0,48  | 0,39  | 0,32  | 0,27  | 0,23  | 0,19  | 0,16  |
|                                                       | FV                            | 3,39  | 2,46  | 1,83  | 1,39  | 1,07  | 0,84  | 0,67  | 0,54  | 0,44  |
| 30/2                                                  | FP                            | 0,88  | 0,69  | 0,55  | 0,45  | 0,37  | 0,31  | 0,26  | 0,22  | 0,19  |
|                                                       | FV                            | 3,91  | 2,84  | 2,11  | 1,60  | 1,24  | 0,97  | 0,77  | 0,62  | 0,51  |
| 30/3                                                  | FP                            | 1,32  | 1,03  | 0,83  | 0,67  | 0,55  | 0,46  | 0,39  | 0,33  | 0,28  |
|                                                       | FV                            | 5,86  | 4,26  | 3,17  | 2,40  | 1,86  | 1,46  | 1,16  | 0,93  | 0,76  |
| 30/4                                                  | FP                            | 1,76  | 1,38  | 1,10  | 0,90  | 0,74  | 0,61  | 0,52  | 0,44  | 0,38  |
|                                                       | FV                            | 7,82  | 5,68  | 4,22  | 3,20  | 2,47  | 1,94  | 1,54  | 1,24  | 1,01  |
| 30/5                                                  | FP                            | 2,20  | 1,72  | 1,38  | 1,12  | 0,92  | 0,77  | 0,65  | 0,55  | 0,47  |
|                                                       | FV                            | 9,77  | 7,10  | 5,28  | 4,00  | 3,09  | 2,43  | 1,93  | 1,56  | 1,27  |
| 35/2                                                  | FP                            | 1,38  | 1,08  | 0,87  | 0,70  | 0,58  | 0,48  | 0,41  | 0,35  | 0,30  |
|                                                       | FV                            | 6,21  | 4,51  | 3,35  | 2,54  | 1,96  | 1,54  | 1,23  | 0,99  | 0,80  |
| 35/3                                                  | FP                            | 2,07  | 1,63  | 1,30  | 1,06  | 0,87  | 0,72  | 0,61  | 0,52  | 0,44  |
|                                                       | FV                            | 9,31  | 6,76  | 5,03  | 3,81  | 2,95  | 2,31  | 1,84  | 1,48  | 1,21  |
| 35/4                                                  | FP                            | 2,76  | 2,17  | 1,73  | 1,41  | 1,16  | 0,97  | 0,81  | 0,69  | 0,59  |
|                                                       | FV                            | 12,42 | 9,02  | 6,70  | 5,09  | 3,93  | 3,08  | 2,45  | 1,98  | 1,61  |
| 35/5                                                  | FP                            | 3,45  | 2,71  | 2,17  | 1,76  | 1,45  | 1,21  | 1,02  | 0,86  | 0,74  |
|                                                       | FV                            | 15,52 | 11,27 | 8,38  | 6,36  | 4,91  | 3,85  | 3,07  | 2,47  | 2,01  |
| 40/2                                                  | FP                            | 2,04  | 1,60  | 1,28  | 1,04  | 0,86  | 0,71  | 0,60  | 0,51  | 0,44  |
|                                                       | FV                            | 9,27  | 6,73  | 5,00  | 3,80  | 2,93  | 2,30  | 1,83  | 1,47  | 1,20  |
| 40/3                                                  | FP                            | 3,07  | 2,41  | 1,92  | 1,56  | 1,29  | 1,07  | 0,90  | 0,77  | 0,66  |
|                                                       | FV                            | 13,90 | 10,09 | 7,50  | 5,69  | 4,40  | 3,45  | 2,75  | 2,21  | 1,80  |
| 40/4                                                  | FP                            | 4,09  | 3,21  | 2,57  | 2,08  | 1,72  | 1,43  | 1,20  | 1,02  | 0,88  |
|                                                       | FV                            | 18,54 | 13,46 | 10,00 | 7,59  | 5,86  | 4,60  | 3,66  | 2,95  | 2,40  |
| 40/5                                                  | FP                            | 5,11  | 4,01  | 3,21  | 2,60  | 2,14  | 1,79  | 1,50  | 1,28  | 1,09  |
|                                                       | FV                            | 23,17 | 16,82 | 12,51 | 9,49  | 7,33  | 5,75  | 4,58  | 3,69  | 3,00  |
| 45/4                                                  | FP                            | 5,62  | 4,53  | 3,62  | 2,94  | 2,42  | 2,02  | 1,70  | 1,44  | 1,24  |
|                                                       | FV                            | 26,39 | 19,16 | 14,25 | 10,81 | 8,35  | 6,55  | 5,21  | 4,20  | 3,42  |
| 50/2                                                  | FP                            | 3,43  | 3,08  | 2,46  | 2,00  | 1,64  | 1,37  | 1,15  | 0,98  | 0,84  |
|                                                       | FV                            | 18,10 | 13,14 | 9,77  | 7,41  | 5,73  | 4,49  | 3,58  | 2,88  | 2,35  |
| 50/3                                                  | FP                            | 5,15  | 4,61  | 3,69  | 2,99  | 2,46  | 2,05  | 1,73  | 1,47  | 1,26  |
|                                                       | FV                            | 27,15 | 19,71 | 14,66 | 11,12 | 8,59  | 6,74  | 5,36  | 4,32  | 3,52  |
| 50/4                                                  | FP                            | 6,86  | 6,15  | 4,92  | 3,99  | 3,29  | 2,74  | 2,30  | 1,96  | 1,68  |
|                                                       | FV                            | 36,20 | 26,28 | 19,54 | 14,83 | 11,45 | 8,99  | 7,15  | 5,76  | 4,69  |
| 50/5                                                  | FP                            | 8,58  | 7,69  | 6,15  | 4,99  | 4,11  | 3,42  | 2,88  | 2,45  | 2,10  |
|                                                       | FV                            | 45,25 | 32,85 | 24,43 | 18,54 | 14,32 | 11,23 | 8,94  | 7,20  | 5,86  |
| 60/3                                                  | FP                            | 7,28  | 6,67  | 6,16  | 5,08  | 4,18  | 3,48  | 2,93  | 2,49  | 2,14  |
|                                                       | FV                            | 39,77 | 33,89 | 25,32 | 19,22 | 14,84 | 11,65 | 9,27  | 7,47  | 6,08  |
| 60/4                                                  | FP                            | 9,70  | 8,90  | 8,21  | 6,77  | 5,58  | 4,65  | 3,91  | 3,32  | 2,85  |
|                                                       | FV                            | 53,02 | 45,18 | 33,77 | 25,62 | 19,79 | 15,53 | 12,36 | 9,95  | 8,11  |
| 60/5                                                  | FP                            | 12,13 | 11,12 | 10,26 | 8,47  | 6,97  | 5,81  | 4,89  | 4,15  | 3,56  |
|                                                       | FV                            | 66,28 | 56,48 | 42,21 | 32,03 | 24,74 | 19,41 | 15,45 | 12,44 | 10,13 |
| 70/3                                                  | FP                            | 9,71  | 8,90  | 8,22  | 7,63  | 6,51  | 5,42  | 4,57  | 3,88  | 3,32  |
|                                                       | FV                            | 54,13 | 46,12 | 39,77 | 30,52 | 23,57 | 18,50 | 14,72 | 11,85 | 9,66  |
| 70/4                                                  | FP                            | 12,95 | 11,87 | 10,96 | 10,17 | 8,68  | 7,23  | 6,09  | 5,17  | 4,43  |
|                                                       | FV                            | 72,17 | 61,50 | 53,02 | 40,69 | 31,43 | 24,66 | 19,62 | 15,81 | 12,87 |
| 70/5                                                  | FP                            | 16,19 | 14,84 | 13,70 | 12,72 | 10,85 | 9,04  | 7,61  | 6,47  | 5,54  |
|                                                       | FV                            | 90,21 | 76,87 | 66,28 | 50,86 | 39,29 | 30,83 | 24,53 | 19,76 | 16,09 |

|                                             |
|---------------------------------------------|
| Drainage systems class of loading A15-C250  |
| Drainage systems class of loading D400-F900 |
| Drainage systems class of loading F900      |
| Point drainage                              |
| Soil conservation and stabilization system  |
| Entrance dirt-guard systems                 |
| Multi-purpose grid flooring                 |



Drainage systems class of loading A15-C250

Drainage systems class of loading D400-F900

Drainage systems class of loading F900

Point drainage

Soil conservation and stabilization system

Entrance dirt-guard systems

Multi-purpose grid flooring

| PRESSED GRATE. MESH DIVISION 33,3×33,3mm, DIN EN 1991 |                               |          |         |         |         |         |         |         |        |        |        |
|-------------------------------------------------------|-------------------------------|----------|---------|---------|---------|---------|---------|---------|--------|--------|--------|
| Load bearing bars, mm                                 | Distance between supports, mm | 200      | 300     | 400     | 500     | 600     | 700     | 800     | 900    | 1000   | 1100   |
| 80/4                                                  | FP                            | 182,33   | 91,17   | 60,78   | 45,58   | 36,47   | 30,39   | 26,05   | 22,79  | 20,26  | 18,23  |
|                                                       | FV                            | 3393,54  | 1508,24 | 848,39  | 542,97  | 377,06  | 277,02  | 212,10  | 167,58 | 135,74 | 112,18 |
| 80/5                                                  | FP                            | 227,91   | 113,96  | 75,97   | 56,98   | 45,58   | 37,99   | 32,56   | 28,49  | 25,32  | 22,79  |
|                                                       | FV                            | 4241,93  | 1885,30 | 1060,48 | 678,71  | 471,33  | 346,28  | 265,12  | 209,48 | 169,68 | 140,23 |
| 90/4                                                  | FP                            | 226,33   | 113,17  | 75,44   | 56,58   | 45,27   | 37,72   | 32,33   | 28,29  | 25,15  | 22,63  |
|                                                       | FV                            | 4294,95  | 1908,87 | 1073,74 | 687,19  | 477,22  | 350,61  | 268,43  | 212,10 | 171,80 | 141,98 |
| 90/5                                                  | FP                            | 282,92   | 141,46  | 94,31   | 70,73   | 56,58   | 47,15   | 40,42   | 35,36  | 31,44  | 28,29  |
|                                                       | FV                            | 5368,69  | 2386,09 | 1342,17 | 858,99  | 596,52  | 438,26  | 335,54  | 265,12 | 214,75 | 177,48 |
| 100/5                                                 | FP                            | 342,02   | 171,01  | 114,01  | 85,50   | 68,40   | 57,00   | 48,86   | 42,75  | 38,00  | 34,20  |
|                                                       | FV                            | 6628,01  | 2945,78 | 1657,00 | 1060,48 | 736,45  | 541,06  | 414,25  | 327,31 | 265,12 | 219,11 |
| 110/5                                                 | FP                            | 413,84   | 206,92  | 137,95  | 103,46  | 82,77   | 68,97   | 59,12   | 51,73  | 45,98  | 41,38  |
|                                                       | FV                            | 8019,90  | 3564,40 | 2004,97 | 1283,18 | 891,10  | 654,69  | 501,24  | 396,04 | 320,80 | 265,12 |
| 120/5                                                 | FP                            | 492,50   | 246,25  | 164,17  | 123,13  | 98,50   | 82,08   | 70,36   | 61,56  | 54,72  | 49,25  |
|                                                       | FV                            | 9544,34  | 4241,93 | 2386,09 | 1527,09 | 1060,48 | 779,13  | 596,52  | 471,33 | 381,77 | 315,52 |
| 130/5                                                 | FP                            | 578,01   | 289,00  | 192,67  | 144,50  | 115,60  | 96,33   | 82,57   | 72,25  | 64,22  | 57,80  |
|                                                       | FV                            | 11201,34 | 4978,38 | 2800,34 | 1792,22 | 1244,59 | 914,40  | 700,08  | 553,15 | 448,05 | 370,29 |
| 140/5                                                 | FP                            | 670,35   | 335,18  | 223,45  | 167,59  | 134,07  | 111,73  | 95,76   | 83,79  | 74,48  | 67,04  |
|                                                       | FV                            | 12990,91 | 5773,74 | 3247,73 | 2078,55 | 1443,43 | 1060,48 | 811,93  | 641,53 | 519,64 | 429,45 |
| 150/5                                                 | FP                            | 769,54   | 384,77  | 256,51  | 192,38  | 153,91  | 128,26  | 109,93  | 96,19  | 85,50  | 76,95  |
|                                                       | FV                            | 14913,03 | 6628,01 | 3728,26 | 2386,09 | 1657,00 | 1217,39 | 932,06  | 736,45 | 596,52 | 492,99 |
| 160/5                                                 | FP                            | 875,56   | 437,78  | 291,85  | 218,89  | 175,11  | 145,93  | 125,08  | 109,45 | 97,28  | 87,56  |
|                                                       | FV                            | 16967,72 | 7541,21 | 4241,93 | 2714,83 | 1885,30 | 1385,12 | 1060,48 | 837,91 | 678,71 | 560,92 |
| 170/5                                                 | FP                            | 988,43   | 494,21  | 329,48  | 247,11  | 197,69  | 164,74  | 141,20  | 123,55 | 109,83 | 98,84  |
|                                                       | FV                            | 19154,96 | 8513,32 | 4788,74 | 3064,79 | 2128,33 | 1563,67 | 1197,19 | 945,92 | 766,20 | 633,22 |

The table is valid for a standard mesh division of 33,3×33,3 and material S235 JR + N St 37-2. The values present the maximum allowable load on the mesh grates.

FP is the maximum unit load in kN per sample in the form of a cube of 200–200 mm.

FV is the maximum evenly distributed surface load in kN/m².

| PRESSED GRATE. MESH DIVISION 33,3×33,3mm, DIN EN 1991 |                               |        |        |        |        |        |        |        |        |        |
|-------------------------------------------------------|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Load bearing bars, mm                                 | Distance between supports, mm | 1200   | 1300   | 1400   | 1500   | 1600   | 1700   | 1800   | 1900   | 2000   |
| 80/4                                                  | FP                            | 16,58  | 15,19  | 14,03  | 13,02  | 12,16  | 10,58  | 8,91   | 7,57   | 6,48   |
|                                                       | FV                            | 94,27  | 80,32  | 69,26  | 60,33  | 46,92  | 36,81  | 29,29  | 23,59  | 19,22  |
| 80/5                                                  | FP                            | 20,72  | 18,99  | 17,53  | 16,28  | 15,19  | 13,22  | 11,13  | 9,46   | 8,11   |
|                                                       | FV                            | 117,83 | 100,40 | 86,57  | 75,41  | 58,65  | 46,02  | 36,61  | 29,49  | 24,02  |
| 90/4                                                  | FP                            | 20,58  | 18,86  | 17,41  | 16,17  | 15,09  | 14,15  | 12,44  | 10,57  | 9,06   |
|                                                       | FV                            | 119,30 | 101,66 | 87,65  | 76,35  | 66,80  | 52,42  | 41,70  | 33,59  | 27,36  |
| 90/5                                                  | FP                            | 25,72  | 23,58  | 21,76  | 20,21  | 18,86  | 17,68  | 15,55  | 13,21  | 11,32  |
|                                                       | FV                            | 149,13 | 127,07 | 109,57 | 95,44  | 83,50  | 65,52  | 52,13  | 41,99  | 34,20  |
| 100/5                                                 | FP                            | 31,09  | 28,50  | 26,31  | 24,43  | 22,80  | 21,38  | 20,12  | 17,74  | 15,21  |
|                                                       | FV                            | 184,11 | 156,88 | 135,27 | 117,83 | 103,56 | 89,88  | 71,51  | 57,60  | 46,92  |
| 110/5                                                 | FP                            | 37,62  | 34,49  | 31,83  | 29,56  | 27,59  | 25,87  | 24,34  | 22,99  | 20,24  |
|                                                       | FV                            | 222,77 | 189,82 | 163,67 | 142,58 | 125,31 | 111,00 | 95,18  | 76,67  | 62,45  |
| 120/5                                                 | FP                            | 44,77  | 41,04  | 37,88  | 35,18  | 32,83  | 30,78  | 28,97  | 27,36  | 25,92  |
|                                                       | FV                            | 265,12 | 225,90 | 194,78 | 169,68 | 149,13 | 132,10 | 117,83 | 99,54  | 81,07  |
| 130/5                                                 | FP                            | 52,55  | 48,17  | 44,46  | 41,29  | 38,53  | 36,13  | 34,00  | 32,11  | 30,42  |
|                                                       | FV                            | 311,15 | 265,12 | 228,60 | 199,14 | 175,02 | 155,04 | 138,29 | 124,11 | 103,08 |
| 140/5                                                 | FP                            | 60,94  | 55,86  | 51,57  | 47,88  | 44,69  | 41,90  | 39,43  | 37,24  | 35,28  |
|                                                       | FV                            | 360,86 | 307,48 | 265,12 | 230,95 | 202,98 | 179,80 | 160,38 | 143,94 | 128,74 |
| 150/5                                                 | FP                            | 69,96  | 64,13  | 59,20  | 54,97  | 51,30  | 48,10  | 45,27  | 42,75  | 40,50  |
|                                                       | FV                            | 414,25 | 352,97 | 304,35 | 265,12 | 233,02 | 206,41 | 184,11 | 165,24 | 149,13 |
| 160/5                                                 | FP                            | 79,60  | 72,96  | 67,35  | 62,54  | 58,37  | 54,72  | 51,50  | 48,64  | 46,08  |
|                                                       | FV                            | 471,33 | 401,60 | 346,28 | 301,65 | 265,12 | 234,85 | 209,48 | 188,01 | 169,68 |
| 170/5                                                 | FP                            | 89,86  | 82,37  | 76,03  | 70,60  | 65,90  | 61,78  | 58,14  | 54,91  | 52,02  |
|                                                       | FV                            | 532,08 | 453,37 | 390,92 | 340,53 | 299,30 | 265,12 | 236,48 | 212,24 | 191,55 |

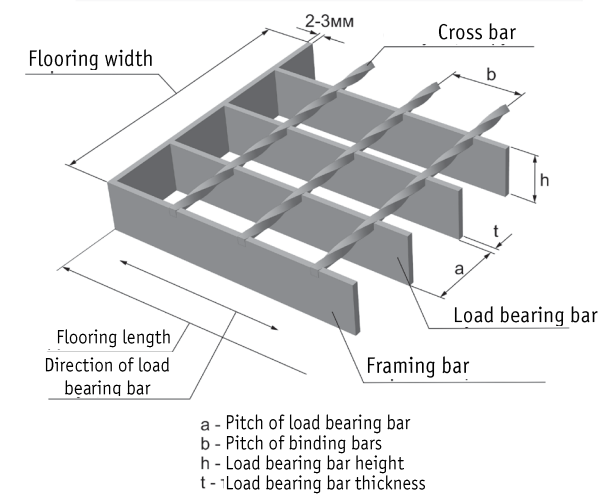
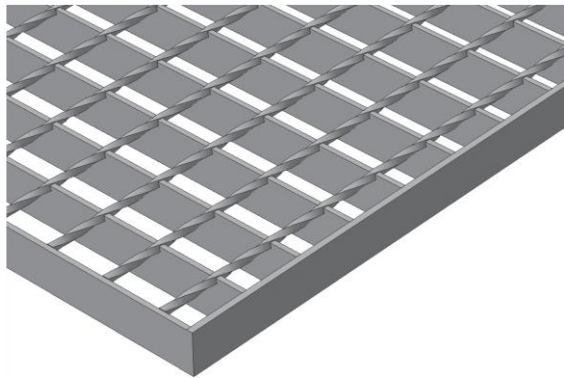
Conversion factor:  
1 kN ≙ ca. 100 kg  
10 kN ≙ ca. 1 t  
10 N ≙ ca. 1 daN = ca. 1 kgf

- The area designed for loads from people with a point load of 1.5 kN per sample in the form of a cube 200-200 mm with a deflection of ≤4 mm according to BGI 588 and RAL GZ 637.
- The area with a point load of 1.5 kN per sample in the form of a cube 200 x 200 mm with a deflection of ≤L/200 mm.



WELDED GRID FLOORING

Welded flooring is produced by forge-and-press welding according to DIN 24537 by cold pressing of the binding bars into the load bearing bars made of mild steel St 35-7 (similar to St3 GOST 380-94) with or without hot zinc coating according to DIN 50976 (EN ISO 1461 ). A 70 micron zinc shell with a zinc purity of 99.9% ensures that the zinc does not peel off under normal mechanical load. Also the flooring can be made of stainless steels 1.4301 (similar to 08X18H10), 1.4571 (similar to 10X17H13M2T), 1.4404 and aluminum.



Parameters of welded flooring

|                                         |        |
|-----------------------------------------|--------|
| Thickness range of load bearing bar, mm | 2-8    |
| Height range of load bearing bar, mm    | 20-100 |

Standard dimensions of load bearing bars

| Thickness, mm | 2  |    |    | 3  |    |    | 4  |    |    |    |    |    |    | 5  |    |    |    |    |  |  |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|
| Height, mm    | 20 | 30 | 40 | 20 | 30 | 40 | 20 | 30 | 40 | 50 | 60 | 70 | 20 | 30 | 40 | 50 | 60 | 70 |  |  |

Common mesh division

|                      |       |      |      |       |      |      |       |       |    |      |      |       |    |      |       |
|----------------------|-------|------|------|-------|------|------|-------|-------|----|------|------|-------|----|------|-------|
| Load bearing bar, mm | 20,77 |      |      | 30,15 |      |      |       | 34,3  |    |      |      | 41,45 |    |      |       |
| Covering rod, mm     | 24    | 38,1 | 50,8 | 24    | 50,8 | 76,2 | 101,6 | 19,25 | 24 | 38,1 | 50,8 | 76,2  | 24 | 50,8 | 101,6 |

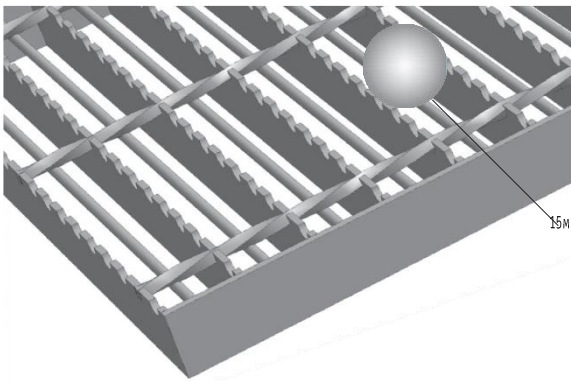




GRATES FOR OFFSHORE PLATFORMS

Grates for offshore platforms are designed to be used at drilling rigs at sea. This special form of welded grid flooring is additionally reinforced by round rods welded to twisted covering rods in the direction of the load bearing bars.

Offshore grates are produced by the method of forge-and-press welding. They are made using strict standards. They are very durable and not subject to corrosion. In addition to drilling rigs, fire escapes, agricultural structures, bridges and decks can be equipped with such grates.



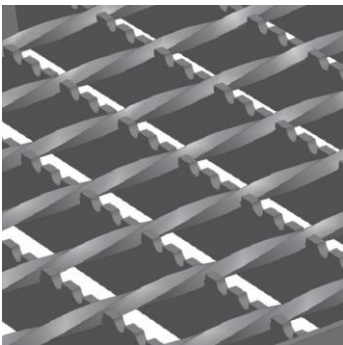
Parameters of grates for offshore platforms

|                                     |                                                   |
|-------------------------------------|---------------------------------------------------|
| Thickness range of load bearing bar | 2–8 mm                                            |
| Height range of load bearing bar    | 20–100 mm                                         |
| Common mesh division                | 32,284101,6 mm with additionally welded round rod |

ANTISKID COMPONENTS OF WELDED FLOORING

To increase the safety of the grid flooring in particularly slippery places (when contaminated with various fats and oils, in case of ice formation), antiskid teeth of the following types are applied:

Antiskid protection R10.



R10 is antiskid on the load bearing bars of welded flooring. It is characterized by a semicircular mark of the load bearing bars.





|                                             |                                        | WELDED PRESSED FLOORING MESH PITCH 34,3×38,1MM, DIN |                               |         |         |         |        | EN 1991 S235 JR+N ST 37-2 |        |        |        |        |        |       |
|---------------------------------------------|----------------------------------------|-----------------------------------------------------|-------------------------------|---------|---------|---------|--------|---------------------------|--------|--------|--------|--------|--------|-------|
|                                             |                                        | Load bearing bars, mm                               | Distance between supports, mm | 200     | 300     | 400     | 500    | 600                       | 700    | 800    | 900    | 1000   | 1100   |       |
| Drainage systems class of loading A15-C250  | 20/2                                   | FP                                                  |                               | 6,14    | 3,07    | 2,05    | 1,53   | 1,23                      | 1,02   | 0,87   | 0,61   | 0,44   | 0,33   |       |
|                                             |                                        | FV                                                  |                               | 114,51  | 50,89   | 28,63   | 18,32  | 12,72                     | 9,35   | 6,33   | 3,95   | 2,59   | 1,77   |       |
|                                             | 20/3                                   | FP                                                  |                               | 9,21    | 4,60    | 3,07    | 2,30   | 1,84                      | 1,53   | 1,31   | 0,92   | 0,66   | 0,50   |       |
|                                             |                                        | FV                                                  |                               | 171,76  | 76,34   | 42,94   | 27,48  | 19,08                     | 14,02  | 9,50   | 5,93   | 3,89   | 2,66   |       |
|                                             | 25/2                                   | FP                                                  |                               | 9,52    | 4,76    | 3,17    | 2,38   | 1,90                      | 1,59   | 1,36   | 1,18   | 0,86   | 0,64   |       |
|                                             |                                        | FV                                                  |                               | 178,92  | 79,52   | 44,73   | 28,63  | 19,88                     | 14,61  | 11,18  | 7,72   | 5,07   | 3,46   |       |
| Drainage systems class of loading D400-F900 | 25/3                                   | FP                                                  |                               | 14,28   | 7,14    | 4,76    | 3,57   | 2,86                      | 2,38   | 2,04   | 1,77   | 1,29   | 0,96   |       |
|                                             |                                        | FV                                                  |                               | 268,38  | 119,28  | 67,09   | 42,94  | 29,82                     | 21,91  | 16,77  | 11,58  | 7,60   | 5,19   |       |
|                                             | 30/2                                   | FP                                                  |                               | 13,60   | 6,80    | 4,53    | 3,40   | 2,72                      | 2,27   | 1,94   | 1,70   | 1,47   | 1,10   |       |
|                                             |                                        | FV                                                  |                               | 257,64  | 114,51  | 64,41   | 41,22  | 28,63                     | 21,03  | 16,10  | 12,72  | 8,75   | 5,98   |       |
|                                             | 30/3                                   | FP                                                  |                               | 20,41   | 10,20   | 6,80    | 5,10   | 4,08                      | 3,40   | 2,92   | 2,55   | 2,21   | 1,65   |       |
|                                             |                                        | FV                                                  |                               | 386,46  | 171,76  | 96,62   | 61,83  | 42,94                     | 31,55  | 24,15  | 19,08  | 13,13  | 8,97   |       |
|                                             | 30/4                                   | FP                                                  |                               | 27,21   | 13,60   | 9,07    | 6,80   | 5,44                      | 4,53   | 3,89   | 3,40   | 2,94   | 2,21   |       |
|                                             |                                        | FV                                                  |                               | 515,28  | 229,01  | 128,82  | 82,44  | 57,25                     | 42,06  | 32,21  | 25,45  | 17,51  | 11,96  |       |
|                                             | 30/5                                   | FP                                                  |                               | 34,01   | 17,00   | 11,34   | 8,50   | 6,80                      | 5,67   | 4,86   | 4,25   | 3,68   | 2,76   |       |
|                                             |                                        | FV                                                  |                               | 644,10  | 286,27  | 161,03  | 103,06 | 71,57                     | 52,58  | 40,26  | 31,81  | 21,88  | 14,95  |       |
|                                             | Drainage systems class of loading F900 | 35/2                                                | FP                            |         | 18,35   | 9,18    | 6,12   | 4,59                      | 3,67   | 3,06   | 2,62   | 2,29   | 2,04   | 1,74  |
|                                             |                                        |                                                     | FV                            |         | 350,68  | 155,86  | 87,67  | 56,11                     | 38,96  | 28,63  | 21,92  | 17,32  | 13,90  | 9,49  |
| 35/3                                        |                                        | FP                                                  |                               | 27,53   | 13,76   | 9,18    | 6,88   | 5,51                      | 4,59   | 3,93   | 3,44   | 3,06   | 2,60   |       |
|                                             |                                        | FV                                                  |                               | 526,02  | 233,78  | 131,50  | 84,16  | 58,45                     | 42,94  | 32,88  | 25,98  | 20,85  | 14,24  |       |
| 35/4                                        |                                        | FP                                                  |                               | 36,71   | 18,35   | 12,24   | 9,18   | 7,34                      | 6,12   | 5,24   | 4,59   | 4,08   | 3,47   |       |
|                                             |                                        | FV                                                  |                               | 701,35  | 311,71  | 175,34  | 112,22 | 77,93                     | 57,25  | 43,83  | 34,63  | 27,80  | 18,99  |       |
| 35/5                                        |                                        | FP                                                  |                               | 45,88   | 22,94   | 15,29   | 11,47  | 9,18                      | 7,65   | 6,55   | 5,74   | 5,10   | 4,34   |       |
|                                             |                                        | FV                                                  |                               | 876,69  | 389,64  | 219,17  | 140,27 | 97,41                     | 71,57  | 54,79  | 43,29  | 34,75  | 23,74  |       |
| Point drainage                              |                                        | 40/2                                                | FP                            |         | 23,79   | 11,89   | 7,93   | 5,95                      | 4,76   | 3,96   | 3,40   | 2,97   | 2,64   | 2,38  |
|                                             |                                        |                                                     | FV                            |         | 458,03  | 203,57  | 114,51 | 73,28                     | 50,89  | 37,39  | 28,63  | 22,62  | 18,32  | 14,17 |
|                                             |                                        | 40/3                                                | FP                            |         | 35,68   | 17,84   | 11,89  | 8,92                      | 7,14   | 5,95   | 5,10   | 4,46   | 3,96   | 3,57  |
|                                             |                                        |                                                     | FV                            |         | 687,04  | 305,35  | 171,76 | 109,93                    | 76,34  | 56,08  | 42,94  | 33,93  | 27,48  | 21,26 |
|                                             | 40/4                                   | FP                                                  |                               | 47,58   | 23,79   | 15,86   | 11,89  | 9,52                      | 7,93   | 6,80   | 5,95   | 5,29   | 4,76   |       |
|                                             |                                        | FV                                                  |                               | 916,05  | 407,14  | 229,01  | 146,57 | 101,78                    | 74,78  | 57,25  | 45,24  | 36,64  | 28,35  |       |
|                                             | 40/5                                   | FP                                                  |                               | 59,47   | 29,74   | 19,82   | 14,87  | 11,89                     | 9,91   | 8,50   | 7,43   | 6,61   | 5,95   |       |
|                                             |                                        | FV                                                  |                               | 1145,07 | 508,92  | 286,27  | 183,21 | 127,23                    | 93,47  | 71,57  | 56,55  | 45,80  | 35,43  |       |
|                                             | 45/4                                   | FP                                                  |                               | 59,76   | 29,88   | 19,92   | 14,94  | 11,95                     | 9,96   | 8,54   | 7,47   | 6,64   | 5,98   |       |
|                                             |                                        | FV                                                  |                               | 1159,38 | 515,28  | 289,85  | 185,50 | 128,82                    | 94,64  | 72,46  | 57,25  | 46,38  | 38,33  |       |
| Soil conservation and stabilization system  | 50/2                                   | FP                                                  |                               | 36,60   | 18,30   | 12,20   | 9,15   | 7,32                      | 6,10   | 5,23   | 4,58   | 4,07   | 3,66   |       |
|                                             |                                        | FV                                                  |                               | 715,67  | 318,07  | 178,92  | 114,51 | 79,52                     | 58,42  | 44,73  | 35,34  | 28,63  | 23,66  |       |
|                                             | 50/3                                   | FP                                                  |                               | 54,90   | 27,45   | 18,30   | 13,73  | 10,98                     | 9,15   | 7,84   | 6,86   | 6,10   | 5,49   |       |
|                                             |                                        | FV                                                  |                               | 1073,50 | 477,11  | 268,38  | 171,76 | 119,28                    | 87,63  | 67,09  | 53,01  | 42,94  | 35,49  |       |
|                                             | 50/4                                   | FP                                                  |                               | 73,20   | 36,60   | 24,40   | 18,30  | 14,64                     | 12,20  | 10,46  | 9,15   | 8,13   | 7,32   |       |
|                                             |                                        | FV                                                  |                               | 1431,33 | 636,15  | 357,83  | 229,01 | 159,04                    | 116,84 | 89,46  | 70,68  | 57,25  | 47,32  |       |
|                                             | 50/5                                   | FP                                                  |                               | 91,50   | 45,75   | 30,50   | 22,88  | 18,30                     | 15,25  | 13,07  | 11,44  | 10,17  | 9,15   |       |
|                                             |                                        | FV                                                  |                               | 1789,17 | 795,19  | 447,29  | 286,27 | 198,80                    | 146,05 | 111,82 | 88,35  | 71,57  | 59,15  |       |
|                                             | Entrance dirt-guard systems            | 60/3                                                | FP                            |         | 77,73   | 38,86   | 25,91  | 19,43                     | 15,55  | 12,95  | 11,10  | 9,72   | 8,64   | 7,77  |
|                                             |                                        |                                                     | FV                            |         | 1545,84 | 687,04  | 386,46 | 247,33                    | 171,76 | 126,19 | 96,62  | 76,34  | 61,83  | 51,10 |
| 60/4                                        |                                        | FP                                                  |                               | 103,63  | 51,82   | 34,54   | 25,91  | 20,73                     | 17,27  | 14,80  | 12,95  | 11,51  | 10,36  |       |
|                                             |                                        | FV                                                  |                               | 2061,12 | 916,05  | 515,28  | 329,78 | 229,01                    | 168,25 | 128,82 | 101,78 | 82,44  | 68,14  |       |
| 60/5                                        |                                        | FP                                                  |                               | 129,54  | 64,77   | 43,18   | 32,39  | 25,91                     | 21,59  | 18,51  | 16,19  | 14,39  | 12,95  |       |
|                                             |                                        | FV                                                  |                               | 2576,40 | 1145,07 | 644,10  | 412,22 | 286,27                    | 210,32 | 161,03 | 127,23 | 103,06 | 85,17  |       |
| 70/3                                        |                                        | FP                                                  |                               | 104,12  | 52,06   | 34,71   | 26,03  | 20,82                     | 17,35  | 14,87  | 13,01  | 11,57  | 10,41  |       |
|                                             |                                        | FV                                                  |                               | 2104,06 | 935,14  | 526,02  | 336,65 | 233,78                    | 171,76 | 131,50 | 103,90 | 84,16  | 69,56  |       |
| 70/4                                        |                                        | FP                                                  |                               | 138,82  | 69,41   | 46,27   | 34,71  | 27,76                     | 23,14  | 19,83  | 17,35  | 15,42  | 13,88  |       |
|                                             |                                        | FV                                                  |                               | 2805,42 | 1246,85 | 701,35  | 448,87 | 311,71                    | 229,01 | 175,34 | 138,54 | 112,22 | 92,74  |       |
| Multi-purpose grid flooring                 | 70/5                                   | FP                                                  |                               | 173,53  | 86,77   | 57,84   | 43,38  | 34,71                     | 28,92  | 24,79  | 21,69  | 19,28  | 17,35  |       |
|                                             |                                        | FV                                                  |                               | 3506,77 | 1558,56 | 876,69  | 561,08 | 389,64                    | 286,27 | 219,17 | 173,17 | 140,27 | 115,93 |       |
|                                             | 80/4                                   | FP                                                  |                               | 178,16  | 89,08   | 59,39   | 44,54  | 35,63                     | 29,69  | 25,45  | 22,27  | 19,80  | 17,82  |       |
|                                             |                                        | FV                                                  |                               | 3664,22 | 1628,54 | 916,05  | 586,27 | 407,14                    | 299,12 | 229,01 | 180,95 | 146,57 | 121,13 |       |
|                                             | 80/5                                   | FP                                                  |                               | 222,70  | 111,35  | 74,23   | 55,68  | 44,54                     | 37,12  | 31,81  | 27,84  | 24,74  | 22,27  |       |
|                                             |                                        | FV                                                  |                               | 4580,27 | 2035,68 | 1145,07 | 732,84 | 508,92                    | 373,90 | 286,27 | 226,19 | 183,21 | 151,41 |       |

TABLE OF LOADS  
OF WELDED FLOORING

| WELDED PRESSED FLOORING MESH PITCH 34,3×38,1mm, DIN |                               |        |        |       |       |       | EN 1991 S235 JR+N ST 37-2 |       |       |       |
|-----------------------------------------------------|-------------------------------|--------|--------|-------|-------|-------|---------------------------|-------|-------|-------|
| Load bearing, Distance bars, mm                     | Distance between supports, mm | 1200   | 1300   | 1400  | 1500  | 1600  | 1700                      | 1800  | 1900  | 2000  |
| 20/2                                                | FP                            | 0,25   | 0,20   | 0,16  | 0,13  | 0,11  | 0,09                      | 0,07  | 0,06  | 0,05  |
|                                                     | FV                            | 1,25   | 0,91   | 0,68  | 0,51  | 0,40  | 0,31                      | 0,25  | 0,20  | 0,16  |
| 20/3                                                | FP                            | 0,38   | 0,30   | 0,24  | 0,19  | 0,16  | 0,13                      | 0,11  | 0,10  | 0,08  |
|                                                     | FV                            | 1,88   | 1,36   | 1,01  | 0,77  | 0,59  | 0,47                      | 0,37  | 0,30  | 0,24  |
| 25/2                                                | FP                            | 0,49   | 0,39   | 0,31  | 0,25  | 0,21  | 0,17                      | 0,15  | 0,12  | 0,11  |
|                                                     | FV                            | 2,44   | 1,77   | 1,32  | 1,00  | 0,77  | 0,61                      | 0,48  | 0,39  | 0,32  |
| 25/3                                                | FP                            | 0,74   | 0,58   | 0,46  | 0,38  | 0,31  | 0,26                      | 0,22  | 0,19  | 0,16  |
|                                                     | FV                            | 3,66   | 2,66   | 1,98  | 1,50  | 1,16  | 0,91                      | 0,72  | 0,58  | 0,47  |
| 30/2                                                | FP                            | 0,85   | 0,67   | 0,53  | 0,43  | 0,36  | 0,30                      | 0,25  | 0,21  | 0,18  |
|                                                     | FV                            | 4,22   | 3,07   | 2,28  | 1,73  | 1,34  | 1,05                      | 0,83  | 0,67  | 0,55  |
| 30/3                                                | FP                            | 1,27   | 1,00   | 0,80  | 0,65  | 0,53  | 0,44                      | 0,37  | 0,32  | 0,27  |
|                                                     | FV                            | 6,33   | 4,60   | 3,42  | 2,59  | 2,00  | 1,57                      | 1,25  | 1,01  | 0,82  |
| 30/4                                                | FP                            | 1,69   | 1,33   | 1,06  | 0,86  | 0,71  | 0,59                      | 0,50  | 0,42  | 0,36  |
|                                                     | FV                            | 8,44   | 6,13   | 4,56  | 3,46  | 2,67  | 2,10                      | 1,67  | 1,34  | 1,09  |
| 30/5                                                | FP                            | 2,12   | 1,66   | 1,33  | 1,08  | 0,89  | 0,74                      | 0,62  | 0,53  | 0,45  |
|                                                     | FV                            | 10,55  | 7,66   | 5,70  | 4,32  | 3,34  | 2,62                      | 2,08  | 1,68  | 1,37  |
| 35/2                                                | FP                            | 1,33   | 1,05   | 0,84  | 0,68  | 0,56  | 0,47                      | 0,39  | 0,33  | 0,29  |
|                                                     | FV                            | 6,70   | 4,87   | 3,62  | 2,75  | 2,12  | 1,66                      | 1,32  | 1,07  | 0,87  |
| 35/3                                                | FP                            | 2,00   | 1,57   | 1,26  | 1,02  | 0,84  | 0,70                      | 0,59  | 0,50  | 0,43  |
|                                                     | FV                            | 10,06  | 7,30   | 5,43  | 4,12  | 3,18  | 2,50                      | 1,99  | 1,60  | 1,30  |
| 35/4                                                | FP                            | 2,67   | 2,09   | 1,67  | 1,36  | 1,12  | 0,93                      | 0,78  | 0,67  | 0,57  |
|                                                     | FV                            | 13,41  | 9,73   | 7,24  | 5,49  | 4,24  | 3,33                      | 2,65  | 2,13  | 1,74  |
| 35/5                                                | FP                            | 3,33   | 2,62   | 2,09  | 1,70  | 1,40  | 1,16                      | 0,98  | 0,83  | 0,71  |
|                                                     | FV                            | 16,76  | 12,17  | 9,05  | 6,86  | 5,30  | 4,16                      | 3,31  | 2,67  | 2,17  |
| 40/2                                                | FP                            | 1,98   | 1,55   | 1,24  | 1,01  | 0,83  | 0,69                      | 0,58  | 0,49  | 0,42  |
|                                                     | FV                            | 10,01  | 7,27   | 5,40  | 4,10  | 3,17  | 2,48                      | 1,98  | 1,59  | 1,30  |
| 40/3                                                | FP                            | 2,96   | 2,33   | 1,86  | 1,51  | 1,24  | 1,04                      | 0,87  | 0,74  | 0,63  |
|                                                     | FV                            | 15,01  | 10,90  | 8,10  | 6,15  | 4,75  | 3,73                      | 2,96  | 2,39  | 1,95  |
| 40/4                                                | FP                            | 3,95   | 3,10   | 2,48  | 2,01  | 1,66  | 1,38                      | 1,16  | 0,99  | 0,85  |
|                                                     | FV                            | 20,01  | 14,53  | 10,80 | 8,20  | 6,33  | 4,97                      | 3,95  | 3,18  | 2,59  |
| 40/5                                                | FP                            | 4,94   | 3,88   | 3,10  | 2,52  | 2,07  | 1,73                      | 1,45  | 1,23  | 1,06  |
|                                                     | FV                            | 25,02  | 18,16  | 13,50 | 10,25 | 7,92  | 6,21                      | 4,94  | 3,98  | 3,24  |
| 45/4                                                | FP                            | 5,43   | 4,38   | 3,50  | 2,84  | 2,34  | 1,95                      | 1,64  | 1,40  | 1,20  |
|                                                     | FV                            | 28,50  | 20,69  | 15,38 | 11,67 | 9,02  | 7,07                      | 5,63  | 4,53  | 3,69  |
| 50/2                                                | FP                            | 3,33   | 2,98   | 2,38  | 1,94  | 1,59  | 1,33                      | 1,12  | 0,95  | 0,81  |
|                                                     | FV                            | 19,54  | 14,19  | 10,55 | 8,01  | 6,18  | 4,85                      | 3,86  | 3,11  | 2,53  |
| 50/3                                                | FP                            | 4,99   | 4,47   | 3,58  | 2,90  | 2,39  | 1,99                      | 1,68  | 1,42  | 1,22  |
|                                                     | FV                            | 29,32  | 21,28  | 15,82 | 12,01 | 9,28  | 7,28                      | 5,79  | 4,66  | 3,80  |
| 50/4                                                | FP                            | 6,65   | 5,96   | 4,77  | 3,87  | 3,19  | 2,65                      | 2,23  | 1,90  | 1,63  |
|                                                     | FV                            | 39,09  | 28,38  | 21,10 | 16,01 | 12,37 | 9,70                      | 7,72  | 6,22  | 5,07  |
| 50/5                                                | FP                            | 8,32   | 7,46   | 5,96  | 4,84  | 3,98  | 3,32                      | 2,79  | 2,37  | 2,03  |
|                                                     | FV                            | 48,86  | 35,47  | 26,37 | 20,01 | 15,46 | 12,13                     | 9,65  | 7,77  | 6,33  |
| 60/3                                                | FP                            | 7,07   | 6,48   | 5,98  | 4,93  | 4,06  | 3,38                      | 2,85  | 2,42  | 2,07  |
|                                                     | FV                            | 42,94  | 36,59  | 27,34 | 20,75 | 16,03 | 12,58                     | 10,01 | 8,06  | 6,57  |
| 60/4                                                | FP                            | 9,42   | 8,64   | 7,97  | 6,58  | 5,41  | 4,51                      | 3,80  | 3,23  | 2,76  |
|                                                     | FV                            | 57,25  | 48,78  | 36,46 | 27,67 | 21,37 | 16,77                     | 13,34 | 10,75 | 8,75  |
| 60/5                                                | FP                            | 11,78  | 10,80  | 9,96  | 8,22  | 6,77  | 5,64                      | 4,75  | 4,03  | 3,46  |
|                                                     | FV                            | 71,57  | 60,98  | 45,57 | 34,58 | 26,72 | 20,96                     | 16,68 | 13,43 | 10,94 |
| 70/3                                                | FP                            | 9,47   | 8,68   | 8,01  | 7,44  | 6,35  | 5,29                      | 4,45  | 3,78  | 3,24  |
|                                                     | FV                            | 58,45  | 49,80  | 42,94 | 32,95 | 25,45 | 19,97                     | 15,89 | 12,80 | 10,43 |
| 70/4                                                | FP                            | 12,62  | 11,57  | 10,68 | 9,92  | 8,46  | 7,05                      | 5,93  | 5,04  | 4,32  |
|                                                     | FV                            | 77,93  | 66,40  | 57,25 | 43,93 | 33,94 | 26,63                     | 21,19 | 17,07 | 13,90 |
| 70/5                                                | FP                            | 15,78  | 14,46  | 13,35 | 12,40 | 10,58 | 8,81                      | 7,42  | 6,30  | 5,40  |
|                                                     | FV                            | 97,41  | 83,00  | 71,57 | 54,92 | 42,42 | 33,29                     | 26,48 | 21,33 | 17,38 |
| 80/4                                                | FP                            | 16,20  | 14,85  | 13,70 | 12,73 | 11,88 | 10,34                     | 8,70  | 7,39  | 6,34  |
|                                                     | FV                            | 101,78 | 86,73  | 74,78 | 65,14 | 50,66 | 39,75                     | 31,63 | 25,48 | 20,75 |
| 80/5                                                | FP                            | 20,25  | 18,56  | 17,13 | 15,91 | 14,85 | 12,92                     | 10,88 | 9,24  | 7,92  |
|                                                     | FV                            | 127,23 | 108,41 | 93,47 | 81,43 | 63,32 | 49,69                     | 39,53 | 31,84 | 25,94 |





The use of stairs from mesh grates makes open stairways safe in autumn and winter.

Due to the rather large meshes, the stairs let rainwater, snow, street dirt pass without frost formation on the stairs. Mild steel, from which antiskid stairs are made, resistant to high and low temperatures, including their sharp fluctuations.

Metal stairs are produced using the technology of pressed and welded flooring manufacturing. Straight stairs are made of mild steel St 35-7 (similar to ST-3 GOST 380-94) with or without hot zinc coating according to DIN 50976 EN ISO 1461). A 70 micron zinc shell with a zinc purity of 99.9% ensures that the zinc does not peel off under normal mechanical load. Also straight stairs can be made of stainless steel 1.4301 (similar to 08x18H10), 1.4571 (similar to 10H17H13M2T), 1.4404 and aluminum.

### General information for all stairs



## STRAIGHT STAIRS (FLIGHT)

**Straight stairs** correspond to the international standard DIN 24531, and therefore their design includes framing by cant with holes along the upper surface. It increases their slip properties, reduces the probability of injury when falling, and prevents the stage from bending.

Variants of height and thickness of the load bearing bar, as well as a variant of the weaving scheme, can be taken from the tables of pressed grates and welded pressed grates.

Patch plates of stairs are in accordance with DIN 24531, the load bearing bar is up to 40 x 3, if the load bearing bar has other dimensions, then the manufacturing of patch plates is performed by agreement.

Straight stairs get a side framing from the bar with holes for attachment to the staircase structure.

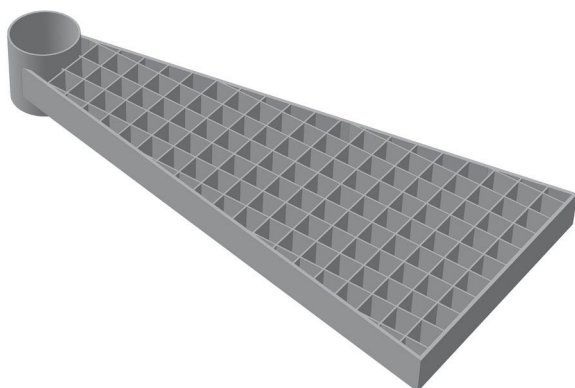
However, stairs have more severe requirements for antiskid safety than grates. Stairs are always made with cant having an opening which is stepped on.

In addition to the increased safety when stepped on, stairs also have a higher stability.

## SPIRAL STAIRS

### Application field:

- spiral stairs are widely used to provide access to towers, containers and tanks,
- as well as to assemble industrial and auxiliary technical staircases;
- steel stairs are often installed on spiral staircases in buildings during reconstruction when
- other staircases are blocked, and there is no possibility to use them;
- spiral staircases are installed in houses with high ceilings or in two-storey apartments;
- they are used in industrial construction.

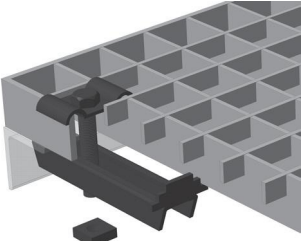
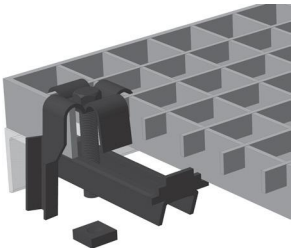
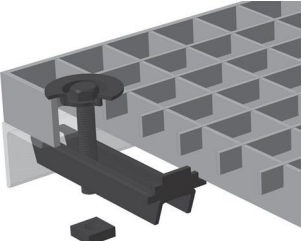
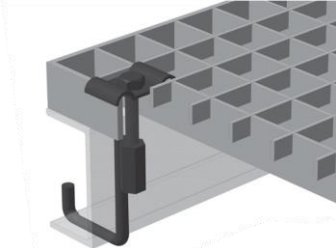
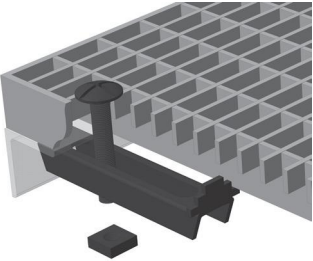
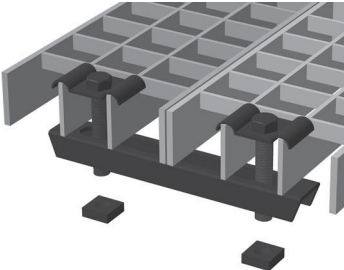




FASTENING METHODS

Design features of grid flooring allow using a wide range of fasteners made of stainless steel. With their help, separate elements of grates are connected and fastened, regardless of their manufacturing technology.

Fastening methods depend on the type of support structures on which the grid flooring is located. If necessary, the load bearing bar is drilled only.

|                                                                                     |                                                                                                                                        |                                                                                      |                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Standard fastening consisting of the upper part of the bracket, the lower part of the clamp, the hex bolt M8x60 and the square nut M8. |    | Stop fastening, consisting of the upper part of the stop bracket, the lower part of the clamp, the hex bolt M8 and the square nut.                                                             |
|   | Standard fastening consisting of the upper part of the disc, the lower part of the clamp, the hex bolt M8x60 and the square nut M8.    |   | Fastening with a hook, consisting of the upper part of the bracket or disc, an extended hook of a curved round rod with the long nut in the form of a sleeve welded to it and the hex bolt M8. |
|  | Unit clamp to fasten to the mesh 33x11, consisting of the flat-head bolt, the lower part of the clamp and square nut.                  |  | Fastening of two grates with double bracket, consisting of 2 upper parts of the brackets or discs, lower part of the clamp, 2 hex bolts M8, 2 square nuts.                                     |

|                                            |                                             |                                        |                |                                            |                             |                             |
|--------------------------------------------|---------------------------------------------|----------------------------------------|----------------|--------------------------------------------|-----------------------------|-----------------------------|
| Drainage systems class of loading A15-C250 | Drainage systems class of loading D400-F900 | Drainage systems class of loading F900 | Point drainage | Soil conservation and stabilization system | Entrance dirt-guard systems | Multi-purpose grid flooring |
|--------------------------------------------|---------------------------------------------|----------------------------------------|----------------|--------------------------------------------|-----------------------------|-----------------------------|

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal blue lines across its entire width. The paper is otherwise completely empty, with no margins, text, or other markings.

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